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785 Tuberculosis and Acquired Immunodeficiency Syndrome - New York City
795 ACIP: Poliomyelitis Prevention: Enhanced-Potency Inactivated Poliovirus V4000 - Supplementary Statement

MORBIDITY AND MORTALITY WEEKLY REPORT **ACQUISITIONS**

Epidemiologic Notes and Reports

Tuberculosis and Acquired Immunodeficiency Syndrome - New York City

In recent years, reported tuberculosis (TB) cases in New York City (NYC) have increased substantially, in large part related to coexisting human immunodeficiency virus (HIV) and *Mycobacterium tuberculosis* infection. From 1984 to 1986, reported TB cases increased by 36%, or 593 cases (from 1,630 to 2,223 cases) (Figure 1), a numerical increase greater than that for any state or any other city in the nation. By comparison, during the same period, reported cases for the entire nation increased 2%, or 513 (from 22,255 to 22,768).

Because the increased TB morbidity in NYC was concurrent with the acquired immunodeficiency syndrome (AIDS) epidemic and was concentrated in the group with 80% of all NYC AIDS patients (males 20-49 years of age), a special study was conducted to evaluate the hypothesis that increased TB morbidity might be related to AIDS. The NYC TB registry for 1979 through 1985 and the NYC AIDS registry for 1981 through 1985 were matched.* To determine differences in clinical, demographic, and behavioral characteristics of persons with one or both diseases, patients with both TB and AIDS (TB/AIDS) were compared with AIDS patients without TB and with TB patients without AIDS. Only adults and adolescents (persons 13 years of age or older at diagnosis) were compared because no pediatric patients with both diseases were identified.

TB/AIDS Patients

The 261 patients common to both registries constituted 2% of the 11,231 adult and adolescent TB patients reported to the NYC TB registry from 1979 through 1985 and 5% of the 4,892 adult and adolescent AIDS patients reported to the NYC AIDS registry from 1981 through 1985. Eighty-seven percent (226) of these 261 patients were male; 52% (136) were black; 29% (76) were Hispanic; and 19% (49) were non-Hispanic white. The median age for diagnosis of both TB and AIDS was 34 years.

*These time intervals were chosen because AIDS was first recognized nationally in 1981 and because it was noted that the diagnosis of tuberculosis often preceded the diagnosis of AIDS by months or years.

A notice regarding changes in telephone numbers throughout the Centers for Disease Control and the Agency for Toxic Substances and Disease Registry appears on page 800.

TB and AIDS - Continued

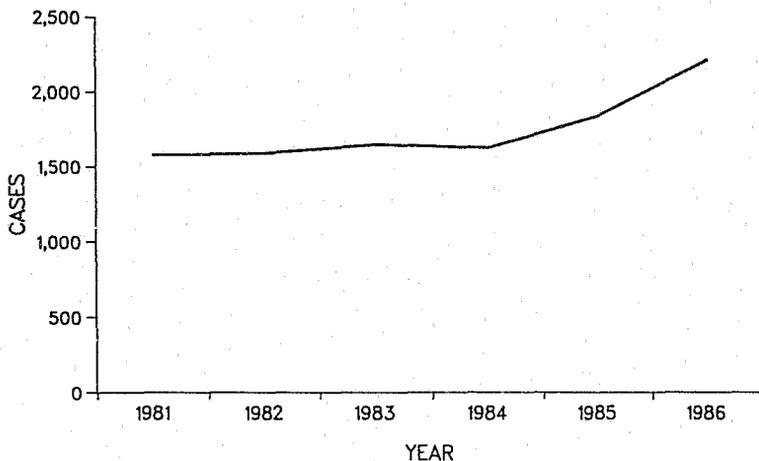
The date on which the first *M. tuberculosis*-positive specimen was taken was available for 258 TB/AIDS patients. For these patients, TB had been diagnosed a median of 2 months before AIDS diagnosis (range: 94 months before AIDS diagnosis to 28 months after AIDS diagnosis). For 65% of the patients, TB was diagnosed within 6 months before or after AIDS diagnosis.

Adult and Adolescent AIDS Patients With and Without TB

TB/AIDS patients and AIDS patients without TB were similar in median age at AIDS diagnosis (34 compared with 36 years) and in gender. However, TB/AIDS patients were more likely to be non-Haitian black, Haitian, and Hispanic than AIDS patients without TB (Table 1). In addition, TB/AIDS patients reported intravenous (IV) drug abuse more frequently and homosexual/bisexual activity alone less frequently than patients with AIDS alone. Among non-Haitian-black IV drug abusers, the percentage of TB/AIDS patients (10%) was more than twice that among both those with a history of homosexual/bisexual behavior (4%) and those with neither risk factor (4%) (Table 2). Among non-Hispanic-white IV drug abusers, the percentage of TB/AIDS patients (5%) was more than twice that among both those with a history of homosexual/bisexual behavior (2%) and those with neither risk factor (0%). Among Hispanic IV drug abusers, the percentage of TB/AIDS patients (8%) was higher than that among those with a history of homosexual/bisexual behavior (5%) and more than twice that among those with neither risk factor (3%). Thus, when the data on AIDS patients was adjusted for race/ethnicity, those AIDS patients who were IV drug abusers were significantly more likely to develop tuberculosis than those who were not (Mantel-Haenszel $\chi^2 = 18.7$, $p < 0.0001$).

Adult and Adolescent TB Patients With and Without AIDS

TB/AIDS patients were younger (median age at TB diagnosis: 34 years compared with 44 years) and more likely to be male than TB patients without AIDS. In addition, they were more likely at TB diagnosis to have more than one site of disease, extrapulmonary TB, and a nonreactive tuberculin skin test (Table 3). TB/AIDS patients with a pulmonary site of disease were less likely to have cavitory disease.

FIGURE 1. Reported tuberculosis cases, by year - New York City, 1981-1986

TB and AIDS — Continued

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Editorial Note: The data from this study, as well as other evidence presented below, suggest that human immunodeficiency virus (HIV) infection is causing a resurgence of TB in NYC. Three findings from this study support the hypothesis that AIDS is associated with the observed increase in TB morbidity. First, the increase in TB cases was concentrated in the sex and age group containing the majority of NYC AIDS patients (males 20-49 years of age). Second, a relatively high proportion of AIDS patients (5%) also had clinically active TB. Third, among patients with both diseases, TB diagnoses clustered in time around the AIDS diagnoses.

Perhaps the strongest evidence to date for a causal association between TB and HIV infection comes from a study among a cohort of 519 IV drug abusers in NYC who

TABLE 1. Adult and adolescent AIDS patients with TB (TB/AIDS) and without TB, by race/ethnicity and AIDS risk factor — New York City, 1981-1985

| Characteristics | TB/AIDS (n=261) | | AIDS Only (n=4,631) | |
|---------------------------|--------------------|------|------------------------|------|
| | No. | (%) | No. | (%) |
| Race/Ethnicity | | | | |
| Black, Non-Haitian | 107 | (41) | 1,279 | (28) |
| Haitian | 29 | (11) | 119 | (3) |
| Hispanic | 76 | (29) | 1,077 | (23) |
| White, Non-Hispanic | 49 | (19) | 2,113 | (46) |
| Other/Unknown | 0 | — | 43 | (1) |
| Risk Factor | | | | |
| IV Drug Abuse | 127 | (49) | 1,303 | (28) |
| Homosexuality/Bisexuality | 81 | (31) | 2,709 | (58) |
| Both of Above | 22 | (8) | 265 | (6) |
| Other | 31 | (12) | 354 | (8) |

