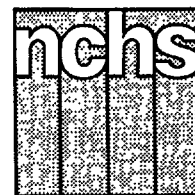


Monthly Vital Statistics Report



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

Births, Marriages, Divorces, and Deaths for August 1993

Mortality Surveillance System

pages 4-7

Malignant neoplasm of prostate:
Males 65 years and over by race

Malignant neoplasm of breast:
Females 45-74 years of age by race

State Maps

pages 8 and 9

Malignant neoplasms of genital organs: Males

Malignant neoplasm of breast: Females

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 August 1993. This was a 5-percent increase from the provisional number of births reported for August 1992 (350,000). The birth rate, 16.7 live births per 1,000 population, was 3 percent higher than for August 1992. The fertility rate, 73.0 live births per 1,000 women aged 15-44 years, was 4 percent higher than the comparable rate for August 1992 (70.1). The seasonally adjusted fertility rate (69.0) was also 4 percent higher than the comparable rate for August 1992 (66.3).

During the first 8 months of 1993, an estimated 2,700,000 births occurred; a 1-percent decrease from the 2,725,000 reported for January-August 1992. The birth rate declined by 2 percent, from

Births

According to provisional reports, an estimated 367,000 births occurred in the

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	August				January-August				12 months ending with August			
	Number		Rate		Number		Rate		Number		Rate	
	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992
Live births	367,000	350,000	16.7	16.2	2,700,000	2,725,000	15.8	16.1	4,059,000	4,112,000	15.8	16.2
Fertility rate . . . . .	...	...	73.0	70.1	...	...	68.6	69.3	...	...	68.7	69.7
Deaths	180,000	172,000	8.2	7.9	1,524,000	1,466,000	8.9	8.6	2,235,000	2,179,000	8.7	8.6
Infant deaths	2,700	2,700	7.8	7.9	22,600	23,200	8.4	8.6	33,800	35,000	8.4	8.6
Natural increase	187,000	178,000	8.5	8.3	1,176,000	1,259,000	6.9	7.5	1,824,000	1,933,000	7.1	7.6
Marriages	257,000	242,000	11.7	11.2	1,551,000	1,556,000	9.1	9.1	2,357,000	2,357,000	9.2	9.3
Divorces	100,000	100,000	4.6	4.6	797,000	815,000	4.7	4.8	1,197,000	1,204,000	4.7	4.7
Population base . . . . .	...	...	258.2	255.3	...	...	...	...	...	...	256.9	254.1
(in millions) . . . . .	...	...	...	...	...	...	...	...	...	...	...	...

NOTE: 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.

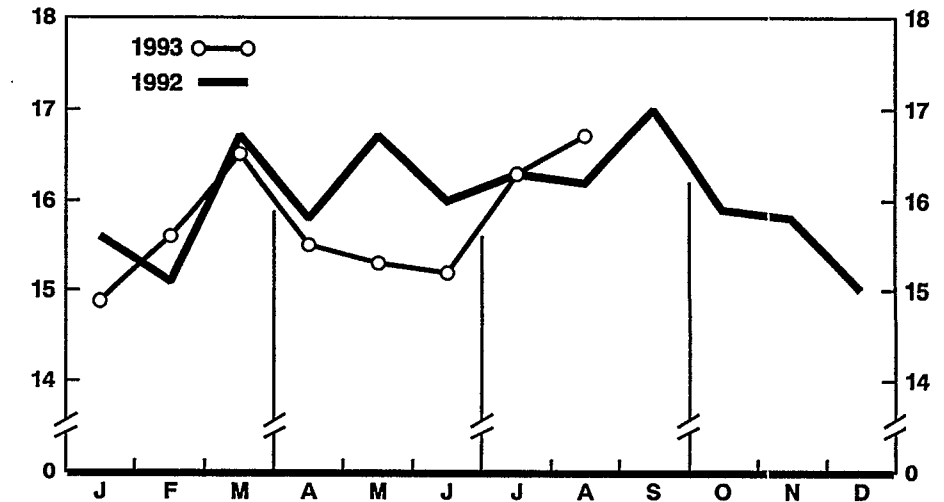


U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics



16.1 in 1992 to 15.8 in 1993. The fertility rate for January–August 1993 was 68.6, 1 percent lower than the rate for the same period in 1992 (69.3).

An estimated 4,059,000 live births occurred in the 12-month period ending with August 1993, a decline of 1 percent from the 4,112,000 births reported for the same period a year earlier. The birth rate of 15.8 was 2 percent lower than the rate of 16.2 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 August 1992 (69.7). These lower rates continue the generally downward trend observed since early 1991.

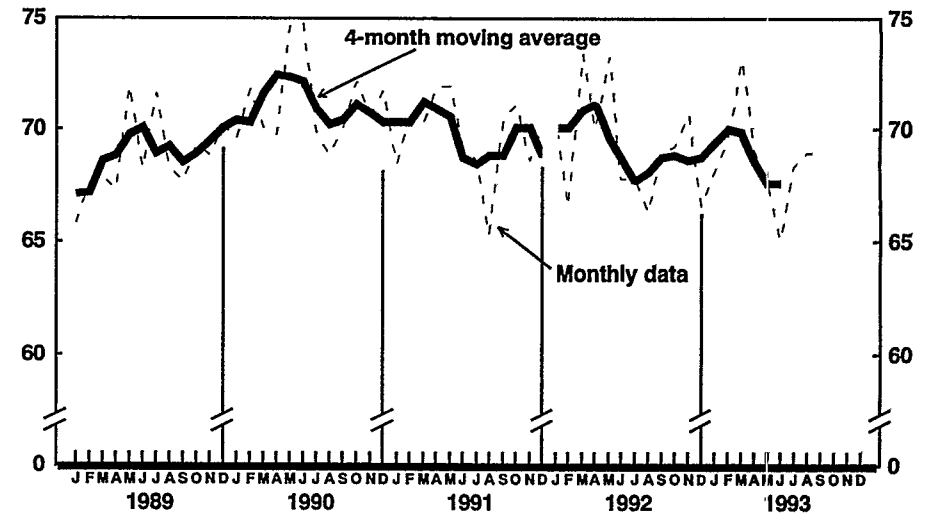


Provisional birth rates per 1,000 population by month: United States, 1992–93

Natural increase

As a result of natural increase, the excess of births over deaths, an estimated 187,000 people, or 8.5 persons per 1,000 population, were added to the population during August 1993.

For the 12-month period ending with August 1993, 1,824,000 persons were added to the population. This represents a rate of natural increase of 7.1, 7 percent lower than the rate of 7.6 for the preceding 12-month period. The decline in the rate of natural increase is due to a decrease in the birth rate and a rise in the death rate.



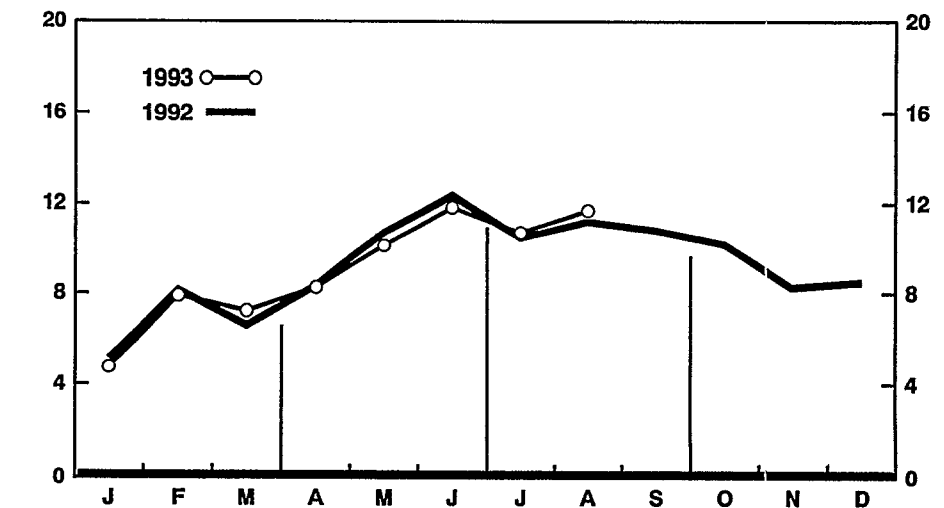
Provisional seasonally adjusted fertility rates per 1,000 women aged 15–44 years: United States, 1989–93

Marriages

There were an estimated 257,000 marriages performed in August 1993, 6 percent more than in August 1992 (242,000). The marriage rate per 1,000 population for August 1993 was 11.7 in 1993, 4 percent higher than for August 1992 (11.2).

Although the number and rate of marriages for August were higher in 1993 than in 1992, the number and rate of marriages for January–August were virtually the same for both years. The number of marriages for the period declined less than 1 percent, from 1,556,000 in 1992 to 1,551,000 in 1993, while the rate was constant at 9.1.

The number of marriages performed during the 12-month period ending with August 1993 (2,357,000) was unchanged from the same period a year earlier. However, because of an increase in the



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

population, the rate for the current period (9.2) was 1 percent lower than for the preceding 12 months (9.3).

Divorces

According to provisional data, the number of divorces (100,000) and the divorce rate (4.6 per 1,000 population) for August 1993 were identical to those of August 1992.

Divorces granted during the first 8 months of 1993 totaled 797,000, 2 percent fewer than for the same period a year earlier (815,000). The divorce rate for January–August was also 2 percent lower in 1993 (4.7) than in 1992 (4.8).

For the 12-month period ending with August 1993, there were an estimated 1,197,000 divorces, a 1-percent decline from the same period a year earlier (1,204,000). The divorce rate for the 12-month period remained unchanged at 4.7.

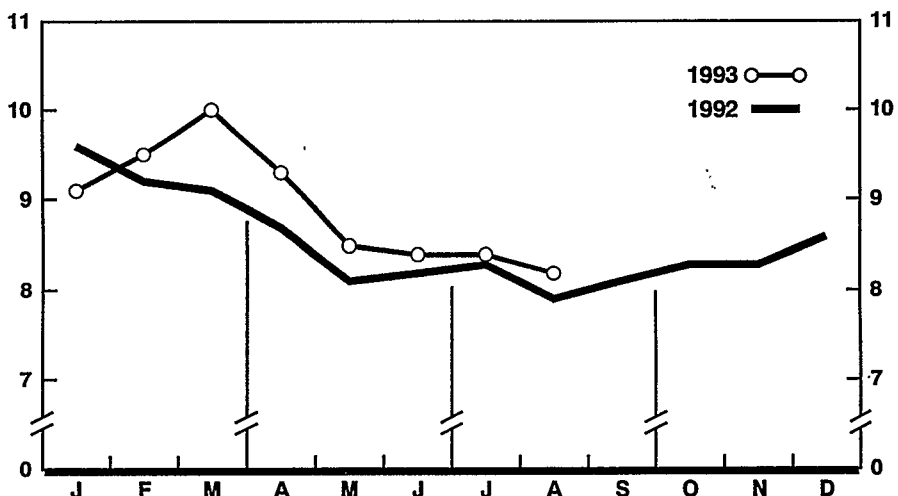
Deaths

For August 1993 there were an estimated 180,000 deaths in the United States. The death rate was 8.2 deaths per 1,000 population, 4 percent higher than the rate for August a year earlier. Among the 180,000 deaths for August 1993 were 2,700 deaths at ages under 1 year.

