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MORBIDITY AND MORTALITY WEEKLY REPORT



## Lyme Disease — Connecticut

From 1984 through 1986, CDC received an average of 1,500 reports of Lyme disease annually, making it the most common tick-borne disease reported to CDC. The disease takes its name from Lyme, Connecticut, where the full spectrum of illness was first described in 1975. To further study the incidence of disease among its residents, Connecticut conducted a laboratory-based program of surveillance for Lyme disease from July 1, 1984, to March 1, 1986.

Indirect immunofluorescence antibody (IFA) and enzyme-linked immunosorbent assays (ELISA) were used to detect antibodies to *Borrelia burgdorferi*, the spirochete that causes the disease. Serologic testing was offered to Connecticut physicians without cost for all residents with suspected Lyme disease if the serum was accompanied by a case report form. Residents who, in 1984 or 1985, had onset of erythema migrans* and/or neurologic, cardiac, or arthritic manifestations† characteristic of Lyme disease and a positive serologic test (IFA $\geq$1:128 or ELISA $\geq$1:160 with a polyvalent conjugate) were included in the study.

Thirty-seven percent of the 3,098 patients reported met the criteria for inclusion in the study (460 in 1984 and 689 in 1985). In 1985, the first complete year of reporting, 66% of the patients studied had onset of symptoms from June through August. Twenty-four percent more patients had onset of symptoms from July through December 1985, than from July through December 1984 (492 compared with 397). Serologic testing was equally available during these time periods.

The incidence of Lyme disease for all Connecticut residents in 1985 was 22/100,000. Town-specific incidences ranged from zero to 1,156/100,000. Towns with the highest incidences were in southern Connecticut, east of the Connecticut River.

Fifty-one percent of patients with Lyme disease were male, and all but one of the 372 patients with known race reported in 1984 were white. Racial information was not gathered in 1985. Age-specific incidence was tabulated by 5-year age groups for patients reported in 1985. The incidence ranged from 11/100,000 for persons aged 20 to 24 years, to 39/100,000 for those aged 5 to 9 years (Figure 1).

Overall, 83% of the patients studied had erythema migrans; 24% had arthritis; 8% had neurologic manifestations; and 2% had cardiac involvement. For those with arthritis, affected joints were the knee (89%), hip (9%), shoulder (9%), ankle (7%), and elbow (2%). In 1985, persons under 20 years of age were 1.6 times more likely to have

*A distinctive skin lesion that characterizes the first stage of the disease.
†Neurologic and cardiac manifestations characterize the second stage of the disease, and arthritic manifestations, the third. These later stages can occur weeks or years after the initial tick bite and without evidence of an earlier skin lesion.

*Lyme Disease — Continued*

arthritis than persons over 20 (7/100,000 compared with 4/100,000), while both groups were equally likely to develop erythema migrans (13/100,000). Seventy-nine percent of patients with arthritis did not report antecedent erythema migrans. Sixty-one percent of patients with erythema migrans reported a tick bite within 30 days of illness.

Sera received before July 1, 1985, (1,447 samples) were tested by IFA; sera received later (1,579 samples) were tested by ELISA; and 72 patients were reported without a request for serologic testing. For those with erythema migrans, the overall sensitivity of serology was 30% by IFA and 24% by ELISA. When the serum sample had been obtained 21 days or more after onset of symptoms, the sensitivity of the IFA increased to 45% and that of the ELISA, to 32%.

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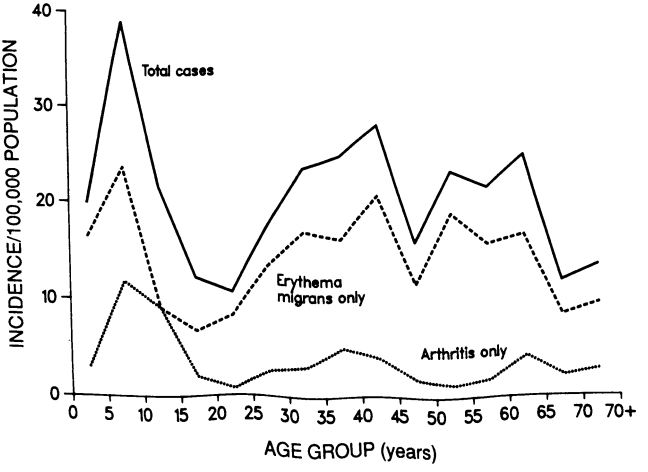
**Editorial Note:** This study demonstrates the impact of Lyme disease in an endemic area. A comparison of the results with those of a 1977 study (*1*) reveals an increase of 163% in the incidence of Lyme disease in the eight towns reporting cases in 1977 and shows that, by the mid-1980s, the disease had spread inland from the coastal areas.

Serologic testing for Lyme disease has increased considerably in Connecticut. To trace these changes in testing, the state health department recently compared the annual number of immunoglobulin or IgG-specific serologic tests for Lyme disease ordered by Connecticut physicians from January 1984 through August 1987. The number and results of these tests varied by year as follows: 2,492 in 1984 (30% positivity), 3,770 in 1985 (20% positivity), 5,175 in 1986 (24% positivity), and 6,420 through August of 1987 (14% positivity). This increase may reflect an actual increase in the incidence of Lyme disease or in the recognition of the disease by physicians. It may also reflect the increased availability of the laboratory test or its overuse,

**FIGURE 1. Lyme disease incidence, by age group — Connecticut, 1985**



*Lyme Disease — Continued*

especially during the early stage of the disease, when the test is likely to be negative (*2-4*).

The diagnosis of early Lyme disease remains primarily clinical, and physicians should be aware of the limitations of current tests. Sensitivities of the IFA and the ELISA are relatively low during stage one (*2-4*), and the antibody response can be curtailed or aborted by early treatment with antibiotics (*3*). In contrast, some research laboratories have reported sensitivities ≥95% for tests of patients with stage two or three Lyme disease (*2,4,5*). Test specificities approaching 100% have also been reported (*2,6*); however, considerable variability may occur among laboratories because the tests are not standardized and are difficult to perform. The sensitivities and lack of standardization of the tests preclude their use alone for routine disease reporting and reinforce the need to develop a reliable and practical case definition for surveillance that is not dependent on serologic test results.

Lyme disease is a problem of increasing national and international concern that merits continual and improved surveillance. Clinical studies to further define complications of the disease and to evaluate treatment regimens are needed. Public health education can help alert people to the symptoms of Lyme disease and to the importance of avoiding tick bites. The development of other effective primary preventive measures, particularly vector control, is essential.

