

MNWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Effectiveness in Disease and Injury Prevention

Deaths Resulting from Firearm- and Motor-Vehicle-Related Injuries — United States, 1968–1991

Injury is the leading cause of death for persons aged 1–44 years in the United States. More than half (55%) of all injury-related deaths are caused by motor vehicles and firearms (1). Although the number of deaths from motor-vehicle crashes has exceeded those from firearms, since 1968, differences in the number of deaths have declined: from 1968 through 1991, motor-vehicle-related deaths decreased by 21% (from 54,862 to 43,536) while firearm-related deaths increased by 60% (from 23,875 to 38,317) (1). Based on these trends, by the year 2003, the number of firearm-related deaths will surpass the number of motor-vehicle crashes, and firearms will become the leading cause of injury-related death (Figure 1). This report compares trends and patterns of deaths resulting from firearm- and motor-vehicle-related injuries in the United States from 1968 through 1991.

Information about firearm- and motor-vehicle-related injury deaths was obtained from mortality data files maintained by CDC's National Center for Health Statistics. Rates were calculated by using population estimates obtained from the U.S. Bureau of the Census.

From 1968 through 1991, the number of firearm-related deaths exceeded the number of motor-vehicle crash-related deaths every year in the District of Columbia and for 17 of the 24 years in Alaska. Before 1990, the number of firearm-related deaths exceeded that of motor-vehicle-related deaths in any year in no more than two states and the District of Columbia. In 1990, however, the number of firearm-related deaths equaled or exceeded motor-vehicle-related deaths in five states (Alaska, Louisiana, Maryland, New York, and Texas) and the District of Columbia, and in 1991, in seven states (California, Louisiana, Maryland, Nevada, New York, Texas, and Virginia) and the District of Columbia. In addition, in 1991, the number of motor-vehicle-related deaths exceeded the number of firearm-related deaths by 10% or less in eight states (Alaska, Florida, Georgia, Illinois, Michigan, Missouri, North Carolina, and Vermont) (Table 1, Figure 2). In 1991, the ratio of firearm-related deaths to motor-vehicle-related deaths was highest for the District of Columbia (5.21:1) and lowest for Hawaii (0.41:1) (Table 1).

Firearm- and Motor-Vehicle-Related Injuries — Continued

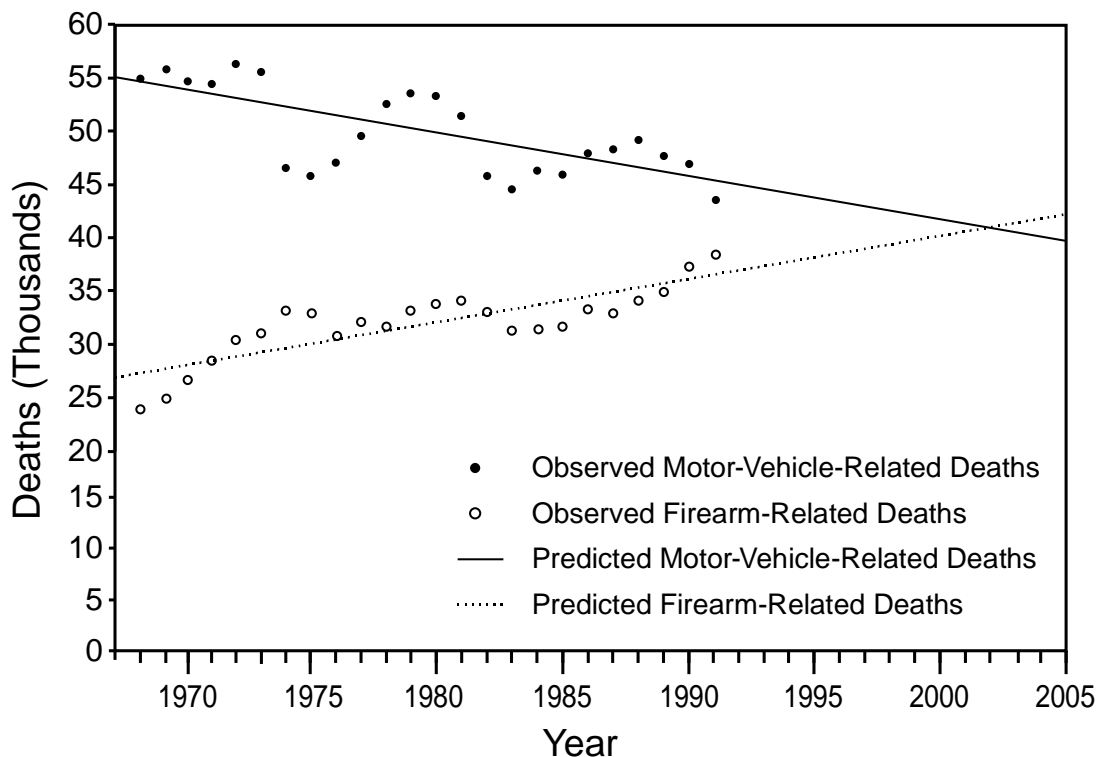
In 1991, the age-adjusted death rate from motor-vehicle crashes was highest for black males (26.2 per 100,000 population) and was nearly equal to that for white males (24.2 per 100,000), 2.5 times that for white females (10.4 per 100,000), and 3.0 times that for black females (8.7 per 100,000).^{*} The age-adjusted death rate for firearms also was highest for black males (66.4 per 100,000) and was 3.2 times that for white males (20.7 per 100,000), 8.3 times that for black females (8.0 per 100,000), and 17.9 times that for white females (3.7 per 100,000). For both motor-vehicle- and firearm-related deaths, age-specific death rates were highest for persons aged 15–24 years (CDC, unpublished data, 1991).

Reported by: Div of Violence Prevention and Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control; Office of Analysis and Epidemiology, National Center for Health Statistics, CDC.

Editorial Note: The findings in this report indicate that, since 1968, the number of motor-vehicle-related deaths in the United States has decreased while the number of firearm-related deaths has increased, and by the year 2003 firearm-related deaths may become the leading cause of injury-related death. These trends may reflect differences in the approaches to preventing motor-vehicle- and firearm-related injuries. In particular, reductions in the occurrence of motor-vehicle-related injuries have been

^{*}Data on other racial/ethnic groups are provided in a separate report (1).

FIGURE 1. Observed and predicted firearm- and motor-vehicle-related injury deaths, by year — United States, 1968–2005^{*}



^{*}The lines are predicted numbers of deaths based on linear regression.

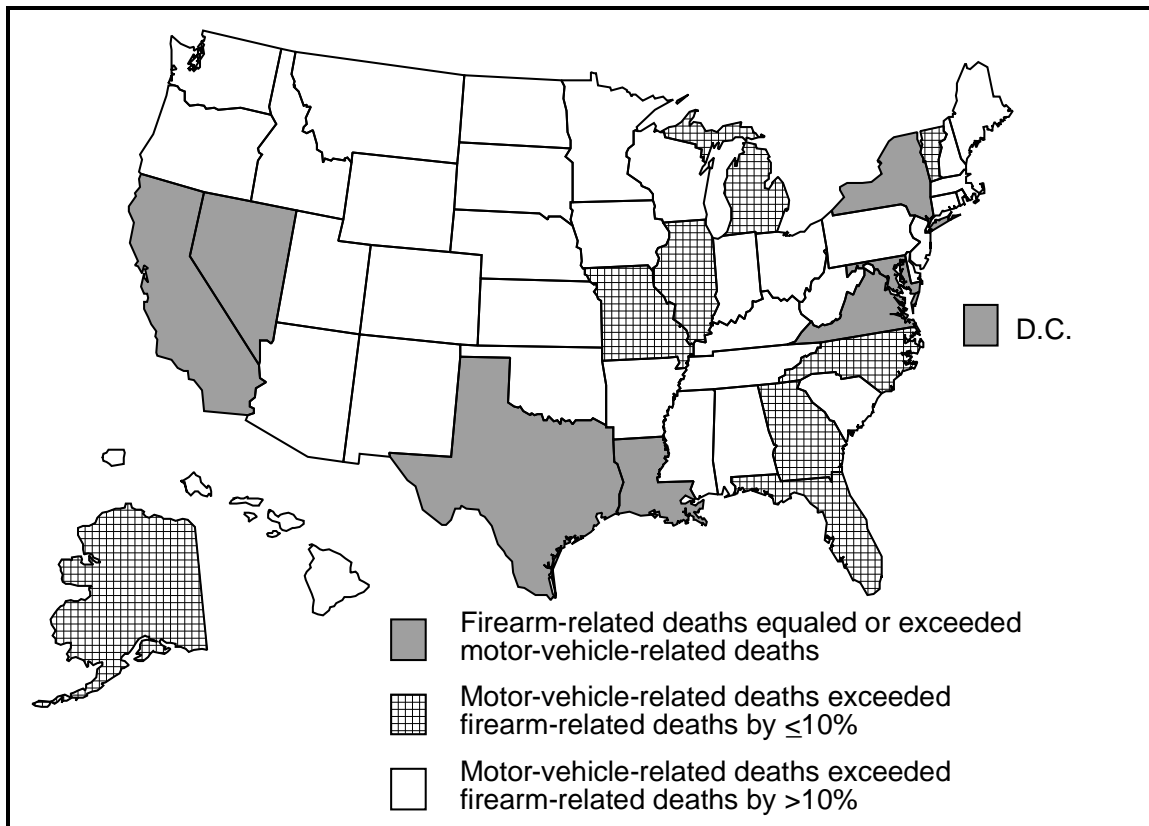
*Firearm- and Motor-Vehicle-Related Injuries — Continued***TABLE 1. Number, crude rates*, and ratios of firearm- and motor-vehicle-related deaths, by decedents' state of residence — United States, 1991 †**