TABLE 2. Intravenous (IV) drug abuse and homosexuality/bisexuality among adult and adolescent AIDS patients* with TB (TB/AIDS) and without TB, by race/ethnicity and AIDS risk factor — New York City, 1981-1985

| Race/Ethnicity | IV Drug Abuse | | | Homo/Bisexuality | | | Both Factors | | | Neither Factor | | |
|---------------------|---------------|------------|------------|------------------|-----------|------------|---------------|-----------|------------|----------------|----------|------------|
| | TB/AIDS Cases | | | TB/AIDS Cases | | | TB/AIDS Cases | | | TB/AIDS Cases | | |
| | AIDS Cases | No. | (%) | AIDS Cases | No. | (%) | AIDS Cases | No. | (%) | AIDS Cases | No. | (%) |
| Black, Non-Haitian | 669 | 70 | (10) | 509 | 21 | (4) | 101 | 12 | (12) | 107 | 4 | (4) |
| White, Non-Hispanic | 191 | 9 | (5) | 1,803 | 36 | (2) | 107 | 4 | (4) | 61 | 0 | (0) |
| Hispanic | 555 | 44 | (8) | 436 | 23 | (5) | 74 | 6 | (8) | 88 | 3 | (3) |
| Total | 1,415 | 123 | (9) | 2,748 | 80 | (3) | 282 | 22 | (8) | 256 | 7 | (3) |

*Excludes 148 Haitian AIDS patients, 29 of whom also had TB, and 43 patients with other or unknown race/ethnicity, none of whom also had TB.

TB and AIDS — Continued

were followed from 1984 through 1986 (7). In this group, 12 of the 279 persons with serologic evidence of HIV infection or clinical AIDS developed TB, whereas none of the 240 HIV-negative persons developed TB ($p = 0.0005$, Fischer's exact test).

Other evidence that HIV infection and AIDS may be responsible for the resurgence of TB in NYC includes the fact that NYC, the area with the largest increase in TB in the nation, has also reported more AIDS cases than any other area in the nation. The nearly 600 additional TB cases in 1986 (compared with 1984) exceeds the increase in the entire nation as a whole. Through 1986, 7,891 patients with AIDS, or 27% of the nation's cumulative reported cases (29,121), were NYC residents. Data also indicate that the greatest increases in TB in NYC occurred in areas of the city with a high incidence of AIDS.

† Data suggest that HIV infection in the absence of AIDS is associated with increased TB morbidity (New York City Department of Health, unpublished data). In this study, 58 males who were 25-44 years of age and did not have AIDS but were hospitalized for suspected TB[†] consented to HIV antibody testing. Thirty-one (53%) of them were HIV positive.

Previously published studies have linked TB to AIDS in Florida (2-3), Newark (4), Connecticut (5), and San Francisco (6). Increased TB morbidity has been associated with HIV infection in Dade County, Florida (7). Of 71 consecutive TB patients seen at

[†]All 58 patients were later found positive for *M. tuberculosis*.

TABLE 3. Adult and adolescent TB patients with AIDS (TB/AIDS) and without AIDS, by demographic group and clinical characteristics of TB — New York City, 1979-1985

| Characteristics at TB Diagnosis | TB/AIDS (n = 261) | | TB Only (n = 10,970) | |
|-----------------------------------|----------------------|------|-------------------------|------|
| | No. | (%) | No. | (%) |
| Sex | | | | |
| Male | 226 | (87) | 7,351 | (67) |
| Female | 35 | (13) | 3,619 | (33) |
| Age 20-49 Years | | | | |
| Yes | 244 | (93) | 6,219 | (57) |
| No | 17 | (7) | 4,751 | (43) |
| Disease Sites | | | | |
| Multiple* | 62 | (24) | 415 | (4) |
| One, Extrapulmonary | 58 | (22) | 1,741 | (16) |
| One, Pulmonary | 141 | (54) | 8,814 | (80) |
| Tuberculin Skin Test [†] | | | | |
| Nonreactive | 50 | (58) | 792 | (18) |
| Reactive | 36 | (42) | 3,686 | (82) |
| Chest X-ray [‡] | | | | |
| Normal | 13 | (8) | 269 | (3) |
| Abnormal, Noncavitary | 131 | (80) | 5,410 | (66) |
| Abnormal, Cavitory | 20 | (12) | 2,576 | (31) |

*Includes at least one extrapulmonary site.

[†]Includes only patients with known tuberculin skin test results.

[‡]Includes only those with pulmonary disease and known chest X-ray results.

TB and AIDS — Continued

the Dade County Public Health Department, 31% (22) were HIV positive. Two of these 22 patients met the former CDC surveillance criteria for AIDS; ten (45%) of the 22 had extrapulmonary TB and would thus meet the revised CDC surveillance case definition for AIDS (8).

There are two possible mechanisms by which the immunodeficiency caused by HIV infection may increase the risk of tuberculosis. HIV-related immunodeficiency could increase susceptibility to new infection and permit that infection to rapidly progress to clinically apparent disease, or it may allow a previously latent tuberculous infection to progress to clinically apparent disease. Although the clinical and radiographic evidence of tuberculosis in AIDS patients is often similar to the pattern observed in nonimmunodeficient patients with primary or recently acquired infection, the clustering of TB diagnoses around the time of the AIDS diagnoses suggests that most tuberculosis in patients with AIDS results from reactivation of a previously acquired latent infection. The present annual risk of new tuberculous infection in the United States is too low to account for the high incidence of tuberculosis among AIDS patients. Thus, most tuberculosis in AIDS patients is probably due to the reactivation of latent infections.

The registry match indicates that TB/AIDS patients in NYC are predominantly IV drug abusers. Fifty-seven percent of the TB/AIDS patients in this study were IV drug abusers, whereas 34% of AIDS patients without TB had this risk factor. The number of reported TB patients in NYC who are IV drug abusers is currently unknown. There are an estimated 200,000 IV drug abusers in NYC, 30,000 of whom are enrolled in methadone treatment programs. These estimates, along with the fact that 12 TB cases developed in a cohort of 519 IV drug abusers, that IV drug abuse is the most common risk factor among TB/AIDS patients, and that NYC had 600 more cases in 1986 than it had in 1984, suggest that many unreported or unidentified TB cases may be occurring annually among HIV-positive IV drug abusers. Identifying tuberculin-positive IV drug abusers and giving them isoniazid preventive therapy, regardless of their age, may prevent TB among this group.

The registry match also indicates that most TB/AIDS patients in NYC are members of racial and ethnic minorities. Eighty-one percent of the TB/AIDS patients were black (including Haitian) or Hispanic, whereas 53% of AIDS patients without TB and 68% of TB patients without AIDS (50% black and 18% Hispanic) belonged to these groups.

Patients with AIDS or HIV infection who also develop TB often have clinical findings⁵ that are different from those of TB patients without immunodeficiency (2-8), and a high index of suspicion and special diagnostic studies are often needed to establish the diagnosis of TB in these patients (9). HIV-infected persons who have active TB should be treated in accordance with recently published guidelines (9).

HIV testing of all TB patients should be considered because of the implications of HIV seropositivity for patient management (10). There is some evidence that TB patients with HIV infection do not respond to standard therapies as well as patients without HIV infection. Some reports have suggested a higher incidence of adverse drug reactions (6) and a higher treatment-failure rate during therapy (4). Therefore, CDC and the American Thoracic Society have recommended a more aggressive approach to treatment of TB in HIV-infected patients (9,11). Treatment should initially include at least three of the drugs available for treatment of TB, should continue for

⁵Multiple disease sites, extrapulmonary involvement, loss of tuberculin skin reactivity, and, among patients with pulmonary disease, noncavitary chest X-rays.