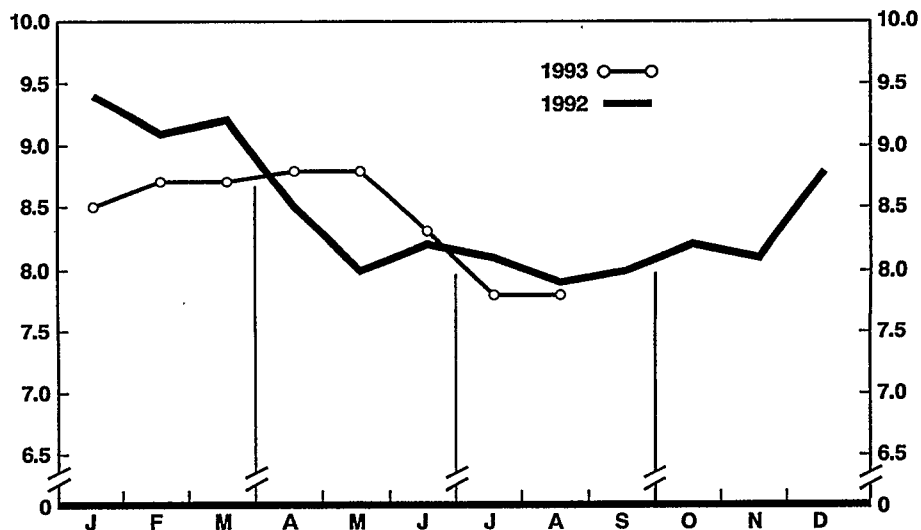
According to provisional statistics, there were 1,524,000 deaths during the first 8 months of 1993, 4 percent higher than the number estimated for January–August 1992 (1,466,000). The death rate, 8.9 per 1,000 population, was 3 percent higher than the January–August 1992 rate of 8.6. Among the 1,524,000 deaths for the first 8 months of 1993 were 22,600 deaths at ages under 1 year, yielding an infant mortality rate of 8.4 per 1,000 live births. This rate was 2 percent lower than the rate of 8.6 for the first 8 months of 1992.

The death rate for the 12 months ending with August 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, 2 percent lower than the rate of 8.6 for the 12 months ending with August 1992.

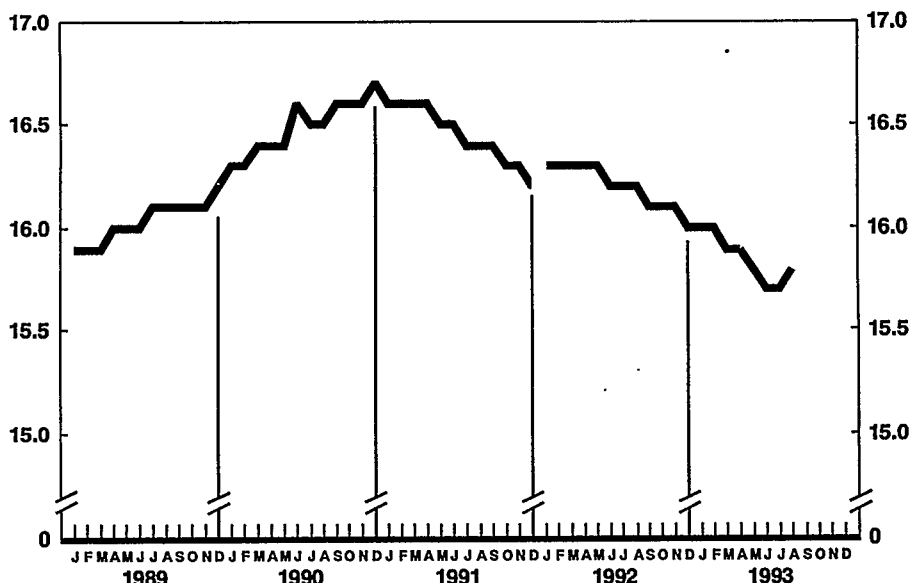
Current Mortality Sample, 12 months ending with July 1993—The provisional death rate for the 12 months ending with



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

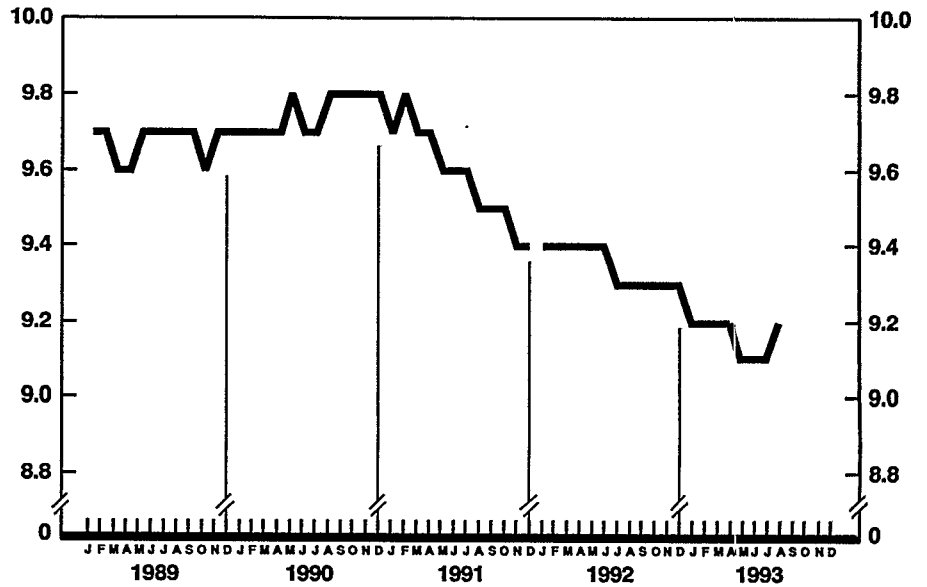
July 1993 was 867.3 deaths per 100,000 population, 1 percent higher than the rate of 858.5 for the 12-month period ending with July 1992. The provisional age-adjusted death rate for the 12-month period ending with July 1993 was 508.7 deaths per 100,000 U.S. standard million population, compared with a rate of 509.7 for the 12-month period ending with July 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 rates decreased for white males but increased for black females. By age the death rate for the total population decreased for the age group 55-64 years.

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.

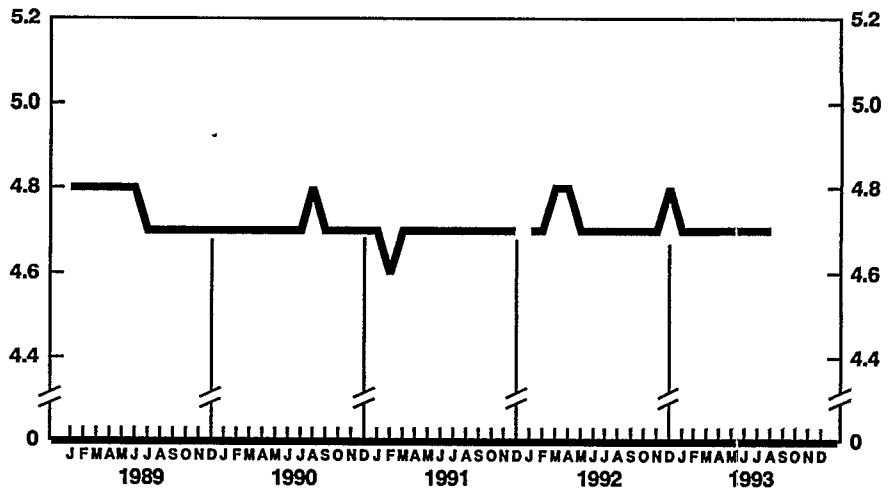
The infant mortality rate for the 12 months ending with July 1993 was 841.9 per 100,000 live births, 2 percent lower than the rate of 858.7 for the same 12-month period a year earlier. For infants under 28 days, the 12-month rate ending July 1993 was 526.9, compared with a rate of 538.3 for the 12-month period a year earlier. The infant mortality rate for infants 28 days to 11 months was 315.1, compared with a rate of 320.5 for the 12-month period ending with July 1992. 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

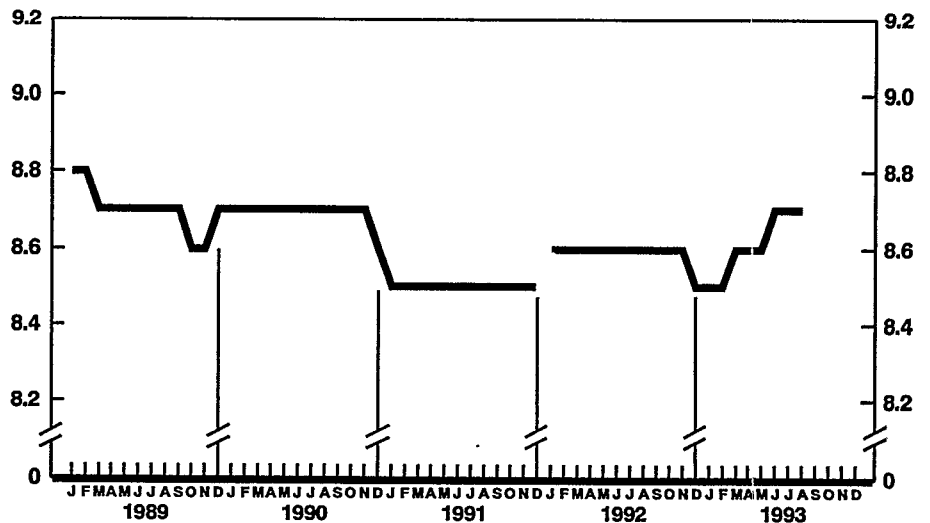
Discussed this month are recent trends in death rates for Malignant neoplasm of breast (breast cancer) for black and white women aged 45-74 years and Malignant neoplasm of prostate (prostate



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



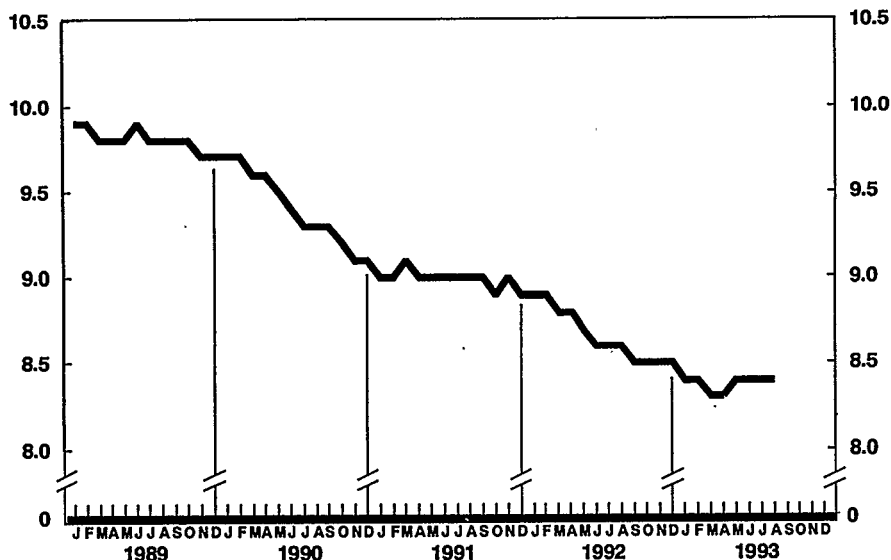
Provisional death rates per 1,000 population for successive 12-month periods ending with month indicated: United States, 1989-93

cancer) for black and white men aged 65 years and over. In this issue final mortality data are analyzed for data year 1991 and provisional data from January 1984 to June 1993.

