MORTALITY REPORT

Printed and distributed by the Massachusetts Medical Society, publishers of *The New England Journal of Medicine*

July 14, 1989 / Vol. 38 / No. 27



*Perspectives in Disease Prevention and Health Promotion*

## Behavioral Risk Factor Surveillance – Selected States, 1987

Results from the 1987 Behavioral Risk Factor Surveillance System (BRFSS) indicated substantial variations in risk behaviors associated with cardiovascular disease, in drinking and driving behaviors, and in the use of recommended preventive health services among 32 states and the District of Columbia.

Health departments participating in the BRFSS use standard questionnaires and methods to conduct monthly random digit-dialed telephone interviews of adults ≥18 years of age (*1*). The results are representative of the adult population of each participating state.

The prevalence of three risk factors related to cardiovascular disease—being overweight,* smoking, and having a sedentary lifestyle—varied widely by state. The prevalence of cigarette smoking ranged from 15.0% in Utah to 32.3% in Kentucky (median = 25.2%), and that of sedentary lifestyle ranged from 47.2% in Montana to 73.5% in New York (median = 59.0%) (Table 1).

Risk factors related to drinking and driving accounted for the greatest variation by state (Table 2). Binge drinking varied more than fourfold, from 6.6% in New Mexico to 29.4% in Wisconsin (median = 15.3%); heavier drinking, from 3.7% in West Virginia to 10.3% in New Hampshire (median = 5.6%); and drinking and driving, from 1.3% in Kentucky to 8.3% in Wisconsin (median = 3.3%). The nonuse of seatbelts varied most (tenfold), from 7.0% in Hawaii to 72.2% in South Dakota (median = 42.1%).

In 1987, data on the use of two preventive health services—cholesterol screening and mammography—were collected in the BRFSS for the first time. The proportion of respondents who had ever had their cholesterol level determined varied nearly twofold, from 29.3% in New Mexico to 56.8% in Maryland (median = 46.6%) (Table 3). Among women ≥40 years of age, the proportion who had ever had a mammogram also varied twofold, from 28.6% in New Mexico to 57.5% in New Hampshire (median = 44.2%). Among all persons ≥65 years of age, the proportion who had received an influenza vaccination within the preceding 12 months ranged from 24.0% in Rhode Island to 41.3% in Montana (median = 34.3%).

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*The 1987 BRFSS findings concerning the prevalence of being overweight were recently reported in the *MMWR* (vol. 38, no. 24, dated June 23, 1989).

*Behavioral Risk Factor Surveillance — Continued*

**TABLE 1. State-specific prevalences of current smokers and sedentary lifestyle — Behavioral Risk Factor Surveillance System, 1987**

| State | Sample size | Current smokers* (%) | Current smokers* 95% CI§ | Sedentary lifestyle† (%) | Sedentary lifestyle† 95% CI |
|---|---|---|---|---|---|
| Alabama | 1182 | (27.2) | ±3.0 | (59.0) | ±3.0 |
| Arizona | 1179 | (26.2) | ±2.9 | (57.4) | ±3.1 |
| California | 1793 | (21.3) | ±2.2 | (53.2) | ±2.7 |
| District of Columbia | 1120 | (24.2) | ±2.9 | (63.5) | ±3.2 |
| Florida | 1238 | (28.0) | ±3.0 | (59.1) | ±3.1 |
| Georgia | 1332 | (25.0) | ±2.6 | (64.2) | ±3.0 |
| Hawaii | 1863 | (22.5) | ±2.5 | (51.1) | ±3.0 |
| Idaho | 1786 | (20.5) | ±2.2 | (55.1) | ±2.8 |
| Illinois | 1763 | (25.8) | ±2.3 | (57.4) | ±2.7 |
| Indiana | 2091 | (28.7) | ±2.1 | (59.8) | ±2.4 |
| Kentucky | 1789 | (32.3) | ±2.5 | (69.6) | ±2.6 |
| Maine | 1226 | (27.7) | ±2.7 | (58.9) | ±3.2 |
| Maryland | 1050 | (24.8) | ±3.0 | (60.2) | ±3.5 |
| Massachusetts | 1423 | (26.4) | ±2.6 | (56.3) | ±2.9 |
| Minnesota | 3235 | (24.3) | ±1.6 | (56.6) | ±1.9 |
| Missouri | 1357 | (29.2) | ±2.7 | (62.2) | ±3.0 |
| Montana | 1186 | (22.3) | ±2.6 | (47.2) | ±3.3 |
| Nebraska | 1180 | (24.0) | ±2.8 | (59.9) | ±3.2 |
| New Hampshire | 1199 | (26.7) | ±2.6 | (56.7) | ±3.1 |
| New Mexico | 1161 | (20.9) | ±2.6 | (57.0) | ±3.4 |
| New York | 1171 | (23.2) | ±2.8 | (73.5) | ±2.9 |
| North Carolina | 1765 | (26.1) | ±2.5 | (61.3) | ±2.7 |
| North Dakota | 1613 | (23.7) | ±2.3 | (61.3) | ±2.6 |
| Ohio | 1490 | (26.8) | ±2.6 | (67.1) | ±2.7 |
| Rhode Island | 1787 | (24.3) | ±2.2 | (68.7) | ±2.5 |
| South Carolina | 1784 | (25.3) | ±2.2 | (60.5) | ±2.5 |
| South Dakota | 1185 | (25.2) | ±2.7 | (58.1) | ±3.1 |
| Tennessee | 2385 | (27.7) | ±2.0 | (66.5) | ±2.1 |
| Texas | 1181 | (23.0) | ±2.7 | (56.0) | ±3.2 |
| Utah | 1427 | (15.0) | ±2.1 | (49.9) | ±3.1 |
| Washington | 1172 | (23.7) | ±2.7 | (47.4) | ±3.1 |
| West Virginia | 1628 | (28.8) | ±2.5 | (64.2) | ±2.7 |
| Wisconsin | 1341 | (26.0) | ±2.5 | (54.0) | ±2.9 |
| Median prevalences | | 25.2 | | 59.0 | |

*Has smoked 100 cigarettes and currently smokes.
†Persons reporting <20 minutes of leisure-time physical activity three times per week.
§Confidence interval.

*Behavioral Risk Factor Surveillance — Continued*

**TABLE 2. State-specific prevalences of alcohol- and driving-related risk factors — Behavioral Risk Factor Surveillance System, 1987**

| State | Sample size | Binge drinking* (%) | Binge drinking* 95% CI** | Heavier drinking† (%) | Heavier drinking† 95% CI | Drinking and driving§ (%) | Drinking and driving§ 95% CI | Seatbelt nonuse¶ (%) | Seatbelt nonuse¶ 95% CI |
|---|---|---|---|---|---|---|---|---|---|
| Alabama | 1182 | (12.5) | ±2.3 | ( 5.6) | ±1.6 | (2.6) | ±1.2 | (55.8) | ±3.3 |
| Arizona | 1179 | (17.6) | ±2.6 | ( 8.0) | ±1.8 | (3.5) | ±1.2 | (43.9) | ±3.4 |
| California | 1793 | (17.8) | ±2.1 | ( 8.9) | ±1.7 | (3.9) | ±1.0 | (19.1) | ±2.2 |
| District of Columbia | 1120 | ( 9.0) | ±2.0 | ( 4.7) | ±1.4 | (1.8) | ±0.8 | (14.2) | ±2.3 |
| Florida | 1238 | (15.3) | ±2.4 | ( 7.0) | ±1.7 | (3.3) | ±1.2 | (18.0) | ±2.4 |
| Georgia | 1332 | (10.6) | ±2.1 | ( 4.4) | ±1.3 | (2.2) | ±0.9 | (53.0) | ±3.1 |
| Hawaii | 1863 | (23.3) | ±2.6 | ( 9.2) | ±1.7 | (3.5) | ±1.0 | ( 7.0) | ±1.5 |
| Idaho | 1786 | (15.3) | ±2.1 | ( 5.0) | ±1.2 | (2.4) | ±0.9 | (42.1) | ±2.7 |
| Illinois | 1763 | (14.1) | ±2.0 | ( 6.5) | ±1.3 | (3.9) | ±1.1 | (37.8) | ±2.6 |
| Indiana | 2091 | (13.2) | ±1.7 | ( 3.8) | ±0.9 | (2.4) | ±0.8 | (42.3) | ±2.7 |
| Kentucky | 1789 | ( 8.1) | ±1.5 | ( 4.2) | ±1.0 | (1.3) | ±0.6 | (60.2) | ±2.6 |
| Maine | 1226 | (13.6) | ±2.2 | ( 7.4) | ±1.7 | (1.7) | ±0.9 | (55.3) | ±3.2 |
| Maryland | 1050 | (14.1) | ±2.7 | ( 8.4) | ±2.1 | (2.8) | ±1.2 | (21.8) | ±3.3 |
| Massachusetts | 1423 | (20.6) | ±2.4 | ( 8.8) | ±1.8 | (4.2) | ±1.3 | (45.4) | ±3.0 |
| Minnesota | 3235 | (22.2) | ±1.7 | ( 6.7) | ±1.0 | (6.2) | ±1.0 | (36.5) | ±1.9 |
| Missouri | 1357 | (17.9) | ±2.3 | ( 6.1) | ±1.5 | (4.2) | ±1.3 | (37.7) | ±3.0 |
| Montana | 1186 | (22.7) | ±3.0 | ( 4.5) | ±1.4 | (6.4) | ±1.9 | (49.7) | ±3.3 |
| Nebraska | 1180 | (19.4) | ±2.8 | ( 5.1) | ±1.6 | (6.6) | ±1.9 | (49.6) | ±3.2 |
| New Hampshire | 1199 | (20.2) | ±2.6 | (10.3) | ±2.0 | (4.9) | ±1.4 | (52.5) | ±3.1 |
| New Mexico | 1161 | ( 6.6) | ±1.7 | ( 3.9) | ±1.3 | (2.0) | ±1.0 | (17.8) | ±2.9 |
| New York | 1171 | (13.2) | ±2.4 | ( 5.2) | ±1.6 | (2.2) | ±1.2 | (21.7) | ±2.8 |
| North Carolina | 1765 | (11.5) | ±2.0 | ( 4.4) | ±1.2 | (1.7) | ±0.8 | (13.9) | ±1.9 |
| North Dakota | 1613 | (22.6) | ±2.3 | ( 4.3) | ±1.2 | (5.6) | ±1.3 | (69.1) | ±2.5 |
| Ohio | 1490 | (17.0) | ±2.1 | ( 6.3) | ±1.4 | (3.6) | ±1.1 | (27.1) | ±2.6 |
| Rhode Island | 1787 | ( 7.7) | ±1.5 | ( 6.9) | ±1.4 | (1.7) | ±0.7 | (52.6) | ±2.7 |
| South Carolina | 1784 | (11.9) | ±1.7 | ( 5.6) | ±1.2 | (3.5) | ±0.9 | (52.4) | ±2.6 |
| South Dakota | 1185 | (20.6) | ±2.0 | ( 4.2) | ±1.4 | (5.7) | ±1.7 | (72.2) | ±3.0 |
| Tennessee | 2385 | (10.2) | ±1.4 | ( 4.1) | ±1.0 | (2.6) | ±0.8 | (33.8) | ±2.2 |
| Texas | 1181 | (21.9) | ±2.7 | ( 6.9) | ±1.7 | (6.1) | ±1.6 | (16.5) | ±2.4 |
| Utah | 1427 | (11.0) | ±2.0 | ( 4.3) | ±1.3 | (2.1) | ±1.0 | (39.2) | ±3.0 |
| Washington | 1172 | (17.3) | ±2.4 | ( 6.1) | ±1.5 | (2.8) | ±1.0 | (17.0) | ±2.3 |
| West Virginia | 1628 | (13.2) | ±2.2 | ( 3.7) | ±1.2 | (2.2) | ±0.9 | (59.3) | ±2.8 |
| Wisconsin | 1341 | (29.4) | ±2.7 | ( 9.7) | ±1.7 | (8.3) | ±1.6 | (54.0) | ±2.9 |
| Median prevalences | | 15.3 | | 5.6 | | 3.3 | | 42.1 | |