| State | Firearm-related deaths | | Motor-vehicle-related deaths | | |
|----------------------|------------------------|-------------|------------------------------|-------------|-------------|
| | No. | Rate | No. | Rate | Ratio |
| Alabama | 928 | 22.7 | 1,225 | 30.0 | 0.76 |
| Alaska | 98 | 17.2 | 102 | 17.9 | 0.96 |
| Arizona | 696 | 18.6 | 814 | 21.7 | 0.86 |
| Arkansas | 483 | 20.4 | 639 | 26.9 | 0.76 |
| California | 5,064 | 16.7 | 5,009 | 16.5 | 1.01 |
| Colorado | 429 | 12.7 | 586 | 17.4 | 0.73 |
| Connecticut | 287 | 8.7 | 335 | 10.2 | 0.86 |
| Delaware | 53 | 7.8 | 106 | 15.6 | 0.50 |
| District of Columbia | 344 | 57.5 | 66 | 11.0 | 5.21 |
| Florida | 2,323 | 17.5 | 2,517 | 19.0 | 0.92 |
| Georgia | 1,377 | 20.8 | 1,466 | 22.1 | 0.94 |
| Hawaii | 57 | 5.0 | 140 | 12.3 | 0.41 |
| Idaho | 145 | 14.0 | 252 | 24.3 | 0.58 |
| Illinois | 1,574 | 13.6 | 1,667 | 14.4 | 0.94 |
| Indiana | 722 | 12.9 | 1,047 | 18.7 | 0.69 |
| Iowa | 241 | 8.6 | 503 | 18.0 | 0.48 |
| Kansas | 344 | 13.8 | 440 | 17.6 | 0.78 |
| Kentucky | 605 | 16.3 | 821 | 22.1 | 0.74 |
| Louisiana | 1,101 | 25.9 | 869 | 20.4 | 1.27 |
| Maine | 123 | 10.0 | 196 | 15.9 | 0.63 |
| Maryland | 708 | 14.6 | 708 | 14.6 | 1.00 |
| Massachusetts | 307 | 5.1 | 614 | 10.2 | 0.50 |
| Michigan | 1,498 | 16.0 | 1,513 | 16.2 | 0.99 |
| Minnesota | 351 | 7.9 | 598 | 13.5 | 0.59 |
| Mississippi | 614 | 23.7 | 812 | 31.3 | 0.76 |
| Missouri | 942 | 18.3 | 1,023 | 19.8 | 0.92 |
| Montana | 144 | 17.8 | 181 | 22.4 | 0.80 |
| Nebraska | 169 | 10.6 | 300 | 18.8 | 0.56 |
| Nevada | 333 | 25.9 | 272 | 21.2 | 1.22 |
| New Hampshire | 83 | 7.5 | 153 | 13.8 | 0.54 |
| New Jersey | 428 | 5.5 | 857 | 11.0 | 0.50 |
| New Mexico | 288 | 18.6 | 431 | 27.8 | 0.67 |
| New York | 2,515 | 13.9 | 2,226 | 12.3 | 1.13 |
| North Carolina | 1,265 | 18.8 | 1,407 | 20.9 | 0.90 |
| North Dakota | 45 | 7.1 | 98 | 15.4 | 0.46 |
| Ohio | 1,284 | 11.7 | 1,656 | 15.1 | 0.78 |
| Oklahoma | 503 | 15.8 | 680 | 21.4 | 0.74 |
| Oregon | 367 | 12.6 | 500 | 17.1 | 0.73 |
| Pennsylvania | 1,302 | 10.9 | 1,723 | 14.4 | 0.76 |
| Rhode Island | 55 | 5.5 | 93 | 9.3 | 0.59 |
| South Carolina | 619 | 17.4 | 897 | 25.2 | 0.69 |
| South Dakota | 75 | 10.7 | 146 | 20.8 | 0.51 |
| Tennessee | 1,003 | 20.3 | 1,161 | 23.4 | 0.86 |
| Texas | 3,727 | 21.5 | 3,229 | 18.6 | 1.15 |
| Utah | 214 | 12.1 | 269 | 15.2 | 0.80 |
| Vermont | 82 | 14.5 | 91 | 16.0 | 0.90 |
| Virginia | 984 | 15.7 | 965 | 15.4 | 1.02 |
| Washington | 550 | 11.0 | 768 | 15.3 | 0.72 |
| West Virginia | 292 | 16.2 | 431 | 23.9 | 0.68 |
| Wisconsin | 491 | 9.9 | 823 | 16.6 | 0.60 |
| Wyoming | 85 | 18.5 | 111 | 24.1 | 0.77 |
| Total | 38,317 | 15.2 | 43,536 | 17.3 | 0.88 |

*Crude death rates per 100,000; rates should not be compared between states because of differing age, sex, and race distributions.

†These data may differ from estimates of the National Highway Traffic Safety Administration's Fatal Accident Reporting System because deaths occurring on both public and nonpublic roadways are included.

Source: Mortality data tapes from CDC's National Center for Health Statistics for number of deaths; U.S. Bureau of the Census for annual population estimates.

*Firearm- and Motor-Vehicle–Related Injuries — Continued***FIGURE 2. Comparison of firearm- and motor-vehicle–related deaths, by decedents' state of residence — United States, 1991**

associated with the development of a set of comprehensive and science-based interventions and policies (2); in contrast, there have been limited efforts to develop a systematic framework to reduce the incidence and impact of injuries associated with firearms.

Elements of the multifaceted, science-based approach to reduce mortality from motor-vehicle crashes have included public information programs, promotion of behavioral change, changes in legislation and regulations, and advances in engineering and technology. These strategies have resulted in safer vehicles (e.g., the addition of laminated windshields and interior padding), safer driving practices (e.g., reduced occurrence of alcohol-impaired driving and increased use of safety belts), safer travel environments (e.g., construction of safer highways and roads), and improved emergency medical services. Key elements of the science-based approach have included the establishment of a national data-collection system to routinely monitor motor-vehicle–related deaths, identification of modifiable risk factors, design and implementation of preventive measures, and evaluation of the effectiveness of these measures. Since 1966, when the federal government identified highway safety as a major goal and subsequently established the National Highway Traffic Safety Administration to help reduce death and injury on the highway, the annual number of motor-vehicle–related deaths in the United States has decreased, even though the annual number of vehicle-miles traveled has increased 114% (3).

Firearm- and Motor-Vehicle-Related Injuries — Continued

Based on the effectiveness of efforts to reduce motor-vehicle-related deaths, a multifaceted approach to reduce firearm-related injuries should include at least three elements. First, changes in behavior may be fostered by campaigns to educate and inform persons about the risks and benefits of firearm possession and the safe use and storage of firearms. Second, legislative efforts may be directed toward preventing access to or acquisition of firearms by specific groups that should not possess firearms (e.g., felons and children) and toward regulating the storage, transport, and use of firearms. Third, technologic changes could be used to modify firearms and ammunition to render them less lethal (e.g., a requirement for childproof safety devices [i.e., trigger locks] and loading indicators) (4).

A multifaceted effort to prevent firearm-related injuries should emphasize the need to inform the public about the risks and benefits of access to firearms in a manner similar to the approach used to inform the public about the benefits of wearing safety belts and the dangers of drunk driving. For example, the public should be informed about recent findings indicating that the presence of a gun in a household is associated with an approximately fivefold increase in the risk of suicide and threefold increase in the risk of homicide for household residents (5,6). Such efforts also should convey the appropriate interpretations of epidemiologic patterns in firearm-related injuries. For example, the findings in this report indicate that rates of firearm-related deaths were substantially higher for black males than for white males—a pattern underscoring the disproportionate impact of firearm homicides on blacks. However, race is not known to be a risk factor for homicide victimization; instead, race-specific variations in the incidence of firearm-related deaths probably reflect differences in other factors (e.g., poverty) that increase a person's risk for becoming a victim of homicide (7).

Elements of the science-based approach used to prevent injuries associated with motor-vehicle crashes also should be applied to prevent firearm-related injuries. These elements should include establishment of a national firearm injury surveillance system to enable systematic collection of data about fatal and nonfatal firearm-related injuries and about the patterns of firearm ownership and use, and continued efforts to define more precisely the risks and benefits of gun ownership and the modifiable factors that increase the risk of death and injury from firearms. In addition, despite the implementation of a variety of approaches to the prevention of firearm-related injuries and death, efforts to evaluate these approaches have been limited (8–10) and underscore the need for continued assessment of the effectiveness of such intervention strategies.

Because highway safety has been a national priority since 1966, an estimated 250,000 motor-vehicle-related deaths have been averted. Despite this progress, efforts to reduce the burden of motor-vehicle-related injuries and fatalities must be sustained. In addition, adoption of a similar multifaceted, science-based approach should assist in decreasing the public health impact and societal burden of injuries resulting from use of firearms.

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Current Trends**Abortion Surveillance: Preliminary Data — United States, 1991**

For 1991, CDC received data about legal induced abortions from 52 reporting areas (the 50 states, New York City, and the District of Columbia). This report presents preliminary data for 1991.

In 1991, 1,388,937 legal induced abortions were reported to CDC (Table 1), a decrease of 2.8% from the number reported in 1990 (1), and the number of live births decreased by 1.2%. As a result, the national abortion ratio declined from 345 legal induced abortions per 1000 live births in 1990 to 339 per 1000 in 1991. The national abortion rate (the number of legal induced abortions per 1000 women aged 15–44 years) remained stable at 24. As in previous years, 92% of women who had a legal induced abortion were residents of the state in which the procedure was performed.

Most women who obtained legal induced abortions in 1991 were aged <25 years, white, and unmarried (Table 1). When compared with women who obtained abortions in 1990, a slightly lower proportion of women who had abortions in 1991 had had no previously live-born infants (49.2% versus 47.5%, respectively). Curettage (suction and sharp) remained the primary abortion procedure (approximately 99% of all such procedures). As in previous years, more than half (52%) of legal induced abortions were performed during the first 8 weeks of gestation and approximately 89% during the first 12 weeks.

Reported by: Statistics and Computer Resources Br, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The number of legal induced abortions performed in the United States has remained relatively stable since 1980, varying each year by 5% or less. In 1991, the

Abortion Surveillance — Continued

TABLE 1. Reported number of legal induced abortions, abortion ratios,* abortion rates,† and characteristics of women who obtained legal induced abortions — United States, selected years, 1972–1991

| Characteristic | Year | | | | | | | |
|--|---------|---------|-----------|-----------|-----------|-----------|-----------|-------------------|
| | 1972 | 1976 | 1980 | 1985 | 1988 | 1989 | 1990 | 1991 [§] |
| Reported no. legal induced abortions | 586,760 | 988,267 | 1,297,606 | 1,328,570 | 1,371,285 | 1,396,658 | 1,429,577 | 1,388,937 |
| Abortion ratio | 180 | 312 | 359 | 354 | 352 | 346 | 345 | 339 |
| Abortion rate | 13 | 21 | 25 | 24 | 24 | 24 | 24 | 24 |
| Percentage distribution[¶] | | | | | | | | |
| Residence | | | | | | | | |
| In-state | 56.2 | 90.0 | 92.6 | 92.4 | 91.4 | 91.0 | 91.8 | 91.8 |
| Out-of-state | 43.8 | 10.0 | 7.4 | 7.6 | 8.6 | 9.0 | 8.2 | 8.2 |
| Age (yrs) | | | | | | | | |
| ≤19 | 32.6 | 32.1 | 29.2 | 26.3 | 25.3 | 24.2 | 22.4 | 21.0 |
| 20–24 | 32.5 | 33.3 | 35.5 | 34.7 | 32.8 | 32.6 | 33.2 | 34.2 |
| ≥25 | 34.9 | 34.6 | 35.3 | 39.0 | 41.9 | 43.2 | 44.4 | 44.8 |
| Race | | | | | | | | |
| White | 77.0 | 66.6 | 69.9 | 66.6 | 64.4 | 64.2 | 64.8 | 64.3 |
| All others | 23.0 | 33.4 | 30.1 | 33.4 | 35.6 | 35.8 | 35.2 | 35.7 |
| Marital status | | | | | | | | |
| Married | 29.7 | 24.6 | 23.1 | 19.3 | 20.3 | 20.1 | 21.7 | 20.3 |
| Unmarried | 70.3 | 75.4 | 76.9 | 80.7 | 79.7 | 79.9 | 78.3 | 79.7 |
| No. live births** | | | | | | | | |
| 0 | 49.4 | 47.7 | 58.4 | 56.3 | 52.4 | 52.2 | 49.2 | 47.5 |
| 1 | 18.2 | 20.7 | 19.4 | 21.6 | 23.4 | 23.6 | 24.4 | 25.2 |
| 2 | 13.3 | 15.4 | 13.7 | 14.5 | 16.0 | 15.9 | 16.9 | 17.4 |
| 3 | 8.7 | 8.3 | 5.3 | 5.1 | 5.6 | 5.7 | 6.1 | 6.5 |
| ≥4 | 10.4 | 7.9 | 3.2 | 2.5 | 2.6 | 2.6 | 3.4 | 3.4 |
| Type of procedure | | | | | | | | |
| Curettage | 88.6 | 92.8 | 95.5 | 97.5 | 98.6 | 98.8 | 98.8 | 98.9 |
| Suction | 65.2 | 82.6 | 89.8 | 94.6 | 95.1 | 97.1 | 96.0 | 98.0 |
| Sharp | 23.4 | 10.2 | 5.7 | 2.9 | 3.5 | 1.7 | 2.8 | 0.9 |
| Intrauterine instillation | 10.4 | 6.0 | 3.1 | 1.7 | 1.1 | 0.9 | 0.8 | 0.7 |
| Other ^{††} | 1.0 | 1.2 | 1.4 | 0.8 | 0.3 | 0.3 | 0.4 | 0.4 |
| Weeks of gestation | | | | | | | | |
| ≤8 | 34.0 | 47.0 | 51.7 | 50.3 | 48.7 | 49.8 | 51.6 | 52.3 |
| 9–10 | 30.7 | 28.1 | 26.2 | 26.6 | 26.4 | 25.8 | 25.3 | 25.4 |
| 11–12 | 17.5 | 14.4 | 12.2 | 12.5 | 12.7 | 12.6 | 11.7 | 11.6 |
| 13–15 | 8.4 | 4.5 | 5.1 | 5.9 | 6.6 | 6.6 | 6.4 | 5.9 |
| 16–20 | 8.2 | 5.1 | 3.9 | 3.9 | 4.5 | 4.2 | 4.0 | 3.7 |
| ≥21 | 1.2 | 0.9 | 0.9 | 0.8 | 1.1 | 1.0 | 1.0 | 1.1 |