TB and AIDS - Continued

a minimum of 9 months, and should last for at least 6 months after the patient becomes negative for *M. tuberculosis*. HIV-infected patients with tuberculosis should receive frequent and careful monitoring for adverse drug effects during therapy and should be periodically evaluated for signs of relapse after therapy is complete. To prevent the transmission of HIV, persons being tested for HIV infection should be counseled in accordance with current recommendations (12).

Increases in TB morbidity may occur in other areas as the prevalence of HIV increases in these areas. Health departments should conduct surveys of the prevalence of HIV infection among TB patients in their jurisdictions. CDC is currently working with health departments in 30 metropolitan areas to plan and implement such surveys.

(Continued on page 795)

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

| Disease | 48th Week Ending | | | Cumulative, 48th Week Ending | | |
|---|------------------|---------------|------------------|------------------------------|---------------|------------------|
| | Dec. 5, 1987 | Nov. 29, 1986 | Median 1982-1986 | Dec. 5, 1987 | Nov. 29, 1986 | Median 1982-1986 |
| Acquired Immunodeficiency Syndrome (AIDS) | 828 | 75 | N | 18,853 | 12,187 | N |
| Aseptic meningitis | 154 | 164 | 222 | 10,477 | 10,083 | 9,631 |
| Encephalitis: Primary (arthropod-borne & unspc) | 11 | 16 | 22 | 1,190 | 1,128 | 1,220 |
| Post-infectious | 2 | - | 1 | 92 | 98 | 98 |
| Gonorrhea: Civilian | 13,569 | 15,056 | 15,532 | 708,207 | 821,053 | 821,053 |
| Military | 209 | 237 | 240 | 15,000 | 15,563 | 19,545 |
| Hepatitis: Type A | 465 | 439 | 455 | 22,526 | 21,042 | 21,042 |
| Type B | 442 | 412 | 486 | 23,300 | 23,737 | 23,737 |
| Non A, Non B | 28 | 43 | N | 2,656 | 3,245 | N |
| Unspecified | 63 | 59 | 111 | 2,871 | 4,031 | 5,297 |
| Legionellosis | 7 | 9 | N | 804 | 756 | N |
| Leprosy | 4 | 4 | 4 | 182 | 236 | 221 |
| Malaria | 10 | 15 | 14 | 794 | 1,045 | 951 |
| Measles: Total* | 9 | 29 | 15 | 3,554 | 5,919 | 2,516 |
| Indigenous | 9 | 28 | N | 3,134 | 5,615 | N |
| Imported | - | 1 | N | 420 | 304 | N |
| Meningococcal infections: Total | 38 | 36 | 46 | 2,636 | 2,282 | 2,461 |
| Civilian | 38 | 36 | 46 | 2,635 | 2,280 | 2,457 |
| Military | - | - | - | 1 | 2 | 7 |
| Mumps | 206 | 179 | 67 | 11,758 | 4,911 | 3,044 |
| Pertussis | 51 | 38 | 38 | 2,314 | 3,903 | 2,174 |
| Rubella (German measles) | 5 | 3 | 8 | 325 | 505 | 707 |
| Syphilis (Primary & Secondary): Civilian | 644 | 571 | 521 | 33,171 | 25,010 | 25,709 |
| Military | 3 | 5 | 3 | 145 | 152 | 271 |
| Toxic Shock syndrome | 6 | 8 | N | 302 | 330 | N |
| Tuberculosis | 429 | 261 | 499 | 19,634 | 20,097 | 20,097 |
| Tularemia | 1 | - | 3 | 182 | 153 | 239 |
| Typhoid Fever | 19 | 4 | 4 | 327 | 298 | 354 |
| Typhus fever, tick-borne (RMSF) | 2 | 2 | 4 | 578 | 731 | 821 |
| Rabies, animal | 68 | 54 | 87 | 4,308 | 5,041 | 5,041 |

TABLE II. Notifiable diseases of low frequency, United States

| | Cum. 1987 | | Cum. 1987 |
|------------------------------------|-----------|--|-----------|
| Anthrax | 1 | Leptospirosis (Calif.1; Hawaii 1) | 36 |
| Botulism: Foodborne (N.Y. City 2) | 12 | Plague (Ariz. 1) | 11 |
| Infant | 44 | Poliomyelitis, Paralytic | - |
| Other | 2 | Pittacosis (Md. 1) | 76 |
| Brucellosis (Mass. 1; Calif.2) | 103 | Rabies, human | - |
| Cholera | 4 | Tetanus (Calif 1) | 37 |
| Congenital rubella syndrome | 5 | Trichinosis | 7 |
| Congenital syphilis, ages < 1 year | 127 | Typhus fever, flea-borne (endemic, murine) | 34 |
| Diphtheria | 3 | | |

*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 5, 1987 and November 29, 1986 (48th Week)