*Consumed ≥5 drinks on a single occasion in the last month.
†Consumes ≥60 drinks per month.
§Has driven after having "too much to drink" at least once in the last month.
¶Sometimes, seldom, or never wears seatbelts.
**Confidence interval.

*Behavioral Risk Factor Surveillance — Continued*

**TABLE 3. State-specific prevalences of preventive services — Behavioral Risk Factor Surveillance System, 1987**

| State | Sample size | Cholesterol ever checked (%) | 95% CI† | Ever had mammogram (ages ≥40) (%) | 95% CI | Influenza vaccine (ages ≥65)* (%) | 95% CI |
|---|---|---|---|---|---|---|---|
| Alabama | 1182 | (41.9) | ±3.1 | (41.0) | ±5.0 | (34.2) | ±6.8 |
| Arizona | 1179 | (47.0) | ±3.3 | (46.0) | ±5.6 | (36.9) | ±6.6 |
| California | 1793 | (49.9) | ±2.6 | (53.2) | ±4.9 | (28.2) | ±5.8 |
| District of Columbia | 1120 | (55.4) | ±3.5 | (53.2) | ±6.0 | (24.6) | ±7.5 |
| Florida | 1238 | (50.9) | ±3.3 | (45.8) | ±5.3 | (29.7) | ±5.6 |
| Georgia | 1332 | (43.3) | ±3.0 | (41.9) | ±5.3 | (34.5) | ±6.2 |
| Hawaii | 1863 | (46.8) | ±3.0 | (46.9) | ±5.5 | (34.3) | ±7.2 |
| Idaho | 1786 | (41.5) | ±2.6 | (44.9) | ±4.1 | (36.1) | ±5.1 |
| Illinois | 1763 | (44.4) | ±2.6 | (45.5) | ±4.6 | (30.3) | ±5.6 |
| Indiana | 2091 | (40.8) | ±2.5 | (35.3) | ±4.0 | (27.3) | ±4.7 |
| Kentucky | 1789 | (43.1) | ±2.6 | (35.5) | ±4.0 | (34.4) | ±4.9 |
| Maine | 1226 | (47.3) | ±3.1 | (42.6) | ±4.9 | (31.0) | ±5.8 |
| Maryland | 1050 | (56.8) | ±3.5 | (48.6) | ±5.8 | (28.0) | ±6.8 |
| Massachusetts | 1423 | (46.6) | ±2.9 | (51.0) | ±5.1 | (31.6) | ±6.4 |
| Minnesota | 3235 | (47.5) | ±1.9 | (52.5) | ±3.5 | (34.3) | ±4.0 |
| Missouri | 1357 | (43.7) | ±2.9 | (41.4) | ±5.0 | (36.6) | ±6.0 |
| Montana | 1186 | (50.1) | ±3.2 | (41.0) | ±5.3 | (41.3) | ±6.2 |
| Nebraska | 1180 | (43.5) | ±3.2 | (34.6) | ±5.2 | (39.6) | ±6.4 |
| New Hampshire | 1199 | (48.9) | ±3.2 | (57.5) | ±5.5 | (38.0) | ±8.0 |
| New Mexico | 1161 | (29.3) | ±3.0 | (28.6) | ±5.8 | (36.7) | ±7.6 |
| New York | 1171 | (32.6) | ±3.0 | (46.4) | ±5.9 | (27.6) | ±6.6 |
| North Carolina | 1765 | (48.6) | ±2.7 | (45.3) | ±4.4 | (33.2) | ±5.2 |
| North Dakota | 1613 | (48.5) | ±2.7 | (38.6) | ±4.9 | (29.0) | ±4.9 |
| Ohio | 1490 | (46.8) | ±2.8 | (40.4) | ±5.2 | (39.9) | ±6.0 |
| Rhode Island | 1787 | (41.4) | ±2.8 | (49.9) | ±4.5 | (24.0) | ±4.5 |
| South Carolina | 1784 | (46.6) | ±2.6 | (42.2) | ±4.7 | (31.0) | ±5.9 |
| South Dakota | 1185 | (46.1) | ±3.2 | (43.9) | ±5.2 | (35.8) | ±6.4 |
| Tennessee | 2385 | (46.5) | ±2.3 | (37.5) | ±3.6 | (37.0) | ±5.0 |
| Texas | 1181 | (45.7) | ±3.3 | (42.3) | ±6.0 | (34.1) | ±7.1 |
| Utah | 1427 | (41.4) | ±3.0 | (44.3) | ±5.7 | (37.1) | ±6.6 |
| Washington | 1172 | (53.2) | ±3.1 | (49.9) | ±5.7 | (38.3) | ±7.0 |
| West Virginia | 1628 | (48.4) | ±2.9 | (37.0) | ±4.6 | (37.9) | ±5.6 |
| Wisconsin | 1341 | (46.4) | ±2.9 | (51.6) | ±5.5 | (39.3) | ±6.5 |
| Median prevalences | | 46.6 | | 44.2 | | 34.3 | |

*Had an influenza vaccination in the preceding year.
†Confidence interval.

*Behavioral Risk Factor Surveillance — Continued*

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**Editorial Note:** Data from the BRFSS have consistently shown that self-reported risk factors vary widely among respondents in reporting states (*2–4*). These variations emphasize the importance of state-specific data in measuring progress toward the 1990 (*5*) and year 2000 objectives for the nation and in setting appropriate health objectives at the state level. For example, in 1987 the prevalence of smoking in Utah was 15.0%, considerably less than the 1990 objective for the nation (25%). In contrast, it seems unlikely that states with high prevalences of smoking (e.g., Kentucky [1987 smoking prevalence = 32.3%]) will achieve this objective by the year 1990.

Self-reported alcohol consumption is an important indicator of risk for injury (*6*), and BRFSS estimates of drinking and driving and of binge drinking have correlated highly with rates of alcohol-related motor vehicle crashes at the state level (*7*). BRFSS estimates of drinking and driving and of binge drinking declined in 10 states between 1982 and 1985, suggesting that some progress had been made in reducing these health risks (*8*). BRFSS estimates of self-reported seatbelt use also have correlated with observed use in 15 states (*9*). Thus, the trends in seatbelt use may be useful in assessing the effectiveness of mandatory seatbelt legislation.

Prevalence estimates for cholesterol screening and for the use of mammography are similar to those from other surveys. In 1986, the results of a cholesterol awareness survey coordinated by the National Heart, Lung, and Blood Institute and the Food and Drug Administration indicated that 46% of adults have had their cholesterol level determined (*10*), similar to the 1987 BRFSS median value (46.6%). In addition, a 1986 Gallup poll estimated that 43% of women ≥40 years of age had ever had a mammogram (*11*), compared with the 1987 BRFSS median of 44.2%.

BRFSS data on cholesterol screening and mammography can be used to monitor changes in the delivery of these important preventive services in the states. For example, in 1987 the proportion of women ≥50 years of age who reported having had a screening mammogram in the preceding 12 months increased substantially (*12*); however, this trend varied considerably among the states (*13*).

The BRFSS will continue to provide state-specific data about health behaviors and the utilization of preventive health services that can reduce the burden of chronic diseases in the United States. These data will be used in assessing state-specific progress toward the 1990 and year 2000 objectives for the nation. In the absence of national objectives for specific behaviors, state public health agencies may wish to use BRFSS methods to set appropriate objectives and to monitor trends in these behaviors.

*References*

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2. CDC. Behavioral risk factor surveillance—selected states, 1984. MMWR 1986;35:253–4.
3. CDC. Behavioral risk factor surveillance in selected states—1985. MMWR 1986;35:441–4.

References 4–13 may be obtained from the Office of Surveillance and Analysis, CCDPHP, Mailstop F05, Centers for Disease Control, Atlanta, GA 30333.