* Per 1000 live births.

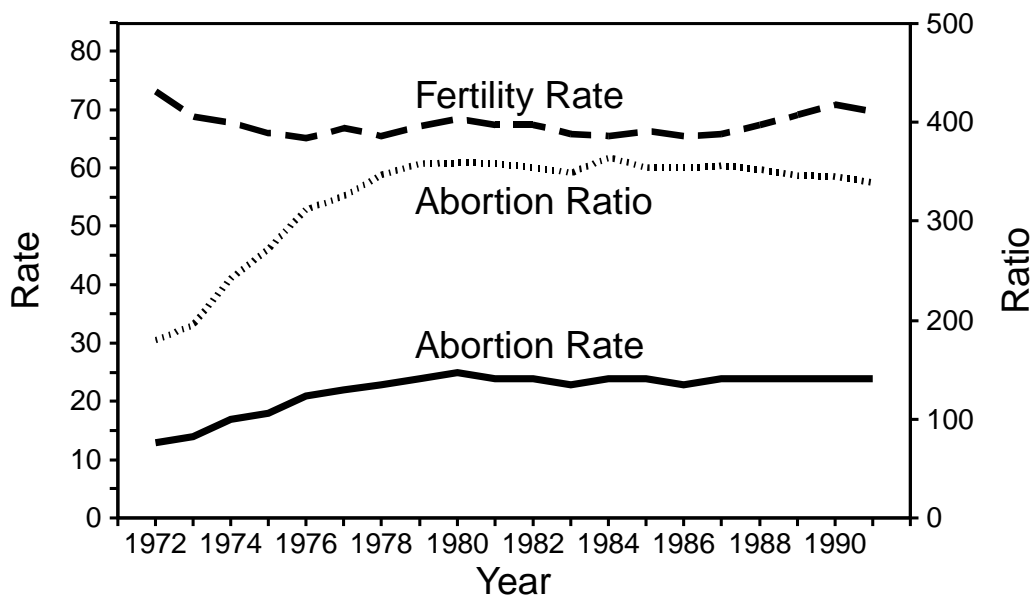
† Per 1000 women aged 15–44 years.

§ Preliminary data.

¶ Excludes unknown values. Percentage distributions are based on data from all areas reporting a given characteristic.

** For 1972 and 1976, data indicate number of living children.

†† Includes hysterotomy and hysterectomy.

*Abortion Surveillance — Continued***FIGURE 1. Fertility rate* and abortion ratio† and rate‡, by year — United States, 1972–1991**

*Live births per 1000 women aged 15–44 years.

†Number of legal induced abortions per 1000 live births.

‡Number of legal induced abortions per 1000 women aged 15–44 years.

national ratio of abortions to live births was again lower than for any year since 1977, indicating that a greater proportion of pregnancies ended in a live birth (Figure 1) (2). The national abortion rate has fluctuated minimally since 1980 (Figure 1). Although the national fertility rate (live births per 1000 women of reproductive age) was slightly lower in 1991 than in 1990, it was higher than the rate for any other year since 1972 (3).

The total number of legal induced abortions was available for all 52 reporting areas. However, approximately 27% of abortions were reported from states that do not have centralized reporting; these areas could provide no information on the characteristics of women obtaining abortions. Because the number of states that report such information varies annually, temporal comparisons should be made with caution.

Abortion and birth statistics both are essential to provide estimates of pregnancy rates. In addition, abortion and pregnancy rates can be used to evaluate the effectiveness of family planning programs and programs to prevent unintended pregnancy. The use of such information for these purposes is constrained, however, because of limitations in the completeness of reporting by states of the number and characteristics of women who have legal induced abortions.

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*Emerging Infectious Diseases***Hantavirus Pulmonary Syndrome — United States, 1993**

In June 1993, a newly recognized hantavirus was identified as the etiologic agent of an outbreak of severe respiratory illness (hantavirus pulmonary syndrome [HPS]) in the southwestern United States (1–3). Since this problem was recognized, sporadic cases have been identified from a wide geographic area in the western United States (2). This report summarizes the epidemiologic characteristics of HPS cases reported to CDC from May 1 through December 31, 1993.

Through December 31, 53 persons with illnesses meeting the surveillance case definition of HPS (2) have been reported to CDC. Patients' ages have ranged from 12 years to 69 years (median age: 31 years), and 32 (60%) were aged 20–39 years; 30 (57%) were male. Twenty-six (49%) were American Indians; 22 (42%), non-Hispanic whites; four (8%), Hispanic; and one (2%), non-Hispanic black. Thirty-two (60%) patients died; persons with fatal cases and persons with nonfatal cases were similar in age, sex, and race (Table 1).

Cases have occurred in residents of 14 states (Figure 1). Of the 34 (64%) persons who were residents of Arizona, Colorado, or New Mexico, illness occurred in 25 (74%) during April–July 1993 and in one before 1993 (Figure 2). In comparison, of 19 cases reported from other states, five (26%) had onset of illness during April–July 1993, and seven (37%) had onset before 1993. All patients either lived in rural areas or had visited rural areas during the 6 weeks before onset of illness.

The etiology of HPS was initially identified by serology, polymerase chain reaction (PCR), and immunohistochemistry (2). Additional cloning and sequencing of virus ribonucleic acid (RNA) from human autopsy tissues indicated that all three of the RNA segments of this new virus were unlike those of any known hantavirus; the new hantavirus is most closely related to the Prospect Hill strain of hantavirus (4,5).

TABLE 1. Characteristics of 53 persons reported with hantavirus pulmonary syndrome, by outcome — United States, May–December, 1993

| Characteristic | Total | Deaths | | Relative risk | (95% CI*) |
|------------------|-------|--------|------|---------------|-----------|
| | | No. | (%) | | |
| Age (yrs) | | | | | |
| <20 | 7 | 4 | (57) | Referent | |
| 20–29 | 14 | 7 | (50) | 0.9 | (0.4–2.0) |
| 30–39 | 18 | 14 | (78) | 1.4 | (0.8–2.7) |
| ≥40 | 14 | 7 | (50) | 0.9 | (0.4–2.0) |
| Sex | | | | | |
| Female | 23 | 13 | (57) | Referent | |
| Male | 30 | 19 | (63) | 1.1 | (0.7–1.8) |
| Race | | | | | |
| American Indian | 26 | 15 | (58) | Referent | |
| Other† | 27 | 17 | (63) | 1.1 | (0.7–1.7) |

* Confidence interval.

† Non-Hispanic white, Hispanic, and non-Hispanic black.

Hantavirus Pulmonary Syndrome — Continued

FIGURE 1. Number of reported confirmed cases of hantavirus pulmonary syndrome — United States, 1993

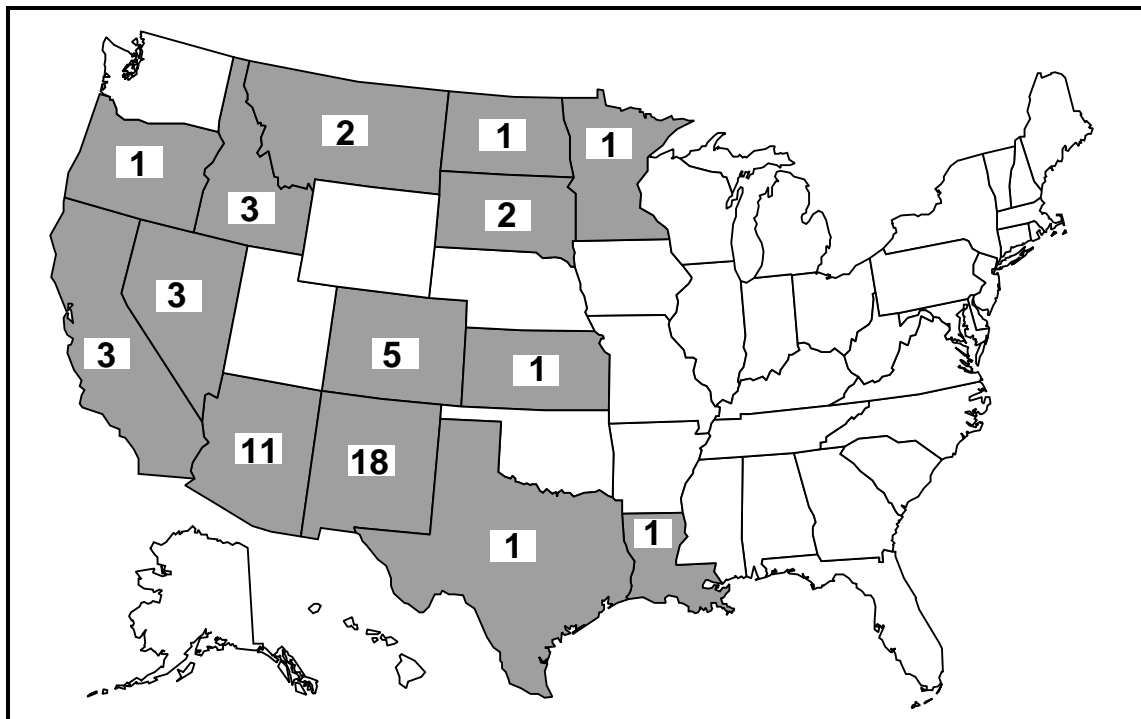
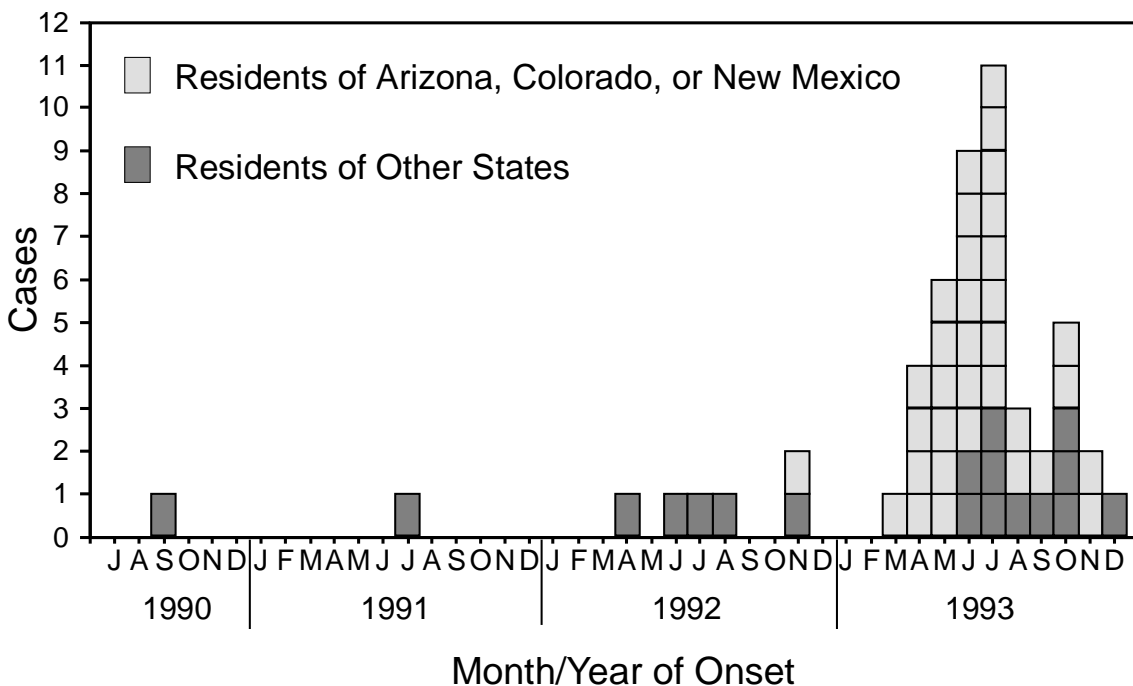