*References*

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## Suspected Nosocomial Influenza Cases in an Intensive Care Unit

**Georgia.** During November 1987, CDC received reports of three patients and one nurse with suspected influenza infections in a 15-bed medical-surgical intensive care unit (MSICU). The index case occurred in a 71-year-old female with diabetes mellitus who was admitted to the MSICU on October 29 and subsequently required mechanical ventilation. Influenza A was identified by fluorescent antibody (FA) staining of tissue culture cells inoculated with an endotracheal aspirate collected on November 11. The patient died on November 14, and influenza virus was identified in lung tissue collected postmortem. The second patient, an intubated 60-year-old woman with chronic obstructive lung disease, had been hospitalized since October 26. Influenza A was identified by FA staining of cell culture inoculation of a lung biopsy specimen obtained on November 23. The same procedure was used to identify influenza A in an endotracheal aspirate specimen collected on November 26 from an intubated 76-year-old man who had been hospitalized since September 28. Further investigation revealed that a nurse who had cared for all three patients was absent from work during the last week of November because of an influenza-like illness. Neither the three patients nor the nurse had received the 1987-88 influenza vaccine. Isolates were not available for confirmation and subtype identification.

*Influenza — Continued*

**Other reports.** For the report week ending January 2, four states* reported regional outbreaks of influenza-like illness. Fifteen states† have reported isolates of influenza A(H3N2), which is the predominant subtype so far this season. Influenza A, subtype pending, has been reported from Hawaii, Louisiana, Utah, and Washington.

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**Editorial Note:** In the past, hospital laboratories have had to send specimens to reference laboratories for virus isolation and identification. Now, many hospital laboratories are able to rapidly identify influenza A or B viruses by using monoclonal antibodies for typing virus antigens produced in cell culture. Results can usually be obtained within 24 to 72 hours after inoculation of the specimen.

*Alabama, South Dakota, Utah, and Wisconsin.
†California, Colorado, Florida, Iowa, Kansas, Minnesota, Missouri, Montana, North Dakota, South Carolina, South Dakota, Tennessee, Texas, Wisconsin, and Wyoming.

*(Continued on page 9)*

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

| Disease | 1st Week Ending | | | Cumulative, 1st Week Ending | | |
|---|---|---|---|---|---|---|
| | Jan. 9, 1988 | Jan. 10, 1987 | Median 1983-1987 | Jan. 9, 1988 | Jan. 10, 1987 | Median 1983-1987 |
| Acquired Immunodeficiency Syndrome (AIDS) | 400 | 263 | 97 | 400 | 263 | 97 |
| Aseptic meningitis | 54 | 117 | 74 | 54 | 117 | 74 |
| Encephalitis: Primary (arthropod-borne & unspec) | 6 | 21 | 15 | 6 | 21 | 15 |
| Post-infectious | 1 | - | 1 | 1 | - | 1 |
| Gonorrhea: Civilian | 10,586 | 18,006 | 13,471 | 10,586 | 18,006 | 13,471 |
| Military | 147 | 474 | 250 | 147 | 474 | 250 |
| Hepatitis: Type A | 241 | 265 | 276 | 241 | 265 | 276 |
| Type B | 174 | 335 | 335 | 174 | 335 | 335 |
| Non A, Non B | 18 | 55 | 47 | 18 | 55 | 47 |
| Unspecified | 20 | 35 | 60 | 20 | 35 | 60 |
| Legionellosis | 4 | 22 | 7 | 4 | 22 | 7 |
| Leprosy | - | - | 5 | - | - | 5 |
| Malaria | 6 | 19 | 9 | 6 | 19 | 9 |
| Measles: Total* | 9 | 35 | 8 | 9 | 35 | 8 |
| Indigenous | 8 | 35 | 7 | 8 | 35 | 7 |
| Imported | 1 | - | 1 | 1 | - | 1 |
| Meningococcal infections | 36 | 59 | 41 | 36 | 59 | 41 |
| Mumps | 58 | 75 | 46 | 58 | 75 | 46 |
| Pertussis | 22 | 26 | 26 | 22 | 26 | 26 |
| Rubella (German measles) | 1 | 3 | 6 | 1 | 3 | 6 |
| Syphilis (Primary & Secondary): Civilian | 433 | 698 | 354 | 433 | 698 | 354 |
| Military | 1 | 2 | 2 | 1 | 2 | 2 |
| Toxic Shock syndrome | 2 | 3 | 7 | 2 | 3 | 7 |
| Tuberculosis | 87 | 218 | 213 | 87 | 218 | 213 |
| Tularemia | - | 2 | 2 | - | 2 | 2 |
| Typhoid Fever | 1 | 4 | 3 | 1 | 4 | 3 |
| Typhus fever, tick-borne (RMSF) | - | 4 | 1 | - | 4 | 1 |
| Rabies, animal | 22 | 67 | 53 | 22 | 67 | 53 |

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

| | Cum. 1988 | | Cum. 1988 |
|---|---|---|---|
| Anthrax | - | Leptospirosis (Hawaii 1) | 1 |
| Botulism: Foodborne | - | Plague | - |
| Infant | - | Poliomyelitis, Paralytic | - |
| Other | - | Psittacosis | - |
| Brucellosis (Calif. 1) | 1 | Rabies, human | - |
| Cholera | - | Tetanus | - |
| Congenital rubella syndrome | - | Trichinosis | - |
| Congenital syphilis, ages <1 year | - | | |
| Diphtheria | - | | |

*One of the 9 reported cases for this week were 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 January 9, 1988 and January 10, 1987 (1st Week)