## Occupational and Environmental Lead Poisoning Associated with Battery Repair Shops — Jamaica

In August 1987, Jamaican public health officials learned that 19 (86%) of 22 recently hospitalized children with lead poisoning in Kingston lived near small automobile-battery repair shops. Nine of these children had acute encephalopathy and seizures, and four were treated for recurrent symptoms of lead toxicity between January 1986 and March 1987. Because of the large number of severe cases and the unusual suspected exposure, the Jamaican Ministry of Health requested assistance from CDC in October 1987 to assess the prevalence and causes of excessive lead absorption among workers and household members exposed to battery repair shops.

At least 50 shops repair or rebuild car batteries in Jamaica; approximately 30 are located in Kingston. These shops typically employ one or two workers and share a yard with one or more residences. For evaluation of worksite exposures, 11 shops in Kingston were chosen for a survey (one shop was no longer in business, but the residential area was included in the study). For evaluation of exposure to airborne

*(Continued on page 479)*

**TABLE I. Summary — cases of specified notifiable diseases, United States**

| Disease | 27th Week Ending | | | Cumulative, 27th Week Ending | | |
|---|---|---|---|---|---|---|
| | July 8, 1989 | July 9, 1988 | Median 1984-1988 | July 9, 1989 | July 8, 1988 | Median 1984-1988 |
| Acquired Immunodeficiency Syndrome (AIDS) | 86 | U* | 152 | 16,995 | 15,734 | 6,380 |
| Aseptic meningitis | 128 | 122 | 171 | 2,442 | 2,396 | 2,396 |
| Encephalitis: Primary (arthropod-borne & unspec) | 12 | 31 | 24 | 308 | 385 | 436 |
| Post-infectious | - | 4 | 3 | 46 | 63 | 65 |
| Gonorrhea: Civilian | 9,372 | 13,095 | 13,945 | 331,567 | 344,927 | 412,794 |
| Military | 300 | 331 | 331 | 5,674 | 6,279 | 8,476 |
| Hepatitis: Type A | 471 | 532 | 394 | 17,308 | 12,755 | 11,356 |
| Type B | 369 | 460 | 458 | 11,335 | 11,446 | 12,859 |
| Non A, Non B | 27 | 52 | 60 | 1,196 | 1,372 | 1,848 |
| Unspecified | 34 | 45 | 85 | 1,290 | 1,107 | 2,443 |
| Legionellosis | 15 | 21 | 17 | 432 | 480 | 347 |
| Leprosy | 4 | - | 3 | 79 | 91 | 122 |
| Malaria | 18 | 18 | 28 | 552 | 391 | 427 |
| Measles: Total† | 75 | 57 | 104 | 7,563 | 1,586 | 1,907 |
| Indigenous | 73 | 55 | 100 | 7,215 | 1,418 | 1,704 |
| Imported | 2 | 2 | 4 | 348 | 168 | 220 |
| Meningococcal infections | 44 | 41 | 27 | 1,652 | 1,808 | 1,699 |
| Mumps | 58 | 62 | 62 | 3,065 | 3,041 | 2,550 |
| Pertussis | 38 | 41 | 43 | 1,117 | 1,168 | 1,050 |
| Rubella (German measles) | 15 | 1 | 7 | 228 | 121 | 327 |
| Syphilis (Primary & Secondary): Civilian | 617 | 671 | 423 | 20,398 | 19,547 | 14,388 |
| Military | 12 | 2 | 2 | 137 | 91 | 94 |
| Toxic Shock syndrome | 2 | 8 | 8 | 189 | 168 | 180 |
| Tuberculosis | 355 | 442 | 377 | 10,652 | 10,365 | 10,642 |
| Tularemia | 4 | 6 | 8 | 51 | 90 | 82 |
| Typhoid Fever | 5 | 6 | 5 | 218 | 183 | 163 |
| Typhus fever, tick-borne (RMSF) | 13 | 22 | 32 | 200 | 215 | 266 |
| Rabies, animal | 55 | 69 | 82 | 2,368 | 2,166 | 2,631 |

**TABLE II. Notifiable diseases of low frequency, United States**

| | Cum. 1989 | | Cum. 1989 |
|---|---|---|---|
| Anthrax | - | Leptospirosis (Hawaii 1) | 57 |
| Botulism: Foodborne (Ore. 1, Alaska 1) | 14 | Plague | 1 |
| Infant | 7 | Poliomyelitis, Paralytic | - |
| Other | 5 | Psittacosis | 50 |
| Brucellosis (Va. 2) | 41 | Rabies, human | 1 |
| Cholera | - | Tetanus (N.C. 1) | 27 |
| Congenital rubella syndrome | 1 | Trichinosis | 13 |
| Congenital syphilis, ages < 1 year | 78 | | |
| Diphtheria | - | | |

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†One of the 75 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

## TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 8, 1989 and July 9, 1988 (27th Week)

| Reporting Area | AIDS | Aseptic Menin-gitis | Encephalitis | | Gonorrhea (Civilian) | | Hepatitis (Viral), by type | | | | Legionel-losis | Leprosy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Primary | Post-in-fectious | | | A | B | NA,NB | Unspeci-fied | | |
| | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1988 | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1989 |
| UNITED STATES | 16,995 | 2,442 | 308 | 46 | 331,567 | 344,927 | 17,308 | 11,335 | 1,196 | 1,290 | 432 | 79 |
| NEW ENGLAND | 715 | 115 | 10 | 2 | 9,476 | 10,175 | 370 | 573 | 50 | 54 | 32 | 5 |
| Maine | 33 | 7 | 4 | - | 141 | 211 | 8 | 21 | 3 | 1 | 5 | - |
| N.H. | 27 | 12 | - | - | 73 | 137 | 35 | 32 | 8 | 4 | - | - |
| Vt. | 8 | 7 | 1 | - | 36 | 76 | 25 | 41 | 5 | - | - | - |
| Mass. | 379 | 37 | 3 | 2 | 3,611 | 3,460 | 110 | 342 | 23 | 37 | 20 | 3 |
| R.I. | 38 | 26 | - | - | 683 | 950 | 23 | 43 | 3 | 3 | 7 | 1 |
| Conn. | 230 | 26 | 2 | - | 4,932 | 5,341 | 169 | 94 | 8 | 9 | - | 1 |
| MID. ATLANTIC | 4,972 | 269 | 47 | 5 | 44,230 | 55,030 | 2,119 | 1,750 | 100 | 175 | 104 | 10 |
| Upstate N.Y. | 558 | 118 | 14 | 4 | 7,783 | 6,659 | 512 | 358 | 44 | 6 | 34 | 1 |
| N.Y. City | 2,568 | 49 | 2 | 1 | 20,647 | 25,403 | 185 | 685 | 20 | 147 | 11 | 7 |
| N.J. | 1,239 | - | 31 | - | 7,163 | 7,743 | 222 | 297 | 11 | 5 | 19 | 1 |
| Pa. | 607 | 102 | - | - | 8,637 | 15,225 | 1,200 | 410 | 25 | 17 | 40 | 1 |
| E.N. CENTRAL | 1,388 | 333 | 87 | 2 | 56,796 | 54,838 | 935 | 1,318 | 122 | 48 | 113 | 3 |
| Ohio | 257 | 77 | 20 | 1 | 15,637 | 12,742 | 214 | 298 | 22 | 10 | 65 | - |
| Ind. | 242 | 60 | 21 | - | 4,631 | 4,400 | 73 | 222 | 19 | 16 | 17 | 1 |
| Ill. | 571 | 68 | 20 | 1 | 18,131 | 15,932 | 437 | 351 | 35 | 13 | 10 | 2 |
| Mich. | 250 | 118 | 21 | - | 15,811 | 17,013 | 164 | 350 | 34 | 9 | 17 | - |
| Wis. | 68 | 10 | 5 | - | 2,586 | 4,751 | 47 | 97 | 12 | - | 4 | - |
| W.N. CENTRAL | 393 | 103 | 13 | 2 | 15,729 | 13,911 | 574 | 494 | 51 | 12 | 19 | 1 |
| Minn. | 86 | 5 | - | 1 | 1,611 | 1,913 | 57 | 55 | 10 | 3 | 2 | - |
| Iowa | 34 | 19 | 3 | - | 1,317 | 1,071 | 46 | 22 | 9 | - | 4 | - |
| Mo. | 180 | 35 | - | - | 9,327 | 7,814 | 330 | 343 | 19 | 5 | 6 | - |
| N. Dak. | 3 | 4 | 1 | - | 68 | 95 | 4 | 16 | 3 | - | 1 | - |
| S. Dak. | 4 | 6 | 3 | - | 139 | 282 | 5 | 6 | 4 | - | - | - |
| Nebr. | 15 | 6 | 2 | - | 873 | 760 | 53 | 14 | - | 2 | 2 | 1 |
| Kans. | 71 | 28 | 4 | 1 | 2,394 | 1,976 | 79 | 38 | 6 | 2 | 4 | - |
| S. ATLANTIC | 3,453 | 499 | 48 | 17 | 94,192 | 97,503 | 1,494 | 2,218 | 175 | 188 | 61 | - |
| Del. | 55 | 13 | 1 | - | 1,522 | 1,430 | 25 | 77 | 3 | 2 | 6 | - |
| Md. | 325 | 61 | 11 | 2 | 10,305 | 10,059 | 381 | 381 | 18 | 20 | 14 | - |
| D.C. | 291 | 6 | - | - | 6,204 | 7,220 | 2 | 15 | 2 | - | - | - |
| Va. | 235 | 75 | 22 | - | 7,809 | 6,825 | 171 | 151 | 30 | 122 | 3 | - |
| W. Va. | 25 | 6 | 7 | - | 691 | 706 | 10 | 46 | 3 | 3 | - | - |
| N.C. | 277 | 64 | 2 | 1 | 13,872 | 13,717 | 243 | 531 | 51 | - | 19 | - |
| S.C. | 161 | 11 | - | - | 8,564 | 7,304 | 28 | 306 | 3 | 7 | 3 | - |
| Ga. | 534 | 45 | 1 | - | 18,106 | 18,779 | 170 | 234 | 9 | 6 | 7 | - |
| Fla. | 1,550 | 218 | 4 | 14 | 27,119 | 31,463 | 464 | 477 | 56 | 28 | 9 | - |
| E.S. CENTRAL | 390 | 243 | 17 | 1 | 27,411 | 26,703 | 209 | 818 | 91 | 3 | 17 | - |
| Ky. | 63 | 63 | 6 | 1 | 2,602 | 2,603 | 64 | 222 | 27 | 2 | 3 | - |
| Tenn. | 129 | 36 | - | - | 9,103 | 8,911 | 83 | 433 | 20 | - | 9 | - |
| Ala. | 112 | 102 | 11 | - | 8,654 | 8,463 | 41 | 112 | 40 | 1 | 5 | - |
| Miss. | 86 | 42 | - | - | 7,052 | 6,726 | 21 | 51 | 4 | - | - | - |
| W.S. CENTRAL | 1,581 | 295 | 34 | 2 | 35,913 | 38,975 | 2,049 | 1,146 | 81 | 306 | 24 | 13 |
| Ark. | 47 | 8 | - | - | 3,672 | 3,787 | 117 | 38 | 4 | 3 | 1 | - |
| La. | 252 | 18 | 6 | - | 7,364 | 8,066 | 153 | 197 | 9 | 1 | 4 | - |
| Okla. | 91 | 29 | 8 | - | 3,046 | 3,487 | 204 | 100 | 17 | 17 | 15 | - |
| Tex. | 1,191 | 240 | 20 | 2 | 21,831 | 23,635 | 1,575 | 811 | 51 | 285 | 4 | 13 |
| MOUNTAIN | 520 | 90 | 7 | 2 | 7,296 | 7,529 | 2,381 | 692 | 125 | 92 | 24 | 1 |
| Mont. | 10 | 3 | - | - | 104 | 239 | 29 | 25 | 2 | 2 | 2 | 1 |
| Idaho | 14 | - | - | 1 | 100 | 203 | 86 | 56 | 8 | 2 | - | - |
| Wyo. | 11 | 2 | - | - | 50 | 126 | 21 | 4 | 2 | - | - | - |
| Colo. | 169 | 41 | 1 | 1 | 1,568 | 1,795 | 309 | 102 | 41 | 37 | 2 | - |
| N. Mex. | 40 | 6 | 1 | - | 727 | 676 | 322 | 101 | 25 | 2 | 2 | - |
| Ariz. | 146 | 27 | 2 | - | 2,710 | 2,612 | 1,185 | 230 | 25 | 41 | 9 | - |
| Utah | 38 | 9 | 1 | - | 222 | 299 | 215 | 56 | 13 | 4 | 6 | - |
| Nev. | 92 | 2 | 2 | - | 1,815 | 1,579 | 214 | 118 | 9 | 4 | 3 | - |
| PACIFIC | 3,583 | 495 | 45 | 13 | 40,524 | 40,263 | 7,177 | 2,326 | 401 | 412 | 38 | 46 |
| Wash. | 309 | - | 2 | 1 | 3,106 | 3,547 | 1,654 | 487 | 115 | 27 | 9 | 4 |
| Oreg. | 138 | - | - | - | 1,538 | 1,614 | 1,265 | 256 | 44 | 8 | 1 | 1 |
| Calif. | 3,068 | 466 | 38 | 12 | 35,136 | 34,192 | 3,708 | 1,507 | 233 | 370 | 25 | 37 |
| Alaska | 5 | 5 | 4 | - | 486 | 558 | 437 | 31 | 5 | 3 | 1 | - |
| Hawaii | 63 | 24 | 1 | - | 258 | 352 | 113 | 45 | 4 | 4 | 2 | 4 |
| Guam | 1 | - | - | - | - | 83 | - | - | - | - | - | - |
| P.R. | 783 | 56 | 2 | 1 | 572 | 758 | 91 | 121 | 11 | 12 | - | 8 |
| V.I. | 22 | - | - | - | 353 | 208 | - | 4 | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | 50 | - | - | - | - | - | - |
| C.N.M.I. | - | - | - | - | - | 33 | - | - | - | - | - | - |