FIGURE 2. Number of confirmed cases of hantavirus pulmonary syndrome, by month and year of onset and by state — July 1990–December 1993*



*Does not include one case from 1980 reported in California.

Hantavirus Pulmonary Syndrome — Continued

In November 1993, the etiologic hantavirus associated with HPS was isolated from tissues of a deer mouse (*Peromyscus maniculatus*) trapped in New Mexico in June 1993 near the residence of a person with confirmed HPS. Lung material from this animal was twice passed in uninfected laboratory deer mice and then adapted to Vero E6 cell cultures. The genetic sequence of the 139-nucleotide PCR product from the isolated virus was identical to PCR products amplified from this rodent in June 1993 and from lung tissue of the associated patient. At the same time, the U.S. Army Medical Research Institute of Infectious Diseases isolated the virus from specimens from a person in New Mexico and from a rodent in California. Muerto Canyon virus has been proposed as the name for this virus, following standard conventions for naming zoonotic viruses after a nearby geographic feature.

Reported by: L Sands, DO, State Epidemiologist, Arizona Dept of Health Svcs. GW Rutherford, III, MD, State Epidemiologist, California Dept of Health Svcs. RE Hoffman, MD, State Epidemiologist, Colorado Dept of Health. E Sfakianaki, MD, Dade County Public Health Unit, RS Hopkins, MD, State Epidemiologist, Florida Dept of Health and Rehabilitative Svcs. R Perotto, MS, Acting State Epidemiologist, Div of Health, Idaho Dept of Health and Welfare. ML Fleissner, DrPH, State Epidemiologist, Indiana State Dept of Health. D Alfano, Kansas Dept of Health and Environment. L McFarland, DrPH, State Epidemiologist, Office of Public Health, Louisiana Dept of Health and Hospitals. MT Osterholm, PhD, State Epidemiologist, Minnesota Dept of Health. TA Damrow, PhD, State Epidemiologist, Montana State Dept of Health and Environmental Sciences. A DiSalvo, MD, State Health Laboratory, Div of Health, Nevada State Dept of Human Resources. CM Sewell, DrPH, State Epidemiologist, New Mexico Dept of Health. LA Shireley, MPH, State Epidemiologist, North Dakota State Dept of Health and Consolidated Laboratories. D Fleming, MD, State Epidemiologist, State Health Div, Oregon Dept of Human Resources. KA Senger, State Epidemiologist, South Dakota State Dept of Health. DM Simpson, MD, State Epidemiologist, Texas Dept of Health. US Army Medical Research Institute of Infectious Diseases, Frederick, Maryland. Hantavirus Task Force, Special Pathogens Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: New clinical syndromes and infections associated with previously unknown pathogens often are recognized only after clinicians and public health officials become aware of clusters of cases. In May and June 1993, the recognition and reporting of 24 cases of severe respiratory illness among residents of the southwestern United States led to a multiagency response that included state and local health departments, universities, the Indian Health Service, the Navajo Nation Division of Health, and CDC. This response, in turn, resulted in the identification of HPS.

Disease associated with hantaviruses occurs primarily in otherwise healthy adults; however, HPS affects both sexes while infection by other hantaviruses affects predominantly males (6,7). The case-fatality rate for persons infected with Muerto Canyon virus has been substantially (more than 10 times) higher than that for persons infected with other hantaviruses (8). Factors accounting for the seasonal pattern of HPS have not been fully defined.

Although all confirmed cases of HPS in 1993 occurred in persons who resided west of the Mississippi River, the primary reservoir of the virus, the deer mouse, inhabits all areas of the United States except the southeast and Atlantic seaboard (9). Since January 1, 1994, one case of HPS has been confirmed in a resident of Indiana, and a possible case is under investigation in Florida. Regional variations in the occurrence of this problem and observed differences in the racial/ethnic and age distribution may reflect differences in 1) activities associated with exposure or transmission, 2) local surveillance and retrospective case finding, or 3) the prevalence of the virus in the

Hantavirus Pulmonary Syndrome — Continued

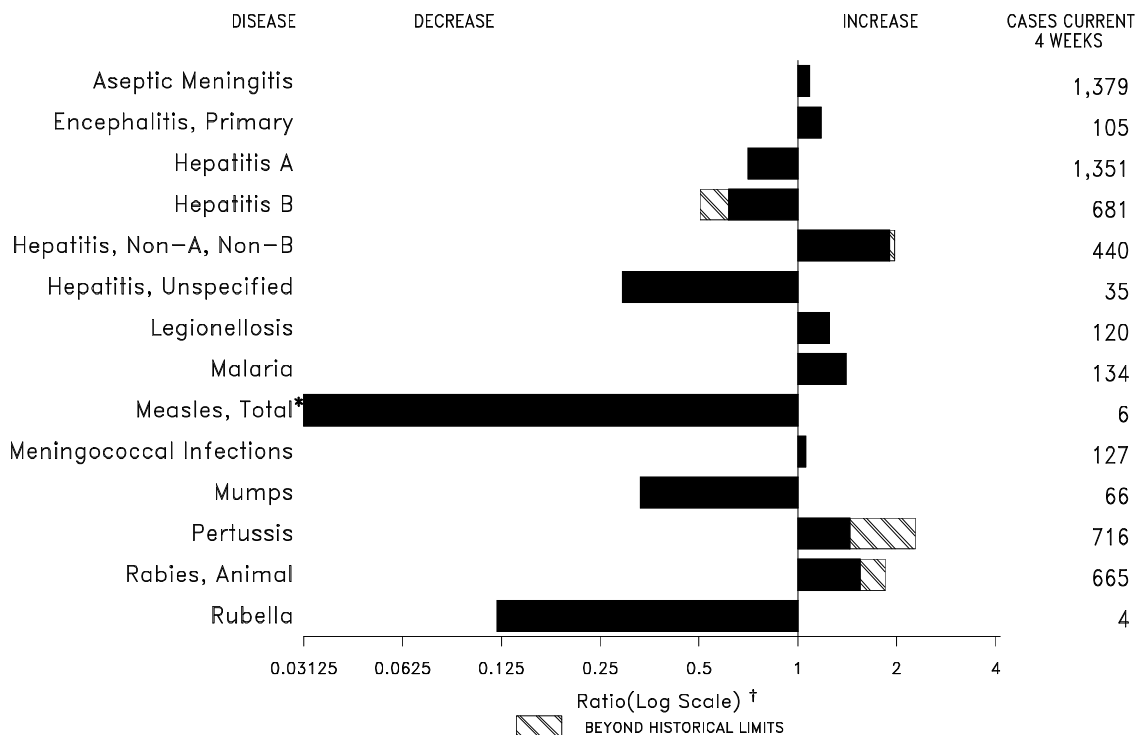
rodent host. For example, persons participating in agricultural activities near habitats of infected rodents are likely to be at greater risk for infection.

Recognition of the more geographically widespread occurrence of HPS emphasizes the need for physicians and other health-care providers to consider this problem in the differential diagnosis of adult respiratory distress syndrome. CDC and state and local health departments request that suspected cases of HPS be reported through state health officials (2).

The isolation of Muerto Canyon virus and the development of recombinant proteins may enable improved and more rapid diagnostic testing. CDC and the Association of State and Territorial Public Health Laboratory Directors are organizing training courses on hantavirus testing for public health laboratory personnel. The first course for public health laboratory personnel from states with confirmed cases of HPS will be conducted in Atlanta March 7–10, 1994. A purified recombinant nucleoprotein antigen expressed in *Escherichia coli* (10) will be made available to participants and, as supplies permit, other interested laboratories. Additional information regarding these courses is available from CDC's Public Health Practice Program Office, telephone (404) 488-7675.

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FIGURE I. Notifiable disease reports, comparison of 4-week totals ending January 22, 1994, with historical data — United States

*The large apparent decrease in reported cases of measles (total) reflects dramatic fluctuations in the historical baseline. (Ratio (log scale) for week three is 0.00704).

† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending January 22, 1994 (3rd Week)

| | Cum. 1994 | | Cum. 1994 |
|---|-----------|---------------------------------------|-----------|
| AIDS* | - | Measles: imported | 2 |
| Anthrax | - | indigenous | 2 |
| Botulism: Foodborne | - | Plague | - |
| Infant | - | Poliomyelitis, Paralytic [§] | - |
| Other | 1 | Psittacosis | 2 |
| Brucellosis | 2 | Rabies, human | - |
| Cholera | - | Syphilis, primary & secondary | 837 |
| Congenital rubella syndrome | - | Syphilis, congenital, age < 1 year | - |
| Diphtheria | - | Tetanus | - |
| Encephalitis, post-infectious | 5 | Toxic shock syndrome | 10 |
| Gonorrhea | 16,248 | Trichinosis | - |
| <i>Haemophilus influenzae</i> (invasive disease)† | 43 | Tuberculosis | 840 |
| Hansen Disease | 9 | Tularemia | - |
| Leptospirosis | 3 | Typhoid fever | 11 |
| Lyme Disease | 70 | Typhus fever, tickborne (RMSF) | 5 |

*Updated monthly; last update December 31, 1993.