In 1991 the latest year for which final mortality data are available, Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (cancer) was the leading cause of death for women aged 45–74 years and accounted for 131,360 deaths, or 38 percent of deaths from all causes for women in this age group. Breast cancer, a major cause of cancer mortality for women aged 45–74 years, accounted for 25,734 deaths, or 7 percent of all deaths and 20 percent of all cancer deaths for women in this age group. For black women aged 45–74, breast cancer accounted for 2,972 deaths, or 6 percent of all deaths and 19 percent of all cancer deaths. For white women in this age group, breast cancer accounted for 22,411 deaths, or 8 percent of all deaths and 20 percent of all cancer deaths.

Cancer was the second leading cause of death (after Diseases of heart) for men aged 65 years and over and accounted for 187,944 deaths, or 26 percent of all deaths for men in this age group. Prostate cancer, a major cause of cancer mortality for men aged 65 years and over, accounted for 30,626 deaths, or 4 percent of all deaths and 16 percent of all cancer deaths for men in this age group. For black men aged 65 years and over, prostate cancer accounted for 4,664 deaths, or 7 percent of all deaths and 24 percent of all cancer deaths. For white men in this age group, prostate cancer accounted for 25,698 deaths, or 4 percent of all deaths and 15 percent of all cancer deaths.

Based on 1991 final data, the prostate cancer death rate for black men aged 65 years and over was 2.1 times the rate for white men in this age group. For breast cancer the rate for black women aged 45–74 years was 1.1 times the rate for white women in this age group. Trends based on provisional data for breast cancer and prostate cancer for these demographic groups are presented in the Mortality Surveillance System charts and accompanying text that follow.

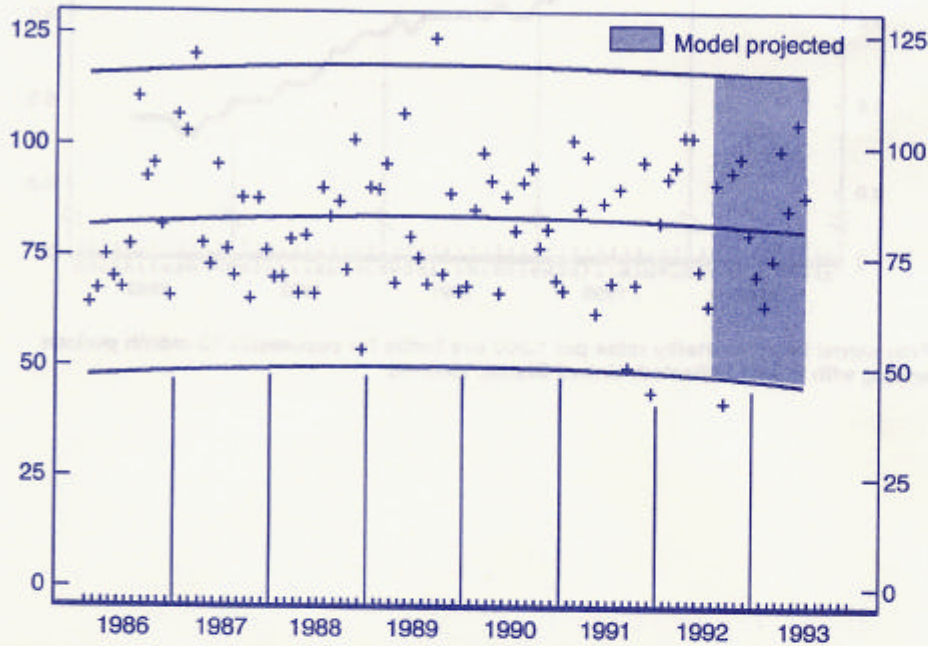


Provisional infant mortality rates per 1,000 live births for successive 12-month periods ending with month indicated: United States, 1989–93

Mortality Surveillance System charts

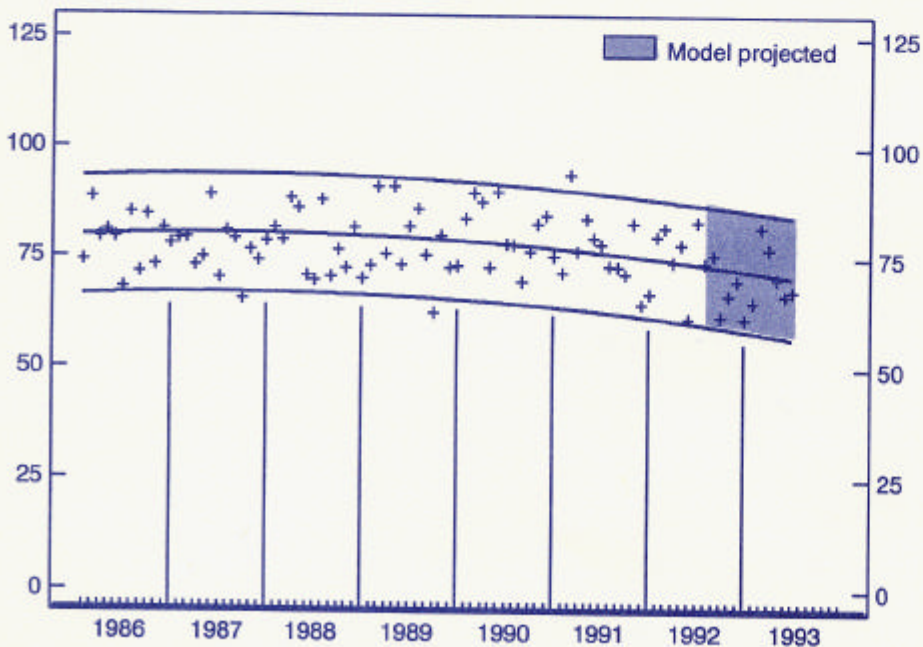
[Observed and fitted provisional monthly death rates and 95-percent prediction intervals. Model fitted using death rates for January 1984–June 1992; projected for July 1992–June 1993. See Technical notes]

Trends in mortality from Malignant neoplasm of female breast are presented in the charts below. Reduction of mortality from Malignant neoplasm of female breast is addressed in *Healthy People 2000* (objective 16.3) (1).



Provisional death rates per 100,000 black females 45–74 years of age for Malignant neoplasm of breast by month: United States, 1986–93

- For the modeled period, provisional death rates decreased slightly since 1990.
- For the projection period, observed provisional monthly death rates, except for one, fell within 95-percent prediction intervals.



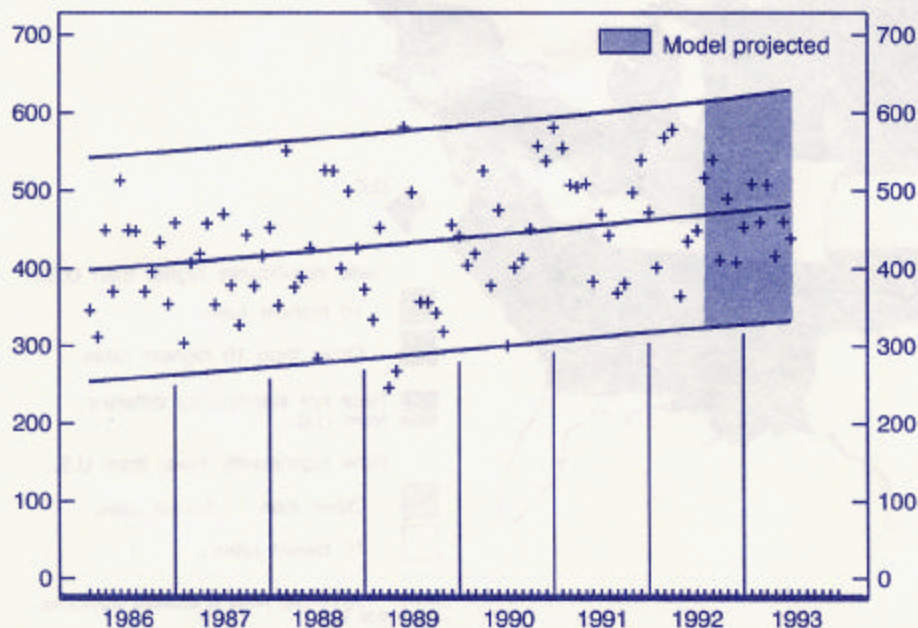
Provisional death rates per 100,000 white females 45–74 years of age for Malignant neoplasm of breast by month: United States, 1986–93

- For the modeled period, provisional death rates decreased since 1988.
- For the projection period, observed provisional monthly death rates fell within 95-percent prediction intervals.

Mortality Surveillance System charts—Con.