| Reporting Area | AIDS Cum. 1987 | Aseptic Meningitis 1987 | Encephalitis | | Gonorrhea (Civilian) | | Hepatitis (Viral), by type | | | | Legionel- losis 1987 | Leprosy Cum. 1987 |
|------------------|----------------------|-------------------------------|--------------|----------------------|-------------------------|--------------|----------------------------|------|-------|------------------|----------------------------|-------------------------|
| | | | Primary | Post-in- fectious | | | A | B | NA,NB | Unspeci- fied | | |
| | | | Cum. 1987 | Cum. 1987 | Cum. 1987 | Cum. 1986 | 1987 | 1987 | 1987 | 1987 | | |
| UNITED STATES | 18,853 | 154 | 1,190 | 92 | 708,207 | 821,053 | 465 | 442 | 28 | 63 | 7 | 182 |
| NEW ENGLAND | 799 | 7 | 43 | 2 | 22,060 | 20,207 | 23 | 35 | 1 | 4 | - | 12 |
| Maine | 27 | - | 4 | - | 654 | 789 | - | 2 | - | - | - | - |
| N.H. | 29 | - | 2 | - | 375 | 530 | - | - | - | - | - | 2 |
| Vt. | 14 | 4 | 5 | - | 203 | 246 | 1 | 5 | - | - | - | - |
| Mass. | 458 | 2 | 17 | 1 | 7,736 | 7,983 | 16 | 22 | 1 | 4 | - | 9 |
| R.I. | 60 | 1 | 3 | 1 | 2,003 | 1,710 | 4 | - | - | - | - | - |
| Conn. | 213 | - | 12 | - | 11,089 | 8,949 | 2 | 6 | - | - | - | 1 |
| MID. ATLANTIC | 5,401 | 19 | 134 | 7 | 110,584 | 142,830 | 36 | 72 | 5 | 6 | - | 20 |
| Upstate N.Y. | 663 | 6 | 48 | 3 | 15,428 | 17,246 | 22 | 11 | 1 | - | - | - |
| N.Y. City | 2,849 | 7 | 12 | - | 59,422 | 82,811 | 3 | 24 | 2 | 2 | - | 20 |
| N.J. | 1,317 | 3 | 10 | - | 15,133 | 18,130 | 10 | 28 | 2 | 3 | - | - |
| Pa. | 572 | 3 | 64 | 4 | 20,601 | 24,643 | 1 | 9 | - | 1 | - | - |
| E.N. CENTRAL | 1,235 | 25 | 345 | 13 | 108,429 | 110,514 | 17 | 46 | 1 | 1 | 1 | 8 |
| Ohio | 279 | 9 | 155 | 6 | 24,859 | 27,344 | 3 | 10 | - | - | - | 3 |
| Ind. | 102 | 7 | 53 | - | 8,789 | 11,380 | 3 | 6 | - | - | - | - |
| Ill. | 548 | - | 25 | 7 | 31,217 | 25,340 | 4 | 3 | - | 1 | - | 1 |
| Mich. | 210 | 9 | 76 | - | 34,605 | 34,655 | 7 | 27 | 1 | - | 1 | 3 |
| Wis. | 96 | - | 36 | - | 8,959 | 11,543 | - | - | - | - | - | 1 |
| W.N. CENTRAL | 423 | 5 | 85 | - | 28,547 | 35,216 | 15 | 7 | 1 | - | - | - |
| Minn. | 110 | 1 | 51 | - | 4,255 | 5,084 | - | 3 | - | - | - | - |
| Iowa | 25 | 1 | 13 | - | 2,791 | 3,603 | 1 | - | - | - | - | - |
| Mo. | 220 | 2 | 1 | - | 15,231 | 17,429 | 11 | 2 | 1 | - | - | - |
| N. Dak. | 2 | - | 1 | - | 261 | 289 | - | - | - | - | - | - |
| S. Dak. | 2 | 1 | - | - | 561 | 720 | 3 | - | - | - | - | - |
| Nebr. | 18 | - | 10 | - | 1,877 | 2,603 | - | 2 | - | - | - | - |
| Kans. | 46 | - | 9 | - | 3,571 | 5,488 | - | - | - | - | - | - |
| S. ATLANTIC | 3,226 | 23 | 160 | 34 | 185,794 | 212,539 | 13 | 70 | 1 | 1 | 2 | 6 |
| Del. | 28 | - | 7 | 1 | 3,167 | 3,483 | - | 1 | - | - | - | - |
| Md. | 406 | 10 | 19 | 7 | 21,420 | 25,081 | 5 | 31 | - | - | 2 | 2 |
| D.C. | 419 | 1 | - | - | 12,395 | 15,870 | 1 | 1 | - | - | - | - |
| Va. | 218 | 1 | 38 | 2 | 13,555 | 17,475 | 1 | 1 | - | - | - | - |
| W. Va. | 20 | - | 54 | - | 1,297 | 2,053 | - | - | - | - | - | - |
| N.C. | 166 | 5 | 26 | - | 27,962 | 32,829 | - | 13 | 1 | - | - | - |
| S.C. | 72 | 1 | 1 | - | 14,192 | 17,943 | 1 | 9 | - | - | - | 1 |
| Ga. | 457 | 3 | 1 | - | 33,135 | 35,232 | 3 | 8 | - | - | - | - |
| Fla. | 1,440 | 2 | 14 | 24 | 58,671 | 62,573 | 2 | 6 | - | 1 | - | 3 |
| E.S. CENTRAL | 281 | 5 | 60 | 7 | 53,462 | 65,480 | 7 | 18 | 2 | - | - | - |
| Ky. | 43 | - | 31 | 1 | 5,359 | 7,214 | 5 | 3 | - | - | - | - |
| Tenn. | 65 | - | 12 | - | 18,830 | 24,793 | 2 | 7 | 2 | - | - | - |
| Ala. | 142 | 5 | 17 | 1 | 16,755 | 19,225 | - | 5 | - | - | - | - |
| Miss. | 31 | - | - | 5 | 12,518 | 14,248 | - | 3 | - | - | - | - |
| W.S. CENTRAL | 1,934 | 31 | 145 | 4 | 79,845 | 95,137 | 65 | 70 | - | 15 | 2 | 4 |
| Ark. | 45 | 1 | 2 | 2 | 9,007 | 9,020 | 13 | 5 | - | 1 | - | - |
| La. | 306 | 2 | 28 | - | 13,158 | 16,230 | 1 | 26 | - | - | - | - |
| Okla. | 96 | 4 | 26 | 1 | 8,634 | 10,917 | 21 | 4 | - | 2 | 2 | - |
| Tex. | 1,487 | 24 | 89 | 1 | 49,046 | 58,970 | 28 | 35 | - | 12 | - | 4 |
| MOUNTAIN | 552 | 7 | 73 | 4 | 18,492 | 24,035 | 99 | 21 | 7 | 8 | - | 2 |
| Mont. | 6 | - | 1 | - | 517 | 633 | - | - | - | 1 | - | - |
| Idaho | 10 | - | - | - | 635 | 800 | 10 | 4 | - | - | - | 1 |
| Wyo. | 3 | - | 1 | - | 399 | 500 | - | 1 | - | - | - | - |
| Colo. | 205 | 1 | 42 | - | 4,190 | 6,208 | 9 | 1 | - | 6 | - | - |
| N. Mex. | 45 | 1 | 5 | - | 2,016 | 2,556 | 14 | 4 | - | - | - | - |
| Ariz. | 168 | 5 | 18 | 1 | 6,288 | 7,783 | 52 | 7 | 4 | - | - | - |
| Utah | 39 | - | 1 | 3 | 595 | 1,029 | 14 | - | 2 | 1 | - | - |
| Nev. | 76 | - | 5 | - | 3,852 | 4,526 | - | 4 | 1 | - | - | 1 |
| PACIFIC | 5,002 | 32 | 145 | 21 | 100,994 | 115,035 | 192 | 103 | 10 | 28 | 2 | 130 |
| Wash. | 317 | - | 11 | 4 | 8,140 | 8,476 | 43 | 19 | 3 | 4 | - | 6 |
| Oreg. | 153 | - | - | - | 3,706 | 5,051 | 32 | 22 | - | 1 | - | 1 |
| Calif. | 4,445 | 25 | 129 | 17 | 86,828 | 98,190 | 111 | 61 | 7 | 23 | 2 | 100 |
| Alaska | 14 | 1 | 2 | - | 1,547 | 2,437 | 6 | 1 | - | - | - | - |
| Hawaii | 73 | 6 | 3 | - | 771 | 1,193 | - | - | - | - | - | 23 |
| Guam | 3 | - | - | - | 179 | 201 | - | - | - | - | - | - |
| P.R. | 158 | - | 1 | 1 | 1,763 | 2,237 | 1 | 2 | - | - | - | 5 |
| V.I. | - | - | - | - | 268 | 254 | 1 | 1 | - | - | - | - |
| Pac. Trust Terr. | - | - | - | - | 351 | 444 | - | - | - | - | - | 48 |
| Amer. Samoa | - | - | - | - | 76 | 53 | - | - | - | - | - | 1 |

N: Not notifiable

U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 5, 1987 and November 29, 1986 (48th Week)