†Of 38 cases of known age, 11 (29%) were reported among children less than 5 years of age.

§No cases of suspected poliomyelitis have been reported in 1994; 3 cases of suspected poliomyelitis have been reported in 1993; 4 of the 5 suspected cases with onset in 1992 were confirmed; the confirmed cases were vaccine associated.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending January 22, 1994, and January 23, 1993 (3rd Week)

| Reporting Area | AIDS* | Aseptic Meningitis | Encephalitis | | Gonorrhea | | Hepatitis (Viral), by type | | | | Legionellosis | Lyme Disease |
|----------------|-------|--------------------|--------------|-----------------|-----------|-----------|----------------------------|-----------|-----------|-------------|---------------|--------------|
| | | | Primary | Post-infectious | | | A | B | NA,NB | Unspecified | | |
| | | | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1993 | Cum. 1994 | Cum. 1994 | | |
| UNITED STATES | - | 213 | 19 | 5 | 16,248 | 22,400 | 655 | 351 | 185 | 14 | 63 | 70 |
| NEW ENGLAND | - | 14 | 3 | - | 453 | 293 | 16 | 20 | 8 | 3 | 7 | 18 |
| Maine | - | 1 | 1 | - | 3 | 5 | - | - | - | - | - | - |
| N.H. | - | - | - | - | - | 3 | - | - | - | - | - | - |
| Vt. | - | 1 | - | - | - | 5 | - | - | - | - | - | - |
| Mass. | - | 4 | 1 | - | 169 | 248 | 10 | 18 | 3 | 3 | 6 | 15 |
| R.I. | - | 8 | 1 | - | 23 | 32 | 6 | 2 | 5 | - | 1 | 3 |
| Conn. | - | - | - | - | 258 | - | - | - | - | - | - | - |
| MID. ATLANTIC | - | 16 | 1 | - | 513 | 2,490 | 17 | 11 | 7 | 1 | 2 | 22 |
| Upstate N.Y. | - | 4 | - | - | - | - | 5 | 3 | 3 | - | - | 10 |
| N.Y. City | - | - | - | - | - | 1,147 | - | - | - | - | - | - |
| N.J. | - | - | - | - | - | 611 | 5 | - | - | - | - | 3 |
| Pa. | - | 12 | 1 | - | 513 | 732 | 7 | 8 | 4 | 1 | 2 | 9 |
| E.N. CENTRAL | - | 52 | 7 | 4 | 4,032 | 3,869 | 59 | 53 | 25 | - | 28 | - |
| Ohio | - | 12 | 2 | - | 1,597 | 1,227 | 23 | 11 | - | - | 16 | - |
| Ind. | - | 22 | - | - | 510 | 357 | 24 | 15 | - | - | 5 | - |
| Ill. | - | - | - | - | 864 | 1,424 | - | - | - | - | - | - |
| Mich. | - | 18 | 5 | 4 | 1,025 | 457 | 12 | 27 | 25 | - | 7 | - |
| Wis. | - | - | - | - | 36 | 404 | - | - | - | - | - | - |
| W.N. CENTRAL | - | 20 | - | - | 517 | 932 | 13 | 7 | - | - | 12 | - |
| Minn. | - | - | - | - | 148 | 79 | - | - | - | - | - | - |
| Iowa | - | 12 | - | - | 34 | 116 | 1 | 2 | - | - | 4 | - |
| Mo. | - | 1 | - | - | 137 | 397 | 3 | 4 | - | - | 2 | - |
| N. Dak. | - | - | - | - | - | 6 | - | - | - | - | - | - |
| S. Dak. | - | - | - | - | - | 16 | - | - | - | - | - | - |
| Nebr. | - | - | - | - | - | 52 | 8 | - | - | - | 6 | - |
| Kans. | - | 7 | - | - | 198 | 266 | 1 | 1 | - | - | - | - |
| S. ATLANTIC | - | 35 | 2 | - | 5,130 | 6,233 | 41 | 109 | 37 | - | 2 | 23 |
| Del. | - | - | - | - | 74 | 81 | 1 | 4 | 5 | - | - | 18 |
| Md. | - | 5 | 2 | - | 225 | 835 | 12 | 13 | 3 | - | - | 1 |
| D.C. | - | 2 | - | - | 588 | 226 | 3 | 3 | - | - | - | - |
| Va. | - | - | - | - | 935 | 441 | - | - | - | - | - | - |
| W. Va. | - | 3 | - | - | 19 | 42 | 1 | 1 | 1 | - | - | - |
| N.C. | - | 8 | - | - | 1,455 | 1,585 | 3 | 33 | 8 | - | 1 | 4 |
| S.C. | - | 2 | - | - | 736 | 762 | 3 | - | - | - | 1 | - |
| Ga. | - | 2 | - | - | - | 817 | 13 | 46 | 18 | - | - | - |
| Fla. | - | 13 | - | - | 1,098 | 1,444 | 5 | 9 | 2 | - | - | - |
| E.S. CENTRAL | - | 20 | - | 1 | 2,593 | 2,301 | 15 | 36 | 62 | - | 4 | 1 |
| Ky. | - | 9 | - | 1 | 190 | 246 | 5 | 2 | 2 | - | - | 1 |
| Tenn. | - | 1 | - | - | 421 | 479 | 3 | 26 | 60 | - | 2 | - |
| Ala. | - | 8 | - | - | 1,368 | 1,043 | 5 | 8 | - | - | - | - |
| Miss. | - | 2 | - | - | 614 | 533 | 2 | - | - | - | 2 | - |
| W.S. CENTRAL | - | 2 | - | - | 1,243 | 3,326 | 13 | 18 | 13 | - | 1 | - |
| Ark. | - | 2 | - | - | 220 | 588 | 1 | - | - | - | - | - |
| La. | - | - | - | - | 1,023 | 939 | - | - | - | - | - | - |
| Okla. | - | - | - | - | - | 189 | 6 | 17 | 13 | - | 1 | - |
| Tex. | - | - | - | - | - | 1,610 | 6 | 1 | - | - | - | - |
| MOUNTAIN | - | 3 | - | - | 361 | 572 | 130 | 22 | 16 | 2 | 4 | 4 |
| Mont. | - | - | - | - | 10 | 10 | - | 2 | - | - | 2 | - |
| Idaho | - | - | - | - | 4 | 5 | 15 | 3 | 5 | - | - | - |
| Wyo. | - | - | - | - | 2 | 3 | - | 1 | 2 | - | - | - |
| Colo. | - | 2 | - | - | 160 | 242 | 5 | - | 2 | 1 | - | - |
| N. Mex. | - | - | - | - | 64 | 47 | 63 | 11 | 3 | 1 | 1 | 4 |
| Ariz. | - | 1 | - | - | 24 | 120 | 38 | 1 | - | - | - | - |
| Utah | - | - | - | - | 22 | 4 | 7 | 2 | 2 | - | - | - |
| Nev. | - | - | - | - | 75 | 141 | 2 | 2 | 2 | - | 1 | - |
| PACIFIC | - | 51 | 6 | - | 1,406 | 2,384 | 351 | 75 | 17 | 8 | 3 | 2 |
| Wash. | - | - | - | - | 178 | 262 | 27 | 4 | 1 | - | 1 | - |
| Oreg. | - | - | - | - | 81 | 93 | 11 | 1 | - | - | - | - |
| Calif. | - | 41 | 5 | - | 1,055 | 1,967 | 301 | 65 | 13 | 8 | 2 | 2 |
| Alaska | - | 1 | 1 | - | 40 | 35 | 8 | - | - | - | - | - |
| Hawaii | - | 9 | - | - | 52 | 27 | 4 | 5 | 3 | - | - | - |
| Guam | - | - | - | - | - | 5 | - | - | - | - | - | - |
| P.R. | - | - | - | - | 27 | 28 | - | - | - | - | - | - |
| V.I. | - | - | - | - | 3 | 8 | - | 1 | - | - | - | - |
| Amer. Samoa | - | - | - | - | 2 | 2 | 2 | - | - | - | - | - |
| C.N.M.I. | - | - | - | - | 4 | 6 | - | - | - | - | - | - |

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly; last update December 31, 1993.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending January 22, 1994, and January 23, 1993 (3rd Week)

