CENTER FOR DISEASE CONTROL

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# MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT





*Epidemiologic Notes and Reports*

## Penicillinase-producing *Neisseria gonorrhoeae*—New Mexico, California

Several cases of penicillinase-producing *Neisseria gonorrhoeae* (PPNG) occurred recently in Albuquerque, New Mexico, and San Diego, California. The cases in each city could be epidemiologically linked to infection acquired in the Far East.

**Albuquerque:** From April 21 through May 16, 1980, 5 cases of infection caused by PPNG occurred in this New Mexico city. The index patient, a 20-year-old man who acquired gonococcal urethritis in the Far East, was treated at a hospital in Albuquerque with 4.8 million units of aqueous procaine penicillin G and probenecid 1 g orally; he failed to improve, however. Two days later, a private physician prescribed tetracycline hydrochloride 500 mg twice daily for 21 days. The patient's symptoms diminished, and, while still taking tetracycline, he had sexual contact with 3 women. Each of these women developed endocervical PPNG infection; one also developed acute salpingitis, and another acquired asymptomatic pharyngeal infection. Another male sexual partner of one of the women acquired both urethral and pharyngeal PPNG infection.

Once these infections were recognized as being penicillin-resistant, the 4 patients with uncomplicated infections were treated with spectinomycin 2 g intramuscularly (IM). The patient with salpingitis improved after receiving spectinomycin 2 g IM twice daily for 3 days, then once daily for 7 days. Post-treatment cultures from all patients were negative for PPNG.

**San Diego:** From July 1979 through March 1980, 4 cases of salpingitis associated with endocervical PPNG infection occurred in San Diego. In each case, infection resulted from sexual contact with someone who had acquired gonorrhea in the Far East. Although neither culdocentesis nor laparoscopy was performed in any of these patients, all had typical signs and symptoms of acute salpingitis. Each patient received a different treatment regimen: (1) tetracycline hydrochloride 500 mg orally, 4 times daily for 14 days; (2) spectinomycin 2 g intravenously (IV) 3 times daily for 5 days; (3) cefoxitin 1 g IV every 6 hours for 7 days; and (4) cefoxitin 2 g IM plus probenecid 1 g orally as a single dose. Each patient had complete resolution of symptoms and a negative post-treatment endocervical culture for *N. gonorrhoeae.*

*Reported by SL Borchers, MD, Bernalillo County (New Mexico) Health Dept; MR Skeels, PhD, New Mexico Scientific Laboratory Div; P Gerow, J Mann, MD, Asst Director, Health Services Div, New*

*Neisseria gonorrhoeae – Continued*

*Mexico Health and Environment Dept; WO Harrison, Capt, MC, USN, SW Berg, CDR, MC, USN, Naval Regional Medical Center, San Diego; RJ Taylor, J Chin, MD, State Epidemiologist, California State Dept of Health; Bur of State Services, CDC.*

**Editorial Note:** Early use of effective treatment will minimize the spread of and complications from PPNG infections. *CDC is now specifically recommending spectinomycin 2 g for the initial treatment of uncomplicated anogenital gonorrhea in patients who have recently returned from countries, such as the Philippines, Singapore, and Thailand, that have areas of high prevalence of PPNG infections (1).* The same dosage is also recommended for (1) the initial treatment of patients with proven PPNG infections, (2) treatment of the sexual partners of these patients, and (3) retreatment of patients who have persistent infections after initial therapy with another antibiotic. Isolates of *N. gonorrhoeae* obtained from patients treated with spectinomycin should be tested for penicillinase production. All patients treated for gonorrhea should have a post-treatment culture taken 3-7 days after treatment.

There are, as yet, no published studies on the treatment of PPNG-associated salpingitis and PPNG pharyngeal infections. Spectinomycin and cefoxitin appear effective in the treatment of salpingitis caused by penicillin-sensitive gonococci (*2,3*) and are definitely effective in urethritis caused by PPNG (*4,5*). However, these 2 drugs may be relatively ineffective for pharyngeal gonococcal infection (*6,7*). The fixed-combination antimicrobial sulfamethoxazole/trimethoprim has been used to treat pharyngitis caused by penicillin-sensitive gonococci (*8*) and may be effective for PPNG urethritis (*9*).

Pending definitive studies, the CDC recommends the following regimens:

**For salpingitis associated with endocervical PPNG infection:**

1. Outpatients – spectinomycin 2 g IM daily for 5-10 days.
2. Inpatients – cefoxitin 2 g IM or IV every 8 hours for 5-10 days.

Because experience with treatment of this infection is very limited, hospitalization of most patients may be advisable.

**For PPNG pharyngeal infection:**

Sulfamethoxazole/trimethoprim 9 tablets (400 mg sulfamethoxazole/80 mg trimethoprim per tablet) daily for 5 days.

*References*

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## Tuberculosis among Indochinese Refugees — United States, 1979

The prevalence of tuberculosis among Indochinese refugees who entered the United States in 1979 is approximately 926 per 100,000, according to a recent survey of tuberculosis-control programs in states and large cities. Demographic information was obtained from a survey, conducted by CDC, of refugees in 1979. The participating areas received 99,321 refugees, approximately 92% of the total number that entered the United States last year. These areas reported 920 refugees with tuberculosis who had been added to their case registers during 1979. Pulmonary disease accounted for 90% of the reported cases.* One refugee died from tuberculosis.

Prevalence rates were higher for older than for younger refugees and higher for males than for females (Table 1). Estimated prevalence rates differed according to the country of origin. The rate was 412 per 100,000 for Laotians, 1,068 per 100,000 for Vietnamese, and 1,531 per 100,000 for Cambodians.

**TABLE 1. Prevalence* of tuberculosis among Indochinese refugees, by age and sex, 1979**

| Age group (years) | Males | Females | Total |
|---|---|---|---|
| 0-4 | 553 | 412 | 491 |
| 5-14 | 331 | 309 | 321 |
| 15-24 | 673 | 475 | 588 |
| 25-44 | 1,554 | 1,105 | 1,347 |
| 45-64 | 3,498 | 1,961 | 2,734 |
| ≥65 | 14,188 | 3,477 | 7,160 |
| All ages | 1,074 | 750 | 926 |

*Cases added to tuberculosis case registers in 1979 per 100,000 refugees.

Of the 920 reported cases, 251 (27%) were certified overseas—on the basis of chest X-ray abnormalities—as Class A tuberculosis (active or suspected active), 186 (20%) were certified overseas as Class B tuberculosis (inactive), 164 (18%) were known not to be certified as having either Class A or Class B tuberculosis, and 319 (35%) were of unknown certification status. Assuming the refugees with unknown certification status were distributed similarly to those with known status, 61% of the refugees with certified Class A tuberculosis, 14% of the refugees with certified Class B tuberculosis, and 0.3% of the refugees who had neither Class A nor Class B tuberculosis had current disease when evaluated in this country. Among patients for whom the results of bacteriologic tests were known, a positive smear or culture was least common among patients certified overseas to have Class A tuberculosis (33%) and most common among patients who were neither Class A nor Class B (53%).

Overall, Indochinese refugees accounted for 3%-4% of patients added to tuberculosis registers in 1979. The distribution was uneven, however. In Minnesota, for example, Indochinese refugees accounted for about 27% of cases added to tuberculosis case registers. Other states in which Indochinese refugees constituted a large proportion of the state's total cases are Nevada (26%), Colorado (23%), Washington (18%), Kansas (16%), Utah (14%), Oregon (11%), and California (10%). California reported 320 (35%) of the 920 cases of tuberculosis in Indochinese refugees.

*The 91 reported cases of extrapulmonary disease were lymphatic (47 cases), pleural (16), bone or joint (8), genitourinary (6), miliary (2), meningeal (2), peritoneal (2), other (2), and unknown (6).