| Reporting Area | AIDS | Aseptic Meningitis | Encephalitis | | Gonorrhea (Civilian) | | Hepatitis (Viral), by type | | | | Legionellosis | Leprosy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Primary | Post-infectious | | | A | B | NA,NB | Unspecified | | |
| | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1987 | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1988 |
| UNITED STATES | 400 | 54 | 6 | 1 | 10,586 | 18,006 | 241 | 174 | 18 | 20 | 4 | - |
| NEW ENGLAND | 5 | 5 | - | - | 366 | 622 | 8 | 6 | 4 | 4 | - | - |
| Maine | - | 1 | - | - | 10 | 12 | - | 1 | - | 1 | - | - |
| N.H. | 1 | 3 | - | - | 14 | 5 | 2 | 1 | 1 | - | - | - |
| Vt. | - | - | - | - | 5 | 5 | - | - | - | - | - | - |
| Mass. | 1 | 1 | - | - | 100 | 213 | 4 | 1 | 2 | 3 | - | - |
| R.I. | 3 | - | - | - | 40 | 74 | 2 | 3 | 1 | - | - | - |
| Conn. | - | - | - | - | 197 | 313 | - | - | - | - | - | - |
| MID. ATLANTIC | 80 | 7 | - | - | 194 | 2,388 | 6 | 7 | - | - | - | - |
| Upstate N.Y. | 77 | 3 | - | - | 74 | 23 | 6 | 3 | - | - | - | - |
| N.Y. City | 3 | - | - | - | - | 1,620 | - | 4 | - | - | - | - |
| N.J. | - | 4 | - | - | - | 82 | - | - | - | - | - | - |
| Pa. | - | - | - | - | 120 | 663 | - | - | - | - | - | - |
| E.N. CENTRAL | 2 | 17 | - | - | 1,878 | 1,736 | 11 | 24 | - | 4 | 3 | - |
| Ohio | 1 | 9 | - | - | 657 | 265 | 1 | 6 | - | - | - | - |
| Ind. | - | - | - | - | 72 | 79 | - | - | - | - | - | - |
| Ill. | 1 | - | - | - | 529 | 622 | - | - | - | - | - | - |
| Mich. | - | 8 | - | - | 591 | 551 | 10 | 18 | - | 4 | 3 | - |
| Wis. | - | - | - | - | 29 | 219 | - | - | - | - | - | - |
| W.N. CENTRAL | 4 | 1 | - | - | 565 | 620 | 14 | 3 | - | - | - | - |
| Minn. | - | - | - | - | 96 | 89 | - | - | - | - | - | - |
| Iowa | 1 | - | - | - | 43 | 50 | - | 1 | - | - | - | - |
| Mo. | - | - | - | - | 347 | 349 | 4 | 2 | - | - | - | - |
| N. Dak. | - | - | - | - | - | 7 | - | - | - | - | - | - |
| S. Dak. | - | - | - | - | 8 | 24 | - | - | - | - | - | - |
| Nebr. | 3 | - | - | - | 24 | 32 | - | - | - | - | - | - |
| Kans. | - | 1 | - | - | 47 | 69 | 10 | - | - | - | - | - |
| S. ATLANTIC | 10 | 8 | - | - | 2,585 | 6,043 | 7 | 37 | - | 1 | - | - |
| Del. | 2 | 1 | - | - | 25 | 62 | - | - | - | - | - | - |
| Md. | - | 1 | - | - | 264 | 334 | - | 1 | - | - | - | - |
| D.C. | - | - | - | - | 138 | 325 | - | - | - | - | - | - |
| Va. | - | 2 | - | - | 368 | 498 | 1 | - | - | - | - | - |
| W. Va. | 2 | 1 | - | - | 25 | 22 | - | 3 | - | 1 | - | - |
| N.C. | 3 | 2 | - | - | 293 | 1,121 | 5 | 8 | - | - | - | - |
| S.C. | 3 | - | - | - | - | 749 | 1 | 25 | - | - | - | - |
| Ga. | - | 1 | - | - | 503 | 750 | - | - | - | - | - | - |
| Fla. | - | - | - | - | 969 | 2,182 | - | - | - | - | - | - |
| E.S. CENTRAL | 11 | 3 | 1 | - | 1,184 | 1,103 | 9 | 8 | - | - | 1 | - |
| Ky. | - | 1 | - | - | 44 | 115 | 9 | - | - | - | - | - |
| Tenn. | 11 | - | - | - | 235 | 144 | - | 4 | - | - | - | - |
| Ala. | - | 2 | 1 | - | 619 | 496 | - | 4 | - | - | 1 | - |
| Miss. | - | - | - | - | 286 | 348 | - | - | - | - | - | - |
| W.S. CENTRAL | 4 | - | - | - | 2,223 | 2,105 | 5 | 4 | 1 | - | - | - |
| Ark. | - | - | - | - | 99 | 220 | - | - | - | - | - | - |
| La. | 3 | - | - | - | 1,064 | 279 | - | - | - | - | - | - |
| Okla. | - | - | - | - | 107 | 226 | 5 | 4 | 1 | - | - | - |
| Tex. | 1 | - | - | - | 953 | 1,380 | - | - | - | - | - | - |
| MOUNTAIN | 9 | 3 | 2 | - | 336 | 506 | 71 | 34 | 5 | 7 | - | - |
| Mont. | - | - | - | - | 7 | 9 | - | - | - | - | - | - |
| Idaho | - | - | - | - | 8 | 12 | 2 | 2 | - | - | - | - |
| Wyo. | - | - | - | - | - | - | - | - | - | - | - | - |
| Colo. | 1 | 1 | - | - | 76 | 86 | 1 | - | - | - | - | - |
| N. Mex. | 2 | - | - | - | 44 | 25 | 13 | 1 | - | - | - | - |
| Ariz. | - | - | 1 | - | 84 | 188 | 38 | 24 | 5 | 5 | - | - |
| Utah | 4 | 2 | 1 | - | 12 | 18 | 14 | 4 | - | 2 | - | - |
| Nev. | 2 | - | - | - | 105 | 168 | 3 | 3 | - | - | - | - |
| PACIFIC | 275 | 10 | 3 | 1 | 1,255 | 2,883 | 110 | 51 | 8 | 4 | - | - |
| Wash. | 1 | - | - | - | - | 237 | - | - | - | - | - | - |
| Oreg. | 20 | - | - | - | 39 | 80 | 28 | 12 | 1 | 1 | - | - |
| Calif. | 252 | 10 | 3 | 1 | 1,185 | 2,468 | 82 | 39 | 7 | 3 | - | - |
| Alaska | 2 | - | - | - | 13 | 72 | - | - | - | - | - | - |
| Hawaii | - | - | - | - | 18 | 26 | - | - | - | - | - | - |
| Guam | - | - | - | - | - | 3 | - | - | - | - | - | - |
| P.R. | - | 1 | - | - | 11 | 51 | - | 7 | 1 | - | - | - |
| V.I. | - | - | - | - | 8 | 10 | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | 15 | - | - | - | - | - | - |
| C.N.M.I. | - | - | - | - | 3 | 4 | - | - | - | - | - | - |