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

## TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 8, 1989 and July 9, 1988 (27th Week)

| Reporting Area | Malaria | Measles (Rubeola) | | | | | Menin-gococcal Infections | Mumps | | Pertussis | | | Rubella | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Indigenous | | Imported* | | Total | | | | | | | | | |
| | Cum. 1989 | 1989 | Cum. 1989 | 1989 | Cum. 1989 | Cum. 1988 | Cum. 1989 | 1989 | Cum. 1989 | 1989 | Cum. 1989 | Cum. 1988 | 1989 | Cum. 1989 | Cum 1988 |
| UNITED STATES | 552 | 73 | 7,215 | 2 | 348 | 1,586 | 1,652 | 58 | 3,065 | 38 | 1,117 | 1,168 | 15 | 228 | 121 |
| NEW ENGLAND | 33 | - | 215 | - | 21 | 105 | 118 | - | 35 | 3 | 226 | 148 | 1 | 6 | 1 |
| Maine | - | - | - | - | - | 7 | 13 | - | - | - | 4 | 11 | - | - | - |
| N.H. | 2 | - | 8 | - | - | 87 | 15 | - | 10 | - | 5 | 29 | 1 | 4 | - |
| Vt. | 1 | - | 1 | - | - | - | 6 | - | - | - | 6 | 2 | - | 1 | - |
| Mass. | 20 | - | 24 | - | 16 | 1 | 57 | - | 18 | 3 | 194 | 95 | - | 1 | - |
| R.I. | 5 | - | 38 | - | 3 | - | 1 | - | - | - | 8 | 2 | - | - | 1 |
| Conn. | 5 | - | 144 | - | 2 | 10 | 26 | - | 7 | - | 9 | 9 | - | - | - |
| MID. ATLANTIC | 93 | - | 458 | 1 | 155 | 533 | 239 | 2 | 173 | 2 | 64 | 55 | 2 | 12 | 11 |
| Upstate N.Y. | 17 | - | 40 | 1§ | 94 | 17 | 80 | 2 | 106 | 2 | 35 | 34 | 2 | 4 | 2 |
| N.Y. City | 31 | - | 46 | - | 14 | 37 | 29 | - | 16 | - | 2 | 1 | - | 8 | 6 |
| N.J. | 23 | - | 272 | - | - | 14 | 53 | - | 11 | - | 14 | 4 | - | - | 1 |
| Pa. | 22 | U | 100 | U | 47 | 465 | 77 | U | 40 | U | 13 | 16 | U | - | 2 |
| E.N. CENTRAL | 37 | 1 | 1,259 | - | 43 | 160 | 196 | 2 | 245 | 1 | 40 | 144 | - | 18 | 22 |
| Ohio | 7 | - | 626 | - | 35 | 23 | 76 | - | 8 | - | 1 | 25 | - | 3 | - |
| Ind. | 5 | U | 33 | U | - | 50 | 22 | U | 18 | U | 8 | 50 | U | - | - |
| Ill. | 16 | - | 592 | - | - | 68 | 58 | - | 104 | - | - | 21 | - | 13 | 18 |
| Mich. | 7 | 1 | 8 | - | 6 | 18 | 33 | 2 | 101 | 1 | 24 | 19 | - | 1 | 4 |
| Wis. | 2 | - | - | - | 2 | 1 | 7 | - | 14 | - | 7 | 29 | - | 1 | - |
| W.N. CENTRAL | 16 | - | 456 | - | 4 | 11 | 52 | 1 | 350 | 2 | 36 | 59 | - | 4 | - |
| Minn. | 6 | - | - | - | - | 10 | 10 | - | 1 | - | 7 | 16 | - | - | - |
| Iowa | 2 | - | 4 | - | 1 | - | 2 | 1 | 22 | 1 | 11 | 16 | - | - | - |
| Mo. | 4 | - | 237 | - | - | 1 | 19 | - | 47 | - | 15 | 11 | - | 3 | - |
| N. Dak. | 1 | - | - | - | - | - | - | - | - | - | - | 10 | - | - | - |
| S. Dak. | 1 | - | - | - | - | - | 5 | - | - | - | 1 | 2 | - | - | - |
| Nebr. | 1 | - | 108 | - | 2 | - | 11 | - | 5 | 1 | 1 | - | - | - | - |
| Kans. | 1 | - | 107 | - | 1 | - | 5 | - | 275 | - | 1 | 4 | - | 1 | - |
| S. ATLANTIC | 93 | - | 376 | 1 | 27 | 250 | 275 | 3 | 533 | 4 | 89 | 118 | - | 7 | 14 |
| Del. | 3 | - | 58 | - | 1 | - | 2 | - | 1 | - | 1 | 3 | - | - | - |
| Md. | 17 | - | 35 | - | 15 | 7 | 46 | - | 321 | 1 | 10 | 22 | - | 2 | - |
| D.C. | 4 | - | 7 | - | 3 | - | 13 | 2 | 77 | - | - | - | - | - | - |
| Va. | 16 | - | 18 | - | 3 | 141 | 28 | - | 65 | - | 6 | 16 | - | - | 11 |
| W. Va. | 2 | - | 28 | - | - | 6 | 10 | - | 9 | 1 | 12 | 3 | - | - | - |
| N.C. | 11 | - | 167 | - | - | 1 | 39 | 1 | 17 | 2 | 20 | 33 | - | 1 | - |
| S.C. | 3 | - | - | - | - | - | 15 | - | 17 | - | - | - | - | - | - |
| Ga. | 6 | - | - | - | - | - | 52 | - | 7 | - | 10 | 19 | - | - | - |
| Fla. | 31 | - | 63 | 1† | 5 | 95 | 70 | - | 19 | - | 30 | 22 | - | 4 | 3 |
| E.S. CENTRAL | 6 | 1 | 111 | - | - | 61 | 50 | - | 98 | 5 | 44 | 21 | - | 2 | - |
| Ky. | - | - | 10 | - | - | 32 | 30 | - | 9 | - | 1 | - | - | - | - |
| Tenn. | - | - | 57 | - | - | - | 3 | - | 28 | - | 9 | 12 | - | 2 | - |
| Ala. | 4 | 1 | 44 | - | - | - | 14 | - | 13 | 5 | 32 | 7 | - | - | - |
| Miss. | 2 | - | - | - | - | 29 | 3 | N | N | - | 2 | 2 | - | - | - |
| W.S. CENTRAL | 25 | 2 | 2,842 | - | 38 | 14 | 112 | 24 | 1,165 | 1 | 75 | 68 | - | 23 | 6 |
| Ark. | - | - | - | - | 2 | 1 | 6 | 4 | 118 | - | 11 | 7 | - | 1 | 2 |
| La. | 1 | - | 6 | - | - | - | 26 | 9 | 450 | - | 5 | 10 | - | 5 | - |
| Okla. | 4 | 2 | 108 | - | - | 8 | 13 | - | 165 | 1 | 14 | 24 | - | 1 | 1 |
| Tex. | 20 | - | 2,728 | - | 36 | 5 | 67 | 11 | 432 | - | 45 | 27 | - | 16 | 3 |
| MOUNTAIN | 16 | 56 | 249 | - | 19 | 116 | 44 | 1 | 112 | 5 | 378 | 338 | - | 31 | 5 |
| Mont. | 1 | - | 12 | - | 1 | 1 | 1 | - | 2 | - | 10 | 1 | - | 1 | - |
| Idaho | 2 | - | - | - | 2 | 1 | 2 | - | 9 | 4 | 48 | 248 | - | 28 | - |
| Wyo. | 1 | - | - | - | - | - | - | - | 7 | - | - | 1 | - | 1 | - |
| Colo. | 2 | 2 | 59 | - | 1 | 114 | 18 | 1 | 16 | - | 19 | 13 | - | - | 1 |
| N. Mex. | 1 | - | 16 | - | 15 | - | - | N | N | - | 6 | 6 | - | - | - |
| Ariz. | 6 | - | 72 | - | - | - | 19 | - | 71 | - | 285 | 46 | - | - | - |
| Utah | - | 54 | 90 | - | - | - | 4 | - | 3 | 1 | 9 | 22 | - | - | 3 |
| Nev. | 3 | - | - | - | - | - | - | - | 4 | - | 1 | 1 | - | 1 | 1 |
| PACIFIC | 233 | 13 | 1,249 | - | 41 | 336 | 566 | 25 | 354 | 15 | 165 | 217 | 12 | 125 | 62 |
| Wash. | 16 | - | 20 | - | 12 | 2 | 58 | - | 24 | 14 | 48 | 45 | - | - | - |
| Oreg. | 11 | - | - | - | 12 | 3 | 39 | N | N | - | 6 | 9 | - | 2 | - |
| Calif. | 199 | 13 | 1,213 | - | 12 | 324 | 464 | 25 | 319 | 1 | 107 | 116 | 11 | 101 | 48 |
| Alaska | 3 | - | - | - | - | - | 4 | - | 1 | - | - | 6 | - | - | - |
| Hawaii | 4 | - | 16 | - | 5 | 7 | 1 | - | 10 | - | 4 | 41 | 1 | 22 | 14 |
| Guam | - | U | - | U | - | 1 | - | U | - | U | - | - | U | - | 1 |
| P.R. | 1 | - | 410 | - | - | 189 | 4 | 1 | 9 | - | 3 | 8 | - | 6 | 1 |
| V.I. | - | - | 4 | - | - | - | - | - | 11 | - | - | - | - | - | - |
| Amer. Samoa | - | U | - | U | - | - | - | U | - | U | - | - | U | - | - |
| C.N.M.I. | - | U | - | U | - | - | - | U | - | U | - | - | U | - | - |