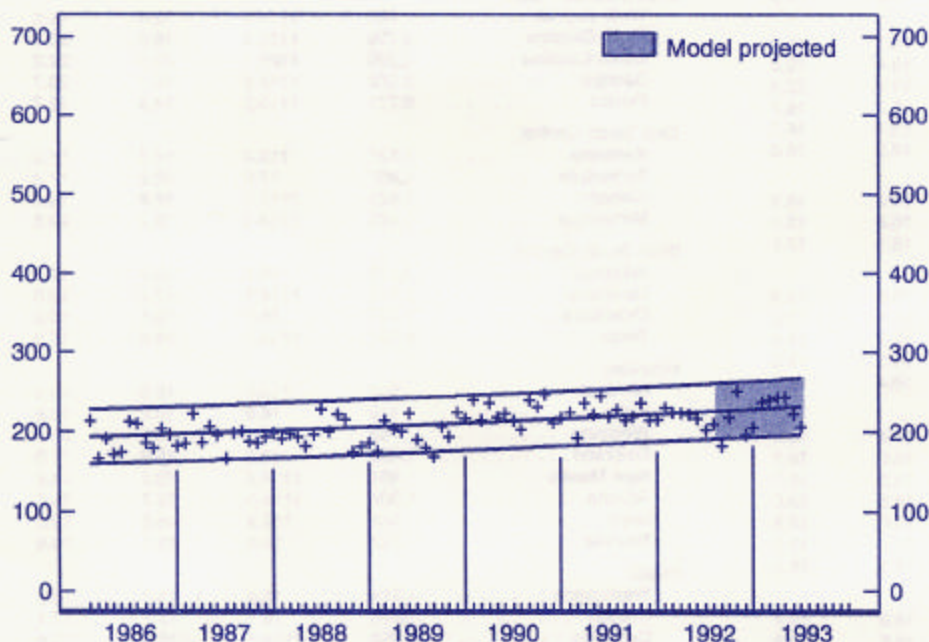
[Observed and fitted provisional monthly death rates and 95-percent prediction intervals. Model fitted using death rates for January 1984–June 1992; projected for July 1992–June 1993. See Technical notes]

No *Healthy People 2000* objective exists that addresses mortality from Malignant neoplasm of prostate.



Provisional death rates per 100,000 black males 65 years and over for Malignant neoplasm of prostate by month: United States, 1986–93

- For the modeled period, provisional death rates increased.
- For the projection period, observed provisional monthly death rates fell within 95-percent prediction intervals.

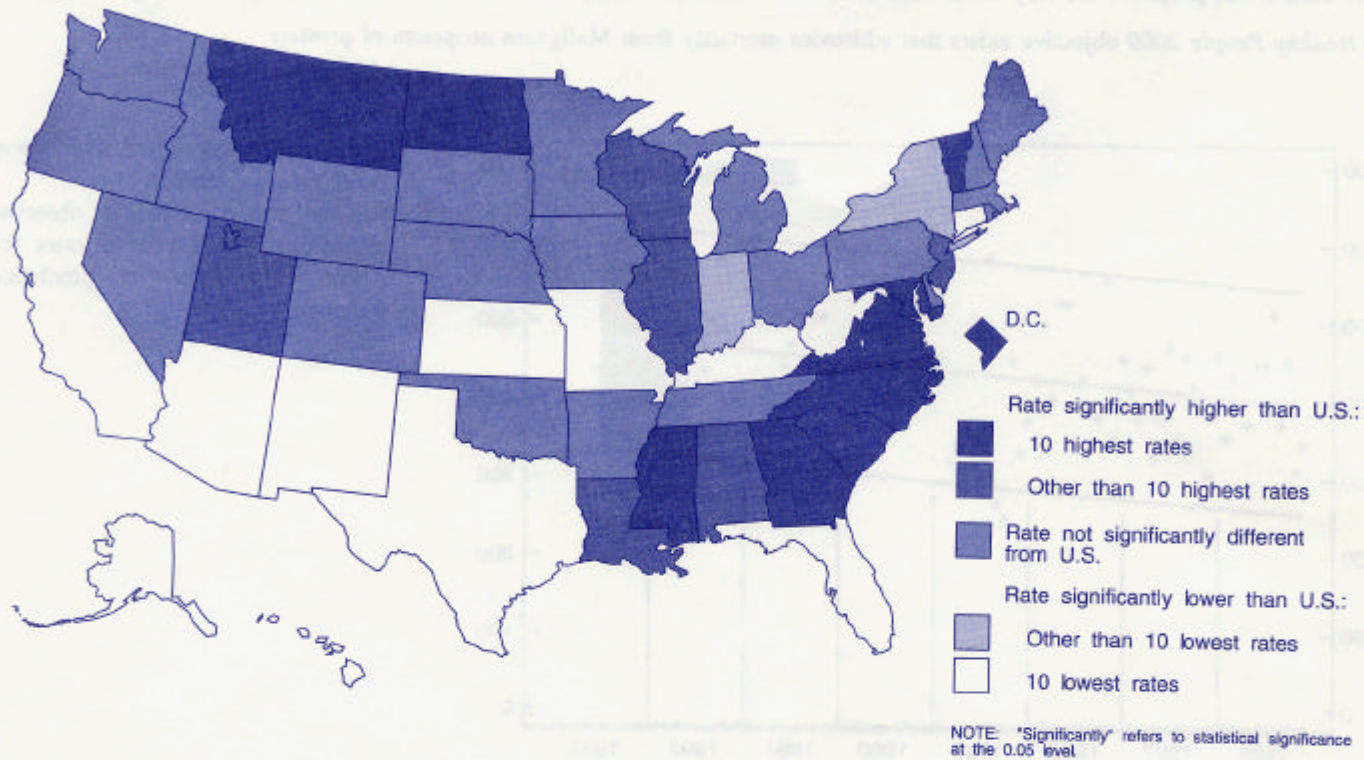


Provisional death rates per 100,000 white males 65 years and over for Malignant neoplasm of prostate by month: United States, 1986–93

- For the modeled period, provisional death rates increased.
- For the projection period, observed provisional monthly death rates, except for one, fell within 95-percent prediction intervals.

Final 3-year total number of deaths and average annual age-adjusted death rates and 95-percent confidence limits for Malignant neoplasms of genital organs for males: United States and each State, 1988-90

[Data are final by State of residence]

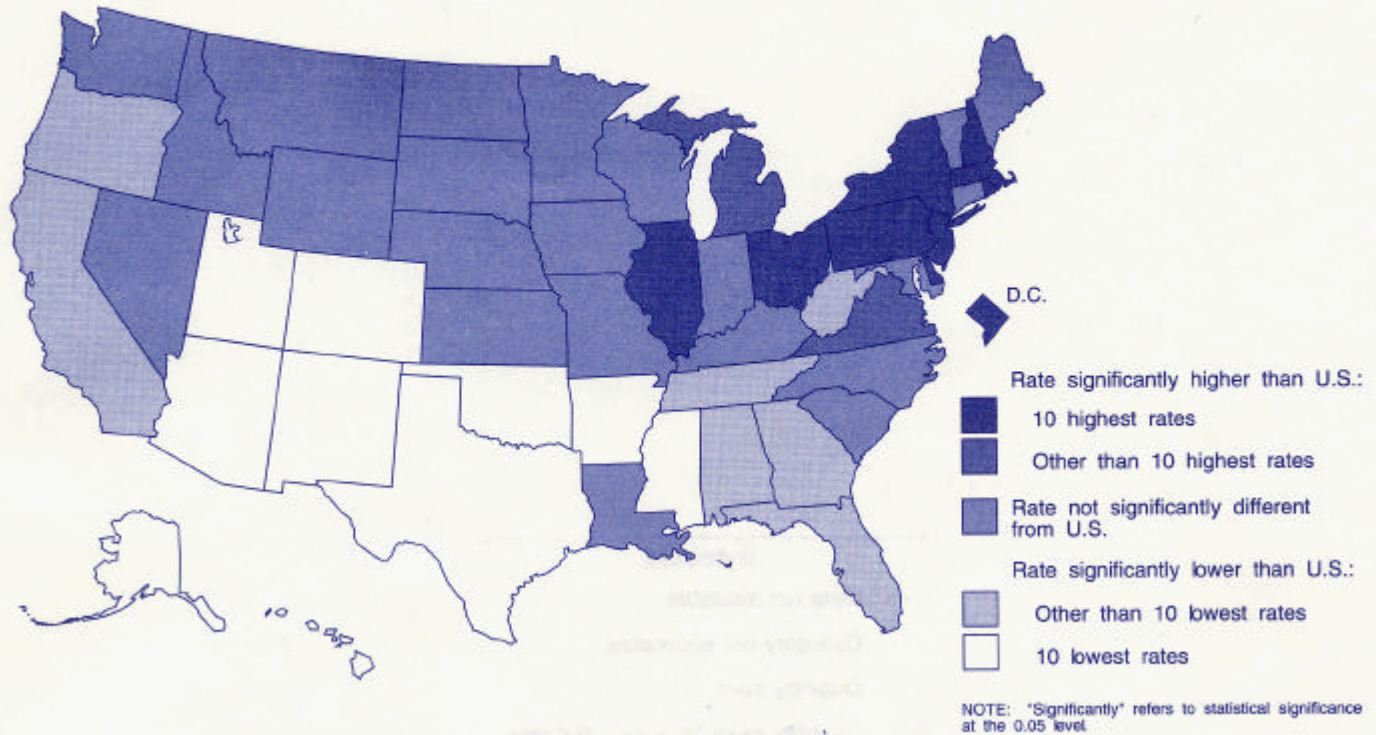


Area	Deaths, 3-year total (final)	Age-adjusted rate (final)	95-percent confidence limits		Area	Deaths, 3-year total (final)	Age-adjusted rate (final)	95-percent confidence limits	
			Lower	Upper				Lower	Upper
United States	93,630	16.4	16.3	16.5	South Atlantic—Con.				
New England					West Virginia	705	††14.5	13.4	15.6
Maine	529	17.2	15.7	18.7	North Carolina	2,726	††19.8	19.0	20.6
New Hampshire	385	17.2	15.4	19.0	South Carolina	1,380	††21.1	20.0	22.2
Vermont	250	††20.3	17.7	22.9	Georgia	2,202	††19.9	19.1	20.7
Massachusetts	2,307	16.0	15.3	16.7	Florida	6,777	††15.3	14.9	15.7
Rhode Island	405	15.2	13.7	16.7	East South Central				
Connecticut	1,202	††15.1	14.2	16.0	Kentucky	1,321	†15.3	14.4	16.2
Middle Atlantic					Tennessee	1,897	17.0	16.2	17.8
New York	6,696	†15.9	15.5	16.3	Alabama	1,635	††17.7	16.8	18.6
New Jersey	3,187	††17.4	16.8	18.0	Mississippi	1,162	††19.4	18.2	20.6
Pennsylvania	5,320	16.6	16.1	17.1	West South Central				
East North Central					Arkansas	1,111	16.7	15.7	17.7
Ohio	4,167	16.5	16.0	17.0	Louisiana	1,543	††18.1	17.2	19.0
Indiana	1,949	†15.5	14.8	16.2	Oklahoma	1,257	16.0	15.1	16.9
Illinois	4,364	†17.0	16.5	17.5	Texas	4,701	††14.8	14.4	15.2
Michigan	3,393	16.9	16.3	17.5	Mountain				
Wisconsin	2,145	†17.2	16.4	18.0	Montana	383	†18.5	16.6	20.4
West North Central					Idaho	416	16.9	15.2	18.6
Minnesota	1,866	17.2	16.4	18.0	Wyoming	162	17.5	14.8	20.2
Iowa	1,285	15.9	15.0	16.8	Colorado	1,054	16.9	15.9	17.9
Missouri	1,982	††15.0	14.3	15.7	New Mexico	454	††14.4	13.0	15.8
North Dakota	400	††20.8	18.6	23.0	Arizona	1,307	††14.5	13.7	15.3
South Dakota	332	15.9	14.0	17.8	Utah	532	†18.2	16.6	19.8
Nebraska	677	15.8	14.5	17.1	Nevada	342	15.0	13.4	16.6
Kansas	987	†15.1	14.1	16.1	Pacific				
South Atlantic					Washington	1,715	15.8	15.0	16.6
Delaware	254	17.2	15.0	19.4	Oregon	1,210	16.1	15.1	17.1
Maryland	1,747	††19.4	18.5	20.3	California	8,930	††15.3	15.0	15.6
District of Columbia	377	††29.5	26.4	32.6	Alaska	56	††11.2	7.9	14.5
Virginia	2,178	††18.8	18.0	19.6	Hawaii	268	††10.3	9.0	11.6