*Tuberculosis – Continued*

The refugees settled more frequently in major urban areas. Of refugees in the participating areas, the initial destination of 67% was a city with a population of 250,000 or more persons. These cities contained only 19% of the U.S. population in the areas in the survey. The areas in which the refugees accounted for the greatest percentage of estimated cases added to tuberculosis case registers were St. Paul, Minnesota (57%), Orange County, California (41%), Wichita, Kansas (38%), Minneapolis, Minnesota (26%), Denver, Colorado (25%), Seattle, Washington (23%), San Francisco, California (20%), and Albuquerque, New Mexico (20%).

Preventive therapy was prescribed for 11,937 (13.2%) of the 90,592 refugees who went to areas that were able to provide information about administering preventive therapy. Assuming that similar practices prevailed in areas that did not participate in the survey, approximately 14,160 refugees were started on preventive therapy and 1,000 refugees were added to tuberculosis case registers in the United States in 1979.

*Reported by Tuberculosis Control Div, Bur of State Services, and Quarantine Div, Bur of Epidemiology, CDC.*

**Editorial Note:** The survey results confirm that tuberculosis is an important health problem among Indochinese refugees. The distribution of prevalence rates (Table 1) is not unusual, although the magnitude of the rates is. The relative risk of tuberculosis is about

*(Continued on page 389)*

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

*[Cumulative totals include revised and delayed reports through previous weeks.]*

| DISEASE | 32nd WEEK ENDING | | MEDIAN 1975-1979 | CUMULATIVE, FIRST 32 WEEKS | | |
|---|---|---|---|---|---|---|
| | August 9, 1980 | August 11, 1979 | | August 9, 1980 | August 11, 1979 | MEDIAN 1975-1979 |
| Aseptic meningitis | 172 | 328 | 194 | 2,599 | 2,818 | 2,078 |
| Brucellosis | 3 | 3 | 3 | 109 | 91 | 126 |
| Chickenpox | 454 | 585 | 405 | 154,619 | 170,301 | 149,144 |
| Diphtheria | – | – | 1 | 3 | 7 | 58 |
| Encephalitis: Primary (arthropod-borne & unspec.) | 14 | 51 | 33 | 396 | 445 | 472 |
| Post-infectious | 6 | 4 | 5 | 135 | 166 | 166 |
| Hepatitis, Viral: Type B | 339 | 339 | 262 | 10,435 | 8,801 | 9,098 |
| Type A | 553 | 554 | 554 | 16,418 | 18,005 | 18,984 |
| Type unspecified | 253 | 198 | 178 | 7,254 | 6,144 | 5,185 |
| Malaria | 58 | 18 | 13 | 1,161 | 400 | 321 |
| Measles (rubeola) | 106 | 218 | 206 | 12,635 | 11,593 | 23,086 |
| Meningococcal infections: Total | 47 | 45 | 27 | 1,777 | 1,837 | 1,181 |
| Civilian | 47 | 45 | 27 | 1,770 | 1,819 | 1,173 |
| Military | – | – | – | 7 | 18 | 18 |
| Mumps | 56 | 102 | 138 | 6,846 | 10,830 | 15,512 |
| Pertussis | 76 | 44 | 46 | 857 | 828 | 828 |
| Rubella (German measles) | 30 | 76 | 77 | 3,159 | 10,448 | 14,533 |
| Tetanus | – | 2 | 2 | 39 | 39 | 39 |
| Tuberculosis | 644 | 560 | 579 | 16,832 | 17,083 | 18,499 |
| Tularemia | 7 | 3 | 4 | 105 | 117 | 86 |
| Typhoid fever | 14 | 10 | 7 | 259 | 282 | 239 |
| Typhus fever, tick-borne (Rky. Mt. spotted) | 70 | 50 | 54 | 723 | 654 | 654 |
| Venereal diseases: | | | | | | |
| Gonorrhea: Civilian | 21,960 | 21,892 | 22,031 | 593,743 | 595,812 | 595,812 |
| Military | 929 | 618 | 618 | 16,542 | 16,752 | 16,752 |
| Syphilis, primary & secondary: Civilian | 679 | 443 | 443 | 15,961 | 14,529 | 14,529 |
| Military | 11 | 5 | 5 | 194 | 181 | 186 |
| Rabies in animals | 104 | 149 | 71 | 4,064 | 3,049 | 1,877 |

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

| | CUM. 1980 | | CUM. 1980 |
|---|---|---|---|
| Anthrax | – | Poliomyelitis: Total | 6 |
| Botulism (Wash. 1, Calif. 1, Alaska 2) | 36 | Paralytic | 4 |
| Cholera | 7 | Psittacosis (Fla. 1, Oreg. 1, Calif. 1) | 52 |
| Congenital rubella syndrome | 43 | Rabies in man | – |
| Leprosy (NYC 1, Tex. 2, Calif. 3) | 116 | Trichinosis (Ohio 1) | 75 |
| Leptospirosis (Mass. 1, Fla. 1, Hawaii 1) | 39 | Typhus fever, flea-borne (endemic, murine) (Ark. 1, Tex. 2) | 43 |
| Plague | 8 | | |

All delayed reports will be included in the following week's cumulative totals.

## TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 9, 1980, and August 11, 1979 (32nd week)

| REPORTING AREA | ASEPTIC MENINGITIS | BRUCELLOSIS | CHICKENPOX | DIPHTHERIA | | ENCEPHALITIS | | | HEPATITIS (VIRAL), BY TYPE | | | MALARIA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Primary | | Post-infectious | B | A | Unspecified | | |
| | 1980 | 1980 | 1980 | 1980 | CUM. 1980 | 1980 | 1979 | 1980 | 1980 | 1980 | 1980 | 1980 | CUM. 1980 |
| UNITED STATES | 172 | 3 | 454 | – | 3 | 14 | 51 | 6 | 339 | 553 | 253 | 58 | 1,161 |
| NEW ENGLAND | 9 | – | 95 | – | – | – | 1 | – | 8 | 5 | 7 | 2 | 74 |
| Maine | – | – | 5 | – | – | – | – | – | 2 | – | – | – | 12 |
| N.H. | 1 | – | 3 | – | – | – | – | – | 1 | 1 | – | – | 7 |
| Vt. | – | – | 5 | – | – | – | – | – | – | – | – | – | – |
| Mass. | 3 | – | 38 | – | – | – | 1 | – | 3 | 3 | 7 | 2 | 37 |
| R.I. | 4 | – | 1 | – | – | – | – | – | 1 | 1 | – | – | 7 |
| Conn. | 1 | – | 43 | – | – | – | – | – | 1 | – | – | – | 11 |
| MID. ATLANTIC | 35 | – | 80 | – | 1 | 2 | 3 | 1 | 34 | 27 | 21 | 7 | 157 |
| Upstate N.Y. | 11 | – | 19 | – | – | 2 | 3 | 1 | 10 | 13 | 5 | 3 | 24 |
| N.Y. City | 3 | – | 58 | – | 1 | – | – | – | 6 | 5 | 2 | 2 | 40 |
| N.J. | 16 | – | NN | – | – | – | – | – | 18 | 9 | 14 | 2 | 45 |
| Pa. | 5 | – | 3 | – | – | – | – | – | – | – | – | – | 48 |
| E.N. CENTRAL | 13 | – | 164 | – | 1 | 1 | 21 | 2 | 41 | 64 | 13 | 2 | 59 |
| Ohio | – | – | 2 | – | – | – | 11 | – | 13 | 19 | 5 | – | 8 |
| Ind. | – | – | 18 | – | – | – | 5 | – | 6 | 8 | 2 | – | 4 |
| Ill. | – | – | 58 | – | – | – | – | – | 6 | 18 | 6 | 2 | 21 |
| Mich. | 12 | – | 22 | – | 1 | 1 | 4 | – | 14 | 18 | – | – | 19 |
| Wis. | 1 | – | 64 | – | – | – | 1 | 2 | 2 | 1 | – | – | 7 |
| W.N. CENTRAL | 7 | – | 2 | – | 1 | – | 11 | – | 9 | 16 | 6 | – | 44 |
| Minn. | – | – | – | – | – | – | – | – | 3 | 6 | 1 | – | 17 |
| Iowa | 6 | – | – | – | – | – | 11 | – | 1 | 5 | 2 | – | 7 |
| Mo. | – | – | – | – | 1 | – | – | – | 4 | 2 | 3 | – | 11 |
| N. Dak. | – | – | – | – | – | – | – | – | – | – | – | – | – |
| S. Dak. | – | – | 1 | – | – | – | – | – | – | 2 | – | – | 2 |
| Nebr. | – | – | 1 | – | – | – | – | – | – | – | – | – | 4 |
| Kans. | 1 | – | – | – | – | – | – | – | 1 | 1 | – | – | 3 |
| S. ATLANTIC | 44 | – | 41 | – | – | 3 | 1 | 1 | 57 | 54 | 21 | 4 | 120 |
| Del. | – | – | 3 | – | – | – | – | – | – | – | – | – | – |
| Md. | 8 | – | 3 | – | – | – | – | – | 13 | 4 | 3 | 3 | 23 |
| D.C. | 2 | – | – | – | – | – | – | – | 1 | 1 | – | – | 1 |
| Va. | 8 | – | 5 | – | – | 1 | 1 | – | 6 | 9 | 3 | – | 43 |
| W. Va. | – | – | 16 | – | – | – | – | – | 2 | – | – | – | 4 |
| N.C. | 15 | – | NN | – | – | 1 | – | – | 3 | 4 | 8 | 1 | 7 |
| S.C. | 2 | – | 4 | – | – | – | – | – | 2 | 1 | – | – | 5 |
| Ga. | – | – | – | – | – | – | – | – | 12 | 7 | – | – | 14 |
| Fla. | 9 | – | 10 | – | – | 1 | – | 1 | 18 | 28 | 7 | – | 23 |
| E.S. CENTRAL | 24 | 2 | 3 | – | – | 5 | 4 | 1 | 15 | 50 | 4 | – | 10 |
| Ky. | 3 | – | 2 | – | – | – | – | – | 2 | 16 | – | – | 2 |
| Tenn. | 1 | 1 | NN | – | – | – | 3 | 1 | 3 | 17 | 1 | – | – |
| Ala. | 19 | 1 | – | – | – | 5 | 1 | – | 7 | 5 | 3 | – | 6 |
| Miss. | 1 | – | 1 | – | – | – | – | – | 3 | 12 | – | – | 2 |
| W.S. CENTRAL | 11 | – | 19 | – | – | – | 7 | 1 | 45 | 71 | 51 | 4 | 111 |
| Ark. | 2 | – | 1 | – | – | – | 2 | 1 | 7 | 7 | 3 | – | 6 |
| La. | 1 | – | NN | – | – | – | – | – | 16 | 14 | – | 1 | 40 |
| Okla. | – | – | – | – | – | – | 1 | – | 5 | 2 | 5 | 2 | 12 |
| Tex. | 8 | – | 18 | – | – | – | 4 | – | 17 | 48 | 43 | 1 | 53 |
| MOUNTAIN | 5 | 1 | 17 | – | – | – | 3 | – | 8 | 49 | 27 | 2 | 46 |
| Mont. | 1 | – | 3 | – | – | – | – | – | – | – | – | – | – |
| Idaho | – | 1 | – | – | – | – | – | – | 1 | – | – | – | 1 |
| Wyo. | – | – | – | – | – | – | – | – | – | 2 | 1 | – | 2 |
| Colo. | 2 | – | 12 | – | – | – | – | – | 2 | 21 | – | 1 | 24 |
| N. Mex. | – | – | – | – | – | – | – | – | – | – | – | – | 2 |
| Ariz. | – | – | NN | – | – | – | – | – | 2 | 15 | 21 | 1 | 11 |
| Utah | 2 | – | 2 | – | – | – | 3 | – | – | 4 | 1 | – | – |
| Nev. | – | – | – | – | – | – | – | – | 3 | 7 | 4 | – | 6 |
| PACIFIC | 24 | – | 33 | – | – | 3 | – | – | 122 | 217 | 103 | 37 | 540 |
| Wash. | 3 | – | 12 | – | – | 1 | – | – | 9 | 13 | 7 | – | 37 |
| Oreg. | – | – | 1 | – | – | – | – | – | 4 | 17 | – | 1 | 30 |
| Calif. | 16 | – | – | – | – | 2 | – | – | 107 | 186 | 94 | 35 | 453 |
| Alaska | 5 | – | 1 | – | – | – | – | – | – | – | 1 | – | 5 |
| Hawaii | – | – | 19 | – | – | – | – | – | 2 | 1 | 1 | 1 | 15 |
| Guam | NA | NA | NA | NA | – | NA | – | – | NA | NA | NA | NA | 3 |
| P.R. | NA | NA | NA | NA | – | NA | – | – | NA | NA | NA | NA | 1 |
| V.I. | NA | NA | NA | NA | – | NA | – | – | NA | NA | NA | NA | – |
| Pac. Trust Terr. | NA | NA | NA | NA | – | NA | – | – | NA | NA | NA | NA | – |