N: Not notifiable U: Unavailable

## TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending January 9, 1988 and January 10, 1987 (1st Week)

| Reporting Area | Malaria | Measles (Rubeola) | | | | | Menin-gococcal Infections | Mumps | | Pertussis | | | Rubella | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Indigenous | | Imported* | | Total | | | | | | | | | |
| | Cum. 1988 | 1988 | Cum. 1988 | 1988 | Cum. 1988 | Cum. 1987 | Cum. 1988 | 1988 | Cum. 1988 | 1988 | Cum. 1988 | Cum. 1987 | 1988 | Cum. 1988 | Cum. 1987 |
| UNITED STATES | 6 | 8 | 8 | 1 | 1 | 35 | 36 | 58 | 58 | 22 | 22 | 26 | 1 | 1 | 3 |
| NEW ENGLAND | 1 | - | - | - | - | - | 5 | 3 | 3 | 7 | 7 | - | - | - | - |
| Maine | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| N.H. | - | - | - | - | - | - | 1 | 2 | 2 | - | - | - | - | - | - |
| Vt. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mass. | 1 | - | - | - | - | - | 3 | 1 | 1 | 7 | 7 | - | - | - | - |
| R.I. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Conn. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| MID. ATLANTIC | - | - | - | - | - | - | 5 | 4 | 4 | - | - | 4 | - | - | - |
| Upstate N.Y. | - | - | - | - | - | - | 2 | - | - | - | - | 3 | - | - | - |
| N.Y. City | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| N.J. | - | - | - | - | - | - | 3 | 4 | 4 | - | - | - | - | - | - |
| Pa. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| E.N. CENTRAL | - | - | - | - | - | 18 | 5 | 11 | 11 | 1 | 1 | 6 | - | - | 1 |
| Ohio | - | - | - | - | - | - | 3 | - | - | - | - | 5 | - | - | - |
| Ind. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ill. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Mich. | - | - | - | - | - | 18 | 2 | 11 | 11 | 1 | 1 | - | - | - | - |
| Wis. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| W.N. CENTRAL | - | - | - | - | - | - | 1 | 2 | 2 | 1 | 1 | 6 | - | - | - |
| Minn. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Iowa | - | - | - | - | - | - | - | 1 | 1 | - | - | 2 | - | - | - |
| Mo. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| N. Dak. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| S. Dak. | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - |
| Nebr. | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - |
| Kans. | - | - | - | - | - | - | - | - | - | - | - | 3 | - | - | - |
| S. ATLANTIC | - | - | - | 1 | 1 | - | 1 | 2 | 2 | 4 | 4 | 3 | - | - | - |
| Del. | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - |
| Md. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| D.C. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Va. | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - |
| W. Va. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| N.C. | - | - | - | 1† | 1 | - | - | 2 | 2 | 2 | 2 | 2 | - | - | - |
| S.C. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Ga. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| Fla. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| E.S. CENTRAL | - | - | - | - | - | - | 3 | 30 | 30 | - | - | - | - | - | 2 |
| Ky. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tenn. | - | - | - | - | - | - | 2 | 30 | 30 | - | - | - | - | - | - |
| Ala. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Miss. | - | - | - | - | - | - | - | N | N | - | - | - | - | - | - |
| W.S. CENTRAL | - | - | - | - | - | - | - | 3 | 3 | - | - | - | - | - | - |
| Ark. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| La. | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - |
| Okla. | - | - | - | - | - | - | - | 2 | 2 | - | - | - | - | - | - |
| Tex. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MOUNTAIN | 1 | 4 | 4 | - | - | - | - | - | - | 1 | 1 | 3 | - | - | - |
| Mont. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Idaho | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Wyo. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Colo. | - | 4 | 4 | - | - | - | - | - | - | - | - | 2 | - | - | - |
| N. Mex. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ariz. | - | - | - | - | - | - | - | N | N | - | - | 1 | - | - | - |
| Utah | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - |
| Nev. | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PACIFIC | 4 | 4 | 4 | - | - | 17 | 16 | 3 | 3 | 8 | 8 | 4 | 1 | 1 | - |
| Wash. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Oreg. | - | - | - | - | - | - | 2 | N | N | - | - | - | - | - | - |
| Calif. | 4 | 4 | 4 | - | - | 17 | 14 | 3 | 3 | 2 | 2 | 4 | 1 | 1 | - |
| Alaska | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hawaii | - | - | - | - | - | - | - | - | - | 6 | 6 | - | - | - | - |
| Guam | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| P.R. | - | - | - | - | - | - | - | 2 | 2 | - | - | 1 | - | - | - |
| V.I. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| C.N.M.I. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

*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 January 9, 1988 and January 10, 1987 (1st Week)

| Reporting Area | Syphilis (Civilian) (Primary & Secondary) | | Toxic-shock Syndrome | Tuberculosis | | Tula-remia | Typhoid Fever | Typhus Fever (Tick-borne) (RMSF) | Rabies, Animal |
|---|---|---|---|---|---|---|---|---|---|
| | Cum. 1988 | Cum. 1987 | Cum. 1988 | Cum. 1988 | Cum. 1987 | Cum. 1988 | Cum. 1988 | Cum. 1988 | Cum. 1988 |
| UNITED STATES | 433 | 698 | 2 | 87 | 218 | - | 1 | - | 22 |
| NEW ENGLAND | 17 | 13 | 1 | - | 7 | - | - | - | - |
| Maine | 1 | - | - | - | - | - | - | - | - |
| N.H. | - | - | 1 | - | - | - | - | - | - |
| Vt. | - | - | - | - | 1 | - | - | - | - |
| Mass. | 11 | 11 | - | - | 2 | - | - | - | - |
| R.I. | - | - | - | - | - | - | - | - | - |
| Conn. | 5 | 2 | - | - | 4 | - | - | - | - |
| MID. ATLANTIC | 75 | 39 | - | 22 | 46 | - | - | - | 5 |
| Upstate N.Y. | - | - | - | 4 | 10 | - | - | - | - |
| N.Y. City | 74 | 19 | - | - | 27 | - | - | - | - |
| N.J. | - | 6 | - | 15 | 5 | - | - | - | - |
| Pa. | 1 | 14 | - | 3 | 4 | - | - | - | 5 |
| E.N. CENTRAL | - | 13 | - | 26 | 54 | - | - | - | 1 |
| Ohio | - | - | - | 9 | 11 | - | - | - | - |
| Ind. | - | - | - | - | - | - | - | - | - |
| Ill. | - | 11 | - | 15 | 34 | - | - | - | - |
| Mich. | - | - | - | - | 8 | - | - | - | - |
| Wis. | - | 2 | - | 2 | 1 | - | - | - | 1 |
| W.N. CENTRAL | 1 | 4 | 1 | 4 | 3 | - | - | - | 4 |
| Minn. | 1 | 3 | - | 2 | - | - | - | - | - |
| Iowa | - | - | - | 1 | 2 | - | - | - | 2 |
| Mo. | - | 1 | - | - | 1 | - | - | - | 1 |
| N. Dak. | - | - | - | - | - | - | - | - | - |
| S. Dak. | - | - | - | 1 | - | - | - | - | - |
| Nebr. | - | - | 1 | - | - | - | - | - | 1 |
| Kans. | - | - | - | - | - | - | - | - | - |
| S. ATLANTIC | 155 | 264 | - | 8 | 36 | - | - | - | 3 |
| Del. | 1 | 1 | - | - | - | - | - | - | - |
| Md. | - | 17 | - | - | 4 | - | - | - | - |
| D.C. | - | - | - | 1 | 3 | - | - | - | - |
| Va. | 15 | 11 | - | - | 2 | - | - | - | 1 |
| W. Va. | - | - | - | 1 | - | - | - | - | 2 |
| N.C. | 2 | 20 | - | - | 7 | - | - | - | - |
| S.C. | - | 12 | - | 2 | 6 | - | - | - | - |
| Ga. | 21 | 37 | - | - | - | - | - | - | - |
| Fla. | 116 | 166 | - | 4 | 14 | - | - | - | - |
| E.S. CENTRAL | 27 | 39 | - | 13 | 19 | - | - | - | 1 |
| Ky. | - | - | - | - | - | - | - | - | - |
| Tenn. | - | 23 | - | - | - | - | - | - | - |
| Ala. | 16 | 16 | - | 13 | 19 | - | - | - | 1 |
| Miss. | 11 | - | - | - | - | - | - | - | - |
| W.S. CENTRAL | 66 | 106 | - | 4 | - | - | - | - | 5 |
| Ark. | - | 7 | - | - | - | - | - | - | 2 |
| La. | 4 | 5 | - | - | - | - | - | - | - |
| Okla. | 1 | 1 | - | 4 | - | - | - | - | - |
| Tex. | 61 | 93 | - | - | - | - | - | - | 3 |
| MOUNTAIN | 3 | 3 | - | - | 3 | - | - | - | 3 |
| Mont. | - | - | - | - | - | - | - | - | 1 |
| Idaho | - | - | - | - | - | - | - | - | - |
| Wyo. | - | - | - | - | - | - | - | - | 1 |
| Colo. | 3 | 2 | - | - | - | - | - | - | - |
| N. Mex. | - | - | - | - | 1 | - | - | - | - |
| Ariz. | - | 1 | - | - | 1 | - | - | - | 1 |
| Utah | - | - | - | - | - | - | - | - | - |
| Nev. | - | - | - | - | 1 | - | - | - | - |
| PACIFIC | 89 | 217 | - | 10 | 50 | - | 1 | - | - |
| Wash. | - | 3 | - | 5 | 1 | - | - | - | - |
| Oreg. | 3 | 2 | - | 4 | 3 | - | - | - | - |
| Calif. | 84 | 211 | - | - | 37 | - | 1 | - | - |
| Alaska | - | - | - | - | - | - | - | - | - |
| Hawaii | 2 | 1 | - | 1 | 9 | - | - | - | - |
| Guam | - | - | - | - | - | - | - | - | - |
| P.R. | 15 | 9 | - | 5 | 3 | - | - | - | 2 |
| V.I. | 1 | - | - | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | 2 | - | - | - | - |
| C.N.M.I. | - | - | - | - | - | - | - | - | - |