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

## TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 8, 1989 and July 9, 1988 (27th Week)

| Reporting Area | Syphilis (Civilian) (Primary & Secondary) | | Toxic-shock Syndrome | Tuberculosis | | Tula-remia | Typhoid Fever | Typhus Fever (Tick-borne) (RMSF) | Rabies, Animal |
|---|---|---|---|---|---|---|---|---|---|
| | Cum. 1989 | Cum. 1988 | Cum. 1989 | Cum. 1989 | Cum. 1988 | Cum. 1989 | Cum. 1989 | Cum. 1989 | Cum. 1989 |
| UNITED STATES | 20,398 | 19,547 | 189 | 10,652 | 10,365 | 51 | 218 | 200 | 2,368 |
| NEW ENGLAND | 849 | 531 | 7 | 273 | 253 | - | 15 | 3 | 3 |
| Maine | 5 | 5 | 3 | 3 | 16 | - | - | - | 1 |
| N.H. | 3 | 6 | - | 16 | 6 | - | - | - | - |
| Vt. | - | 2 | - | 4 | 2 | - | - | - | - |
| Mass. | 261 | 209 | 1 | 142 | 148 | - | 7 | 1 | 1 |
| R.I. | 15 | 16 | - | 33 | 21 | - | 5 | 1 | - |
| Conn. | 565 | 293 | 3 | 75 | 60 | - | 3 | 1 | 1 |
| MID. ATLANTIC | 3,825 | 3,912 | 29 | 2,018 | 1,970 | 2 | 56 | 14 | 301 |
| Upstate N.Y. | 453 | 264 | 5 | 170 | 272 | 1 | 6 | 5 | 6 |
| N.Y. City | 1,970 | 2,485 | 2 | 1,159 | 978 | - | 38 | 1 | - |
| N.J. | 684 | 450 | 8 | 341 | 361 | - | 8 | 6 | - |
| Pa. | 718 | 713 | 14 | 348 | 359 | 1 | 4 | 2 | 295 |
| E.N. CENTRAL | 824 | 587 | 28 | 1,149 | 1,136 | 3 | 23 | 32 | 57 |
| Ohio | 67 | 60 | 7 | 216 | 219 | - | 4 | 16 | 2 |
| Ind. | 33 | 34 | 5 | 98 | 123 | 1 | 1 | 11 | 2 |
| Ill. | 375 | 281 | 5 | 497 | 470 | - | 14 | 4 | 13 |
| Mich. | 329 | 193 | 11 | 276 | 267 | 1 | 3 | 1 | 6 |
| Wis. | 20 | 19 | - | 62 | 57 | 1 | 1 | - | 34 |
| W.N. CENTRAL | 174 | 117 | 25 | 270 | 273 | 23 | 5 | 33 | 335 |
| Minn. | 16 | 9 | 7 | 53 | 44 | - | 1 | - | 62 |
| Iowa | 21 | 13 | 4 | 28 | 21 | - | 2 | 1 | 110 |
| Mo. | 91 | 70 | 4 | 119 | 133 | 13 | 1 | 31 | 25 |
| N. Dak. | 1 | 2 | - | 9 | 9 | - | - | - | 28 |
| S. Dak. | - | - | 3 | 14 | 21 | 6 | - | 1 | 55 |
| Nebr. | 17 | 17 | 5 | 10 | 9 | - | - | - | 23 |
| Kans. | 28 | 6 | 2 | 37 | 36 | 4 | 1 | - | 32 |
| S. ATLANTIC | 7,538 | 7,064 | 18 | 2,214 | 2,231 | 2 | 20 | 52 | 726 |
| Del. | 85 | 62 | - | 22 | 20 | - | 2 | - | 16 |
| Md. | 388 | 388 | 1 | 186 | 226 | - | 4 | 7 | 202 |
| D.C. | 469 | 336 | 1 | 89 | 94 | - | 2 | - | 2 |
| Va. | 271 | 226 | 4 | 196 | 215 | 2 | 3 | 3 | 145 |
| W. Va. | 9 | 7 | - | 40 | 43 | - | - | 1 | 32 |
| N.C. | 479 | 395 | 5 | 261 | 182 | - | 2 | 23 | 3 |
| S.C. | 390 | 335 | 3 | 248 | 255 | - | - | 9 | 121 |
| Ga. | 1,572 | 1,136 | 3 | 345 | 363 | - | 2 | 7 | 126 |
| Fla. | 3,875 | 4,179 | 1 | 827 | 833 | - | 5 | 2 | 79 |
| E.S. CENTRAL | 1,367 | 1,027 | 3 | 905 | 879 | 4 | 1 | 20 | 214 |
| Ky. | 31 | 36 | 1 | 214 | 217 | 1 | 1 | 6 | 94 |
| Tenn. | 603 | 446 | 1 | 264 | 255 | 2 | - | 12 | 55 |
| Ala. | 421 | 296 | 1 | 253 | 261 | - | - | 2 | 64 |
| Miss. | 312 | 249 | - | 174 | 146 | 1 | - | - | 1 |
| W.S. CENTRAL | 2,850 | 2,227 | 17 | 1,239 | 1,299 | 11 | 8 | 30 | 368 |
| Ark. | 168 | 118 | 1 | 131 | 142 | 5 | - | 7 | 49 |
| La. | 662 | 429 | - | 137 | 159 | - | 1 | - | 3 |
| Okla. | 46 | 83 | 11 | 109 | 124 | 6 | 1 | 22 | 55 |
| Tex. | 1,974 | 1,597 | 5 | 862 | 874 | - | 6 | 1 | 261 |
| MOUNTAIN | 365 | 374 | 24 | 232 | 269 | 3 | 3 | 14 | 119 |
| Mont. | 1 | 2 | - | 8 | 5 | - | - | 10 | 47 |
| Idaho | 1 | - | 2 | 8 | 11 | - | - | - | - |
| Wyo. | 4 | 1 | 2 | - | 1 | - | - | 1 | 34 |
| Colo. | 51 | 62 | 4 | 12 | 42 | 1 | 1 | 3 | 6 |
| N. Mex. | 17 | 25 | 2 | 43 | 48 | - | - | - | 15 |
| Ariz. | 117 | 96 | 9 | 112 | 124 | - | 1 | - | 14 |
| Utah | 11 | 11 | 3 | 24 | 10 | 2 | 1 | - | 2 |
| Nev. | 163 | 177 | 2 | 25 | 28 | - | - | - | 1 |
| PACIFIC | 2,606 | 3,708 | 38 | 2,352 | 2,055 | 3 | 87 | 2 | 245 |
| Wash. | 136 | 117 | 2 | 117 | 117 | - | 5 | - | - |
| Oreg. | 137 | 149 | - | 73 | 75 | 1 | 4 | 1 | - |
| Calif. | 2,323 | 3,414 | 35 | 2,054 | 1,756 | 2 | 76 | 1 | 184 |
| Alaska | 3 | 7 | - | 24 | 22 | - | - | - | 61 |
| Hawaii | 7 | 21 | 1 | 84 | 85 | - | 2 | - | - |
| Guam | - | 3 | - | - | 9 | - | - | - | - |
| P.R. | 290 | 328 | - | 151 | 105 | - | - | - | 32 |
| V.I. | 2 | 1 | - | 4 | 4 | - | - | - | - |
| Amer. Samoa | - | - | - | - | 3 | - | - | - | - |
| C.N.M.I. | - | 1 | - | - | 16 | - | - | - | - |