NN: Not notifiable. NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

## TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending August 9, 1980, and August 11, 1979 (32nd week)

| REPORTING AREA | MEASLES (RUBEOLA) | | | MENINGOCOCCAL INFECTIONS TOTAL | | | MUMPS | | PERTUSSIS | RUBELLA | | TETANUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | CUM. 1980 | CUM. 1979 | 1980 | CUM. 1980 | CUM. 1979 | 1980 | CUM. 1980 | 1980 | 1980 | CUM. 1980 | CUM. 1980 |
| UNITED STATES | 106 | 12,635 | 11,593 | 47 | 1,777 | 1,837 | 56 | 6,846 | 76 | 30 | 3,159 | 39 |
| NEW ENGLAND | – | 659 | 286 | 2 | 100 | 93 | 1 | 544 | 1 | 1 | 203 | 1 |
| Maine | – | 33 | 17 | – | 5 | 5 | – | 284 | – | – | 68 | 1 |
| N.H. | – | 322 | 33 | – | 6 | 9 | – | 19 | – | – | 33 | – |
| Vt. | – | 226 | 117 | – | 13 | 6 | 1 | 9 | – | – | 3 | – |
| Mass. | – | 54 | 13 | 2 | 33 | 31 | – | 118 | 1 | – | 74 | – |
| R.I. | – | 2 | 102 | – | 7 | 6 | – | 20 | – | – | 9 | – |
| Conn. | – | 22 | 4 | – | 36 | 36 | – | 94 | – | 1 | 16 | – |
| MID. ATLANTIC | 21 | 3,718 | 1,375 | 9 | 323 | 278 | 2 | 762 | 4 | 4 | 514 | 6 |
| Upstate N.Y. | 8 | 676 | 577 | 1 | 106 | 102 | 1 | 99 | 4 | 4 | 182 | 1 |
| N.Y. City | 11 | 1,158 | 701 | 1 | 81 | 66 | 1 | 83 | – | – | 90 | 2 |
| N.J. | 2 | 821 | 54 | 2 | 66 | 68 | – | 94 | – | – | 97 | – |
| Pa. | – | 1,063 | 43 | 5 | 70 | 42 | – | 486 | – | – | 145 | 3 |
| E.N. CENTRAL | 63 | 2,371 | 3,039 | 8 | 208 | 186 | 10 | 2,641 | 22 | 5 | 764 | 2 |
| Ohio | 16 | 371 | 250 | 2 | 75 | 74 | 3 | 1,110 | 5 | – | 4 | 1 |
| Ind. | – | 90 | 193 | – | 35 | 38 | 1 | 107 | 6 | – | 321 | – |
| Ill. | 2 | 321 | 1,359 | 4 | 34 | 8 | 4 | 349 | 11 | 3 | 159 | – |
| Mich. | 1 | 231 | 804 | 2 | 51 | 48 | 2 | 792 | – | – | 123 | 1 |
| Wis. | 44 | 1,358 | 433 | – | 13 | 18 | – | 283 | – | 2 | 157 | – |
| W.N. CENTRAL | 8 | 1,315 | 1,653 | – | 66 | 59 | 3 | 247 | – | 3 | 221 | 3 |
| Minn. | 8 | 1,094 | 1,148 | – | 20 | 10 | – | 22 | – | – | 51 | 2 |
| Iowa | – | – | 16 | – | 9 | 9 | 1 | 39 | – | 1 | 8 | – |
| Mo. | – | 64 | 408 | – | 24 | 31 | 1 | 70 | – | – | 45 | – |
| N. Dak. | – | – | 20 | – | 1 | 1 | – | 4 | – | – | 5 | – |
| S. Dak. | – | – | 1 | – | 4 | 3 | 1 | 2 | – | 2 | 2 | – |
| Nebr. | – | 83 | – | – | – | – | – | 9 | – | – | 1 | – |
| Kans. | – | 74 | 60 | – | 8 | 5 | – | 101 | – | – | 109 | 1 |
| S. ATLANTIC | 4 | 1,856 | 1,738 | 7 | 425 | 455 | 14 | 894 | 19 | 3 | 307 | 6 |
| Del. | – | 3 | 1 | – | 2 | 5 | 1 | 38 | – | – | 1 | – |
| Md. | – | 71 | 13 | 1 | 44 | 40 | 4 | 306 | – | – | 70 | – |
| D.C. | – | – | – | – | 1 | – | – | 3 | – | – | – | – |
| Va. | – | 300 | 253 | 2 | 40 | 65 | 4 | 53 | – | – | 50 | 2 |
| W. Va. | – | 21 | 52 | – | 14 | 8 | 1 | 75 | 2 | – | 22 | 1 |
| N.C. | – | 128 | 110 | 1 | 82 | 67 | 1 | 86 | – | – | 44 | – |
| S.C. | – | 157 | 150 | 2 | 52 | 56 | 1 | 202 | 5 | 2 | 51 | 2 |
| Ga. | – | 799 | 398 | – | 72 | 67 | – | 1 | 6 | – | – | – |
| Fla. | 4 | 377 | 761 | 1 | 118 | 147 | 2 | 130 | 6 | 1 | 69 | 1 |
| E.S. CENTRAL | – | 337 | 190 | 5 | 167 | 136 | 4 | 835 | 5 | 2 | 79 | 3 |
| Ky. | – | 52 | 37 | 1 | 52 | 29 | 3 | 738 | 4 | – | 35 | 1 |
| Tenn. | – | 179 | 50 | – | 44 | 38 | – | 24 | 1 | 2 | 38 | 1 |
| Ala. | – | 22 | 83 | 3 | 45 | 34 | 1 | 15 | – | – | 4 | 1 |
| Miss. | – | 84 | 20 | 1 | 26 | 35 | – | 58 | – | – | 2 | – |
| W.S. CENTRAL | 2 | 912 | 875 | 7 | 190 | 288 | 3 | 242 | 14 | 2 | 114 | 10 |
| Ark. | – | 13 | 7 | 1 | 16 | 24 | – | 20 | 1 | – | 4 | 1 |
| La. | – | 13 | 245 | 5 | 71 | 112 | – | 65 | 7 | – | 10 | 2 |
| Okla. | – | 740 | 22 | – | 17 | 24 | – | – | 2 | – | 4 | – |
| Tex. | 2 | 146 | 601 | 1 | 86 | 128 | 3 | 157 | 4 | 2 | 96 | 7 |
| MOUNTAIN | 3 | 451 | 302 | 1 | 52 | 73 | – | 176 | 1 | – | 129 | – |
| Mont. | – | 1 | 53 | – | 2 | 7 | – | 50 | – | – | 37 | – |
| Idaho | – | – | 18 | – | 4 | 6 | – | 15 | – | – | 18 | – |
| Wyo. | – | – | 36 | – | 2 | 1 | – | – | – | – | 1 | – |
| Colo. | – | 23 | 59 | – | 13 | 5 | – | 46 | 1 | – | 9 | – |
| N. Mex. | – | 9 | 38 | – | 7 | 4 | – | – | – | – | 5 | – |
| Ariz. | 3 | 363 | 72 | – | 8 | 31 | – | 30 | – | – | 30 | – |
| Utah | – | 47 | 15 | – | 2 | 8 | – | 26 | – | – | 24 | – |
| Nev. | – | 8 | 11 | 1 | 14 | 11 | – | 9 | – | – | 5 | – |
| PACIFIC | 5 | 1,016 | 2,135 | 8 | 246 | 269 | 19 | 505 | 10 | 10 | 828 | 8 |
| Wash. | – | 174 | 1,119 | 3 | 49 | 43 | 2 | 124 | 4 | 2 | 71 | – |
| Oreg. | – | – | 58 | 1 | 41 | 20 | 1 | 58 | – | – | 50 | – |
| Calif. | 4 | 831 | 878 | 3 | 150 | 193 | 11 | 297 | 6 | 8 | 692 | 8 |
| Alaska | – | 5 | 17 | 1 | 6 | 5 | – | 11 | – | – | 10 | – |
| Hawaii | 1 | 6 | 63 | – | – | 8 | 5 | 15 | – | – | 5 | – |
| Guam | NA | 4 | 7 | – | 1 | 1 | NA | 8 | NA | NA | – | – |
| P.R. | NA | 95 | 318 | – | 8 | 3 | NA | 116 | NA | NA | 14 | 7 |
| V.I. | NA | 6 | 4 | – | 1 | 3 | NA | 2 | NA | NA | – | – |
| Pac. Trust Terr. | NA | 6 | 7 | – | – | 1 | NA | 14 | NA | NA | 1 | – |

NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

## TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending August 9, 1980, and August 11, 1979 (32nd week)

| REPORTING AREA | TUBERCULOSIS | | TULAREMIA | TYPHOID FEVER | | TYPHUS FEVER (Tick-borne) (RMSF) | | VENEREAL DISEASES (Civilian) | | | | | | RABIES (in Animals) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GONORRHEA | | | SYPHILIS (Pri. & Sec.) | | | |
| | 1980 | CUM. 1980 | CUM. 1980 | 1980 | CUM. 1980 | 1980 | CUM. 1980 | 1980 | CUM. 1980 | CUM. 1979 | 1980 | CUM. 1980 | CUM. 1979 | CUM. 1980 |
| UNITED STATES | 644 | 16,832 | 105 | 14 | 259 | 70 | 723 | 21,960 | 593,743 | 595,812 | 679 | 15,961 | 14,529 | 4,064 |
| NEW ENGLAND | 23 | 476 | 2 | 1 | 7 | 1 | 9 | 478 | 14,831 | 14,995 | 6 | 378 | 281 | 38 |
| Maine | – | 34 | – | – | 1 | – | – | 35 | 862 | 1,048 | – | 4 | 7 | 18 |
| N.H. | 1 | 10 | – | – | – | – | – | 22 | 520 | 548 | – | 1 | 13 | 6 |
| Vt. | 1 | 18 | – | – | – | – | – | 9 | 337 | 358 | – | 5 | 1 | – |
| Mass. | 12 | 255 | 1 | 1 | 4 | 1 | 5 | 200 | 6,158 | 5,980 | 4 | 239 | 162 | 7 |
| R.I. | 1 | 53 | – | – | 1 | – | 2 | 16 | 935 | 1,231 | – | 19 | 9 | – |
| Conn. | 8 | 106 | 1 | – | 1 | – | 2 | 196 | 6,019 | 5,830 | 2 | 110 | 89 | 7 |
| MID. ATLANTIC | 90 | 2,711 | 1 | – | 53 | 1 | 31 | 2,981 | 64,389 | 63,804 | 66 | 2,259 | 2,238 | 38 |
| Upstate N.Y. | 20 | 535 | – | – | 8 | 1 | 12 | 566 | 12,030 | 10,392 | 4 | 185 | 158 | 20 |
| N.Y. City | 32 | 963 | 1 | – | 23 | – | 2 | 650 | 24,481 | 25,454 | 49 | 1,487 | 1,528 | – |
| N.J. | 6 | 567 | – | – | 10 | – | 8 | 1,031 | 12,006 | 11,737 | 7 | 275 | 294 | 8 |
| Pa. | 32 | 646 | – | – | 12 | – | 9 | 734 | 15,872 | 16,221 | 6 | 312 | 258 | 10 |
| E.N. CENTRAL | 103 | 2,394 | 1 | 1 | 21 | 2 | 22 | 3,591 | 90,823 | 91,827 | 84 | 1,496 | 1,964 | 624 |
| Ohio | 25 | 427 | – | – | 5 | – | 10 | 750 | 23,788 | 25,707 | 6 | 233 | 377 | 35 |
| Ind. | 10 | 245 | – | – | – | – | 2 | 694 | 9,049 | 8,243 | 4 | 118 | 131 | 57 |
| Ill. | 35 | 858 | – | – | 9 | – | 6 | 1,131 | 28,734 | 27,612 | 55 | 846 | 1,103 | 357 |
| Mich. | 30 | 725 | 1 | 1 | 5 | 2 | 3 | 770 | 20,564 | 21,754 | 17 | 242 | 294 | 7 |
| Wis. | 3 | 139 | – | – | 2 | – | 1 | 246 | 8,688 | 8,511 | 2 | 57 | 59 | 168 |
| W.N. CENTRAL | 18 | 634 | 15 | 3 | 20 | 8 | 35 | 1,029 | 27,528 | 29,003 | 10 | 199 | 194 | 1,292 |
| Minn. | 7 | 121 | 1 | 1 | 2 | – | – | 146 | 4,501 | 4,842 | 8 | 73 | 51 | 144 |
| Iowa | – | 56 | 1 | – | 1 | – | 1 | 124 | 2,981 | 3,572 | – | 9 | 26 | 260 |
| Mo. | 3 | 293 | 12 | 2 | 15 | 8 | 23 | 460 | 12,134 | 12,504 | 2 | 98 | 86 | 290 |
| N. Dak. | 3 | 31 | – | – | – | – | – | 7 | 389 | 490 | – | 3 | 2 | 155 |
| S. Dak. | – | 33 | – | – | 1 | – | 2 | 29 | 843 | 979 | – | 2 | 1 | 251 |
| Nebr. | – | 27 | 1 | – | – | – | – | 96 | 2,169 | 2,021 | – | 7 | 2 | 74 |
| Kans. | 5 | 73 | – | – | 1 | – | 9 | 167 | 4,511 | 4,595 | – | 7 | 26 | 118 |
| S. ATLANTIC | 127 | 3,759 | 9 | 1 | 29 | 51 | 475 | 5,196 | 148,102 | 144,999 | 124 | 3,781 | 3,527 | 292 |
| Del. | – | 53 | – | – | 1 | – | 1 | 55 | 2,017 | 2,399 | – | 10 | 18 | 1 |
| Md. | 21 | 477 | 2 | – | 2 | 7 | 52 | 400 | 15,503 | 17,695 | 22 | 275 | 231 | 21 |
| D.C. | 3 | 219 | – | – | 3 | – | – | 390 | 10,278 | 9,386 | 9 | 273 | 273 | – |
| Va. | 12 | 402 | – | – | 4 | 10 | 52 | 570 | 13,175 | 13,656 | 15 | 349 | 299 | 8 |
| W. Va. | 1 | 137 | – | – | 3 | – | 2 | 89 | 1,888 | 2,003 | 1 | 15 | 41 | 13 |
| N.C. | 27 | 664 | 3 | – | 2 | 22 | 208 | 661 | 21,177 | 20,738 | 16 | 263 | 292 | 11 |
| S.C. | 21 | 350 | – | – | 3 | 10 | 118 | 317 | 14,034 | 13,666 | 1 | 212 | 174 | 44 |
| Ga. | – | 496 | 4 | – | – | 2 | 38 | 1,083 | 28,480 | 27,728 | 32 | 1,080 | 979 | 141 |
| Fla. | 42 | 961 | – | 1 | 11 | – | 4 | 1,631 | 41,550 | 37,728 | 28 | 1,304 | 1,220 | 53 |
| E.S. CENTRAL | 58 | 1,537 | 6 | – | 7 | 7 | 62 | 1,749 | 48,604 | 51,613 | 67 | 1,316 | 972 | 225 |
| Ky. | 13 | 330 | – | – | 2 | 3 | 5 | 267 | 7,193 | 6,811 | 7 | 89 | 102 | 101 |
| Tenn. | 19 | 517 | 6 | – | – | 3 | 39 | 726 | 17,457 | 18,388 | 30 | 558 | 415 | 96 |
| Ala. | 15 | 423 | – | – | 2 | 1 | 10 | 408 | 14,311 | 15,322 | 7 | 274 | 181 | 28 |
| Miss. | 11 | 267 | – | – | 3 | – | 8 | 348 | 9,643 | 11,092 | 23 | 395 | 274 | – |
| W.S. CENTRAL | 93 | 1,847 | 51 | 2 | 35 | – | 75 | 2,785 | 76,396 | 77,482 | 132 | 3,094 | 2,631 | 1,028 |
| Ark. | 12 | 192 | 31 | – | 4 | – | 14 | 168 | 5,843 | 6,137 | – | 88 | 92 | 132 |
| La. | 29 | 353 | – | – | – | – | 1 | 381 | 13,826 | 13,676 | 41 | 761 | 620 | 7 |
| Okla. | 4 | 184 | 15 | – | 3 | – | 44 | 281 | 7,599 | 7,271 | – | 59 | 55 | 174 |
| Tex. | 48 | 1,118 | 5 | 2 | 28 | – | 16 | 1,955 | 49,128 | 50,398 | 91 | 2,186 | 1,864 | 715 |
| MOUNTAIN | 15 | 457 | 16 | – | 17 | – | 10 | 829 | 23,022 | 23,485 | 14 | 396 | 284 | 142 |
| Mont. | – | 18 | 3 | – | 1 | – | 3 | 21 | 837 | 1,162 | – | 1 | 7 | 26 |
| Idaho | – | 21 | 1 | – | 1 | – | 1 | 35 | 1,016 | 1,039 | – | 23 | 19 | 1 |
| Wyo. | – | 16 | 3 | – | – | – | 2 | 26 | 686 | 623 | – | 8 | 5 | 8 |
| Colo. | 1 | 63 | 5 | – | 3 | – | 1 | 195 | 6,159 | 6,230 | 6 | 103 | 61 | 30 |
| N. Mex. | 2 | 93 | – | – | 2 | – | 2 | 72 | 2,852 | 3,016 | 2 | 68 | 53 | 26 |
| Ariz. | 12 | 194 | 1 | – | 7 | – | – | 314 | 6,351 | 6,566 | – | 129 | 84 | 47 |
| Utah | – | 32 | 2 | – | 3 | – | 1 | 52 | 1,076 | 1,205 | – | 10 | 3 | 3 |
| Nev. | – | 20 | 1 | – | – | – | – | 114 | 4,045 | 3,644 | 6 | 54 | 52 | 1 |
| PACIFIC | 117 | 3,017 | 4 | 6 | 70 | – | 4 | 3,322 | 100,048 | 98,604 | 176 | 3,042 | 2,438 | 385 |
| Wash. | 10 | 271 | – | – | 1 | – | – | NA | 7,485 | 8,550 | NA | 123 | 138 | – |
| Oreg. | – | 103 | 1 | – | 9 | – | 1 | 273 | 6,854 | 6,233 | 1 | 65 | 107 | 2 |
| Calif. | 104 | 2,551 | 2 | 6 | 60 | – | 3 | 2,902 | 81,265 | 78,818 | 172 | 2,738 | 2,111 | 339 |
| Alaska | – | 41 | 1 | – | – | – | – | 83 | 2,426 | 3,166 | – | 8 | 16 | 44 |
| Hawaii | 3 | 51 | – | – | – | – | – | 64 | 2,018 | 1,837 | 3 | 108 | 66 | – |
| Guam | NA | 27 | – | NA | – | NA | – | NA | 62 | 73 | NA | 2 | – | – |
| P.R. | NA | 107 | – | NA | 5 | NA | – | NA | 1,497 | 1,231 | NA | 308 | 296 | 28 |
| V.I. | NA | – | – | NA | – | NA | – | NA | 108 | 109 | NA | 10 | 6 | – |
| Pac. Trust Terr. | NA | 30 | – | NA | – | NA | – | NA | 258 | 299 | NA | – | 1 | – |

NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

## TABLE IV. Deaths in 121 U.S. cities,* week ending August 9, 1980 (32nd week)

| REPORTING AREA | ALL CAUSES, BY AGE (YEARS) | | | | | P & I** TOTAL |
|---|---|---|---|---|---|---|
| | ALL AGES | ≥65 | 45-64 | 25-44 | <1 | |
| NEW ENGLAND | 651 | 441 | 145 | 27 | 14 | 32 |
| Boston, Mass. | 187 | 110 | 47 | 13 | 7 | 12 |
| Bridgeport, Conn. | 27 | 20 | 5 | – | – | – |
| Cambridge, Mass. | 31 | 25 | 4 | 2 | – | 1 |
| Fall River, Mass. | 31 | 27 | 4 | – | – | – |
| Hartford, Conn. | 44 | 23 | 15 | 2 | 2 | 1 |
| Lowell, Mass. | 27 | 20 | 4 | 2 | 1 | 3 |
| Lynn, Mass. | 17 | 14 | 2 | 1 | – | 1 |
| New Bedford, Mass. | 26 | 21 | 4 | – | – | – |
| New Haven, Conn. | 62 | 42 | 14 | 2 | 1 | 3 |
| Providence, R.I. | 69 | 48 | 15 | 3 | 1 | 3 |
| Somerville, Mass. | 11 | 7 | 3 | – | 1 | 2 |
| Springfield, Mass. | 42 | 33 | 6 | 1 | 1 | 4 |
| Waterbury, Conn. | 35 | 22 | 11 | – | – | – |
| Worcester, Mass. | 42 | 29 | 11 | 1 | – | 2 |
| MID. ATLANTIC | 2,374 | 1,518 | 561 | 154 | 51 | 97 |
| Albany, N.Y. | 57 | 35 | 14 | 2 | 3 | – |
| Allentown, Pa. | 23 | 17 | 6 | – | – | – |
| Buffalo, N.Y. | 124 | 76 | 28 | 11 | 2 | 10 |
| Camden, N.J. | 30 | 18 | 11 | 1 | – | – |
| Elizabeth, N.J. | 22 | 15 | 6 | – | – | 1 |
| Erie, Pa.† | 31 | 21 | 6 | 1 | 1 | 1 |
| Jersey City, N.J. | 49 | 29 | 11 | 5 | 1 | 1 |
| Newark, N.J. | 58 | 30 | 17 | 5 | 5 | 4 |
| N.Y. City, N.Y. | 1,352 | 865 | 321 | 97 | 23 | 53 |
| Paterson, N.J. | 33 | 19 | 9 | 4 | – | – |
| Philadelphia, Pa.† | 194 | 118 | 45 | 17 | 5 | 11 |
| Pittsburgh, Pa.† | 51 | 31 | 15 | 3 | 2 | 3 |
| Reading, Pa. | 37 | 26 | 7 | – | 1 | 2 |
| Rochester, N.Y. | 110 | 77 | 23 | 2 | 6 | 6 |
| Schenectady, N.Y. | 35 | 24 | 6 | – | – | 1 |
| Scranton, Pa.† | 23 | 17 | 4 | 1 | – | – |
| Syracuse, N.Y. | 70 | 46 | 16 | 4 | 1 | – |
| Trenton, N.J. | 31 | 18 | 12 | – | – | – |
| Utica, N.Y. | 25 | 20 | 3 | – | – | 2 |
| Yonkers, N.Y. | 19 | 16 | 1 | 1 | 1 | 2 |
| E.N. CENTRAL | 2,243 | 1,368 | 528 | 153 | 108 | 42 |
| Akron, Ohio | 46 | 25 | 16 | 3 | 1 | – |
| Canton, Ohio | 55 | 33 | 15 | 5 | – | 2 |
| Chicago, Ill. | 541 | 314 | 122 | 45 | 39 | 9 |
| Cincinnati, Ohio | 150 | 92 | 37 | 8 | 4 | 8 |
| Cleveland, Ohio | 160 | 80 | 41 | 14 | 10 | 1 |
| Columbus, Ohio | 89 | 56 | 21 | 8 | 3 | 4 |
| Dayton, Ohio | 134 | 82 | 36 | 9 | 5 | 1 |
| Detroit, Mich. | 283 | 157 | 73 | 30 | 13 | 4 |
| Evansville, Ind. | 51 | 38 | 12 | 1 | – | 1 |
| Fort Wayne, Ind. | 52 | 28 | 18 | – | 3 | 3 |
| Gary, Ind. | 26 | 16 | 4 | 2 | 1 | 1 |
| Grand Rapids, Mich. | 44 | 33 | 4 | 2 | 1 | – |
| Indianapolis, Ind. | 170 | 111 | 32 | 9 | 10 | 2 |
| Madison, Wis. | 35 | 24 | 7 | 1 | 2 | 3 |
| Milwaukee, Wis. | 109 | 79 | 24 | 1 | 5 | 1 |
| Peoria, Ill. | 39 | 22 | 8 | 2 | 5 | – |
| Rockford, Ill. | 37 | 23 | 8 | 4 | 2 | – |
| South Bend, Ind. | 49 | 39 | 8 | 1 | 1 | – |
| Toledo, Ohio | 106 | 72 | 23 | 5 | 3 | 2 |
| Youngstown, Ohio | 67 | 44 | 19 | 3 | – | – |
| W.N. CENTRAL | 689 | 461 | 144 | 36 | 26 | 24 |
| Des Moines, Iowa | 49 | 36 | 8 | – | 4 | 4 |
| Duluth, Minn. | 30 | 23 | 4 | – | 1 | 1 |
| Kansas City, Kans. | 45 | 27 | 7 | 7 | 2 | 1 |
| Kansas City, Mo. | 120 | 81 | 21 | 8 | 3 | 5 |
| Lincoln, Nebr. | 18 | 14 | 4 | – | – | – |
| Minneapolis, Minn. | 92 | 63 | 20 | 2 | 6 | 1 |
| Omaha, Nebr. | 74 | 53 | 16 | – | 4 | 1 |
| St. Louis, Mo. | 137 | 77 | 38 | 12 | 5 | 6 |
| St. Paul, Minn. | 49 | 37 | 6 | 3 | 1 | 3 |
| Wichita, Kans. | 75 | 50 | 20 | 4 | – | 2 |