NOTE: 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 Malignant neoplasm of breast 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	128,400	23.2	23.1	23.3	South Atlantic—Con.				
New England					West Virginia	972	†21.4	19.9	22.9
Maine	674	23.0	21.0	25.0	North Carolina	3,260	22.5	21.7	23.3
New Hampshire	626	††26.2	23.9	28.5	South Carolina	1,620	22.9	21.7	24.1
Vermont	299	24.0	21.0	27.0	Georgia	2,705	††21.6	20.7	22.5
Massachusetts	3,764	††24.8	23.9	25.7	Florida	7,778	††22.2	21.6	22.8
Rhode Island	671	††26.7	24.4	29.0	East South Central				
Connecticut	1,887	22.7	21.6	23.8	Kentucky	1,869	22.6	21.5	23.7
Middle Atlantic					Tennessee	2,382	††21.7	20.8	22.6
New York	11,349	††26.0	25.5	26.5	Alabama	1,967	††21.9	20.8	23.0
New Jersey	4,996	††26.5	25.7	27.3	Mississippi	1,121	††21.0	19.7	22.3
Pennsylvania	7,914	††25.2	24.6	25.8	West South Central				
East North Central					Arkansas	1,169	††20.4	19.1	21.7
Ohio	6,276	††24.8	24.1	25.5	Louisiana	2,033	23.6	22.5	24.7
Indiana	2,960	23.6	22.7	24.5	Oklahoma	1,496	††20.9	19.7	22.1
Illinois	6,427	††24.9	24.2	25.6	Texas	6,404	††19.9	19.4	20.4
Michigan	4,847	††24.2	23.5	24.9	Mountain				
Wisconsin	2,677	23.2	22.2	24.2	Montana	382	21.2	18.8	23.6
West North Central					Idaho	428	21.4	19.2	23.6
Minnesota	2,228	22.8	21.7	23.9	Wyoming	188	20.7	17.5	23.9
Iowa	1,619	22.1	20.8	23.4	Colorado	1,324	††20.4	19.2	21.6
Missouri	2,894	23.2	22.2	24.2	New Mexico	574	††19.2	17.5	20.9
North Dakota	331	21.6	18.9	24.3	Arizona	1,591	††20.2	19.1	21.3
South Dakota	362	22.0	19.3	24.7	Utah	520	††19.0	17.2	20.8
Nebraska	901	23.0	21.3	24.7	Nevada	487	22.0	20.0	24.0
Kansas	1,345	22.8	21.4	24.2	Pacific				
South Atlantic					Washington	2,301	22.7	21.7	23.7
Delaware	421	††28.6	25.6	31.6	Oregon	1,404	††21.4	20.1	22.7
Maryland	2,400	23.9	22.9	24.9	California	12,688	††22.4	22.0	22.8
District of Columbia	435	††30.5	27.3	33.7	Alaska	113	††19.5	15.8	23.2
Virginia	3,012	†24.2	23.3	25.1	Hawaii	309	††15.3	13.5	17.1

NOTE: 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.

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)
-

Table 1. Provisional number of live births, marriages, deaths, infant deaths, and rates by month: United States, January 1992–August 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 women aged 15–44 years			Number	Rate per 1,000 population	Number	Rate per 1,000 population	Number	Rate per 1,000 live births
		Rate per 1,000 population	Unadjusted	Seasonally adjusted ¹						
1992:										
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
1993:										
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	235,000	10.7	184,000	8.4	2,800	7.8
August	367,000	16.7	73.0	69.0	257,000	11.7	180,000	8.2	2,700	7.8

¹The 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 (1967 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, August 1992 and 1993, and cumulative figures, 1991–93

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

Area	Live births					Deaths				
	August		January–August			August		January–August		
	1993	1992	1993	1992	1991	1993	1992	1993	1992	1991
New England	16,954	15,082	113,804	128,730	128,516	18,740	8,890	172,319	77,704	74,650
Maine	---	1,301	---	10,558	11,111	---	910	---	7,289	7,316
New Hampshire	2,018	1,262	10,407	10,552	10,567	798	613	5,946	5,388	5,280
Vermont	617	448	4,950	5,133	5,144	324	322	3,271	3,197	3,115
Massachusetts	8,879	6,878	60,382	61,087	59,751	4,363	4,059	37,953	36,792	34,222
Rhode Island	1,197	1,294	9,649	9,854	9,849	774	773	6,596	6,216	6,244
Connecticut	4,243	3,899	28,416	31,546	32,094	2,481	2,213	18,553	18,822	18,473
Middle Atlantic	49,996	46,818	376,122	376,567	384,410	27,540	27,576	250,493	240,690	241,049
New York	23,955	21,192	187,863	188,500	193,321	12,174	12,315	116,231	111,106	112,660
New Jersey	11,351	11,332	79,928	76,274	76,136	5,753	5,250	49,084	46,777	46,399
Pennsylvania	14,690	14,294	108,331	111,793	114,953	9,613	10,011	85,178	82,807	81,990
East North Central	54,756	53,801	437,758	439,907	439,301	31,685	29,246	258,266	247,698	251,020
Ohio	12,695	13,600	107,291	113,427	105,015	7,904	7,637	67,747	66,553	65,668
Indiana	7,560	7,242	56,545	56,189	56,143	4,212	4,059	34,549	33,712	34,895
Illinois	15,842	16,428	126,802	127,567	127,890	9,314	8,080	71,387	67,356	68,830
Michigan	12,843	10,734	99,585	94,904	101,482	6,754	6,270	55,365	52,806	53,124
Wisconsin	5,816	5,797	47,535	47,820	48,771	3,501	3,200	29,218	27,271	28,503
West North Central	22,750	21,924	171,393	175,385	173,899	13,772	13,249	115,171	107,615	106,599
Minnesota	5,426	5,708	43,206	44,263	44,765	2,959	2,728	24,016	23,070	23,199
Iowa	3,243	2,751	24,251	25,317	22,940	2,084	2,015	19,537	18,024	16,271
Missouri	7,097	7,119	51,508	51,311	50,803	4,652	4,610	37,605	33,351	34,200
North Dakota	829	768	5,908	6,004	6,158	483	477	3,881	3,803	3,616
South Dakota	880	908	7,221	7,563	7,413	494	538	4,464	4,678	4,436
Nebraska	2,062	2,002	15,365	15,842	16,284	1,216	1,163	9,961	9,852	9,725
Kansas	3,213	2,668	23,934	25,085	25,536	1,884	1,718	15,707	14,837	15,152
South Atlantic	59,359	56,825	445,185	450,054	453,319	31,413	32,076	284,731	272,349	265,683
Delaware	1,012	910	7,177	7,331	7,563	485	452	4,116	3,930	3,847
Maryland	7,333	6,855	49,794	50,087	53,062	3,135	2,904	28,500	24,621	24,601
District of Columbia	785	851	6,600	6,789	6,972	378	601	4,357	4,630	4,667
Virginia	8,020	8,070	64,293	65,793	64,703	4,123	3,979	34,864	33,114	32,485
West Virginia	1,877	2,001	15,010	15,221	15,112	1,593	1,444	13,543	13,866	13,450
North Carolina	8,861	8,957	66,157	68,594	68,119	4,846	4,793	42,403	39,909	38,843
South Carolina	4,330	4,848	36,022	37,605	38,553	2,628	2,668	21,052	20,623	19,814
Georgia	10,130	8,520	74,023	74,117	73,675	4,306	4,326	37,594	36,041	36,114
Florida	17,011	15,813	126,109	124,517	125,560	9,919	10,909	98,302	95,615	91,862
East South Central	21,378	20,094	154,467	153,705	152,503	12,786	11,489	105,159	99,841	95,225
Kentucky	4,557	4,549	34,771	36,134	37,015	2,849	2,544	25,011	23,596	23,361
Tennessee	7,903	6,112	49,216	47,539	48,037	4,431	3,913	33,428	32,187	30,015
Alabama	5,275	5,480	42,929	41,870	38,912	3,387	3,089	28,857	27,145	24,979
Mississippi	3,643	3,953	27,551	28,162	28,539	2,119	1,943	17,863	16,913	16,870
West South Central	45,605	39,998	324,648	323,377	317,282	19,643	17,109	161,019	154,123	150,649
Arkansas	3,266	2,936	23,190	23,223	22,581	2,106	1,974	17,993	17,021	15,963
Louisiana	6,280	5,659	47,705	49,448	48,947	3,367	2,219	28,211	26,247	26,497
Oklahoma	4,365	3,441	30,791	31,734	32,041	2,655	2,367	21,807	20,488	20,360
Texas ²	31,694	27,962	222,962	218,972	213,713	11,515	10,549	93,008	90,367	87,829
Mountain	20,240	23,130	165,490	166,534	162,064	8,724	8,119	73,916	69,647	67,346
Montana	1,004	970	7,660	7,860	7,734	614	575	5,031	4,773	4,752
Idaho	1,514	1,516	11,727	11,800	11,635	640	595	5,534	5,321	5,187
Wyoming	570	516	4,399	4,604	4,511	281	277	2,310	2,207	2,093
Colorado	4,822	4,460	37,326	36,984	36,365	1,888	1,720	15,708	14,797	14,809
New Mexico	2,567	2,337	18,392	18,584	18,655	974	920	8,044	7,809	7,548
Arizona	5,410	8,467	47,456	46,031	44,458	2,664	2,445	23,441	21,389	20,146
Utah	3,524	2,941	24,824	25,520	23,330	809	777	6,726	6,568	6,135
Nevada	829	1,923	13,706	15,151	15,376	854	810	7,122	6,783	6,676
Pacific	65,252	64,107	480,456	492,002	501,140	24,860	23,903	195,742	196,328	200,808
Washington	7,401	4,908	45,480	45,054	49,363	3,031	2,868	28,037	24,907	25,213
Oregon	5,198	3,737	29,629	28,268	28,690	2,877	2,128	18,351	16,833	16,831
California ²	49,994	52,735	385,599	397,631	402,509	18,129	18,151	142,995	148,598	152,832
Alaska	938	997	6,706	7,772	7,390	227	200	1,476	1,426	1,456
Hawaii	1,721	1,730	13,042	13,277	13,188	596	556	4,883	4,564	4,476