| Reporting Area | Measles (Rubeola) | | | | | | Men- gococcal infections | Mumps | | Pertussis | | | Rubella | | |
|----------------|-------------------|------------|--------------|----------------|--------------|--------------|--------------------------------|-------|--------------|-----------|--------------|--------------|---------|--------------|--------------|
| | Malaria | Indigenous | | Imported* | | Total | | 1994 | Cum. 1994 | 1994 | Cum. 1994 | Cum. 1993 | 1994 | Cum. 1994 | Cum. 1993 |
| | Cum. 1994 | 1994 | Cum. 1994 | 1994 | Cum. 1994 | Cum. 1993 | | | | | | | | | |
| UNITED STATES | 22 | 1 | 2 | 1 | 2 | 8 | 146 | 19 | 39 | 19 | 133 | 128 | 1 | 2 | 6 |
| NEW ENGLAND | 4 | - | - | - | - | 3 | 15 | - | 1 | 2 | 6 | 40 | - | - | - |
| Maine | 1 | - | - | - | - | - | 3 | - | - | - | - | 3 | - | - | - |
| N.H. | - | - | - | - | - | - | 1 | - | 1 | - | 2 | 27 | - | - | - |
| Vt. | - | - | - | - | - | - | - | - | - | - | 2 | 8 | - | - | - |
| Mass. | - | - | - | - | - | - | 7 | - | - | - | - | 1 | - | - | - |
| R.I. | 3 | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| Conn. | - | - | - | - | - | 3 | 4 | - | - | 2 | 2 | - | - | - | - |
| MID. ATLANTIC | 1 | - | - | - | - | 1 | 6 | 2 | 4 | 6 | 41 | 24 | - | 1 | 1 |
| Upstate N.Y. | 1 | - | - | - | - | - | 2 | - | - | 5 | 5 | 2 | - | 1 | - |
| N.Y. City | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| N.J. | - | - | - | - | - | 1 | - | - | - | - | - | 14 | - | - | 1 |
| Pa. | - | - | - | - | - | - | 4 | 2 | 4 | 1 | 36 | 8 | - | - | - |
| E.N. CENTRAL | 2 | - | - | - | - | - | 29 | 1 | 7 | 5 | 24 | 39 | - | - | - |
| Ohio | 1 | - | - | - | - | - | 5 | - | - | 2 | 18 | 7 | - | - | - |
| Ind. | - | - | - | - | - | - | 8 | - | - | - | - | 2 | - | - | - |
| Ill. | - | - | - | - | - | - | 9 | - | 3 | - | - | 8 | - | - | - |
| Mich. | 1 | - | - | - | - | - | 7 | 1 | 4 | 3 | 6 | 4 | - | - | - |
| Wis. | - | - | - | - | - | - | - | - | - | - | - | 18 | - | - | - |
| W.N. CENTRAL | 1 | - | - | - | - | - | 7 | - | - | - | 5 | 7 | - | - | 1 |
| Minn. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Iowa | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mo. | - | - | - | - | - | - | 3 | - | - | - | - | 4 | - | - | 1 |
| N. Dak. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| S. Dak. | - | - | - | - | - | - | 1 | - | - | - | - | 1 | - | - | - |
| Nebr. | - | - | - | - | - | - | 1 | - | - | - | - | 1 | - | - | - |
| Kans. | - | - | - | - | - | - | 2 | - | - | - | 5 | - | - | - | - |
| S. ATLANTIC | 5 | - | - | - | - | 2 | 30 | 9 | 11 | - | 22 | 2 | - | - | 1 |
| Del. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Md. | 2 | - | - | - | - | 1 | 2 | - | - | - | 5 | 2 | - | - | - |
| D.C. | 1 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Va. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| W. Va. | - | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - |
| N.C. | 1 | - | - | - | - | - | 6 | 7 | 8 | - | 12 | - | - | - | - |
| S.C. | - | - | - | - | - | - | - | - | 1 | - | 4 | - | - | - | - |
| Ga. | 1 | - | - | - | - | - | 8 | - | - | - | - | - | - | - | - |
| Fla. | - | - | - | - | - | 1 | 12 | 2 | 2 | - | - | - | - | - | - |
| E.S. CENTRAL | - | - | - | - | - | - | 23 | - | - | 1 | 2 | 2 | - | - | - |
| Ky. | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - |
| Tenn. | - | - | - | - | - | - | 2 | - | - | - | - | 1 | - | - | - |
| Ala. | - | - | - | - | - | - | 12 | - | - | 1 | 2 | 1 | - | - | - |
| Miss. | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | - |
| W.S. CENTRAL | - | - | - | 1 | 1 | - | 2 | 7 | 7 | 3 | 4 | 2 | - | - | - |
| Ark. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| La. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Okla. | - | - | - | - | - | - | 1 | 3 | 3 | 3 | 4 | 2 | - | - | - |
| Tex. | - | - | - | 1 [§] | 1 | - | - | 4 | 4 | - | - | - | - | - | - |
| MOUNTAIN | 1 | 1 | 1 | - | - | - | 10 | - | - | - | 1 | 2 | - | - | - |
| Mont. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Idaho | - | 1 | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Wyo. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| Colo. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| N. Mex. | - | - | - | - | - | - | 1 | N | N | - | 1 | - | - | - | - |
| Ariz. | - | - | - | - | - | - | 4 | - | - | - | - | 1 | - | - | - |
| Utah | 1 | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - |
| Nev. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PACIFIC | 8 | - | 1 | - | 1 | 2 | 24 | - | 9 | 2 | 28 | 10 | 1 | 1 | 3 |
| Wash. | - | - | - | - | - | - | 2 | - | 1 | 2 | 5 | - | - | - | - |
| Oreg. | - | - | - | - | - | - | 2 | N | N | - | 1 | - | - | - | 1 |
| Calif. | 4 | - | 1 | - | 1 | 1 | 20 | - | 6 | - | 21 | 7 | 1 | 1 | 1 |
| Alaska | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - |
| Hawaii | 4 | - | - | - | - | 1 | - | - | - | - | 1 | 3 | - | - | 1 |
| Guam | - | U | - | U | - | - | - | U | - | U | - | - | U | - | - |
| P.R. | - | - | - | - | - | 26 | - | - | - | - | - | - | - | - | - |
| V.I. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| C.N.M.I. | 1 | U | 9 | U | - | - | - | U | - | U | - | - | U | - | - |

*For measles only, imported cases include both out-of-state and international importations.

N: Not notifiable

U: Unavailable

† International

§ Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending January 22, 1994, and January 23, 1993 (3rd Week)

| Reporting Area | Syphilis (Primary & Secondary) | | Toxic-Shock Syndrome | Tuberculosis | | Tula- remia | Typhoid Fever | Typhus Fever (Tick-borne) (RMSF) | Rabies, Animal |
|----------------|-----------------------------------|--------------|-------------------------|--------------|--------------|----------------|------------------|--|-------------------|
| | Cum. 1994 | Cum. 1993 | Cum. 1994 | Cum. 1994 | Cum. 1993 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 |
| UNITED STATES | 837 | 1,562 | 10 | 840 | 709 | - | 11 | 5 | 178 |
| NEW ENGLAND | 12 | 38 | - | 7 | 9 | - | 2 | - | 69 |
| Maine | - | - | - | - | 2 | - | - | - | - |
| N.H. | - | 1 | - | - | - | - | - | - | 7 |
| Vt. | - | - | - | - | - | - | - | - | 2 |
| Mass. | 3 | 25 | - | - | 1 | - | 2 | - | 34 |
| R.I. | - | 1 | - | - | - | - | - | - | - |
| Conn. | 9 | 11 | - | 7 | 6 | - | - | - | 26 |
| MID. ATLANTIC | 52 | 118 | 2 | 21 | 77 | - | - | - | 32 |
| Upstate N.Y. | - | 5 | 2 | - | 4 | - | - | - | - |
| N.Y. City | 42 | 111 | - | 19 | 52 | - | - | - | - |
| N.J. | - | - | - | - | 10 | - | - | - | 20 |
| Pa. | 10 | 2 | - | 2 | 11 | - | - | - | 12 |
| E.N. CENTRAL | 74 | 235 | 2 | 44 | 67 | - | 2 | - | 2 |
| Ohio | 18 | 66 | 1 | 8 | 12 | - | - | - | - |
| Ind. | 13 | 9 | - | 4 | 3 | - | 1 | - | - |
| Ill. | 32 | 111 | - | 32 | 49 | - | - | - | - |
| Mich. | 10 | 21 | 1 | - | - | - | 1 | - | - |
| Wis. | 1 | 28 | - | - | 3 | - | - | - | 2 |
| W.N. CENTRAL | 21 | 102 | 4 | 2 | 7 | - | - | - | 7 |
| Minn. | 4 | 2 | - | - | - | - | - | - | - |
| Iowa | 2 | 4 | 4 | - | - | - | - | - | 4 |
| Mo. | 15 | 95 | - | - | 5 | - | - | - | - |
| N. Dak. | - | - | - | - | - | - | - | - | - |
| S. Dak. | - | - | - | - | - | - | - | - | - |
| Nebr. | - | 1 | - | - | - | - | - | - | - |
| Kans. | - | - | - | 2 | 2 | - | - | - | 3 |
| S. ATLANTIC | 293 | 371 | - | 92 | 82 | - | 1 | 4 | 51 |
| Del. | - | 7 | - | - | 1 | - | - | - | 1 |
| Md. | 2 | 19 | - | 9 | 11 | - | - | - | 7 |
| D.C. | 8 | 5 | - | 9 | 6 | - | - | - | - |
| Va. | 40 | 33 | - | - | - | - | - | - | 18 |
| W. Va. | - | - | - | - | 4 | - | - | - | - |
| N.C. | 111 | 99 | - | - | - | - | - | 4 | 6 |
| S.C. | 38 | 62 | - | 15 | 20 | - | - | - | 3 |
| Ga. | 52 | 70 | - | 59 | 40 | - | - | - | 16 |
| Fla. | 42 | 76 | - | - | - | - | 1 | - | - |
| E.S. CENTRAL | 232 | 227 | - | 16 | 30 | - | - | 1 | 5 |
| Ky. | 9 | 25 | - | - | 8 | - | - | - | - |
| Tenn. | 46 | 49 | - | - | - | - | - | - | - |
| Ala. | 57 | 77 | - | 16 | 13 | - | - | - | 5 |
| Miss. | 120 | 76 | - | - | 9 | - | - | 1 | - |
| W.S. CENTRAL | 141 | 351 | - | 21 | 1 | - | - | - | 2 |
| Ark. | 28 | 49 | - | 21 | - | - | - | - | 1 |
| La. | 113 | 126 | - | - | - | - | - | - | - |
| Okla. | - | 37 | - | - | 1 | - | - | - | 1 |
| Tex. | - | 139 | - | - | - | - | - | - | - |
| MOUNTAIN | 12 | 5 | - | 29 | 7 | - | 2 | - | 5 |
| Mont. | - | - | - | - | - | - | - | - | - |
| Idaho | - | - | - | 1 | - | - | - | - | - |
| Wyo. | - | - | - | 1 | - | - | - | - | - |
| Colo. | 7 | 3 | - | - | - | - | 1 | - | - |
| N. Mex. | - | - | - | 4 | - | - | - | - | - |
| Ariz. | 3 | 2 | - | 17 | 7 | - | - | - | 5 |
| Utah | 2 | - | - | - | - | - | 1 | - | - |
| Nev. | - | - | - | 6 | - | - | - | - | - |
| PACIFIC | - | 115 | 2 | 608 | 429 | - | 4 | - | 5 |
| Wash. | - | 4 | - | 6 | 9 | - | - | - | - |
| Oreg. | - | 4 | - | 6 | 3 | - | - | - | - |
| Calif. | - | 106 | 2 | 588 | 400 | - | 4 | - | 1 |
| Alaska | - | - | - | - | 1 | - | - | - | 4 |
| Hawaii | - | 1 | - | 8 | 16 | - | - | - | - |
| Guam | - | - | - | - | 1 | - | - | - | - |
| P.R. | 13 | 36 | - | - | - | - | - | - | - |
| V.I. | 1 | 3 | - | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | 1 | - | - |
| C.N.M.I. | - | - | - | 6 | - | - | - | - | - |

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending
January 22, 1994 (3rd Week)