U: Unavailable

# TABLE IV. Deaths in 121 U.S. cities,* week ending January 9, 1988 (1st Week)

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I** |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | Total |
| NEW ENGLAND | 763 | 533 | 164 | 41 | 15 | 10 | 77 |
| Boston, Mass. | 197 | 121 | 51 | 16 | 6 | 3 | 27 |
| Bridgeport, Conn. | 42 | 34 | 4 | 4 | - | - | 2 |
| Cambridge, Mass. | 27 | 20 | 6 | - | 1 | - | 3 |
| Fall River, Mass. | 44 | 37 | 6 | - | 1 | - | 3 |
| Hartford, Conn. | 62 | 37 | 16 | 4 | 2 | 3 | 1 |
| Lowell, Mass. | 32 | 25 | 4 | 2 | 1 | - | 1 |
| Lynn, Mass. | 20 | 15 | 5 | - | - | - | 3 |
| New Bedford, Mass. | 42 | 36 | 6 | - | - | - | 4 |
| New Haven, Conn. | 51 | 27 | 13 | 7 | 2 | 2 | 5 |
| Providence, R.I. | 55 | 42 | 11 | 1 | 1 | - | 3 |
| Somerville, Mass. | 7 | 4 | 3 | - | - | - | - |
| Springfield, Mass. | 62 | 45 | 15 | 1 | 1 | - | 11 |
| Waterbury, Conn.§ | 38 | 29 | 7 | 2 | - | - | 3 |
| Worcester, Mass. | 84 | 61 | 17 | 4 | - | 2 | 11 |
| MID. ATLANTIC | 2,879 | 1,831 | 626 | 291 | 57 | 74 | 146 |
| Albany, N.Y. | 42 | 29 | 9 | 3 | - | 1 | - |
| Allentown, Pa. | 22 | 14 | 8 | - | - | - | - |
| Buffalo, N.Y. | 82 | 43 | 24 | 9 | 2 | 4 | 3 |
| Camden, N.J. | 73 | 39 | 22 | 6 | 2 | 4 | 3 |
| Elizabeth, N.J. | 22 | 15 | 4 | 1 | 2 | - | 1 |
| Erie, Pa.† | 42 | 29 | 10 | 1 | - | 2 | 4 |
| Jersey City, N.J. | 78 | 48 | 20 | 7 | 1 | 2 | 1 |
| N.Y. City, N.Y. | 1,407 | 855 | 299 | 189 | 31 | 33 | 63 |
| Newark, N.J. | 88 | 37 | 17 | 16 | 7 | 11 | 4 |
| Paterson, N.J. | 32 | 22 | 5 | 1 | 1 | 3 | 1 |
| Philadelphia, Pa. | 403 | 257 | 103 | 32 | 7 | 4 | 24 |
| Pittsburgh, Pa.† | 161 | 120 | 30 | 5 | 1 | 5 | 8 |
| Reading, Pa. | 32 | 26 | 6 | - | - | - | 4 |
| Rochester, N.Y. | 170 | 135 | 28 | 6 | 1 | - | 17 |
| Schenectady, N.Y. | 33 | 20 | 12 | 1 | - | - | 2 |
| Scranton, Pa.† | 39 | 29 | 7 | 2 | 1 | - | 1 |
| Syracuse, N.Y. | 54 | 40 | 9 | 2 | - | 3 | 4 |
| Trenton, N.J. | 50 | 32 | 7 | 9 | - | 2 | 5 |
| Utica, N.Y. | 22 | 19 | 2 | - | 1 | - | - |
| Yonkers, N.Y. | 27 | 22 | 4 | 1 | - | - | 1 |
| E.N. CENTRAL | 2,534 | 1,695 | 525 | 172 | 53 | 87 | 106 |
| Akron, Ohio | 58 | 45 | 6 | 3 | 2 | 2 | - |
| Canton, Ohio | 53 | 42 | 7 | 2 | 1 | 1 | 9 |
| Chicago, Ill.§ | 564 | 362 | 125 | 45 | 10 | 22 | 16 |
| Cincinnati, Ohio | 77 | 59 | 15 | 2 | - | 1 | 10 |
| Cleveland, Ohio | 202 | 134 | 42 | 13 | 2 | 11 | 2 |
| Columbus, Ohio | 170 | 98 | 41 | 13 | 8 | 8 | 1 |
| Dayton, Ohio | 143 | 94 | 39 | 9 | - | 1 | 5 |
| Detroit, Mich. | 341 | 190 | 83 | 40 | 14 | 14 | 11 |
| Evansville, Ind. | 44 | 32 | 8 | 2 | 1 | 1 | 1 |
| Fort Wayne, Ind. | 81 | 59 | 13 | 6 | 1 | 2 | 3 |
| Gary, Ind. | 15 | 5 | 3 | 6 | 1 | - | 1 |
| Grand Rapids, Mich. | 69 | 59 | 6 | 1 | 2 | 1 | 10 |
| Indianapolis, Ind. | 120 | 79 | 26 | 12 | 2 | 1 | 3 |
| Madison, Wis. | 57 | 42 | 9 | 2 | 1 | 3 | 5 |
| Milwaukee, Wis. | 201 | 153 | 33 | 6 | 3 | 6 | 6 |
| Peoria, Ill. | 70 | 42 | 19 | 1 | 1 | 7 | 4 |
| Rockford, Ill. | 55 | 42 | 9 | 2 | 1 | 1 | 9 |
| South Bend, Ind. | 26 | 20 | 4 | 2 | - | - | 3 |
| Toledo, Ohio | 124 | 91 | 22 | 3 | 3 | 5 | 6 |
| Youngstown, Ohio§ | 64 | 47 | 15 | 2 | - | - | 1 |
| W.N. CENTRAL | 941 | 666 | 183 | 42 | 21 | 29 | 49 |
| Des Moines, Iowa | 102 | 70 | 25 | 5 | - | 2 | 6 |
| Duluth, Minn. | 51 | 39 | 9 | 2 | - | 1 | 5 |
| Kansas City, Kans. | 50 | 37 | 8 | 2 | 2 | 1 | 3 |
| Kansas City, Mo. | 94 | 64 | 13 | 7 | 5 | 5 | 6 |
| Lincoln, Nebr. | 39 | 28 | 7 | 1 | 2 | 1 | 3 |
| Minneapolis, Minn. | 178 | 135 | 29 | 6 | 2 | 6 | 8 |
| Omaha, Nebr. | 109 | 78 | 24 | 4 | 2 | 1 | 5 |
| St. Louis, Mo. | 164 | 103 | 40 | 9 | 4 | 8 | 3 |
| St. Paul, Minn. | 74 | 60 | 10 | 1 | 2 | 1 | 3 |
| Wichita, Kans. | 80 | 52 | 18 | 5 | 2 | 3 | 7 |