| Reporting Area | Malaria | | Measles (Rubella) | | | | Meningococcal Infections | | Mumps | | Pertussis | | Rubella | | | |
|------------------|-----------|------|-------------------|-----------|-----------|-------|--------------------------|------|-----------|------|-----------|-------|-----------|------|-----------|------|
| | Cum. 1987 | 1987 | Indigenous | | Imported* | Total | Cum. 1987 | 1987 | Cum. 1987 | 1987 | Cum. 1987 | 1987 | Cum. 1987 | 1987 | Cum. 1987 | 1987 |
| | | | 1987 | Cum. 1987 | 1987 | | | | | | | | | | | |
| UNITED STATES | 794 | 9 | 3,134 | - | 420 | 5,919 | 2,636 | 206 | 11,758 | 51 | 2,314 | 3,903 | 5 | 325 | 505 | |
| NEW ENGLAND | 53 | - | 119 | - | 163 | 103 | 218 | - | 60 | 3 | 161 | 159 | 1 | 2 | 9 | |
| Maine | 2 | - | 3 | - | - | 13 | 13 | - | 1 | - | 28 | 2 | - | 1 | - | |
| N.H. | 2 | - | 61 | - | 102 | 43 | 20 | - | 11 | - | 39 | 82 | - | - | 1 | |
| Vt. | - | - | 11 | - | 15 | - | 18 | - | 7 | - | 4 | 3 | - | - | 1 | |
| Mass. | 22 | - | 27 | - | 39 | 36 | 108 | - | 23 | - | 55 | 42 | 1 | 1 | 4 | |
| R.I. | 8 | - | 1 | - | 1 | 2 | 14 | - | 2 | 2 | 5 | 6 | - | - | 2 | |
| Conn. | 19 | - | 16 | - | 6 | 9 | 45 | - | 16 | 1 | 30 | 24 | - | - | 1 | |
| MID ATLANTIC | 109 | 3 | 528 | - | 57 | 1,763 | 341 | 4 | 264 | 9 | 282 | 202 | - | 12 | 37 | |
| Upstate N.Y. | 33 | 1 | 27 | - | 14 | 101 | 118 | - | 109 | 6 | 162 | 125 | - | 10 | 27 | |
| N.Y. City | 23 | 2 | 446 | - | 19 | 727 | 34 | - | 10 | - | 13 | 10 | - | 1 | 5 | |
| N.J. | 27 | - | 32 | - | 7 | 909 | 67 | 4 | 75 | 3 | 20 | 20 | - | 1 | 5 | |
| Pa. | 26 | - | 23 | - | 17 | 26 | 122 | - | 70 | - | 87 | 47 | - | - | - | |
| E.N. CENTRAL | 51 | - | 360 | - | 25 | 1,088 | 401 | 34 | 6,388 | - | 236 | 389 | - | 37 | 77 | |
| Ohio | 13 | - | 1 | - | 4 | 10 | 134 | - | 113 | - | 74 | 166 | - | - | 1 | |
| Ind. | 7 | - | - | - | - | 38 | 42 | - | 934 | - | 17 | 35 | - | - | - | |
| Ill. | 7 | - | 187 | - | 18 | 679 | 98 | 11 | 2,616 | - | 17 | 39 | - | 27 | 67 | |
| Mich. | 18 | - | 29 | - | - | 75 | 102 | 23 | 1,053 | - | 49 | 35 | - | 9 | 8 | |
| Wis. | 6 | - | 143 | - | 3 | 286 | 25 | - | 1,672 | - | 79 | 111 | - | 1 | 1 | |
| W.N. CENTRAL | 28 | - | 206 | - | 22 | 340 | 107 | 11 | 1,414 | 2 | 136 | 1,345 | - | 2 | 14 | |
| Minn. | 8 | - | 19 | - | 20 | 49 | 30 | - | 781 | - | 13 | 48 | - | - | 1 | |
| Iowa | 6 | - | - | - | - | 134 | 5 | 10 | 446 | 1 | 58 | 19 | - | 1 | 1 | |
| Mo. | 8 | - | 188 | - | 1 | 32 | 31 | 1 | 33 | 1 | 34 | 22 | - | - | 1 | |
| N. Dak. | - | - | 1 | - | - | 25 | 1 | - | 6 | - | 12 | 5 | - | - | 1 | |
| S. Dak. | - | - | - | - | - | - | 3 | - | 90 | - | 3 | 14 | - | - | - | |
| Nebr. | 5 | - | - | - | - | 1 | 6 | - | 4 | - | 1 | 10 | - | - | - | |
| Kans. | 1 | - | - | - | 1 | 99 | 31 | - | 54 | - | 15 | 1,227 | - | 1 | 10 | |
| S. ATLANTIC | 139 | 3 | 158 | - | 13 | 859 | 436 | 4 | 300 | - | 310 | 754 | - | 18 | 11 | |
| Del. | 3 | - | 32 | - | - | 1 | 7 | - | - | - | 5 | 227 | - | 2 | - | |
| Md. | 33 | 3 | 9 | - | 2 | 35 | 43 | 2 | 30 | - | 19 | 164 | - | 3 | - | |
| D.C. | 19 | - | - | - | 1 | 2 | 10 | - | 1 | - | - | - | - | 1 | - | |
| Va. | 25 | - | 1 | - | - | 60 | 67 | - | 80 | - | 52 | 41 | - | 1 | - | |
| W. Va. | 2 | - | - | - | - | 2 | 5 | 1 | 40 | - | 50 | 26 | - | - | - | |
| N.C. | 13 | - | 2 | - | 4 | 4 | 52 | 1 | 30 | - | 119 | 79 | - | 1 | - | |
| S.C. | 6 | - | 2 | - | - | 301 | 39 | - | 19 | - | - | 18 | - | - | - | |
| Ga. | 5 | - | 9 | - | 1 | 93 | 88 | - | 40 | - | 23 | 132 | - | 2 | - | |
| Fla. | 33 | - | 103 | - | 5 | 361 | 125 | - | 60 | - | 42 | 67 | - | 8 | 11 | |
| E.S. CENTRAL | 15 | - | 5 | - | 3 | 70 | 138 | 99 | 1,374 | - | 47 | 49 | - | 3 | 4 | |
| Ky. | 3 | - | - | - | - | 6 | 24 | 50 | 273 | - | 2 | 5 | - | 2 | 4 | |
| Tenn. | 1 | - | - | - | - | 56 | 61 | 49 | 1,039 | - | 15 | 18 | - | 1 | - | |
| Ala. | 5 | - | 1 | - | 3 | 2 | 44 | - | 61 | - | 24 | 25 | - | - | - | |
| Miss. | 6 | - | 4 | - | - | 6 | 9 | N | N | - | 6 | 1 | - | - | - | |
| W.S. CENTRAL | 53 | - | 444 | - | 4 | 723 | 177 | 34 | 1,268 | 28 | 304 | 250 | - | 11 | 71 | |
| Ark. | 1 | - | - | - | - | 283 | 21 | 2 | 293 | - | 13 | 20 | - | 2 | 1 | |
| La. | 1 | - | - | - | - | 4 | 23 | 9 | 665 | - | 50 | 15 | - | - | - | |
| Okla. | 5 | - | 3 | - | 1 | 39 | 24 | N | N | 1 | 163 | 126 | - | 5 | - | |
| Tex. | 46 | - | 441 | - | 3 | 397 | 109 | 8 | 294 | 27 | 78 | 89 | - | 4 | 70 | |
| MOUNTAIN | 41 | 1 | 480 | - | 19 | 330 | 86 | 7 | 231 | 7 | 203 | 273 | - | 25 | 24 | |
| Mont. | - | - | 127 | - | 1 | 8 | 4 | 1 | 7 | - | 6 | 20 | - | 8 | 2 | |
| Idaho | 3 | - | - | - | - | 1 | 6 | 1 | 7 | - | 65 | 46 | - | 1 | - | |
| Wyo. | 2 | - | - | - | 2 | - | - | - | - | - | 5 | 4 | - | 1 | 1 | |
| Colo. | 13 | - | 5 | - | 4 | 10 | 30 | - | 30 | 2 | 67 | 66 | - | - | 1 | |
| N. Mex. | 2 | 1 | 311 | - | 9 | 38 | 7 | N | N | - | 12 | 26 | - | - | - | |
| Ariz. | 17 | - | 35 | - | 1 | 258 | 26 | 5 | 170 | 5 | 38 | 65 | - | 5 | 2 | |
| Utah | 1 | - | - | - | 1 | 13 | 9 | - | 12 | - | 10 | 42 | - | 10 | 15 | |
| Nev. | 3 | - | 2 | - | 1 | 2 | 4 | - | 5 | - | - | 4 | - | - | 3 | |
| PACIFIC | 305 | 2 | 832 | - | 114 | 643 | 732 | 13 | 459 | 2 | 635 | 482 | 4 | 215 | 258 | |
| Wash. | 26 | - | 34 | - | 11 | 168 | 78 | 6 | 62 | 2 | 98 | 149 | - | 2 | 17 | |
| Oreg. | 6 | 2 | 21 | - | 81 | 12 | 35 | N | N | - | 71 | 14 | - | 2 | 4 | |
| Calif. | 267 | - | 777 | - | 17 | 434 | 602 | 7 | 374 | - | 225 | 297 | 4 | 139 | 231 | |
| Alaska | 3 | - | - | - | 1 | - | 7 | - | 7 | - | 5 | 5 | - | 2 | - | |
| Hawaii | 3 | - | - | - | 4 | 29 | 10 | - | 16 | - | 236 | 20 | - | 70 | 6 | |
| Guam | - | - | 2 | - | - | 5 | 5 | - | 5 | - | - | - | - | 1 | 4 | |
| P.R. | 1 | - | 771 | - | - | 36 | 5 | - | 12 | - | 20 | 19 | - | 3 | 62 | |
| V.I. | - | - | - | - | - | - | - | 1 | 20 | - | - | - | - | 1 | - | |
| Pac. Trust Terr. | - | - | 1 | - | - | - | 1 | - | 5 | - | 1 | - | - | 1 | 2 | |
| Amer. Samoa | - | - | 2 | - | - | 2 | - | - | 7 | - | - | - | - | - | 1 | |