| REPORTING AREA | ALL CAUSES, BY AGE (YEARS) | | | | | P & I** TOTAL |
|---|---|---|---|---|---|---|
| | ALL AGES | ≥65 | 45-64 | 25-44 | <1 | |
| S. ATLANTIC | 1,228 | 687 | 322 | 120 | 43 | 41 |
| Atlanta, Ga. | 138 | 81 | 33 | 18 | – | 3 |
| Baltimore, Md. | 247 | 130 | 68 | 28 | 11 | – |
| Charlotte, N.C. | 65 | 28 | 20 | 14 | – | 4 |
| Jacksonville, Fla. | 107 | 65 | 21 | 10 | 5 | 1 |
| Miami, Fla. | 156 | 85 | 43 | 12 | 6 | 4 |
| Norfolk, Va. | 48 | 24 | 11 | 3 | 3 | 4 |
| Richmond, Va. | 74 | 38 | 21 | 8 | 5 | 2 |
| Savannah, Ga. | 42 | 22 | 10 | 9 | – | 6 |
| St. Petersburg, Fla. | 81 | 61 | 13 | 1 | 2 | 7 |
| Tampa, Fla. | 66 | 42 | 18 | 3 | 2 | 9 |
| Washington, D.C. | 152 | 80 | 52 | 12 | 6 | – |
| Wilmington, Del. | 52 | 31 | 12 | 2 | 3 | 1 |
| E.S. CENTRAL | 686 | 442 | 152 | 42 | 15 | 22 |
| Birmingham, Ala. | 122 | 73 | 31 | 9 | 2 | – |
| Chattanooga, Tenn. | 34 | 22 | 7 | 1 | – | 2 |
| Knoxville, Tenn. | 30 | 21 | 8 | 1 | – | – |
| Louisville, Ky. | 92 | 67 | 11 | 8 | 5 | 5 |
| Memphis, Tenn. | 167 | 119 | 30 | 9 | 5 | 7 |
| Mobile, Ala. | 54 | 37 | 12 | 2 | 1 | 3 |
| Montgomery, Ala. | 75 | 40 | 23 | 4 | 2 | 3 |
| Nashville, Tenn. | 112 | 63 | 30 | 8 | – | 2 |
| W.S. CENTRAL | 1,298 | 681 | 362 | 111 | 74 | 31 |
| Austin, Tex. | 35 | 22 | 9 | 3 | – | 4 |
| Baton Rouge, La. | 44 | 24 | 12 | 5 | – | 1 |
| Corpus Christi, Tex. | 58 | 34 | 16 | 1 | 5 | 2 |
| Dallas, Tex. | 189 | 103 | 53 | 15 | 10 | – |
| El Paso, Tex. | 47 | 26 | 11 | 5 | 2 | 2 |
| Fort Worth, Tex. | 90 | 46 | 23 | 4 | 11 | 6 |
| Houston, Tex. | 309 | 125 | 94 | 42 | 23 | 4 |
| Little Rock, Ark. | 72 | 46 | 14 | 6 | 5 | 4 |
| New Orleans, La. | 191 | 106 | 56 | 14 | 7 | 2 |
| San Antonio, Tex. | 127 | 65 | 42 | 10 | 4 | 3 |
| Shreveport, La. | 59 | 36 | 13 | 2 | 3 | – |
| Tulsa, Okla. | 77 | 48 | 19 | 4 | 4 | 3 |
| MOUNTAIN | 548 | 310 | 137 | 51 | 22 | 13 |
| Albuquerque, N. Mex. | 36 | 31 | 2 | 1 | – | 2 |
| Colo. Springs, Colo. | 30 | 15 | 9 | 3 | 2 | 1 |
| Denver, Colo. | 126 | 68 | 38 | 12 | 5 | 3 |
| Las Vegas, Nev. | 69 | 34 | 19 | 8 | – | 2 |
| Ogden, Utah | 26 | 18 | 5 | 2 | 1 | 3 |
| Phoenix, Ariz. | 109 | 58 | 24 | 11 | 12 | 1 |
| Pueblo, Colo. | 18 | 11 | 4 | 2 | – | 1 |
| Salt Lake City, Utah | 47 | 24 | 16 | 2 | 1 | – |
| Tucson, Ariz. | 87 | 51 | 20 | 10 | 1 | – |
| PACIFIC | 1,826 | 1,103 | 418 | 140 | 76 | 63 |
| Berkeley, Calif. | 25 | 19 | 4 | 1 | – | 1 |
| Fresno, Calif. | 126 | 63 | 31 | 13 | 8 | 3 |
| Glendale, Calif.†† | 25 | 18 | 5 | 1 | – | 1 |
| Honolulu, Hawaii | 53 | 30 | 12 | 6 | 2 | 5 |
| Long Beach, Calif. | 89 | 52 | 24 | 6 | 3 | 1 |
| Los Angeles, Calif.†† | 549 | 328 | 122 | 50 | 18 | 18 |
| Oakland, Calif. | 69 | 38 | 18 | 8 | 2 | 2 |
| Pasadena, Calif. | 26 | 18 | 6 | 2 | – | – |
| Portland, Oreg. | 137 | 89 | 23 | 6 | 12 | – |
| Sacramento, Calif. | 66 | 43 | 14 | 4 | 3 | 5 |
| San Diego, Calif.†† | 138 | 80 | 34 | 11 | 7 | 1 |
| San Francisco, Calif. | 143 | 81 | 38 | 14 | 7 | 10 |
| San Jose, Calif. | 140 | 81 | 33 | 10 | 5 | 8 |
| Seattle, Wash. | 147 | 95 | 37 | 7 | 6 | 6 |
| Spokane, Wash. | 42 | 27 | 11 | – | 2 | – |
| Tacoma, Wash. | 51 | 41 | 6 | 1 | 1 | 2 |
| TOTAL | 11,543 | 7,011 | 2,769 | 834 | 429 | 365 |

*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 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Data not available this week. Figures are estimates based on average percent of regional totals.

*Tuberculosis — Continued*

40-110 times higher, depending on age, for an Indochinese refugee than for other persons in the United States (Table 2).

**TABLE 2. Relative risk of tuberculosis among Indochinese refugees, by age, 1979**

| Age group (years) | Prevalence among refugees | Prevalence* among U.S. persons | Relative risk |
|---|---|---|---|
| 0-4 | 491 | 11.8 | 42 |
| 5-14 | 321 | 3.2 | 100 |
| 15-24 | 588 | 9.8 | 60 |
| 25-44 | 1,347 | 22.4 | 60 |
| 45-64 | 2,734 | 40.2 | 68 |
| ≥65 | 7,160 | 63.6 | 113 |
| All ages | 926 | 24.4 | 38 |

*Assumes 2-year duration of disease.

Previously reported surveys have indicated high rates of positive tuberculin skin tests among the Indochinese refugees (*1*). Tuberculin-positive refugees are at risk of developing tuberculosis, and the risk is probably greatest during the first few years after arrival in this country. This is consistent with the high prevalence of disease reported for refugees who were not certified as having Class A or Class B tuberculosis overseas. A survey to estimate the rate of disease development during the year after arrival is underway. The relatively large proportion of refugees who are being given preventive therapy will reduce, but not eliminate, the problem.

In spite of the anticipated number of cases of tuberculosis that will occur among refugees not certified as having Class A or Class B tuberculosis overseas, this certification is the most effective case-finding method. The relative rates of current disease for refugees who had been certified, when overseas, to have Class A or Class B tuberculosis, are 235 and 54 times higher, respectively, than the rates for refugees who had been certified as having neither Class A nor Class B disease.

It is possible that this initial survey underestimates the prevalence of tuberculosis among Indochinese refugees. Some areas were unable to identify retrospectively all Indochinese refugees who had been added to their case registers, and the medical evaluation of refugees who arrived late in 1979 may not have been completed by the end of 1979. On the other hand, the low rate of positive smears and cultures suggests that this survey may have overestimated the prevalence of tuberculosis among Indochinese refugees.