U: Unavailable

# TABLE IV. Deaths in 121 U.S. cities,* week ending July 8, 1989 (27th Week)

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I** |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | Total |
| NEW ENGLAND | 556 | 382 | 96 | 45 | 16 | 17 | 41 |
| Boston, Mass. | 181 | 115 | 32 | 18 | 9 | 7 | 18 |
| Bridgeport, Conn. | 38 | 28 | 5 | 3 | 1 | 1 | 1 |
| Cambridge, Mass. | 22 | 18 | 2 | 2 | - | - | 1 |
| Fall River, Mass. | 23 | 18 | 3 | 2 | - | - | - |
| Hartford, Conn. | 42 | 23 | 14 | 3 | - | 2 | 1 |
| Lowell, Mass. | 29 | 20 | 6 | 1 | 2 | - | 1 |
| Lynn, Mass. | 15 | 11 | 1 | 3 | - | - | - |
| New Bedford, Mass. | 23 | 17 | 3 | 2 | 1 | - | 2 |
| New Haven, Conn. | 48 | 34 | 10 | 3 | - | 1 | 8 |
| Providence, R.I. | 26 | 20 | 3 | - | 2 | 1 | - |
| Somerville, Mass. | 2 | 2 | - | - | - | - | - |
| Springfield, Mass.§ | 39 | 27 | 9 | 2 | - | 1 | 4 |
| Waterbury, Conn. | 25 | 19 | 4 | 1 | - | 1 | 2 |
| Worcester, Mass. | 43 | 30 | 4 | 5 | 1 | 3 | 3 |
| MID. ATLANTIC | 2,318 | 1,523 | 434 | 256 | 57 | 48 | 115 |
| Albany, N.Y. | 40 | 30 | 8 | 1 | 1 | - | 3 |
| Allentown, Pa. | 13 | 10 | 2 | 1 | - | - | - |
| Buffalo, N.Y. | 100 | 79 | 13 | 1 | 4 | 3 | 6 |
| Camden, N.J. | 28 | 16 | 8 | 1 | 3 | - | - |
| Elizabeth, N.J. | 18 | 13 | 3 | 2 | - | - | 2 |
| Erie, Pa.† | 41 | 26 | 10 | 3 | - | 2 | 3 |
| Jersey City, N.J. | 38 | 25 | 8 | 2 | - | 3 | 1 |
| N.Y. City, N.Y. | 1,364 | 869 | 256 | 186 | 39 | 14 | 42 |
| Newark, N.J. | 84 | 38 | 19 | 19 | 4 | 4 | 7 |
| Paterson, N.J. | 27 | 17 | 5 | 5 | - | - | 2 |
| Philadelphia, Pa. | 193 | 115 | 47 | 19 | - | 12 | 13 |
| Pittsburgh, Pa.† | 34 | 25 | 8 | - | - | 1 | 1 |
| Reading, Pa. | 33 | 30 | 2 | - | - | 1 | 4 |
| Rochester, N.Y. | 141 | 107 | 20 | 6 | 5 | 3 | 15 |
| Schenectady, N.Y. | 19 | 18 | 1 | - | - | - | 4 |
| Scranton, Pa.† | 27 | 23 | 2 | 2 | - | - | 4 |
| Syracuse, N.Y. | 46 | 28 | 9 | 5 | 1 | 3 | 3 |
| Trenton, N.J. | 27 | 21 | 2 | 2 | - | 2 | 3 |
| Utica, N.Y. | 20 | 14 | 6 | - | - | - | - |
| Yonkers, N.Y.§ | 25 | 19 | 5 | 1 | - | - | 2 |
| E.N. CENTRAL | 1,928 | 1,248 | 415 | 143 | 46 | 75 | 81 |
| Akron, Ohio | 29 | 16 | 8 | 3 | - | 2 | - |
| Canton, Ohio | 47 | 35 | 7 | 3 | - | 2 | 5 |
| Chicago, Ill.§ | 564 | 362 | 125 | 45 | 10 | 22 | 16 |
| Cincinnati, Ohio | 102 | 63 | 27 | 6 | 4 | 2 | 4 |
| Cleveland, Ohio | 100 | 65 | 25 | 4 | 2 | 4 | 4 |
| Columbus, Ohio | 81 | 42 | 20 | 9 | 7 | 3 | 3 |
| Dayton, Ohio | 84 | 53 | 21 | 6 | 2 | 2 | 6 |
| Detroit, Mich. | 213 | 121 | 46 | 29 | 6 | 10 | 8 |
| Evansville, Ind. | 26 | 20 | 4 | 1 | - | 1 | 2 |
| Fort Wayne, Ind. | 53 | 38 | 8 | 2 | 2 | 3 | 3 |
| Gary, Ind.§ | 17 | 10 | 4 | 3 | - | - | 1 |
| Grand Rapids, Mich. | 27 | 22 | 4 | - | - | 1 | 4 |
| Indianapolis, Ind. | 152 | 101 | 30 | 14 | 3 | 4 | 2 |
| Madison, Wis. | 40 | 26 | 7 | 1 | 1 | 5 | - |
| Milwaukee, Wis. | 111 | 74 | 26 | 8 | 1 | 2 | 8 |
| Peoria, Ill. | 37 | 21 | 5 | 3 | 3 | 5 | 1 |
| Rockford, Ill. | 47 | 35 | 6 | 1 | 2 | 3 | 4 |
| South Bend, Ind. | 35 | 25 | 7 | 1 | 1 | 1 | 2 |
| Toledo, Ohio | 114 | 79 | 29 | 3 | 1 | 2 | 5 |
| Youngstown, Ohio | 49 | 40 | 6 | 1 | 1 | 1 | 3 |
| W.N. CENTRAL | 618 | 431 | 117 | 34 | 20 | 16 | 25 |
| Des Moines, Iowa | 71 | 51 | 11 | 4 | 1 | 4 | 5 |
| Duluth, Minn. | 22 | 12 | 7 | 2 | - | 1 | 1 |
| Kansas City, Kans.§ | 32 | 23 | 5 | 3 | 1 | - | - |
| Kansas City, Mo. | 129 | 80 | 35 | 4 | 5 | 5 | 5 |
| Lincoln, Nebr. | 25 | 19 | 5 | 1 | - | - | 1 |
| Minneapolis, Minn. | 104 | 75 | 17 | 5 | 4 | 3 | 6 |
| Omaha, Nebr. | 50 | 31 | 9 | 5 | 5 | - | - |
| St. Louis, Mo. | 104 | 78 | 14 | 7 | 2 | 3 | 6 |
| St. Paul, Minn. | 43 | 33 | 9 | - | 1 | - | - |
| Wichita, Kans. | 38 | 29 | 5 | 3 | 1 | - | 1 |
| S. ATLANTIC | 1,110 | 672 | 230 | 145 | 31 | 30 | 38 |
| Atlanta, Ga. | 142 | 79 | 34 | 26 | 1 | 2 | - |
| Baltimore, Md. | 261 | 165 | 50 | 31 | 8 | 7 | 10 |
| Charlotte, N.C. | 86 | 47 | 18 | 14 | 3 | 4 | 2 |
| Jacksonville, Fla. | 97 | 66 | 20 | 8 | 2 | 1 | 7 |
| Miami, Fla. | 110 | 56 | 25 | 22 | 6 | 1 | 1 |
| Norfolk, Va. | 39 | 25 | 9 | 3 | 1 | 1 | 2 |
| Richmond, Va. | 52 | 36 | 9 | 6 | - | - | 3 |
| Savannah, Ga. | 29 | 19 | 3 | 3 | 1 | 2 | 4 |
| St. Petersburg, Fla. | 58 | 43 | 10 | 2 | 1 | 2 | 3 |
| Tampa, Fla. | 55 | 34 | 14 | 4 | 2 | 1 | 3 |
| Washington, D.C.§ | 150 | 78 | 34 | 25 | 4 | 9 | 3 |
| Wilmington, Del. | 31 | 24 | 4 | 1 | 2 | - | - |
| E.S. CENTRAL | 601 | 390 | 130 | 44 | 18 | 19 | 36 |
| Birmingham, Ala. | 90 | 57 | 18 | 8 | 6 | 1 | 2 |
| Chattanooga, Tenn. | 72 | 54 | 13 | 3 | - | 2 | 4 |
| Knoxville, Tenn. | 60 | 34 | 11 | 8 | 2 | 5 | 2 |
| Louisville, Ky. | 28 | 17 | 6 | 1 | 2 | 2 | 2 |
| Memphis, Tenn.§ | 181 | 118 | 40 | 14 | 3 | 6 | 16 |
| Mobile, Ala. | 42 | 31 | 8 | 2 | - | 1 | 3 |
| Montgomery, Ala. | 23 | 15 | 7 | 1 | - | - | - |
| Nashville, Tenn. | 105 | 64 | 27 | 7 | 5 | 2 | 7 |
| W.S. CENTRAL | 1,599 | 976 | 345 | 180 | 50 | 47 | 49 |
| Austin, Tex. | 41 | 26 | 8 | 3 | 1 | 3 | 2 |
| Baton Rouge, La. | 30 | 18 | 7 | 3 | - | 2 | - |
| Corpus Christi, Tex. | 37 | 33 | 1 | 2 | - | 1 | 2 |
| Dallas, Tex. | 158 | 89 | 38 | 21 | 8 | 2 | 3 |
| El Paso, Tex. | 45 | 25 | 8 | 6 | 2 | 4 | 2 |
| Fort Worth, Tex | 66 | 42 | 16 | 5 | 1 | 2 | 5 |
| Houston, Tex.§ | 734 | 436 | 169 | 89 | 24 | 16 | 18 |
| Little Rock, Ark. | 33 | 22 | 3 | 3 | 3 | 2 | 3 |
| New Orleans, La. | 134 | 74 | 26 | 23 | 8 | 3 | - |
| San Antonio, Tex. | 148 | 94 | 38 | 12 | 1 | 3 | 10 |
| Shreveport, La. | 100 | 64 | 20 | 8 | 1 | 6 | 3 |
| Tulsa, Okla. | 73 | 53 | 11 | 5 | 1 | 3 | 1 |
| MOUNTAIN | 584 | 390 | 112 | 50 | 19 | 13 | 26 |
| Albuquerque, N. Mex. | 83 | 47 | 21 | 9 | 5 | 1 | 1 |
| Colo. Springs, Colo. | 39 | 31 | 4 | 2 | - | 2 | 7 |
| Denver, Colo. | 75 | 52 | 15 | 5 | 1 | 2 | 2 |
| Las Vegas, Nev. | 85 | 56 | 19 | 7 | - | 3 | 6 |
| Ogden, Utah | 19 | 14 | 2 | 1 | 2 | - | 3 |
| Phoenix, Ariz. | 135 | 90 | 27 | 10 | 5 | 3 | 2 |
| Pueblo, Colo. | 25 | 17 | 2 | 2 | 4 | - | 1 |
| Salt Lake City, Utah | 34 | 22 | 7 | 3 | - | 2 | - |
| Tucson, Ariz. | 89 | 61 | 15 | 11 | 2 | - | 4 |
| PACIFIC | 1,518 | 931 | 290 | 174 | 69 | 50 | 75 |
| Berkeley, Calif. | 16 | 12 | 3 | 1 | - | - | - |
| Fresno, Calif. | 78 | 50 | 15 | 4 | 3 | 6 | 9 |
| Glendale, Calif. | 18 | 14 | 1 | 2 | 1 | - | - |
| Honolulu, Hawaii | 75 | 54 | 14 | 3 | 1 | 3 | 9 |
| Long Beach, Calif. | 65 | 42 | 11 | 6 | 1 | 5 | 4 |
| Los Angeles Calif. | 408 | 227 | 85 | 55 | 28 | 9 | 12 |
| Oakland, Calif. | 56 | 33 | 8 | 11 | 4 | - | - |
| Pasadena, Calif. | 22 | 15 | 2 | 1 | 2 | 2 | 3 |
| Portland, Oreg. | 112 | 72 | 26 | 6 | 5 | 3 | 6 |
| Sacramento, Calif. | 111 | 75 | 17 | 11 | 6 | 2 | 10 |
| San Diego, Calif. | 116 | 65 | 21 | 18 | 6 | 6 | 6 |
| San Francisco, Calif. | 123 | 64 | 30 | 21 | 3 | 5 | 5 |
| San Jose, Calif. | 119 | 75 | 23 | 14 | 7 | - | 4 |
| Seattle, Wash. | 108 | 70 | 22 | 9 | 2 | 5 | - |
| Spokane, Wash. | 61 | 45 | 8 | 5 | - | 3 | 6 |
| Tacoma, Wash. | 30 | 18 | 4 | 7 | - | 1 | 1 |
| TOTAL | 10,832†† | 6,943 | 2,169 | 1,071 | 326 | 315 | 486 |