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I** |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-84 | 25-44 | 1-24 | <1 | Total |
| S. ATLANTIC | 1,230 | 746 | 253 | 159 | 37 | 35 | 62 |
| Atlanta, Ga.§ | 175 | 104 | 46 | 16 | 5 | 4 | 5 |
| Baltimore, Md. | 187 | 111 | 48 | 17 | 9 | 2 | 6 |
| Charlotte, N.C. | 29 | 19 | 6 | 1 | 1 | 2 | 1 |
| Jacksonville, Fla. | 161 | 105 | 36 | 13 | 4 | 3 | 9 |
| Miami, Fla. | 72 | 39 | 10 | 18 | 3 | 2 | 1 |
| Norfolk, Va. | 94 | 66 | 11 | 10 | 2 | 5 | 13 |
| Richmond, Va. | 91 | 59 | 19 | 9 | 1 | 3 | 5 |
| Savannah, Ga. | 45 | 35 | 8 | 2 | - | - | 7 |
| St. Petersburg, Fla. | 96 | 80 | 9 | 5 | 1 | 1 | 9 |
| Tampa, Fla. | 73 | 39 | 14 | 12 | 3 | 5 | 4 |
| Washington, D.C. | 175 | 69 | 39 | 51 | 8 | 8 | 1 |
| Wilmington, Del. | 32 | 20 | 7 | 5 | - | - | 1 |
| E.S. CENTRAL | 836 | 526 | 184 | 67 | 30 | 29 | 52 |
| Birmingham, Ala. | 127 | 83 | 21 | 10 | 7 | 6 | 5 |
| Chattanooga, Tenn. | 61 | 38 | 17 | 3 | 1 | 2 | 3 |
| Knoxville, Tenn. | 74 | 51 | 15 | 4 | 3 | 1 | 8 |
| Louisville, Ky. | 126 | 88 | 25 | 9 | 2 | 2 | 12 |
| Memphis, Tenn. | 175 | 102 | 41 | 19 | 7 | 6 | 10 |
| Mobile, Ala. | 69 | 46 | 16 | 4 | 1 | 2 | 3 |
| Montgomery, Ala. | 69 | 40 | 16 | 6 | 2 | 5 | 3 |
| Nashville, Tenn. | 135 | 78 | 33 | 12 | 7 | 5 | 8 |
| W.S. CENTRAL | 1,286 | 798 | 266 | 112 | 47 | 63 | 53 |
| Austin, Tex. | 66 | 46 | 10 | 5 | 1 | 4 | 2 |
| Baton Rouge, La. | 41 | 35 | 5 | - | - | 1 | 3 |
| Corpus Christi, Tex.§ | 37 | 27 | 8 | 1 | - | 1 | - |
| Dallas, Tex. | 212 | 114 | 50 | 34 | 11 | 3 | 4 |
| El Paso, Tex. | 77 | 46 | 19 | 5 | 1 | 6 | 6 |
| Fort Worth, Tex | 96 | 59 | 19 | 8 | 5 | 5 | 4 |
| Houston, Tex.§ | 308 | 176 | 74 | 34 | 13 | 11 | 7 |
| Little Rock, Ark. | 37 | 23 | 8 | 1 | 4 | 1 | 3 |
| New Orleans, La. | 145 | 82 | 25 | 9 | 5 | 24 | - |
| San Antonio, Tex. | 129 | 84 | 29 | 10 | 2 | 4 | 14 |
| Shreveport, La. | 40 | 32 | 5 | 1 | 1 | 1 | 5 |
| Tulsa, Okla. | 98 | 74 | 14 | 4 | 4 | 2 | 5 |
| MOUNTAIN | 816 | 523 | 172 | 65 | 30 | 24 | 60 |
| Albuquerque, N. Mex. | 123 | 76 | 26 | 9 | 9 | 1 | 16 |
| Colo. Springs, Colo. | 39 | 25 | 9 | 4 | 1 | - | 8 |
| Denver, Colo. | 88 | 50 | 22 | 4 | 3 | 9 | - |
| Las Vegas, Nev. | 124 | 69 | 36 | 16 | 2 | 1 | 5 |
| Ogden, Utah | 35 | 29 | 6 | - | - | - | 3 |
| Phoenix, Ariz. | 186 | 112 | 42 | 16 | 9 | 7 | 8 |
| Pueblo, Colo. | 33 | 26 | 5 | 2 | - | - | 6 |
| Salt Lake City, Utah | 35 | 27 | 4 | 2 | 1 | 1 | 1 |
| Tucson, Ariz. | 153 | 109 | 22 | 12 | 5 | 5 | 13 |
| PACIFIC | 2,350 | 1,571 | 434 | 194 | 62 | 76 | 159 |
| Berkeley, Calif. | 32 | 24 | 4 | 4 | - | - | 2 |
| Fresno, Calif. | 79 | 54 | 15 | 4 | 1 | 5 | 6 |
| Glendale, Calif. | 41 | 33 | 6 | 2 | - | - | 3 |
| Honolulu, Hawaii | 82 | 57 | 12 | 6 | 5 | 2 | 4 |
| Long Beach, Calif. | 112 | 61 | 29 | 10 | 3 | 9 | 11 |
| Los Angeles Calif. | 704 | 452 | 131 | 70 | 29 | 12 | 25 |
| Oakland, Calif.§ | 74 | 55 | 14 | 4 | - | 1 | 6 |
| Pasadena, Calif.§ | 27 | 21 | 5 | 1 | - | - | 2 |
| Portland, Oreg. | 140 | 104 | 22 | 4 | 3 | 7 | 7 |
| Sacramento, Calif. | 203 | 135 | 41 | 17 | 4 | 6 | 31 |
| San Diego, Calif. | 191 | 122 | 37 | 18 | 7 | 4 | 13 |
| San Francisco, Calif. | 223 | 135 | 45 | 27 | 5 | 11 | 10 |
| San Jose, Calif. | 191 | 144 | 28 | 11 | 3 | 5 | 17 |
| Seattle, Wash. | 118 | 81 | 17 | 10 | - | 10 | 9 |
| Spokane, Wash. | 73 | 50 | 18 | 2 | 1 | 2 | 6 |
| Tacoma, Wash. | 60 | 43 | 10 | 4 | 1 | 2 | 7 |
| TOTAL | 13,635†† | 8,889 | 2,807 | 1,143 | 352 | 427 | 764 |