¹Excludes figures for State(s) shown below as not available.²Figures 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, August 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				
	August		January-August			August		January-August		
	1993	1992	1993	1992	1991	1993	1992	1993	1992	1991
New England	16,693	9,935	134,966	60,657	62,805	11,328	3,678	117,613	31,605	29,401
Maine	---	1,208	---	6,784	6,329	---	490	---	4,007	3,634
New Hampshire	1,367	1,142	4,352	4,820	5,854	461	304	3,259	3,835	3,441
Vermont	590	666	3,371	3,324	3,557	177	185	1,784	1,999	1,645
Massachusetts	3,933	3,652	22,766	26,645	26,803	410	1,494	10,248	11,599	9,488
Rhode Island	803	864	4,477	4,580	4,670	280	263	2,322	2,367	2,284
Connecticut	---	2,403	---	14,504	15,592	---	942	---	7,798	8,909
Middle Atlantic	31,043	30,241	177,230	181,153	182,132	10,230	9,570	79,251	81,552	82,196
New York ²	17,652	16,948	96,815	97,717	100,509	5,122	4,507	36,357	37,305	38,076
New Jersey	5,287	5,417	32,853	33,945	34,347	1,845	1,772	16,794	17,433	17,622
Pennsylvania	8,104	7,876	47,562	49,491	47,276	3,263	3,291	26,100	26,814	26,498
East North Central	37,524	37,646	218,487	223,947	232,196	11,720	12,509	99,893	101,430	105,505
Ohio	8,825	9,076	55,941	59,159	62,442	3,842	4,364	33,562	35,466	36,434
Indiana	5,623	5,323	33,476	33,169	32,944	---	---	---	---	---
Illinois	9,516	9,127	58,359	59,130	61,540	3,573	3,052	29,230	27,971	29,814
Michigan	8,787	9,657	44,223	45,739	48,075	2,841	3,524	25,318	25,763	26,885
Wisconsin	4,773	4,463	26,488	26,750	27,195	1,464	1,569	11,763	12,230	12,372
West North Central	18,885	16,582	98,221	98,109	98,683	7,057	6,841	52,412	51,415	52,819
Minnesota	4,543	4,036	21,051	20,701	21,362	1,314	1,173	11,340	10,046	10,203
Iowa	2,692	2,682	16,915	14,909	15,292	968	840	7,252	7,360	8,390
Missouri	4,397	4,653	29,337	30,346	30,415	2,318	2,013	17,952	17,660	18,014
North Dakota	685	581	3,399	3,273	3,197	196	193	1,483	1,583	1,452
South Dakota	1,127	1,077	5,248	5,207	5,150	237	232	1,933	1,926	1,800
Nebraska	1,238	1,317	8,541	9,142	8,900	611	513	4,223	4,400	4,388
Kansas	4,203	2,236	13,730	14,531	14,367	1,413	1,877	8,229	8,440	8,572
South Atlantic	39,818	39,929	293,936	286,340	296,703	19,790	20,084	157,345	158,587	156,307
Delaware	444	507	3,233	3,217	3,466	215	276	2,061	2,279	1,973
Maryland	4,626	4,979	27,360	27,130	26,699	1,608	1,532	11,338	11,839	10,810
District of Columbia	211	357	1,620	1,949	2,805	113	154	1,088	1,626	1,340
Virginia	7,100	6,628	46,027	45,690	45,754	2,628	2,276	19,532	19,349	18,622
West Virginia	1,241	1,178	8,762	8,266	8,399	551	729	6,197	6,206	6,437
North Carolina	4,306	4,270	31,486	32,609	33,038	2,996	2,989	23,755	24,547	22,670
South Carolina	4,575	4,396	35,348	36,002	35,967	1,208	1,269	10,180	10,680	9,746
Georgia	5,894	6,296	41,921	37,488	46,762	3,218	4,350	25,634	24,743	28,819
Florida	11,421	11,318	98,179	93,989	93,813	7,253	6,509	57,560	57,318	55,890
East South Central	15,338	14,749	123,500	120,569	123,703	7,384	7,712	63,690	66,445	64,135
Kentucky	3,947	4,181	30,654	32,590	32,583	1,452	1,809	14,556	16,017	14,482
Tennessee	5,816	6,242	49,629	47,008	46,857	2,674	2,710	22,211	22,161	22,233
Alabama	3,410	2,239	26,897	25,570	28,630	1,953	1,884	18,029	17,866	18,645
Mississippi	2,165	2,087	16,320	15,401	15,633	1,305	1,309	8,894	10,401	8,775
West South Central	27,909	27,826	197,094	198,346	201,659	12,279	11,957	95,692	98,906	92,315
Arkansas	3,575	3,615	25,075	24,610	26,159	1,655	1,637	11,813	12,188	12,504
Louisiana	4,471	3,051	24,485	24,050	24,143	---	---	---	---	---
Oklahoma	2,855	2,853	20,855	21,861	22,426	1,973	1,981	14,773	16,899	15,957
Texas ³	17,008	18,307	126,679	127,825	128,931	8,651	8,339	69,106	69,819	63,854
Mountain	120,427	21,755	148,441	164,107	164,858	16,511	16,284	151,602	152,447	149,662
Montana	1,131	1,110	5,032	5,014	5,046	382	327	2,913	2,871	2,919
Idaho	1,679	1,635	8,788	9,952	9,404	688	566	4,671	4,494	4,376
Wyoming	796	625	3,174	3,285	3,273	276	260	1,991	2,122	2,163
Colorado	---	4,471	---	23,263	23,424	1,445	1,601	12,603	12,929	12,686
New Mexico ^{4,5}	1,282	1,232	8,800	9,150	9,054	830	676	6,850	6,512	5,768
Arizona ²	2,686	3,116	26,726	24,280	24,584	2,233	2,180	16,768	17,190	16,176
Utah	2,117	2,185	13,535	13,351	12,163	657	674	5,806	6,329	5,574
Nevada	10,736	7,381	82,386	75,812	77,910	---	---	---	---	---
Pacific	116,462	111,430	158,847	159,512	213,382	15,592	14,340	134,115	135,309	136,137
Washington	10,643	6,169	27,692	28,925	34,426	2,971	2,843	18,074	19,318	20,097
Oregon	3,614	2,841	15,822	14,412	14,907	1,971	953	10,970	10,025	10,253
California	---	---	---	---	147,916	---	---	---	---	---
Alaska	675	638	3,601	3,979	4,205	353	202	1,861	2,542	2,407
Hawaii	1,530	1,782	11,732	12,196	11,928	297	342	3,210	3,424	3,380

¹Excludes figures for State(s) shown below as not available.
²Figures for marriages are marriage licenses issued for some counties.
³Figures include adjustments for varying length of reporting periods; see Technical notes.
⁴Figures for marriages are marriage licenses issued.
⁵Figures 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 August 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 August			
	1993		1992	
	Number	Rate	Number	Rate
New England	1,807	16.5	1,233	6.5
Maine	---	---	104	6.5
New Hampshire	84	5.4	89	5.5
Vermont	44	5.9	53	6.9
Massachusetts	548	6.3	529	6.0
Rhode Island	131	9.0	110	7.5
Connecticut	---	---	348	7.3
Middle Atlantic	4,921	8.6	4,931	8.6
New York	2,502	8.8	2,409	8.4
New Jersey	997	8.1	1,032	8.8
Pennsylvania	1,422	8.8	1,490	9.0
East North Central	6,046	9.3	6,279	9.5
Ohio	1,407	8.6	1,437	8.6
Indiana	812	9.6	795	9.4
Illinois	1,913	10.0	2,013	10.4
Michigan	1,369	9.5	1,507	10.3
Wisconsin	545	7.8	527	7.4
West North Central	2,005	7.8	2,204	8.4
Minnesota	455	7.1	473	7.1
Iowa	241	6.5	308	8.0
Missouri	664	8.8	722	9.2
North Dakota	59	6.7	82	9.2
South Dakota	103	9.4	117	10.5
Nebraska	172	7.6	186	7.9
Kansas	311	8.6	316	8.6
South Atlantic	6,506	9.6	6,604	9.6
Delaware	99	9.2	117	10.7
Maryland	688	9.1	691	8.5
District of Columbia	163	16.5	195	19.9
Virginia	910	9.5	852	8.7
West Virginia	214	9.8	192	8.6
North Carolina	1,072	10.7	1,073	10.4
South Carolina	529	9.6	632	11.1
Georgia	1,139	10.2	1,175	10.6
Florida	1,692	8.7	1,677	8.7
East South Central	2,401	10.2	2,346	10.1
Kentucky	500	9.5	429	7.9
Tennessee	720	9.5	747	10.3
Alabama	640	10.0	693	10.9
Mississippi	541	12.6	477	11.1
West South Central	3,848	8.0	4,043	8.3
Arkansas	324	9.3	345	9.8
Louisiana	694	9.9	683	9.1
Oklahoma	424	9.0	450	9.6
Texas ²	2,406	7.3	2,565	7.8
Mountain	1,874	7.7	1,909	7.7
Montana	81	7.1	106	9.1
Idaho	151	8.7	122	7.0
Wyoming	63	9.5	53	7.7
Colorado	425	7.7	419	7.7
New Mexico	227	8.0	252	9.0
Arizona	556	8.2	578	8.3
Utah	236	6.4	226	6.1
Nevada	135	6.5	153	6.7
Pacific	14,481	16.7	5,277	7.0
Washington	---	---	524	7.3
Oregon	319	7.4	297	7.0
California ²	3,943	6.7	4,233	7.0
Alaska	85	8.0	92	7.9
Hawaii	134	6.8	131	6.5

¹Excludes figures for State(s) shown below as not available.²Figures 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, July 1992 and 1993, cumulative figures for 1992 and 1993, and 12 months ending with July 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	July				January–July				12 months ending with July			
	1993		1992		1993		1992		1993		1992	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black female												
All ages	10,780	750.4	10,720	760.4	76,220	778.9	72,430	750.9	127,540	758.8	121,710	736.0
Under 1 year	460	124.3	580	160.1	2,610	² 1,409.0	2,950	² 1,611.8	4,780	² 1,503.1	5,130	² 1,628.6
1–4 years					530	74.1	530	75.4	810	65.9	860	71.5
5–14 years					510	31.5	420	26.4	790	28.5	830	30.4
15–24 years					160	70.5	120	53.1	1,200	77.3	1,050	67.7
25–34 years	350	142.6	350	142.3	2,610	155.4	2,530	149.5	4,630	160.1	4,380	150.5
35–44 years	760	343.6	870	407.9	5,130	341.5	4,790	329.8	8,430	327.3	7,980	321.4
45–54 years	940	691.7	850	656.3	6,120	665.4	5,550	629.0	10,100	642.9	9,420	627.2
55–64 years	1,250	1,262.2	1,530	1,568.0	9,750	1,444.3	9,770	1,460.3	16,790	1,447.4	16,220	1,412.9
65–74 years	2,350	2,975.2	1,970	2,539.2	16,210	3,012.2	14,340	2,700.0	26,610	2,879.9	24,470	2,689.0
75–84 years	2,760	6,225.4	2,390	5,489.8	17,920	5,938.3	16,670	5,597.8	29,700	5,733.6	27,820	5,454.9
85 years and over	1,750	11,910.3	2,050	14,492.9	13,580	13,585.2	13,790	14,229.8	22,720	13,286.5	22,530	13,572.3
Not stated	10	...	—	...	40	...	40	...	60	...	70	...
Age-adjusted rate ³ . . . . .	...	578.1	...	585.7	...	599.2	...	574.9	...	585.4	...	567.0

¹Includes races other than white and black.