*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.

§Data not available. Figures are estimates based on average of past available 4 weeks.

*Lead Poisoning – Continued*

lead, seven air samples (three from breathing zones of individual workers and four from general work areas) were collected at each of the five shops that were repairing batteries on the day they were visited. Blood samples were drawn from workers at all 10 active shops. For evaluation of household exposures, 17 residences on repair-shop premises, including five in which repair-shop workers lived, and seven residences of repair-shop workers not on shop premises were identified. Eighteen neighborhood-matched control residences were also surveyed. At study residences, samples of soil and house dust and venous blood specimens from household members >6 months of age were analyzed for lead (*1,2*). Participants or their guardians were notified of elevated blood lead (PbB) levels and referred for medical evaluation if indicated.

**Levels of exposure.** Air-lead levels in repair shops averaged 0.021 mg/m$^3$ (geometric mean), and one sample exceeded the U.S. Occupational Safety and Health Administration (OSHA) permissible exposure limit of 0.050 mg/m$^3$ (*3*). In contrast, potentially hazardous levels of lead in soil and house dust were common at residences on repair-shop premises, where 11 (85%) of 13 yards had soil-lead levels >500 ppm (range: 51–54,000 ppm), and 11 (73%) of 15 homes tested had dust-lead levels >1500 μg/m$^2$ (range: 190–62,800 μg/m$^2$) (Table 1). These levels of lead in soil and house dust have been associated with increased lead absorption in children (*4,5*). Geometric mean soil- and dust-lead levels were significantly higher ($p<0.005$) at residences located on repair-shop premises than at control residences.

**Levels of lead absorption.** Blood samples were obtained from all 23 workers at the surveyed repair shops. The geometric mean PbB concentration was 64 μg/dL, and 18 workers (78%) had a PbB concentration of >50 μg/dL.

Blood samples were obtained from 186 (67%) of 279 study household members. Of 86 household members at repair-shop premises, 58 (67%) had PbB levels ≥25 μg/dL (Table 1). The prevalence of persons with high levels decreased with increasing age: 0–5 years, 100%; 6–11 years, 94%; ≥12 years, 47%. Geometric mean PbB levels were

**TABLE 1. Environmental and blood lead (Pb) levels at survey residences**

| Measurements (geometric means) | Repair shop premises | Worker residence off premises | Control residence |
|---|---|---|---|
| Soil Pb | 3236* | 54 | 58 |
| Samples >500 ppm/total samples | 11/13† | 1/7 | 2/16§ |
| Dust Pb | 4786¶ | 1622 | 603 |
| Samples >1500 μg/m$^2$/total samples | 11/15§ | 3/7 | 3/18 |
| Blood Pb, by age group | | | |
| 0–5 years | 74* | 14 | 14 |
| N ≥25 μg/dL/total | 17/17 | 0/4 | 1/20 |
| 6–11 years | 54* | 23¶ | 12 |
| N ≥25 μg/dL/total | 17/18 | 1/4 | 1/21 |
| ≥12 years | 23* | 10** | 7 |
| N ≥25 μg/dL/total | 24/51 | 1/18 | 0/33 |

*$p<0.0005$ (t-test) compared with control residences.
†Less than number of households because of shared yards.
§Samples omitted at two households.
¶$p<0.005$ (t-test) compared with control residences.
**$p<0.05$ (t-test) compared with control residences.

*Lead Poisoning — Continued*

lower among members of control households ($p<0.0005$, t-test), in which <10% of persons in each age group had PbB ≥25 μg/dL (maximum detected, 33 μg/dL). Among persons ≥6 years of age, PbB levels were higher in those who lived in worker households located away from repair-shop premises than in those from control households.

PbB levels in persons were strongly correlated with lead concentrations in soil and house dust. The correlation was strongest among children <6 years old ($r=0.72$ [$p<0.0001$] for soil lead and $r=0.55$ [$p=0.0002$] for dust lead). Two residences located on the premises of the closed repair shop were among those with elevated soil lead, and all three children <6 years of age who lived there had PbB ≥25 μg/dL (range: 48–65 μg/dL).

*Reported by: JP Figueroa, MBBS, Principal Medical Officer (Epidemiology), Ministry of Health, Jamaica. RA Keenlyside, MBBS, Caribbean Epidemiology Centre, Trinidad. Div of Environmental Hazards and Health Effects, Center for Environmental Health and Injury Control; Div of Surveillance, Hazard Evaluations, and Field Studies, and Office of the Director, National Institute for Occupational Safety and Health, CDC.*

**Editorial Note:** Small-scale workplaces, which are common in developing countries (*6*), may be located in or near homes, and often they lack measures to protect workers and nearby residents from hazardous exposures. Lead is sometimes used in "cottage" industries, and lead poisoning has occurred both in workers and in household members exposed to processes such as recycling car batteries (*7*), making lead type, tempering cutlery (*8*), and making pottery (*9*). Lead poisoning of household members from lead dust brought home on work clothes has also been reported from moderate-sized workplaces (*10*).

Adverse health effects of lead include acute and chronic central nervous system toxicity, peripheral neuropathy, impairment of hemoglobin synthesis and anemia, chronic renal disease, and impairment of male and female reproductive functions. Children are especially susceptible to lead neurotoxicity, and CDC guidelines for childhood lead screening recommend intervention when the PbB level is ≥25 μg/dL (*4*). PbB levels well below this screening threshold have been associated with impaired cognitive development in early life, especially when exposure occurs to the developing fetus (*11,12*).

Exposed workers absorb lead mainly by inhaling airborne lead particulate and, to a lesser extent, by unintentionally ingesting lead dust that has contaminated hands, food, or cigarettes. Most repair-shop workers in this survey had PbB levels that exceeded both the World Health Organization PbB limit for adult males (40 μg/dL) (*13*) and the U.S. OSHA medical removal level (50 μg/dL averaged over 6 months) (*3*). Because air-lead levels exceeded 0.05 mg/m$^3$ at only one of five shops tested, ingestion may be an important route of exposure in repair-shop workers.