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I [†] Total | Reporting Area | All Causes, By Age (Years) | | | | | | P&I [†] Total |
|---------------------|----------------------------|-------|-------|-------|------|----|---------------------------|-----------------------|----------------------------|-------|-------|-------|------|-----|---------------------------|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | | | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 668 | 477 | 116 | 49 | 9 | 17 | 72 | S. ATLANTIC | 1,210 | 806 | 229 | 126 | 23 | 25 | 114 |
| Boston, Mass. | 174 | 109 | 33 | 21 | 2 | 9 | 23 | Atlanta, Ga. | 162 | 96 | 37 | 23 | 2 | 4 | 6 |
| Bridgeport, Conn. | 34 | 24 | 7 | 2 | - | 1 | 2 | Baltimore, Md. | 157 | 91 | 35 | 26 | 5 | - | 22 |
| Cambridge, Mass. | 26 | 22 | 3 | 1 | - | - | 3 | Charlotte, N.C. | 106 | 68 | 21 | 10 | 2 | 5 | 11 |
| Fall River, Mass. | 38 | 35 | 2 | 1 | - | - | 3 | Jacksonville, Fla. | 185 | 132 | 31 | 16 | 4 | 2 | 21 |
| Hartford, Conn. | 56 | 41 | 8 | 4 | 2 | 1 | 4 | Miami, Fla. | 73 | 39 | 15 | 12 | 3 | 3 | - |
| Lowell, Mass. | 35 | 24 | 8 | 2 | 1 | - | 3 | Norfolk, Va. | 56 | 36 | 9 | 3 | 2 | 6 | 7 |
| Lynn, Mass. | 17 | 12 | 3 | 2 | - | - | - | Richmond, Va. | 78 | 52 | 12 | 10 | 1 | 3 | 6 |
| New Bedford, Mass. | 24 | 18 | 3 | 3 | - | - | 3 | Savannah, Ga. | 59 | 41 | 9 | 7 | 1 | 1 | 10 |
| New Haven, Conn. | 49 | 31 | 11 | 4 | 1 | 2 | 5 | St. Petersburg, Fla. | 59 | 42 | 13 | 3 | 1 | - | 5 |
| Providence, R.I. | 40 | 34 | 5 | 1 | - | - | 3 | Tampa, Fla. | 235 | 174 | 43 | 15 | 2 | 1 | 26 |
| Somerville, Mass. | 5 | 3 | 2 | - | - | - | - | Washington, D.C. | U | U | U | U | U | U | U |
| Springfield, Mass. | 56 | 41 | 10 | 2 | 1 | 2 | 7 | Wilmington, Del. | 40 | 35 | 4 | 1 | - | - | - |
| Waterbury, Conn. | 39 | 30 | 6 | 2 | 1 | - | 3 | E.S. CENTRAL | 1,054 | 736 | 200 | 67 | 31 | 20 | 89 |
| Worcester, Mass. | 75 | 53 | 15 | 4 | 1 | 2 | 13 | Birmingham, Ala. | 207 | 132 | 49 | 11 | 6 | 9 | 10 |
| MID. ATLANTIC | 2,444 | 1,651 | 442 | 255 | 65 | 31 | 144 | Chattanooga, Tenn. | 104 | 93 | 4 | 2 | 4 | 1 | 13 |
| Albany, N.Y. | 49 | 38 | 3 | 5 | 2 | 1 | 4 | Knoxville, Tenn. | 124 | 88 | 24 | 9 | 2 | 1 | 13 |
| Allentown, Pa. | 28 | 20 | 7 | 1 | - | - | 2 | Lexington, Ky. | U | U | U | U | U | U | U |
| Buffalo, N.Y. | 115 | 83 | 25 | 3 | 3 | 1 | 6 | Memphis, Tenn. | 287 | 190 | 63 | 22 | 10 | 2 | 34 |
| Camden, N.J. | 46 | 35 | 6 | 4 | 1 | - | 5 | Mobile, Ala. | 96 | 61 | 18 | 12 | 3 | 2 | 5 |
| Elizabeth, N.J. | 14 | 12 | 1 | - | 1 | - | 4 | Montgomery, Ala. | 113 | 84 | 18 | 5 | 3 | 3 | 2 |
| Erie, Pa.§ | 45 | 36 | 7 | 2 | - | - | 6 | Nashville, Tenn. | 123 | 88 | 24 | 6 | 3 | 2 | 12 |
| Jersey City, N.J. | 53 | 34 | 11 | 7 | - | 1 | 1 | W.S. CENTRAL | 1,836 | 1,236 | 342 | 161 | 61 | 36 | 184 |
| New York City, N.Y. | 1,380 | 888 | 255 | 181 | 38 | 18 | 62 | Austin, Tex. | 84 | 57 | 19 | 8 | - | - | 15 |
| Newark, N.J. | 44 | 21 | 12 | 6 | 2 | 3 | - | Baton Rouge, La. | 33 | 25 | 5 | 2 | 1 | - | 3 |
| Paterson, N.J. | 32 | 17 | 5 | 6 | 4 | - | - | Corpus Christi, Tex. | 68 | 47 | 14 | 4 | 2 | 1 | 11 |
| Philadelphia, Pa. | 196 | 124 | 40 | 23 | 8 | 1 | 15 | Dallas, Tex. | 280 | 181 | 50 | 35 | 8 | 6 | 15 |
| Pittsburgh, Pa.§ | 54 | 41 | 11 | 1 | 1 | - | 6 | El Paso, Tex. | 84 | 51 | 17 | 9 | 1 | 6 | 19 |
| Reading, Pa. | 7 | 6 | 1 | - | - | - | 2 | Ft. Worth, Tex. | 91 | 65 | 14 | 6 | 5 | 1 | 8 |
| Rochester, N.Y. | 147 | 116 | 19 | 7 | 3 | 2 | 17 | Houston, Tex. | 515 | 343 | 92 | 50 | 22 | 8 | 52 |
| Schenectady, N.Y. | 39 | 25 | 13 | 1 | - | - | - | Little Rock, Ark. | 78 | 47 | 23 | 6 | 1 | 1 | 6 |
| Scranton, Pa.§ | U | U | U | U | U | U | U | New Orleans, La. | 76 | 41 | 12 | 12 | 4 | 7 | - |
| Syracuse, N.Y. | 76 | 61 | 11 | 2 | 1 | 1 | 9 | San Antonio, Tex. | 314 | 224 | 52 | 21 | 13 | 4 | 28 |
| Trenton, N.J. | 50 | 38 | 8 | 2 | - | 2 | 1 | Shreveport, La. | 72 | 50 | 16 | 5 | 1 | - | 12 |
| Utica, N.Y. | 25 | 22 | 1 | 2 | - | - | - | Tulsa, Okla. | 141 | 105 | 28 | 3 | 3 | 2 | 15 |
| Yonkers, N.Y. | 44 | 34 | 6 | 2 | 1 | 1 | 4 | MOUNTAIN | 971 | 695 | 166 | 72 | 23 | 15 | 103 |
| E.N. CENTRAL | 2,361 | 1,570 | 407 | 218 | 109 | 57 | 218 | Albuquerque, N.M. | 102 | 66 | 19 | 13 | 3 | 1 | 6 |
| Akron, Ohio | 76 | 61 | 8 | 5 | 1 | 1 | - | Colo. Springs, Colo. | 50 | 40 | 9 | 1 | - | - | 8 |
| Canton, Ohio | 48 | 38 | 6 | 3 | - | 1 | 5 | Denver, Colo. | 110 | 81 | 14 | 8 | 4 | 3 | 8 |
| Chicago, Ill. | 519 | 209 | 101 | 113 | 70 | 26 | 43 | Las Vegas, Nev. | 225 | 147 | 55 | 18 | 5 | - | 21 |
| Cincinnati, Ohio | 138 | 98 | 24 | 9 | 4 | 3 | 25 | Ogden, Utah | 19 | 12 | 5 | 1 | 1 | - | 1 |
| Cleveland, Ohio | 146 | 102 | 26 | 11 | 5 | 2 | 10 | Phoenix, Ariz. | 222 | 167 | 30 | 15 | 2 | 8 | 30 |
| Columbus, Ohio | 201 | 140 | 39 | 12 | 5 | 5 | 17 | Pueblo, Colo. | 14 | 12 | 2 | - | - | - | 2 |
| Dayton, Ohio | 137 | 110 | 20 | 5 | 2 | - | 17 | Salt Lake City, Utah | 96 | 65 | 15 | 7 | 7 | 2 | 12 |
| Detroit, Mich. | 247 | 162 | 45 | 23 | 12 | 5 | 10 | Tucson, Ariz. | 133 | 105 | 17 | 9 | 1 | 1 | 15 |
| Evansville, Ind. | 40 | 31 | 6 | 2 | - | 1 | - | PACIFIC | 2,103 | 1,508 | 304 | 195 | 44 | 46 | 249 |
| Fort Wayne, Ind. | 80 | 61 | 12 | 4 | 1 | 2 | 7 | Berkeley, Calif. | 22 | 20 | 1 | 1 | - | - | 4 |
| Gary, Ind. | 19 | 12 | 3 | 4 | - | 2 | 2 | Fresno, Calif. | 155 | 111 | 18 | 13 | 4 | 9 | 30 |
| Grand Rapids, Mich. | 76 | 52 | 17 | 4 | 1 | 2 | 9 | Glendale, Calif. | 23 | 22 | 1 | - | - | - | 2 |
| Indianapolis, Ind. | 77 | 58 | 14 | 4 | 1 | - | 5 | Honolulu, Hawaii | 77 | 58 | 13 | 5 | - | 1 | 9 |
| Madison, Wis. | 32 | 20 | 7 | 1 | 2 | 2 | 3 | Long Beach, Calif. | 86 | 62 | 9 | 9 | 3 | 3 | 10 |
| Milwaukee, Wis. | 141 | 108 | 27 | 5 | - | 1 | 18 | Los Angeles, Calif. | 390 | 263 | 58 | 49 | 11 | 4 | 21 |
| Peoria, Ill. | 33 | 22 | 10 | - | 1 | - | 5 | Pasadena, Calif. | 34 | 28 | 2 | 3 | 1 | - | 4 |
| Rockford, Ill. | 63 | 47 | 10 | 3 | 2 | 1 | 13 | Portland, Ore. | 195 | 142 | 32 | 13 | 1 | 7 | 25 |
| South Bend, Ind. | 59 | 46 | 6 | 4 | 1 | 2 | 4 | Sacramento, Calif. | 213 | 150 | 33 | 21 | 7 | 2 | 34 |
| Toledo, Ohio | 152 | 127 | 16 | 5 | 1 | 3 | 20 | San Diego, Calif. | 156 | 108 | 32 | 11 | 2 | 3 | 23 |
| Youngstown, Ohio | 77 | 66 | 10 | 1 | - | - | 5 | San Francisco, Calif. | 165 | 104 | 27 | 28 | 2 | 3 | 8 |
| W.N. CENTRAL | 966 | 732 | 154 | 41 | 18 | 21 | 81 | San Jose, Calif. | 210 | 162 | 32 | 10 | 3 | 3 | 36 |
| Des Moines, Iowa | 83 | 64 | 15 | 1 | 2 | 1 | 8 | Santa Cruz, Calif. | 42 | 37 | 2 | 2 | 1 | - | 8 |
| Duluth, Minn. | 42 | 37 | 3 | 2 | - | - | 2 | Seattle, Wash. | 179 | 126 | 21 | 22 | 5 | 5 | 13 |
| Kansas City, Kans. | 40 | 28 | 3 | 4 | 1 | 4 | 2 | Spokane, Wash. | 67 | 46 | 12 | 2 | 3 | 4 | 10 |
| Kansas City, Mo. | 143 | 106 | 26 | 6 | 4 | 1 | 10 | Tacoma, Wash. | 89 | 69 | 11 | 6 | 1 | 2 | 12 |
| Lincoln, Nebr. | 56 | 41 | 11 | 2 | 1 | 1 | 5 | TOTAL | 13,613 [†] | 9,411 | 2,360 | 1,184 | 383 | 268 | 1,254 |
| Minneapolis, Minn. | 192 | 149 | 25 | 9 | 2 | 7 | 23 | | | | | | | | |
| Omaha, Nebr. | 118 | 83 | 23 | 6 | 4 | 2 | 7 | | | | | | | | |
| St. Louis, Mo. | 137 | 101 | 22 | 6 | 3 | 5 | 9 | | | | | | | | |
| St. Paul, Minn. | 66 | 55 | 8 | 3 | - | - | 8 | | | | | | | | |
| Wichita, Kans. | 89 | 68 | 18 | 2 | 1 | - | 7 | | | | | | | | |