In the United States, a case of tuberculosis is certified by identification of the *Mycobacterium tuberculosis* organism. When this verification cannot be obtained, reported cases are considered verified for counting if the following 4 factors are present: 1) completed diagnostic procedures; 2) evidence of tuberculous infection (i.e., "positive" tuberculin test); 3) abnormal chest X ray (not stable; i.e., worsening or improving) and/or clinical evidence of *current* disease; and 4) decision to give a full course of therapy with 2 or more anti-tuberculosis drugs.

In the United States, approximately 85%-90% of persons (other than refugees) with tuberculosis have a positive bacteriologic test. The rates for cases among refugees with Class B certification (42%) and among refugees who were neither Class A nor B (53%) suggest that some refugees with chest X-ray abnormalities for whom preventive therapy is appropriate are being managed and reported as if they have current disease. The low

*Tuberculosis – Continued*

rate of positive bacteriologic tests among Class A refugees (33%) is not surprising because many have been started on therapy overseas. Information from subsequent surveys should help clarify this issue.

*Reference*

1. MMWR 1980;29:4, 8-11.

## Heat Wave-Related Morbidity and Mortality – Missouri

The state of Missouri experienced high rates of heat-related mortality during the record-breaking July 1980 heat wave. The Kansas City (Missouri), Health Department, the St. Louis City Division of Health, the Missouri State Department of Social Services, and CDC began further studies of heat-related morbidity and mortality in Kansas City and St. Louis on July 28th (*1*). The objectives of the studies in the 2 cities were to (1) define the extent of heat-related morbidity and mortality, (2) determine the epidemiologic characteristics of persons who developed severe heat-related illness or died, and (3) conduct a case-control study of documented heatstroke cases. The case-control study compares heatstroke cases with age- and sex-matched neighborhood controls for a variety of environmental, personal, and medical factors thought to be associated with increased risk of severe heat-related illness.

The Kansas City and St. Louis studies are still in progress, but the following preliminary findings are available from Kansas City. Maximum daily temperatures in Kansas City were 102 F or above every day from July 4 to July 20. Review of hospital and emergency-room records identified 454 cases of heat-related illness (HRI) in residents of Kansas City (10.7 HRI cases per 10,000 population). The largest daily total of HRIs (59) occurred on July 11, when the maximum temperature was 107 F. During July 1979, no heat-related admissions or emergency-room visits were recorded in Kansas City Hospitals. Heat-related deaths (HRDs) were either (a) persons whose death certificate listed heat as an immediate or contributory cause of death (133) or (b) fatal, hospitalized cases of heat stroke (15). A total of 148 HRDs were identified in Kansas City residents after July 1. The greatest number of these deaths (23) occurred on July 11; the median age of those who died was 73 years. Seventy-two percent were 65 years or older at the time of death. Eighty-three (57%) of the HRDs occurred in whites; 60 (41%), in blacks; and 2 (1%), in Hispanics. The overall rate of HRD for Kansas City was 3.5 per 10,000. The HRDs were concentrated in the inner-city, in the lower socioeconomic section. HRD rates were calculated for census tracts in high and low socioeconomic areas. The HRD rate in low socioeconomic census tracts was 9.6 per 10,000 and in high socioeconomic areas, 0.09 per 10,000.

*Reported by R Biery, MD, G Hoff, PhD, R Hotchkiss, MD, L Hussey, RN, J Tucker, RN, Kansas City, Missouri Health Dept; H Bruce, MD, M Case, MD, G Gantner, MD, A Montgomery, JD, J Williams, MBA, RD Wochner, MD, St. Louis City Div of Health; HD Donnell, Jr, MD, State Epidemiologist, Missouri State Dept of Social Services; Federal Emergency Management Agency; Bur of Epidemiology, Bur of Smallpox Eradiaction, Bur of State Services, National Institute for Occupational Safety and Health, CDC.*

**Editorial Note:** High environmental temperatures (heat waves) have periodically been associated with marked increases in morbidity and mortality in the United States. Despite the fact that most serious heat wave-associated illnesses and deaths are preventable, many persons in the United States this summer became seriously ill because of the heat.

*Heat Wave — Continued*

Studies presently being carried out in Missouri will define the extent of heat-related illness and death in 2 cities. The case-control study of heatstroke victims should help define risk factors for development of severe heat illness. It is hoped that the case-control study will assist in more accurate identification of high-risk individuals in future heat waves so that heat wave emergency-relief efforts can be directed to the most vulnerable individuals and groups.

It is important to reemphasize the simple preventive measures that have been shown to be effective to reduce heat stress:

1. Keep as cool as possible.
   a. Avoid direct sunlight.
   b. Stay in the coolest available location (it will usually be indoors).
   c. Use air-conditioning, if available.
   d. Use electric fans to promote cooling.
   e. Place wet towels or ice bags on the body or dampen clothing.
   f. Take cool baths or showers.
2. Wear lightweight, loose-fitting clothing.
3. Avoid strenuous physical activity, particularly in the sun and during the hottest part of the day.
4. Increase intake of fluids, such as water and fruit or vegetable juices. Thirst is not always a good indicator of adequacy of fluid intake. Some studies indicate that fluid intake in hot weather should be 1½ times the amount that quenches thirst (*2*). Persons who are overweight or large in build or who are engaged in strenuous activities, such as sports, may require more than a gallon of fluid intake daily in very hot weather (*3*). Persons for whom salt or fluid is restricted should consult their physicians for instructions on appropriate fluid and salt intake.
5. Do not take salt tablets unless so instructed by a physician.
6. Avoid alcoholic beverages (beer, wine, and liquor).
7. Stay in at least daily contact with other people.

Special precautions should be taken for certain higher-risk groups. These safeguards may include increased efforts to keep cool or closer observation by others for early signs of heat illness. The high-risk groups are: a) infants less than a year of age, b) persons over 65 years of age, c) persons who are less able to care for themselves because of chronic mental illness or dementia of any cause, d) persons with chronic diseases, especially cardiovascular or kidney disease, e) those taking any of the 3 classes of medication that reduce the ability to sweat—diuretics ("water pills"), such as chlorothiazide; phenothiazines (the major tranquilizers), such as chlorpromazine; and anti-cholinergics (which are usually used for the treatment of gastrointestinal disorders), such as atropine or belladonna.

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The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

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*Heat Wave — Continued*

*References*
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2. Pitts GC, Johnson RE, Consolazio FC. Work in the heat as affected by intake of water, salt, and glucose. Am J Physiol 1944;142:253-9.
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## Follow-up on Mount St. Helens

Mount St. Helens had a major eruption for the fifth time this year, starting at 4:23 PM (PDT) on August 7. The eruption was preceded by 4 hours of harmonic tremors of increasing frequencies. The plume rose to about 44,000 feet. A pyroclastic flow was observed to run halfway down the volcano in the direction of Spirit Lake. Another pulsation occurred at 7:10 PM, when the plume rose to about 19,000 feet, and again at 10:32 PM with a plume of about 36,000 feet. The last pulsation was the strongest, and included 3 lesser bursts at 10:55 PM, 11:00 PM, and 11:30 PM. By 3:30 AM, the activity had decreased to very low levels.

The wind direction varied, and it was difficult to predict the direction of the plume. Contacts were made through the CDC hospital surveillance system to determine the extent of the ashfall. In western Washington, traces of ash fell in Centralia, Chehalis, Longview, and as far north as Renton and Kent. In eastern Washington, light amounts fell in Ellensburg and Wenatchee; there was no fallout reported east of the Columbia River. Coarse material fell in Randall, about 30 miles north of Mount St. Helens.

Further eruptions are expected.

*Reported by Chronic Diseases Div, Bur of Epidemiology, CDC.*

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