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

³For 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, July 1992 and 1993, cumulative figures 1992 and 1993, and 12 months ending with July 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)	July		January–July				12 months ending with July					
	1993		1992		1993		1992		1993		1992	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All causes	184,000	838.6	180,000	833.9	1,344,000	900.0	1,294,000	874.5	2,227,000	867.3	2,179,000	858.5
Shigellosis and amebiasis . . . . .	.004,006	—	*	—	*	—	*	—	*	—	*	—
Certain other intestinal infections . . . . .	.007–009	40	*	30	*	370	0.2	440	0.3	680	0.3	690
Tuberculosis . . . . .	.010–018	150	0.7	140	0.6	1,030	0.7	770	0.5	1,620	0.6	1,410
Tuberculosis of respiratory system . . . . .	.010–012	130	0.6	100	*	830	0.6	600	0.4	1,300	0.5	1,070
Other tuberculosis . . . . .	.013–018	20	*	40	*	190	0.1	170	0.1	320	0.1	340
Whooping cough . . . . .	.033	—	*	—	*	10	*	—	*	20	*	—
Streptococcal sore throat, scarlatina, and erysipelas . . . . .	.034–035	—	*	—	*	—	*	—	*	—	*	10
Meningococcal infection . . . . .	.036	10	*	—	*	180	0.1	110	0.1	300	0.1	210
Septicemia . . . . .	.038	1,860	8.5	1,640	7.6	12,060	8.1	12,030	8.1	19,950	7.8	20,180
Acute poliomyelitis . . . . .	.045	—	*	—	*	—	*	—	*	—	*	—
Measles . . . . .	.055	—	*	—	*	—	*	—	*	—	*	10
Viral hepatitis . . . . .	.070	150	0.7	130	0.6	1,440	1.0	1,060	0.7	2,320	0.9	1,860
Syphilis . . . . .	.090–097	20	*	—	*	40	*	60	*	50	*	130
All other infectious and parasitic diseases ¹ . . . . .	.001–003,005,020–032,037,039–041,*042–*044,046–054,056–066,071–088,098–139	3,500	16.0	3,300	15.3	25,190	16.9	22,190	15.0	41,960	16.3	37,170
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues . . . . .	.140–208	44,530	203.3	45,300	209.7	307,050	205.5	303,080	204.8	524,500	204.3	518,520
Malignant neoplasms of lip, oral cavity, and pharynx . . . . .	.140–149	620	2.8	670	3.1	4,630	3.1	4,540	3.1	8,110	3.2	7,670
Malignant neoplasms of digestive organs and peritoneum . . . . .	.150–159	10,350	47.2	10,870	50.3	70,410	47.1	71,020	48.0	121,010	47.1	121,350
Malignant neoplasms of respiratory and intrathoracic organs . . . . .	.160–165	13,410	61.2	12,560	58.1	89,530	59.9	87,790	59.3	153,180	59.7	150,400
Malignant neoplasm of breast . . . . .	.174–175	3,750	17.1	3,800	17.6	26,120	17.5	26,330	17.8	43,980	17.1	44,100
Malignant neoplasms of genital organs . . . . .	.179–187	4,940	22.5	5,020	23.2	35,380	23.7	34,160	23.1	59,930	23.3	58,540
Malignant neoplasms of urinary organs . . . . .	.188–189	1,820	8.3	1,950	9.0	12,760	8.5	13,220	8.9	21,770	8.5	21,640
Malignant neoplasms of all other and unspecified sites . . . . .	.170–173,190–199	5,540	25.3	5,380	24.9	38,100	25.5	36,440	24.6	64,780	25.2	63,400
Leukemia . . . . .	.204–208	1,410	6.4	1,960	9.1	11,060	7.4	11,120	7.5	19,160	7.5	19,480
Other malignant neoplasms of lymphatic and hematopoietic tissues . . . . .	.200–203	2,670	12.2	3,100	14.3	19,060	12.8	18,450	12.5	32,570	12.7	31,930
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature . . . . .	.210–239	550	2.5	710	3.3	4,540	3.0	4,420	3.0	7,550	2.9	7,660
Diabetes mellitus . . . . .	.250	4,040	18.4	4,230	19.6	32,550	21.8	30,500	20.6	52,280	20.4	50,870
Nutritional deficiencies . . . . .	.260–269	250	1.1	240	1.1	1,870	1.2	1,790	1.2	3,180	1.2	3,150
Anemias . . . . .	.280–285	370	1.7	350	1.6	2,660	1.8	2,310	1.6	4,320	1.7	4,110
Meningitis . . . . .	.320–322	50	*	50	*	480	0.3	470	0.3	740	0.3	740
Major cardiovascular diseases . . . . .	.390–448	75,010	342.4	74,050	342.7	564,910	378.2	545,960	368.9	931,070	362.6	913,800
Diseases of heart . . . . .	.390–398,402,404–429	59,280	270.6	58,030	268.6	442,820	296.5	430,440	290.8	731,360	284.9	719,860
Rheumatic fever and rheumatic heart disease . . . . .	.390–398	430	2.0	500	2.3	3,360	2.3	3,560	2.4	5,770	2.2	5,670
Hypertensive heart disease . . . . .	.402	2,220	10.1	1,860	8.6	14,630	9.8	13,010	8.8	23,970	9.3	21,620
Hypertensive heart and renal disease . . . . .	.404	150	0.7	230	1.1	1,290	0.9	1,340	0.9	2,260	0.9	2,120
Ischemic heart disease . . . . .	.410–414	38,620	176.3	37,960	175.7	291,980	195.5	285,860	193.1	484,030	188.5	479,240
Acute myocardial infarction . . . . .	.410	18,410	84.0	17,740	82.1	135,570	90.8	137,730	93.1	227,150	88.5	232,600
Other acute and subacute forms of ischemic heart disease . . . . .	.411	250	1.1	250	1.2	1,750	1.2	1,800	1.2	2,790	1.1	3,110
Angina pectoris . . . . .	.413	50	*	110	0.5	410	0.3	620	0.4	820	0.3	970
Old myocardial infarction and other forms of chronic ischemic heart disease . . . . .	.412,414	19,900	90.8	19,860	91.9	154,250	103.3	145,720	98.5	253,270	98.6	242,560
Other diseases of endocardium . . . . .	.424	1,010	4.6	1,050	4.9	8,410	5.6	8,990	6.1	14,350	5.6	14,250
All other forms of heart disease . . . . .	.415–423,425–429	16,850	76.9	16,440	76.1	123,150	82.4	117,680	79.5	200,980	78.3	196,950
Hypertension with or without renal disease . . . . .	.401,403	370	4.0	1,030	4.8	6,310	4.2	5,710	3.9	10,240	4.0	9,130
Cerebrovascular diseases . . . . .	.430–438	11,600	52.9	11,880	55.0	89,510	59.9	85,830	58.0	147,000	57.3	143,430
Intracerebral and other intracranial hemorrhage . . . . .	.431–432	1,640	7.5	1,700	7.9	13,090	8.8	12,420	8.4	21,680	8.4	20,990
Cerebral thrombosis and unspecified occlusion of cerebral arteries . . . . .	.434,0,434.9	1,370	6.3	1,320	6.1	9,540	6.4	9,040	6.1	15,830	6.2	15,590
Cerebral embolism . . . . .	.434.1	30	*	70	*	310	0.2	420	0.3	580	0.2	630
All other and late effects of cerebrovascular diseases . . . . .	.430,433,435–438	8,560	39.1	8,780	40.6	66,570	44.6	63,950	43.2	108,910	42.4	106,220