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

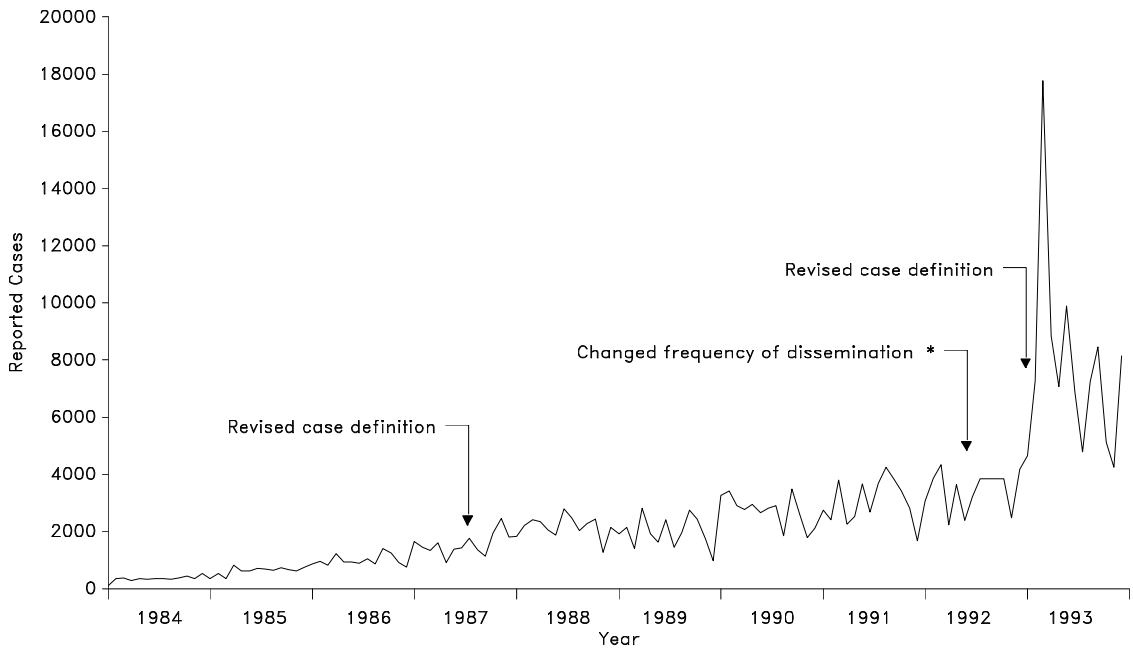
[†]Pneumonia and influenza.

[‡]Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

[§]Total includes unknown ages.

U: Unavailable.

FIGURE II. Acquired immunodeficiency syndrome cases, by 4-week period of report — United States, 1984–1993



* Change to reflect Notice to Readers, Vol. 41, No. 18, pg. 325.

FIGURE III. Tuberculosis cases, by 4-week period of report — United States, 1984–1993

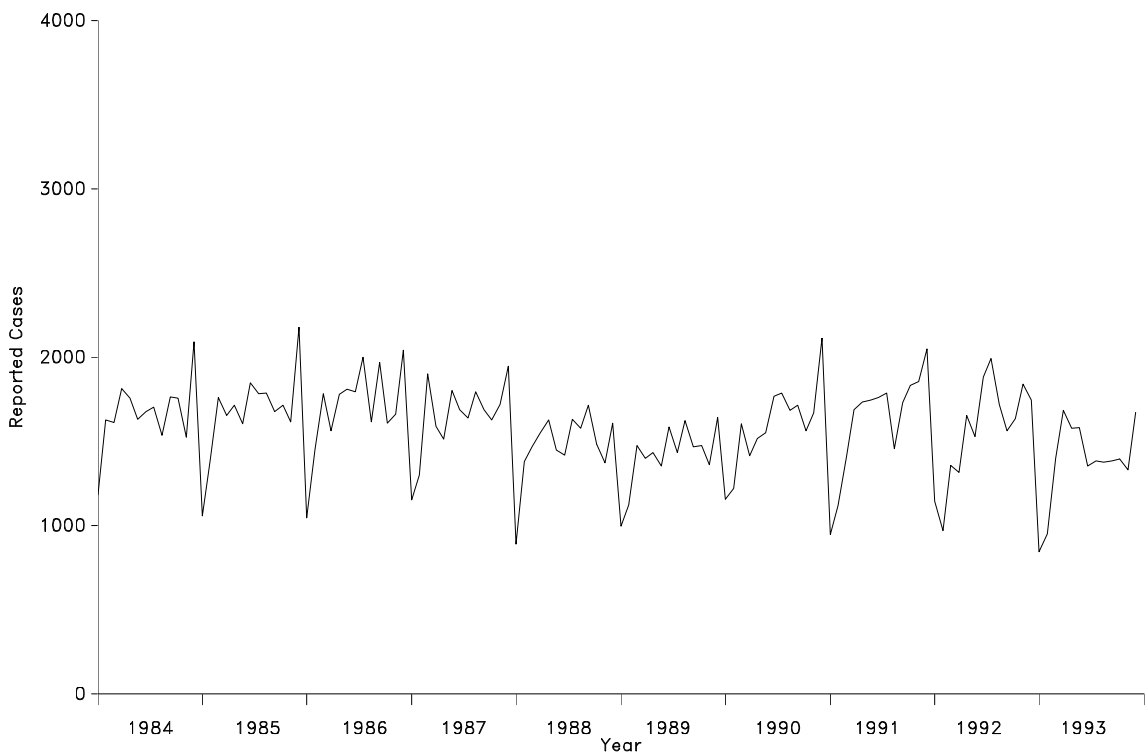


FIGURE IV. Gonorrhea cases, by 4-week period of report — United States, 1984–1993

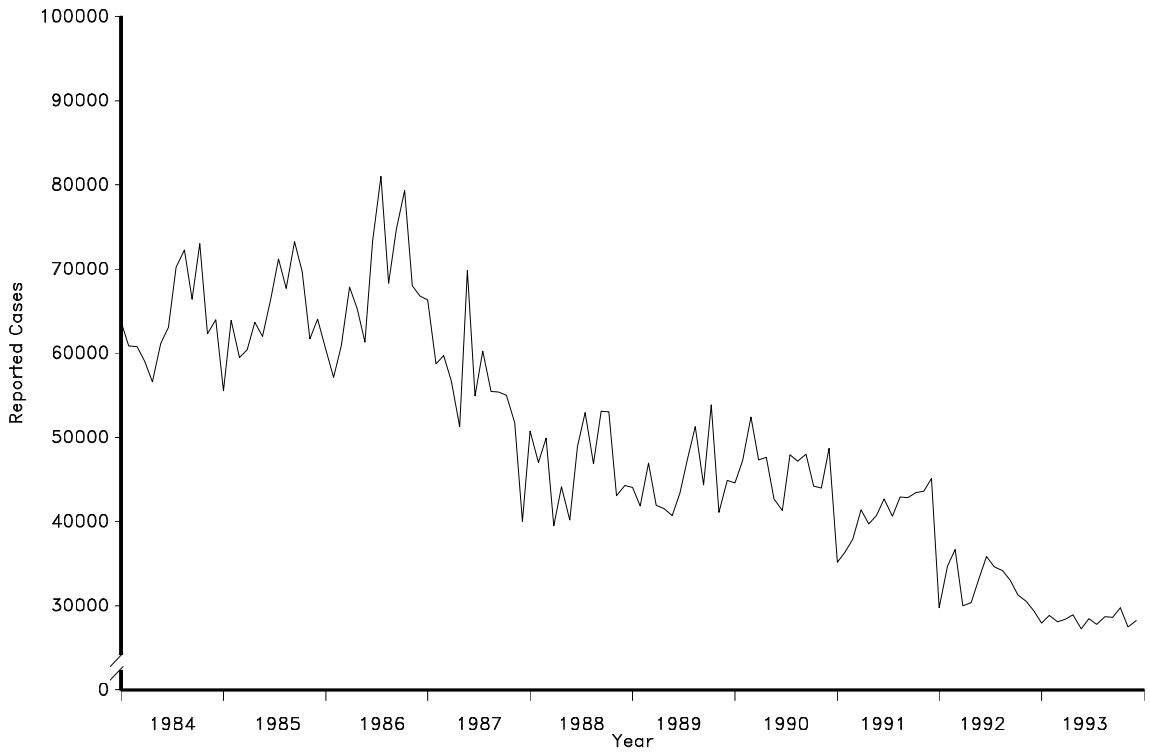
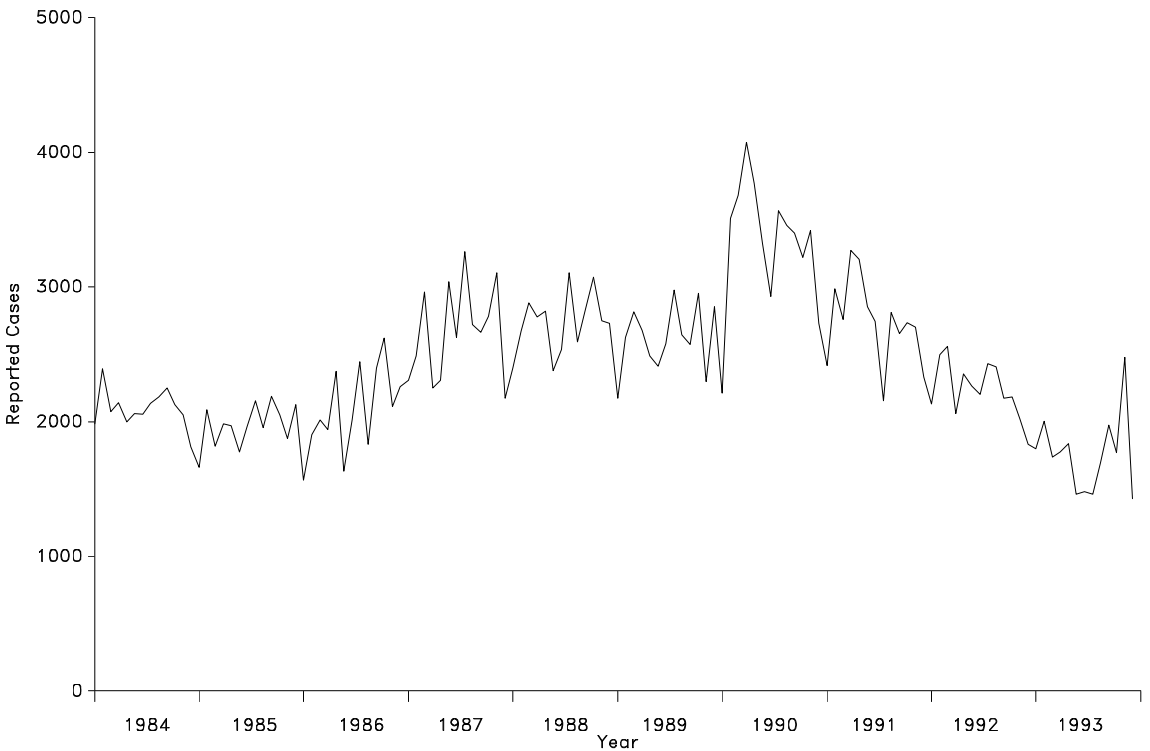


FIGURE V. Syphilis cases, by 4-week period of report — United States, 1984–1993



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