*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 4 weeks.

*Influenza — Continued*

Rapid diagnosis may be particularly useful in preventing nosocomial outbreaks of influenza A since patients exposed to the virus can be given amantadine, an antiviral drug effective against influenza type A. Rapid diagnostic capabilities may also help hospitals encourage their staffs to use antiviral prophylaxis or to be vaccinated, as recommended by the Immunization Practices Advisory Committee (ACIP) (*1*). Rapid diagnosis, coupled with prompt reporting to public health officials, will also help detect possible epidemics. However, confirmation by a second laboratory is important during nonepidemic periods because it will help avoid reports of false-positive results, which could set control measures into motion unnecessarily.

The cases reported here were identified by laboratory testing. Ideally, suspect isolates should be saved, and a sample should be forwarded to the appropriate state health department for confirmation. Isolates confirmed by state health departments are then forwarded to the WHO Collaborating Center for Influenza at CDC for detailed antigenic analysis, including strain identification. Early in the influenza season, these antigenic analyses need to be performed on as many isolates as possible because the findings are used to identify vaccine strains for the coming year.

*Reference*

1. Immunization Practices Advisory Committee. Prevention and control of influenza. MMWR 1987;36:373-80,385-7.

## Prevalence of Overweight in Selected States — Behavioral Risk Factor Surveillance, 1986

Since 1984, 26 states* have been gathering data on health practices and behaviors from adults (≥18 years of age) as part of the Behavioral Risk Factor Surveillance System (BRFSS) (*1*). These data are collected monthly by telephone interview and include information on height and body weight. State-specific estimates of the prevalence of overweight for 1986 have been derived from analysis of this information.

The definition of overweight used for this study† was based on the Body Mass Index (BMI = Weight [kg] ÷ Height $[m]^2$), which is derived from height and weight data from the Second National Health and Nutrition Examination Survey (NHANES–II) carried out by the National Center for Health Statistics (NCHS) between 1976 and 1980. The BMI was used because it has a high correlation with body weight and virtually no correlation with height (*3*). For the BRFSS study, overweight for men was defined as a BMI ≥27.8, and overweight for women, as a BMI ≥27.3. These values represent the sex-specific 85th percentile of BMI for U.S. adults 20 to 29 years of age.

The highest prevalence of overweight for a total population (24%) was observed in West Virginia; the lowest (14%) was observed in both Utah and Hawaii (Table 1). For men, the highest prevalence of overweight (24%) was reported from North Dakota; and the lowest (14%) was reported from Hawaii. For women, the highest prevalence (26%) was observed in West Virginia and the District of Columbia; and the lowest (12%), in Arizona and Utah. No clear trend in prevalence of overweight was observed among those states that had participated in the BRFSS for the full period 1984-1986.

*Reported by: The 1986 State Behavioral Risk Factor Surveillance System Coordinators. Div of Nutrition, Center for Health Promotion and Education, CDC.*

*Includes the District of Columbia.

†Previous BRFSS estimates of the prevalence of overweight were derived from the Metropolitan Life Insurance Company's "Desirable Weight Tables" (≥120% of desirable weight) (*2*).

*Overweight — Continued*

**Editorial Note:** Differences in the prevalence of overweight from state to state may be due to several factors that are known to be related to overweight and that may differ among state populations. These factors include age, race, socioeconomic status, diet, and exercise practices. Sampling error may also explain some of the observed differences. The lack of a perceptible trend between 1984 and 1986 in the prevalence of overweight in these states was expected since other studies of trends in overweight have yielded similar results (*4,5*).

The criteria currently used to define overweight in the BRFSS have been adopted for several reasons. First, they have been developed from a representative sample of the U.S. population. Second, the criteria use persons 20 to 29 years of age, the leanest age group among adults, as the referent group (*3*). Virtually all of the age-related increase in body weight that occurs among adults is attributable to body fat. Third, these criteria are being used by NCHS and are also used to monitor progress toward the 1990 Objectives for the Nation regarding overweight (*6*).