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

N: Not notifiable U: Unavailable ¹International ²Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 5, 1987 and November 29, 1986 (48th Week)

| Reporting Area | Syphilis (Civilian) (Primary & Secondary) | | Toxic- shock Syndrome | Tuberculosis | | Tula- ræmia | Typhoid Fever | Typhus Fever (Tick-borne) (RMSF) | Rabies Animal |
|------------------|--|--------------|-----------------------------|--------------|--------------|----------------|------------------|--|------------------|
| | Cum. 1987 | Cum. 1986 | 1987 | Cum. 1987 | Cum. 1986 | Cum. 1987 | Cum. 1987 | Cum. 1987 | Cum. 1987 |
| UNITED STATES | 33,171 | 25,013 | 6 | 19,634 | 20,097 | 182 | 327 | 578 | 4,308 |
| NEW ENGLAND | 586 | 458 | - | 589 | 631 | 1 | 32 | 8 | 7 |
| Maine | 1 | 19 | - | 22 | 34 | - | 1 | - | 3 |
| N.H. | 3 | 13 | - | 18 | 30 | - | - | - | - |
| Vt. | 4 | 9 | - | 15 | 16 | - | 1 | - | - |
| Mass. | 282 | 246 | - | 324 | 347 | 1 | 19 | 4 | - |
| R.I. | 12 | 19 | - | 58 | 42 | - | 3 | - | 1 |
| Conn. | 284 | 152 | - | 152 | 162 | - | 8 | 4 | 3 |
| MID. ATLANTIC | 6,001 | 3,506 | 1 | 3,599 | 3,974 | 1 | 43 | 25 | 377 |
| Upstate N.Y. | 232 | 183 | 1 | 477 | 577 | 1 | 9 | 11 | 54 |
| N.Y. City | 4,446 | 1,958 | - | 1,771 | 2,078 | - | 13 | 5 | - |
| N.J. | 666 | 610 | - | 639 | 673 | - | 21 | 1 | 15 |
| Pa. | 657 | 755 | - | 712 | 646 | - | - | 8 | 308 |
| E.N. CENTRAL | 810 | 808 | 1 | 2,184 | 2,367 | 3 | 35 | 38 | 152 |
| Ohio | 101 | 117 | - | 389 | 419 | 1 | 11 | 22 | 17 |
| Ind. | 56 | 103 | - | 220 | 258 | - | 5 | 1 | 17 |
| Ill. | 408 | 370 | - | 981 | 1,027 | - | 11 | 7 | 44 |
| Mich. | 188 | 176 | 1 | 504 | 561 | - | 5 | 5 | 28 |
| Wis. | 57 | 42 | - | 90 | 102 | 2 | 3 | 3 | 46 |
| W.N. CENTRAL | 171 | 201 | - | 568 | 584 | 64 | 11 | 53 | 911 |
| Minn. | 20 | 31 | - | 112 | 136 | - | 5 | - | 224 |
| Iowa | 26 | 9 | - | 38 | 44 | 4 | 2 | 1 | 256 |
| Mo. | 78 | 104 | - | 308 | 289 | 40 | 3 | 18 | 54 |
| N. Dak. | 1 | 6 | - | 14 | 10 | 1 | - | - | 104 |
| S. Dak. | 11 | 9 | - | 24 | 28 | 9 | - | 1 | 219 |
| Nebr. | 15 | 12 | - | 25 | 15 | 3 | - | 3 | 16 |
| Kans. | 20 | 30 | - | 47 | 62 | 7 | 1 | 30 | 38 |
| S. ATLANTIC | 11,639 | 7,568 | - | 4,218 | 4,025 | 5 | 34 | 222 | 1,240 |
| Del. | 66 | 53 | - | 39 | 45 | 1 | - | 2 | - |
| Md. | 579 | 423 | - | 362 | 281 | - | 4 | 46 | 424 |
| D.C. | 383 | 274 | - | 145 | 152 | - | 2 | - | 42 |
| Va. | 308 | 318 | - | 403 | 342 | 2 | 9 | 22 | 343 |
| W. Va. | 13 | 20 | - | 96 | 115 | - | 1 | 7 | 70 |
| N.C. | 670 | 490 | - | 534 | 581 | 2 | 3 | 80 | 8 |
| S.C. | 668 | 646 | - | 431 | 515 | - | - | 33 | 57 |
| Ga. | 1,556 | 1,391 | - | 760 | 668 | - | 2 | 29 | 197 |
| Fla. | 7,396 | 3,953 | - | 1,448 | 1,326 | - | 13 | 3 | 99 |
| E.S. CENTRAL | 1,764 | 1,667 | - | 1,775 | 1,776 | 8 | 4 | 98 | 298 |
| Ky. | 23 | 65 | - | 396 | 403 | 3 | 2 | 13 | 133 |
| Tenn. | 699 | 575 | - | 544 | 516 | 1 | 1 | 58 | 81 |
| Ala. | 465 | 485 | - | 509 | 557 | 1 | 1 | 15 | 77 |
| Miss. | 577 | 542 | - | 326 | 300 | 3 | - | 12 | 7 |
| W.S. CENTRAL | 4,164 | 4,868 | 1 | 2,305 | 2,545 | 72 | 30 | 117 | 571 |
| Ark. | 233 | 244 | - | 277 | 349 | 38 | 2 | 12 | 119 |
| La. | 855 | 845 | - | 285 | 391 | 3 | - | - | 13 |
| Okla. | 148 | 139 | - | 224 | 235 | 28 | 4 | 87 | 32 |
| Tex. | 2,928 | 3,640 | 1 | 1,519 | 1,570 | 3 | 24 | 16 | 407 |
| MOUNTAIN | 659 | 578 | - | 479 | 506 | 16 | 16 | 13 | 349 |
| Mont. | 9 | 7 | - | 16 | 27 | 2 | - | 11 | 159 |
| Idaho | 5 | 14 | - | 17 | 23 | 1 | - | - | 9 |
| Wyo. | 3 | 4 | - | - | - | - | - | 1 | 72 |
| Colo. | 115 | 126 | - | 40 | 68 | 5 | - | - | 7 |
| N. Mex. | 54 | 68 | - | 94 | 92 | 1 | 11 | - | 3 |
| Ariz. | 284 | 233 | - | 255 | 230 | 3 | 4 | - | 78 |
| Utah | 23 | 18 | - | 25 | 31 | 2 | - | 1 | 7 |
| Nev. | 166 | 108 | - | 32 | 35 | 2 | 1 | - | 14 |
| PACIFIC | 7,377 | 5,356 | 3 | 3,917 | 3,689 | 12 | 122 | 4 | 403 |
| Wash. | 129 | 168 | - | 227 | 199 | 4 | 8 | - | - |
| Oreg. | 280 | 107 | - | 121 | 117 | 5 | 2 | 1 | - |
| Calif. | 6,950 | 5,047 | 3 | 3,323 | 3,154 | 2 | 104 | 3 | 399 |
| Alaska | 4 | - | - | 64 | 55 | 1 | - | - | 4 |
| Hawaii | 14 | 34 | - | 182 | 164 | - | 8 | - | - |
| Guam | 2 | 1 | - | 26 | 34 | - | - | - | - |
| P.R. | 832 | 808 | - | 278 | 305 | - | - | - | 67 |
| V.I. | 9 | 1 | - | 2 | 1 | - | - | - | - |
| Pac. Trust Terr. | 222 | 262 | - | 152 | 88 | - | 20 | - | - |
| Amer. Samoa | 2 | - | - | 3 | 5 | - | 1 | - | - |