Atherosclerosis . . . . .	.440	1,250	5.7	1,300	6.0	10,260	6.9	9,520	6.4	16,860	6.6	16,410	6.5
Other diseases of arteries, arterioles, and capillaries. . . . .	.441-448	2,000	9.1	1,810	8.4	16,010	10.7	14,450	9.8	25,620	10.0	24,970	9.8
Acute bronchitis and bronchiolitis . . . . .	.466	20	*	20	*	390	0.2	300	0.2	590	0.2	510	0.2
Pneumonia and influenza . . . . .	.480-487	5,440	24.8	5,510	25.5	50,250	33.6	48,340	32.7	77,760	30.3	76,530	30.1
Pneumonia . . . . .	.480-486	5,430	24.8	5,510	25.5	49,560	33.2	47,260	31.9	77,010	30.0	74,990	29.5
Influenza . . . . .	.487	10	*	—	*	690	0.5	1,080	0.7	750	0.3	1,540	0.6
Chronic obstructive pulmonary diseases and allied conditions . . . . .	.490-496	7,640	34.9	6,480	30.0	63,180	42.3	56,860	38.4	97,400	37.9	90,400	35.6
Bronchitis, chronic and unspecified . . . . .	.490-491	180	0.8	230	1.1	2,200	1.5	2,490	1.7	3,580	1.4	3,910	1.5
Emphysema . . . . .	.492	1,600	7.3	1,190	5.5	11,620	7.8	10,070	6.8	18,190	7.1	16,520	6.5
Asthma . . . . .	.493	460	2.1	370	1.7	3,200	2.1	3,010	2.0	4,840	1.9	4,780	1.9
Other chronic obstructive pulmonary diseases and allied conditions . . . . .	.494-496	5,400	24.6	4,700	21.7	46,170	30.9	41,290	27.9	70,790	27.6	65,200	25.7
Ulcer of stomach and duodenum . . . . .	.531-533	490	2.2	440	2.0	3,480	2.3	3,470	2.3	5,780	2.3	5,840	2.3
Appendicitis . . . . .	.540-543	20	*	20	*	280	0.2	220	0.1	360	0.1	360	0.1
Hernia of abdominal cavity and intestinal obstruction without mention of hernia . . . . .	.550-553,560	370	1.7	500	2.3	3,190	2.1	3,350	2.3	5,720	2.2	5,720	2.3
Chronic liver disease and cirrhosis . . . . .	.571	1,930	8.8	2,130	9.9	14,030	9.4	14,250	9.6	24,650	9.6	24,570	9.7
Cholelithiasis and other disorders of gallbladder . . . . .	.574-575	190	0.9	350	1.6	1,550	1.0	1,930	1.3	2,620	1.0	3,120	1.2
Nephritis and nephrotic syndrome, and nephrosis . . . . .	.580-589	1,890	8.6	1,710	7.9	15,270	10.2	13,620	9.2	24,590	9.6	23,300	9.2
Acute glomerulonephritis and nephrotic syndrome . . . . .	.580-581	30	*	30	*	190	0.1	210	0.1	250	0.1	300	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified . . . . .	.582-583,587	100	*	70	*	930	0.6	930	0.6	1,490	0.6	1,550	0.6
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause . . . . .	.584-586,588-589	1,760	8.0	1,610	7.4	14,150	9.5	12,480	8.4	22,840	8.9	21,440	8.4
Infections of kidney . . . . .	.590	160	0.7	110	0.5	670	0.4	650	0.4	1,080	0.4	1,050	0.4
Hyperplasia of prostate . . . . .	.600	10	*	40	*	250	0.2	210	0.1	360	0.1	310	0.1
Complications of pregnancy, childbirth, and the puerperium . . . . .	.630-676	10	*	30	*	170	0.1	110	0.1	340	0.1	260	0.1
Pregnancy with abortive outcome . . . . .	.630-638	—	*	—	*	30	*	10	*	50	*	20	*
Other complications of pregnancy, childbirth, and the puerperium . . . . .	.640-676	10	*	30	*	140	0.1	100	*	280	0.1	240	0.1
Congenital anomalies . . . . .	.740-759	900	4.1	1,000	4.6	6,680	4.5	7,280	4.9	11,820	4.6	12,000	4.7
Certain conditions originating in the perinatal period . . . . .	.760-779	1,390	6.3	1,400	6.5	9,010	6.0	9,160	6.2	15,460	6.0	15,670	6.2
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome . . . . .	.767-769	170	0.8	290	1.3	1,610	1.1	1,830	1.2	2,940	1.1	2,990	1.2
Other conditions originating in the perinatal period . . . . .	.760-766,770-779	1,220	5.6	1,110	5.1	7,400	4.9	7,330	5.0	12,530	4.9	12,680	5.0
Symptoms, signs, and ill-defined conditions . . . . .	.780-799	3,270	14.9	3,100	14.3	23,660	15.8	21,100	14.2	38,130	14.9	36,380	14.3
All other diseases	Residual	15,840	72.3	13,890	64.3	116,750	78.2	106,110	71.7	189,520	73.8	178,510	70.3
Accidents and adverse effects . . . . .	.E800-E949	8,480	38.7	7,860	36.4	48,510	32.5	48,490	32.7	84,380	32.9	86,660	34.1
Motor vehicle accidents . . . . .	.E810-E825	3,730	17.0	3,930	18.2	21,910	14.7	23,060	15.6	39,890	15.5	42,350	16.7
All other accidents and adverse effects . . . . .	.E800-E807,E826-E949	4,750	21.7	3,930	18.2	26,600	17.8	25,440	17.2	44,490	17.3	44,300	17.5
Suicide . . . . .	.E950-E959	2,400	10.9	2,820	13.0	17,000	11.4	17,290	11.7	28,420	11.1	28,960	11.4
Homicide and legal intervention . . . . .	.E960-E978	2,500	11.4	2,350	10.9	14,150	9.5	15,250	10.3	24,690	9.6	26,710	10.5
All other external causes . . . . .	.E980-E999	210	1.0	210	1.0	1,520	1.0	1,160	0.8	2,460	1.0	2,030	0.8
Human immunodeficiency virus infection ²	*042-*044	2,950	13.5	2,720	12.6	20,950	14.0	18,320	12.4	34,940	13.6	30,710	12.1

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

²Included 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, July 1992 and 1993, cumulative figures 1992 and 1993, and 12 months ending with July 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)	July		January–July				12 months ending with July						
	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 ¹	140-208	44,530	203.3	45,300	209.7	307,050	205.5	303,080	204.8	524,500	204.3	518,520	204.3
Malignant neoplasm of esophagus	150	940	4.3	960	4.4	5,750	3.8	6,160	4.1	10,190	4.0	9,910	3.9
Malignant neoplasm of stomach	151	1,350	6.2	1,200	5.5	8,100	5.4	7,730	5.2	13,330	5.2	13,790	5.4
Malignant neoplasms of colon, rectum, rectosigmoid junction, and anus	153,154	4,810	22.0	5,130	23.7	32,440	21.7	33,730	22.8	55,890	21.8	57,280	22.6
Malignant neoplasm of pancreas	157	1,930	8.8	2,250	10.4	15,030	10.1	14,830	10.0	26,060	10.1	25,240	9.9
Malignant neoplasms of trachea, bronchus, and lung	162	12,840	58.6	12,190	56.4	86,660	58.0	85,090	57.5	148,090	57.7	145,500	57.3
Malignant melanoma of skin	172	550	2.5	670	3.1	3,780	2.5	3,960	2.7	6,580	2.6	6,810	2.7
Malignant neoplasm of cervix uteri	180	440	2.0	390	1.8	2,700	1.8	2,420	1.6	4,550	1.8	4,160	1.6
Malignant neoplasms of body of uterus and of uterus, part unspecified	179,182	340	1.5	540	2.5	3,350	2.2	3,740	2.5	6,000	2.3	6,010	2.4
Malignant neoplasm of ovary	183.0	1,020	4.7	1,110	5.1	7,540	5.0	7,340	5.0	12,900	5.0	12,730	5.0
Malignant neoplasm of prostate	185	3,040	13.9	2,830	13.1	20,820	13.9	19,550	13.2	34,850	13.6	33,740	13.3
Malignant neoplasm of bladder	188	980	4.5	910	4.2	6,440	4.3	6,590	4.4	10,860	4.2	10,790	4.3
Malignant neoplasms of kidney and other and unspecified urinary organs	189	840	3.8	1,040	4.8	6,320	4.2	6,630	4.5	10,900	4.2	10,860	4.3
Malignant neoplasms of brain and other and unspecified parts of nervous system	191,192	1,000	4.6	890	4.1	6,640	4.4	6,060	4.1	11,180	4.4	11,150	4.4
Hodgkin's disease	201	100	*	120	0.6	950	0.6	930	0.6	1,650	0.6	1,720	0.7
Malignant lymphoma other than Hodgkin's disease	200,202	1,780	8.1	2,050	9.5	12,260	8.2	11,910	8.0	21,090	8.2	20,460	8.1
Multiple myeloma and other immunoproliferative neoplasms	203	790	3.6	920	4.3	5,850	3.9	5,610	3.8	9,830	3.8	9,750	3.8

¹Includes 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, July 1992 and 1993, cumulative figures 1992 and 1993, and 12 months ending with July 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)	July		January–July				12 months ending with July						
	1993		1992		1993		1992		1993		1992		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Total, under 1 year	2,800	784.8	2,800	807.0	19,900	853.4	20,500	864.4	33,800	841.9	35,000	858.7	
Under 28 days	1,820	518.1	1,890	540.6	12,230	525.3	12,860	542.7	21,170	526.9	21,970	538.3	
28 days to 11 months	940	267.6	930	266.0	7,640	328.1	7,630	322.0	12,660	315.1	13,080	320.5	
Certain gastrointestinal diseases . . . . .	.008-009,535,555-558	20	*	20	*	110	4.7	220	9.3	230	5.7	320	7.8
Pneumonia and influenza	480-487	40	*	80	*	350	15.0	410	17.3	560	13.9	600	14.7
Congenital anomalies	740-759	530	150.9	570	163.1	3,830	164.5	4,340	183.1	6,990	174.0	7,320	179.3
Disorders relating to short gestation and unspecified low birthweight	765	420	119.6	350	100.1	2,430	104.4	2,190	92.4	4,030	100.3	3,930	96.3
Birth trauma	767	20	*	10	*	90	*	100	*	150	3.7	190	4.7
Intrauterine hypoxia and birth asphyxia	769	50	*	60	*	360	16.3	330	13.9	740	18.4	590	14.5
Respiratory distress syndrome	769	100	*	220	62.9	1,120	48.1	1,360	57.4	2,020	50.3	2,140	52.4
Other conditions originating in the perinatal period	760-764,766,770-779	790	224.9	760	217.4	4,860	208.7	5,030	212.3	8,340	207.6	8,590	210.5
Sudden infant death syndrome	798.0	410	116.7	260	74.4	2,780	119.4	2,480	104.6	4,490	111.7	4,340	106.3
All other causes	Residual	370	105.3	510	145.9	3,910	167.9	4,030	170.1	6,290	156.5	7,040	172.5

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:

$$Y(t) = A_0 + A_1 t + A_2 t^2 + C \cos(2\pi t/12) + S \sin(2\pi t/12) + \epsilon_t$$

where

- $Y(t)$ = monthly death rate at time t
- t = month number
- A_0 = coefficient, which, together with C determines the Y-intercept
- A_1 = coefficient of t
- A_2 = coefficient of t^2
- C, S = coefficients of the harmonic terms
- ϵ_t = error terms, assumed to be independent and normally distributed with means 0 and constant variances,

and $\cos(2\pi t/12)$ and $\sin(2\pi t/12)$ 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 (λ) 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^{th} age group for the United States

$P_{x(s)}$ = population in the x^{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

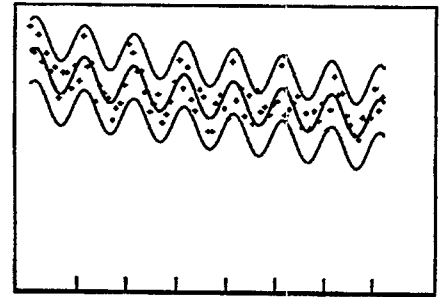
be statistically significant at 0.05 level if $3.00 \leq \lambda < 4.61$. The difference between the State and U.S. age-adjusted rates was determined to be statistically significant at 0.01 level if $\lambda \geq 4.61$ (12). For zero deaths, confidence limits for the age-adjusted death rates are not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

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Mortality Surveillance System topics

<i>MVSR issue</i>	<i>Cause-of-death</i>	<i>Healthy People 2000 Objective Number</i>
Vol. 41 No. 9	Malignant neoplasms of digestive organs and peritoneum	16.5
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	(¹)
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	(²), 16.3



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

²No *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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