**TABLE 1. Prevalence of overweight in selected states, by sex — Behavioral Risk Factor Surveillance System, 1986**

| State | Men | | | Women* | | | Total* | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample Size | Overweight† (%) | CI§ | Sample Size | Overweight† (%) | CI§ | Sample Size | Overweight† (%) | CI§ |
| Alabama | 216 | (20) | ±6 | 318 | (19) | ±5 | 534 | (20) | ±4 |
| Arizona | 502 | (19) | ±4 | 623 | (12) | ±3 | 1,125 | (16) | ±2 |
| California | 647 | (18) | ±3 | 847 | (18) | ±3 | 1,494 | (18) | ±2 |
| DC | 418 | (18) | ±5 | 661 | (26) | ±4 | 1,079 | (22) | ±3 |
| Florida | 471 | (19) | ±4 | 651 | (18) | ±3 | 1,122 | (18) | ±2 |
| Georgia | 473 | (20) | ±4 | 591 | (15) | ±3 | 1,064 | (17) | ±3 |
| Hawaii | 713 | (14) | ±3 | 789 | (14) | ±4 | 1,502 | (14) | ±2 |
| Idaho | 418 | (17) | ±4 | 710 | (19) | ±3 | 1,128 | (18) | ±2 |
| Illinois | 449 | (19) | ±4 | 651 | (16) | ±3 | 1,100 | (18) | ±3 |
| Indiana | 515 | (21) | ±4 | 633 | (20) | ±3 | 1,148 | (20) | ±2 |
| Kentucky | 446 | (22) | ±4 | 711 | (22) | ±4 | 1,157 | (22) | ±3 |
| Massachusetts | 429 | (20) | ±4 | 639 | (18) | ±3 | 1,068 | (19) | ±3 |
| Minnesota | 1,303 | (20) | ±2 | 1,625 | (17) | ±2 | 2,928 | (18) | ±2 |
| Missouri | 340 | (23) | ±5 | 511 | (22) | ±4 | 851 | (22) | ±3 |
| Montana | 491 | (19) | ±4 | 641 | (16) | ±3 | 1,132 | (18) | ±2 |
| New Mexico | 494 | (20) | ±4 | 592 | (13) | ±3 | 1,086 | (16) | ±3 |
| New York | 466 | (17) | ±4 | 595 | (19) | ±3 | 1,061 | (18) | ±2 |
| North Carolina | 646 | (21) | ±3 | 885 | (23) | ±3 | 1,531 | (22) | ±2 |
| North Dakota | 521 | (24) | ±4 | 596 | (21) | ±4 | 1,117 | (23) | ±3 |
| Ohio | 475 | (22) | ±4 | 638 | (17) | ±3 | 1,113 | (20) | ±3 |
| Rhode Island | 683 | (23) | ±4 | 773 | (20) | ±3 | 1,456 | (21) | ±2 |
| South Carolina | 683 | (21) | ±3 | 925 | (20) | ±3 | 1,608 | (21) | ±2 |
| Tennessee | 647 | (19) | ±3 | 1,038 | (19) | ±3 | 1,685 | (19) | ±2 |
| Utah | 460 | (17) | ±4 | 667 | (12) | ±3 | 1,127 | (14) | ±2 |
| West Virginia | 555 | (22) | ±4 | 780 | (26) | ±3 | 1,335 | (24) | ±3 |
| Wisconsin | 582 | (23) | ±4 | 651 | (23) | ±3 | 1,233 | (23) | ±3 |

*Pregnant women were excluded from this analysis.
†Overweight is defined as a Body Mass Index (Wt [Kg] ÷ Ht [M]$^2$) ≥27.8 for men and ≥27.3 for women.
§95% confidence intervals.

*Overweight — Continued*

The estimates of overweight from the BRFSS are generally lower than those obtained in other surveys. During 1986, the median prevalence for overweight among the participating states was 20% for men and 19% for women. National data on the prevalence of overweight, based on actual measurement rather than on self-reported data from telephone interviews, are available from the 1976-1980 NHANES–II. When the NCHS reference was used, 24.2% of adult men and 27.1% of adult women were overweight (*3*). Self-reported data from face-to-face interviews in the 1985 Health Interview Survey indicated that 23.5% of adult men and 24.2% of adult women were overweight (*7*). The BRFSS and the NHANES–II results may differ because the BRFSS does not include all states, or the discrepancy may indicate greater underreporting of body weight over the telephone than in face-to-face interviews (*8*).

The 1990 objective regarding the prevalence of overweight was recently revised to state: "By 1990, the prevalence of overweight (BMI of 27.8 or higher for men and 27.3 for women) among the U.S. adult population should be reduced, without impairment of nutritional status, to approximately 18% of men and 21% of women" (*6*). Because this objective is based on the prevalence of overweight derived from actual measurements, data from the upcoming NHANES–III will be required to assess progress. State health departments participating in the BRFSS can set similar objectives and can monitor their progress through telephone surveys. However, when interpreting their results, states must bear in mind the potential effects of telephone survey methodology on estimates of prevalence.

The second 1990 objective related to overweight states, "By 1990, 50% of the overweight population should have adopted weight loss regimens combining an appropriate balance of diet and physical activity" (*6*). This objective is supported by several studies that have found diet and exercise together to be more effective for weight loss than diet alone (*9*). Forty percent of overweight persons who reported trying to lose weight in the 1986 BRFSS were following this objective.

*References*

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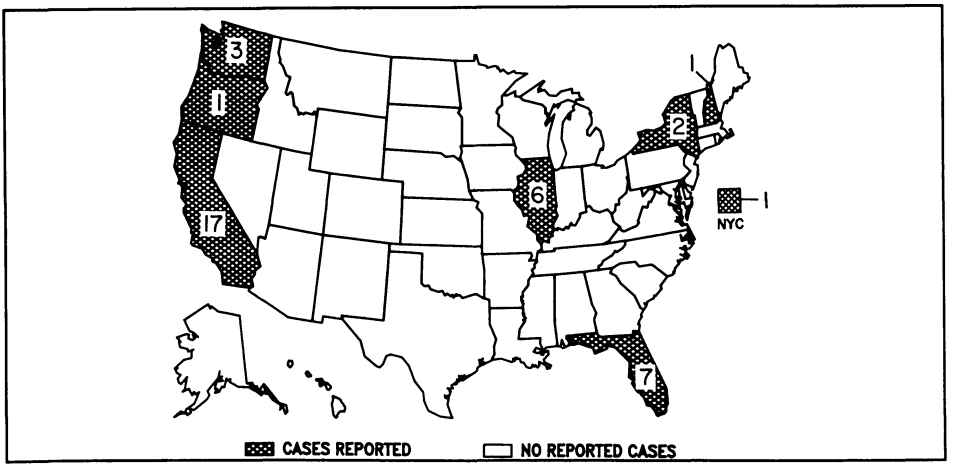
**FIGURE I. Reported measles cases — United States, Weeks 49-52, 1987**

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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.



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