*U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending
December 5, 1987 (48th Week)

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I** Total | Reporting Area | All Causes, By Age (Years) | | | | | | P&I** Total |
|---------------------|----------------------------|-------|-------|-------|------|----|----------------|-----------------------|----------------------------|-------|-------|-------|------|-----|----------------|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | | | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 709 | 514 | 112 | 42 | 21 | 20 | 53 | S. ATLANTIC | 1,152 | 727 | 236 | 105 | 29 | 46 | 44 |
| Boston, Mass. | 204 | 139 | 35 | 12 | 7 | 11 | 21 | Atlanta, Ga. | 135 | 88 | 26 | 13 | 6 | 2 | 6 |
| Bridgeport, Conn. | 59 | 47 | 5 | 5 | 1 | 1 | 4 | Baltimore, Md. | 164 | 96 | 46 | 15 | 2 | 5 | 4 |
| Cambridge, Mass. | 30 | 25 | 4 | 1 | - | - | 1 | Charlotte, N.C. | 61 | 38 | 13 | 3 | 3 | 4 | 3 |
| Fall River, Mass. | 37 | 29 | 6 | 2 | - | - | 1 | Charmouth, Fla. | 143 | 95 | 29 | 14 | 3 | 2 | 6 |
| Hartford, Conn. | 51 | 29 | 10 | 6 | 3 | 3 | 2 | Miami, Fla. | 90 | 45 | 20 | 16 | 2 | 7 | - |
| Lowell, Mass. | 39 | 28 | 6 | 2 | 3 | - | 6 | Norfolk, Va. | 61 | 40 | 12 | 3 | 2 | 4 | 4 |
| Lynn, Mass. | 19 | 13 | 4 | 1 | 1 | - | 2 | Richmond, Va. | 86 | 60 | 16 | 5 | 2 | 3 | 3 |
| New Bedford, Mass. | 35 | 27 | 6 | 1 | 1 | - | 2 | Savannah, Ga. | 53 | 41 | 7 | 3 | - | 2 | 4 |
| New Haven, Conn.† | 62 | 43 | 12 | 4 | 1 | 2 | 3 | St. Petersburg, Fla. | 76 | 66 | 4 | 3 | 1 | 2 | 1 |
| Providence, R.I. | 17 | 34 | 4 | - | 1 | - | 3 | Tampa, Fla. | 73 | 46 | 14 | 7 | 1 | 2 | 7 |
| Somerville, Mass. | 7 | 4 | 2 | 1 | - | - | - | Washington, D.C. | 191 | 99 | 49 | 22 | 7 | 13 | 6 |
| Springfield, Mass. | 48 | 38 | 5 | 2 | 1 | 2 | 4 | Wilmington, Del. | 19 | 13 | - | 1 | - | - | - |
| Waterbury, Conn. | 34 | 19 | 9 | 4 | 2 | - | 3 | E.S. CENTRAL | 746 | 494 | 170 | 48 | 17 | 17 | 53 |
| Worcester, Mass. | 45 | 39 | 4 | 1 | - | 1 | 3 | Birmingham, Ala. | 103 | 65 | 27 | 7 | 2 | 2 | 5 |
| MID. ATLANTIC | 3,246 | 2,125 | 658 | 310 | 58 | 85 | 145 | Chattanooga, Tenn. | 48 | 32 | 10 | 3 | - | 3 | 3 |
| Albany, N.Y. | 65 | 51 | 12 | 1 | - | 1 | 1 | Knoxville, Tenn. | 68 | 54 | 10 | 3 | 1 | - | 10 |
| Allentown, Pa. | 23 | 19 | 2 | 2 | - | - | 1 | Louisville, Ky. | 88 | 59 | 21 | 5 | 1 | 2 | 6 |
| Buffalo, N.Y. | 151 | 109 | 32 | 8 | 1 | 1 | 8 | Memphis, Tenn. | 180 | 122 | 35 | 14 | 6 | 3 | 14 |
| Camden, N.J. | 43 | 35 | 3 | 2 | 2 | 1 | - | Mobile, Ala. | 71 | 36 | 22 | 9 | - | 4 | 3 |
| Elizabeth, N.J. | 14 | 12 | 2 | - | - | - | - | Montgomery, Ala. | 59 | 41 | 14 | 4 | - | - | 4 |
| Erie, Pa.† | 51 | 41 | 6 | 2 | 1 | 1 | 2 | Nashville, Tenn. | 129 | 85 | 31 | 3 | 7 | 3 | 8 |
| Jersey City, N.J. | 67 | 41 | 8 | 13 | 2 | 3 | 2 | W.S. CENTRAL | 1,487 | 911 | 313 | 141 | 74 | 48 | 68 |
| N.Y. City, N.Y. | 1,720 | 1,072 | 375 | 197 | 29 | 47 | 65 | Austin, Tex. | 77 | 48 | 18 | 4 | 4 | 3 | 3 |
| Newark, N.J. | 100 | 49 | 27 | 18 | 2 | 4 | 3 | Baton Rouge, La. | 37 | 21 | 8 | 4 | 3 | 1 | 5 |
| Paterson, N.J. | 20 | 9 | 7 | 4 | - | - | - | Corpus Christi, Tex. | 57 | 33 | 14 | 5 | 3 | 2 | 1 |
| Philadelphia, Pa. | 406 | 253 | 85 | 35 | 11 | 22 | 22 | Dallas, Tex. | 198 | 113 | 39 | 26 | 10 | 10 | 7 |
| Pittsburgh, Pa.† | 109 | 83 | 20 | 3 | 1 | 2 | 6 | El Paso, Tex. | 68 | 45 | 14 | 7 | 1 | 1 | 4 |
| Reading, Pa. | 35 | 27 | 6 | 1 | 1 | - | 9 | Fort Worth, Tex. | 110 | 73 | 22 | 3 | 6 | 6 | 4 |
| Rochester, N.Y. | 133 | 107 | 15 | 6 | 4 | 1 | 7 | Houston, Tex.‡ | 308 | 176 | 74 | 34 | 13 | 11 | 7 |
| Schenectady, N.Y. | 25 | 20 | 5 | - | - | - | 4 | Little Rock, Ark. | 91 | 59 | 18 | 4 | 5 | 5 | 6 |
| Scranton, Pa.† | 62 | 48 | 10 | 2 | 2 | - | 4 | New Orleans, La. | 143 | 70 | 25 | 30 | 18 | - | - |
| Syracuse, N.Y. | 104 | 69 | 25 | 7 | 2 | 1 | 4 | San Antonio, Tex. | 201 | 128 | 48 | 16 | 5 | 4 | 16 |
| Trenton, N.J. | 54 | 36 | 12 | 6 | - | - | 2 | Shreveport, La. | 66 | 46 | 11 | 2 | 3 | 4 | 5 |
| Utica, N.Y. | 27 | 18 | 7 | 2 | - | - | 3 | Tulsa, Okla. | 131 | 99 | 22 | 6 | 3 | 1 | 10 |
| Yonkers, N.Y. | 37 | 26 | 9 | 1 | - | 1 | 3 | MOUNTAIN | 753 | 515 | 130 | 61 | 24 | 23 | 34 |
| E.N. CENTRAL | 2,602 | 1,753 | 531 | 164 | 76 | 77 | 96 | Albuquerque, N. Mex. | 111 | 72 | 19 | 15 | 3 | 2 | 2 |
| Akron, Ohio | 35 | 22 | 11 | 1 | 1 | - | 8 | Colo. Springs, Colo. | 52 | 39 | 7 | 5 | 1 | - | 9 |
| Canton, Ohio | 55 | 46 | 5 | 1 | 3 | - | 2 | Denver, Colo. | 140 | 103 | 25 | 6 | 4 | 2 | 3 |
| Chicago, Ill.‡ | 564 | 362 | 125 | 45 | 10 | 22 | 16 | Las Vegas, Nev. | 103 | 68 | 22 | 7 | 5 | 1 | 4 |
| Cincinnati, Ohio | 135 | 98 | 25 | 5 | 1 | 6 | 8 | Ogden, Utah | 23 | 15 | 4 | 1 | 2 | 1 | 1 |
| Cleveland, Ohio | 177 | 100 | 50 | 12 | 9 | 6 | 2 | Phoenix, Ariz. | 119 | 87 | 14 | 5 | 1 | 12 | 7 |
| Columbus, Ohio | 128 | 81 | 22 | 14 | 7 | 3 | 3 | Pueblo, Colo. | 27 | 18 | 5 | 3 | 1 | - | 3 |
| Dayton, Ohio | 155 | 102 | 34 | 6 | 9 | 4 | 10 | Salt Lake City, Utah | 49 | 23 | 13 | 6 | 5 | 2 | - |
| Detroit, Mich. | 289 | 165 | 70 | 34 | 18 | 12 | 4 | Tucson, Ariz. | 129 | 90 | 21 | 13 | 2 | 3 | 5 |
| Evansville, Ind. | 63 | 49 | 10 | 3 | - | 1 | 3 | PACIFIC | 2,248 | 1,548 | 371 | 180 | 75 | 65 | 121 |
| Fort Wayne, Ind. | 82 | 63 | 12 | 4 | 2 | 1 | 4 | Berkeley, Calif. | 23 | 17 | 4 | 1 | 1 | - | 3 |
| Gary, Ind. | 30 | 19 | 4 | 4 | 1 | 2 | 1 | Fresno, Calif. | 114 | 77 | 23 | 6 | 4 | 4 | 7 |
| Grand Rapids, Mich. | 64 | 47 | 12 | 2 | 3 | - | 5 | Glendale, Calif. | 32 | 25 | 4 | 3 | - | - | - |
| Indianapolis, Ind. | 189 | 129 | 44 | 9 | 1 | 6 | 3 | Honolulu, Hawaii | 82 | 60 | 12 | 6 | 2 | 2 | 10 |
| Madison, Wis.‡ | 40 | 29 | 7 | 2 | 2 | - | 2 | Long Beach, Calif. | 62 | 38 | 12 | 7 | 2 | 3 | 6 |
| Milwaukee, Wis. | 161 | 123 | 30 | 3 | 3 | 2 | 13 | Los Angeles, Calif. | 639 | 430 | 99 | 70 | 27 | 5 | 17 |
| Peoria, Ill. | 81 | 56 | 17 | 6 | - | 2 | 3 | Oakland, Calif.‡ | 69 | 47 | 15 | 4 | 2 | 1 | 4 |
| Rockford, Ill. | 65 | 47 | 12 | 3 | 1 | 2 | 3 | Pasadena, Calif. | 31 | 25 | 5 | - | - | 1 | 3 |
| South Bend, Ind. | 54 | 37 | 10 | 2 | 2 | 3 | 3 | Portland, Ore. | 121 | 89 | 20 | 6 | 2 | 4 | 5 |
| Toledo, Ohio | 129 | 106 | 15 | 4 | 2 | 2 | 3 | Sacramento, Calif. | 219 | 150 | 42 | 12 | 8 | 7 | 16 |
| Youngstown, Ohio | 96 | 72 | 16 | 4 | 1 | 3 | 2 | San Diego, Calif. | 170 | 112 | 24 | 20 | 7 | 6 | 13 |
| W.N. CENTRAL | 1,034 | 727 | 193 | 61 | 22 | 31 | 69 | San Francisco, Calif. | 209 | 136 | 33 | 24 | 6 | 10 | 7 |
| Des Moines, Iowa | 128 | 98 | 19 | 7 | 2 | 2 | 7 | San Jose, Calif. | 214 | 145 | 42 | 12 | 8 | 7 | 14 |
| Duluth, Minn. | 34 | 26 | 6 | 1 | - | - | - | Seattle, Wash. | 155 | 112 | 21 | 5 | 5 | 12 | 7 |
| Kansas City, Kans. | 43 | 28 | 10 | 4 | 1 | - | 5 | Spokane, Wash. | 52 | 37 | 8 | 3 | 1 | 3 | 6 |
| Kansas City, Mo. | 107 | 68 | 24 | 7 | 5 | 3 | 9 | Tacoma, Wash. | 56 | 48 | 7 | 1 | - | - | 3 |
| Lincoln, Nebr. | 34 | 26 | 5 | 1 | 1 | 1 | 7 | TOTAL | 13,977 ^{††} | 9,314 | 2,724 | 1,112 | 396 | 412 | 683 |
| Minneapolis, Minn | 263 | 182 | 54 | 12 | 6 | 9 | 23 | | | | | | | | |
| Omaha, Nebr. | 111 | 79 | 22 | 4 | 3 | 3 | 7 | | | | | | | | |
| St. Louis, Mo. | 142 | 85 | 35 | 14 | 3 | 5 | 1 | | | | | | | | |
| St. Paul, Minn. | 85 | 64 | 11 | 8 | - | 2 | 1 | | | | | | | | |
| Wichita, Kans. | 87 | 71 | 7 | 3 | 1 | 5 | 9 | | | | | | | | |