Persons living on the premises of battery repair shops appear to be at high risk for elevated PbB levels, and children are at risk for PbB levels sufficiently high (>50 μg/dL) to cause overt symptoms (*14*). The findings of this investigation are consistent with those of other studies indicating that ingestion of lead-contaminated soil and dust is an important route of lead exposure for children (*15*). Direct contamination of repair-shop premises by lead emissions from battery repair and by inappropriate handling of lead scrap appears to be a greater environmental hazard than lead dust carried on work clothes to homes distant from the repair shops.

Measures to control lead exposure in the workplace include providing controlled ventilation for processes that generate airborne lead dust and fume; wet sweeping or

*Lead Poisoning – Continued*

vacuuming to remove lead dust from environmental surfaces; avoiding eating or smoking in lead-contaminated areas; washing hands before eating or smoking; using proper respirators when air-lead levels cannot be reduced to safe levels; and showering and changing clothes before leaving work so that lead dust is not carried home (*3*). Workers at battery repair shops need to be informed of safe work practices. Although these measures may also reduce contamination of the home environment, their effectiveness in reducing household exposures in homes where lead work is done is not known. Soil contamination near shops using lead presents a continuing hazard unless the soil is removed or covered. Ideally, lead-related work should not be done on residential premises.

Small-scale battery repair shops have also been described in Nigeria (*16*) and the Republic of Trinidad and Tobago (*17*) and are likely be found in other developing countries. Public health officials should be alert to the possibility of lead poisoning among both workers and nearby residents exposed to such shops and should take preventive action when lead exposure is identified.

*References*

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References 4–17 may be obtained from the Office of the Director, NIOSH, Mailstop D26, Centers for Disease Control, Atlanta, GA 30333.

## Ectopic Pregnancy – United States, 1986

In 1986, 73,700 ectopic pregnancies* were reported in the United States, a 6% decrease from the number reported in 1985 (not statistically significant) (Table 1) (*1,2*). From 1970, when surveillance of ectopic pregnancy began, to 1986, the rate per 1000 reported pregnancies more than tripled, from 4.5 to 14.3 (Figure 1). Similarly, the rate of ectopic pregnancy per 1000 live births rose fourfold, from 4.8 in 1970 to 19.7 in 1986, and the rate per 10,000 females of reproductive age (15–44 years) more than tripled, from 4.2 per 10,000 in 1970 to 12.8 in 1986.

In 1986, as in previous years, the highest rates of ectopic pregnancies (per 1000 reported pregnancies) occurred among women ≥30 years of age (*3*). Rates were 60% higher among women of black and other minority races than among white women. When analyzed by geographic region, the highest rates of ectopic pregnancy occurred in the South, the same as in 1985. The lowest rates for 1986 occurred in the Midwest.

In 1986, 36 women died as a result of ectopic pregnancy,† compared with 33 in 1985. The case-fatality rate of 4.9 deaths per 10,000 ectopic pregnancies represented a 17% increase over the rate of 4.2 reported in 1985.

*Data on the numbers of ectopic pregnancies were obtained from the National Hospital Discharge Survey conducted by the National Center for Health Statistics, CDC.

†Ectopic pregnancy mortality data are based on U.S. vital statistics collected by the National Center for Health Statistics, CDC.

*Ectopic Pregnancy — Continued*

The risk of death associated with ectopic pregnancy decreased sharply from 1970 through 1976, and more gradually from 1977 through 1986 (Figure 2). Overall, the case-fatality rate decreased more than 86%, from 35.5 deaths per 10,000 ectopic pregnancies in 1970 to 4.9 in 1986.

In 1986, the risk of dying from ectopic pregnancy was more than two times higher in women of black and other minority races than in white women, representing a decrease in the racial disparity noted in the previous 2-year period. In 1986, case-fatality rates were highest in the Northeast and lowest in the West; in 1985, the highest rates were also in the Northeast, but the lowest rates were reported in the Midwest.

*Reported by: Pregnancy Epidemiology Br, Research and Statistics Br, Div of Reproductive Health, Center for Chronic Disease Prevention and Health Promotion, CDC.*

**Editorial Note:** Complications from ectopic pregnancy remain one of the leading causes of maternal death in the United States. Factors that may have contributed to the decrease in the number of women hospitalized for ectopic pregnancies include heightened awareness of this condition and improved diagnostic technology. Newer technology has led to earlier diagnosis of ectopic pregnancy and to the use of more conservative methods, not requiring hospitalization, for managing the condition (*4–6*). The increase in case-fatality rate in 1986 reflects the simultaneous increase in

**TABLE 1. Numbers and rates of ectopic pregnancies, by year — United States, 1970–1986**

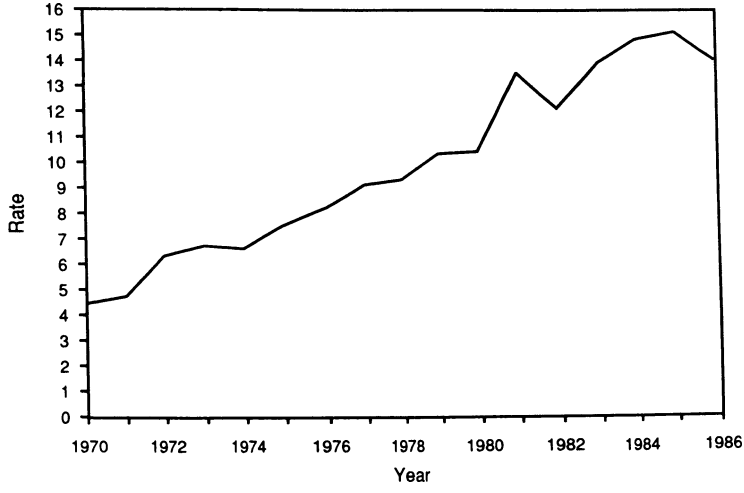
| Year | No.* | Rates | | |
|---|---|---|---|---|
| | | Reported pregnancies† | Live births§ | Females aged 15–44¶ |
| 1970 | 17,800 | 4.5 | 4.8 | 4.2 |
| 1971 | 19,300 | 4.8 | 5.4 | 4.4 |
| 1972 | 24,500 | 6.3 | 7.5 | 5.5 |
| 1973 | 25,600 | 6.8 | 8.2 | 5.6 |
| 1974 | 26,400 | 6.7 | 8.4 | 5.7 |
| 1975 | 30,500 | 7.6 | 9.8 | 6.5 |
| 1976 | 34,600 | 8.3 | 11.0 | 7.2 |
| 1977 | 40,700 | 9.2 | 12.3 | 8.3 |
| 1978 | 42,400 | 9.4 | 12.8 | 8.5 |
| 1979 | 49,900 | 10.4 | 14.3 | 9.9 |
| 1980 | 52,200 | 10.5 | 14.5 | 9.9 |
| 1981 | 68,000 | 13.6 | 18.7 | 12.7 |
| 1982 | 61,800 | 12.3 | 17.0 | 11.5 |
| 1983 | 69,600 | 14.0 | 19.2 | 12.6 |
| 1984 | 75,400 | 14.9 | 20.6 | 13.6 |
| 1985 | 78,400 | 15.2 | 20.9 | 14.0 |
| 1986 | 73,700 | 14.3 | 19.7 | 12.8 |
| **Total** | **790,800** | **10.3** | **13.4** | **9.3** |

*Rounded to nearest 100.
†Rate per 1000 reported pregnancies.
§Rate per 1000 live births.
¶Rate per 10,000 females.

*Ectopic Pregnancy – Continued*

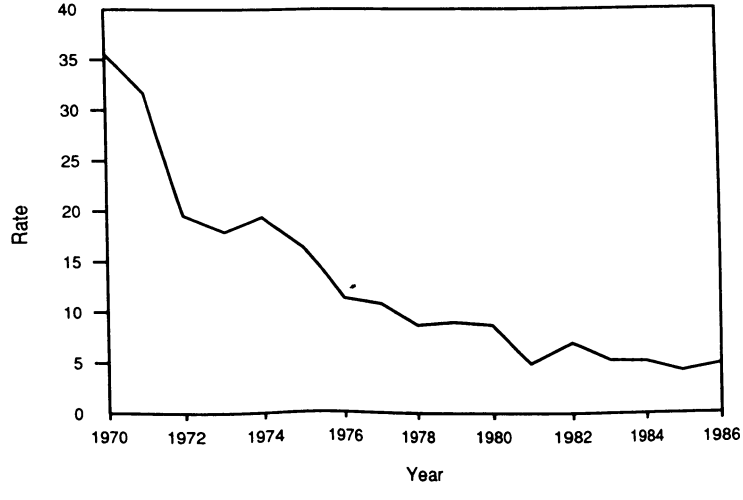
the number of deaths and a decrease in the number of ectopic pregnancies and may represent more complete ascertainment of deaths. In a study initiated in 1988, CDC continues to investigate the possible causes of ectopic pregnancy. National pregnancy mortality surveillance initiated in 1987 is directed toward identifying and investigating all pregnancy-associated deaths by using multiple sources of reporting and information.

**FIGURE 1. Ectopic pregnancy rates,* by year – United States, 1970–1986**




*Per 1000 reported pregnancies.

**FIGURE 2. Ectopic pregnancy mortality rates,* by year – United States, 1970–1986**




*Per 10,000 ectopic pregnancies.

*Ectopic Pregnancy — Continued*

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## Erratum: Vol. 38, No. 21

**p. 380** Under the heading "Exposure Trends in Silica Flour Plants—United States, 1975–1986," the first sentence should read "A 1979 National Institute for Occupational Safety and Health (NIOSH) investigation of excessive free silica exposures identified 23 cases of silicosis in employees at two Illinois silica flour plants (*1*)."

*MMWR* is prepared by the Centers for Disease Control, Atlanta, Georgia.

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