*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.

*TB and AIDS – Continued**References*

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9. Centers for Disease Control. Diagnosis and management of mycobacterial infection and disease in persons with human T-lymphotropic virus type III/lymphadenopathy-associated virus infection. *MMWR* 1986;35:448-52.
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12. Centers for Disease Control. Additional recommendations to reduce sexual and drug abuse-related transmission of human T-lymphotropic virus type III/lymphadenopathy-associated virus. *MMWR* 1986;35:152-5.

*Recommendations of the Immunization
Practices Advisory Committee (ACIP)*

**Poliomyelitis Prevention: Enhanced-Potency Inactivated Poliomyelitis
Vaccine – Supplementary Statement**

The supplementary statement provides information on and recommendations for the use of inactivated poliovirus vaccine (IPV) of enhanced potency.* The Immunization Practices Advisory Committee (ACIP) believes that, in the United States, polio immunization should rely primarily on oral poliovirus vaccine (OPV), with selected use of enhanced-potency IPV as specified in this document. However, this subject should be reviewed on a continuing basis, and an extensive review of polio vaccines and potential vaccine policies will take place during 1988. General recommendations on poliomyelitis prevention, including the use of and schedules for OPV, are found in the current ACIP recommendations (1).

Introduction

Conventional IPV. IPV was introduced in the United States in 1955 and was used widely until OPV became available during the period 1961-1964. Thereafter, the use of IPV rapidly declined to a level of less than 1% of all polio vaccine distributed annually in the United States.

*Poliovirus Vaccine Inactivated, which is manufactured by Connaught Laboratories Ltd., will be distributed by Connaught Laboratories Inc. beginning in March 1988.