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MORBIDITY AND MORTALITY WEEKLY REPORT

## *Epidemiologic Notes and Reports*

### *Pneumocystis carinii* Pneumonia among Persons with Hemophilia A

CDC recently received reports of three cases of *Pneumocystis carinii* pneumonia among patients with hemophilia A and without other underlying disease. Two have died; one remains critically ill. All three were heterosexual males; none had a history of intravenous (IV) drug abuse. All had lymphopenia, and the two patients who were specifically tested have had *in vitro* laboratory evidence of cellular immune deficiency. The case reports follow.

**Patient 1:** A 62-year-old resident of Westchester County, New York, with a history of chronic hepatitis had received frequent injections of Factor VIII concentrate for severe hemophilia for many years. In February 1981, he began to experience weight loss and vague right upper quadrant abdominal discomfort associated with laboratory evidence of increasing hepatic dysfunction. In December 1981, while hospitalized in Miami, Florida, for elective knee surgery, he complained of cough and fever. He was lymphopenic, and chest X-ray revealed interstitial infiltrates compatible with viral pneumonia. He was discharged in late December after a brief course of corticosteroids associated with overall clinical improvement. He returned in severe respiratory distress a few days later. Open lung biopsy on January 5 revealed *P. carinii*, for which he received sulfamethoxazole/trimethoprim (SMZ/TMP) during the 2 weeks before death. *P. carinii* pneumonia and micronodular cirrhosis were documented at post-mortem examination.

**Patient 2:** A 59-year-old lifelong resident of Denver, Colorado, noted the onset of gradual weight loss, dysphagia associated with pharyngitis, aphthous-like ulcers, and anterior cervical adenopathy beginning in October 1980. As a patient with severe hemophilia, he had received frequent injections of Factor VIII concentrate for several years. Weight loss continued over a period of months. Oropharyngeal candidiasis was diagnosed in February 1982. He was hospitalized in May 1982 with symptoms including nausea, vomiting, and recurrent fever. Pneumonia was diagnosed, and *P. carinii* and cytomegalovirus (CMV) were repeatedly identified from lung tissue or bronchial secretions using histopathologic and culture techniques. Therapy with SMZ/TMP and pentamidine isethionate continued until death on July 5, 1982. Laboratory evidence for cellular immune dysfunction included absent mitogen responses and depletion of the T-helper lymphocyte cell population, relative increase in T-suppressor cells, and resultant inverted T-helper/T-suppressor ratio.

*Pneumocystis Carinii pneumonia – Continued*

**Patient 3:** A previously healthy 27-year-old lifelong resident of northeastern Ohio developed fever, urinary frequency and urgency, and extreme lassitude in July 1981. He had frequently received parenteral Factor VIII concentrate for severe hemophilia. Bilateral pneumonia was diagnosed in October 1981, and open lung biopsy revealed *P. carinii.* He responded successfully to a 3-week course of SMZ/TMP. In February 1982, he received ketoconazole to suppress repeated episodes of oral candidiasis. He was hospitalized again in April with fever, splenomegaly, anemia, and lymphopenia. An extensive tumor work-up (including laparotomy) did not uncover an underlying malignancy. Cultures of bone marrow, liver, mesenteric lymph nodes, and blood grew *Mycobacterium avium. In vitro* immunological testing in March indicated a reduction in absolute number of circulating T-cells. Subsequent, more extensive testing documented the lack of lymphocyte responsiveness to mitogens, absolute and relative decrease in T-helper cells, relative increase in T-suppressor cells, and resultant inverted T-helper/T-suppressor ratio.

For each patient, records of the administration of Factor VIII concentrate were reviewed to determine manufacturer and lot numbers. No two of the patients are known to have received concentrate from the same lots.

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**Editorial Note:** *Pneumocystis carinii* pneumonia has not been previously reported among hemophilia patients who have had no other underlying diseases and have not had therapy commonly associated with immunosuppression. A review of the Parasitic Disease Drug Service's records of requests for pentamidine isethionate for 1980-1982 failed to identify hemophilia among the underlying disorders of patients for whom pentamidine was requested for *Pneumocystis carinii* therapy.

The clinical and immunologic features these three patients share are strikingly similar to those recently observed among certain individuals from the following groups: homosexual males, heterosexuals who abuse IV drugs, and Haitians who recently entered the United States.(*1-3*) Although the cause of the severe immune dysfunction is unknown, the occurrence among the three hemophiliac cases suggests the possible transmission of an agent through blood products.

Hemophilia A is a sex-linked, inherited disorder characterized by a deficiency in Factor VIII activity. There are an estimated 20,000 patients with hemophilia A in the United States (*4*). Severity of disease is classified according to percentage of endogenous Factor VIII activity. Approximately 60% of the 20,000 are classified as severe, and 40% are classified as moderate (*4*). Factor VIII deficiency can be treated with intravenous administration of exogenous Factor VIII as either cryoprecipitate made from individual units of fresh frozen plasma or lyophilized Factor VIII concentrate manufactured from plasma pools collected from as many as a thousand or more donors.

CDC has notified directors of hemophilia centers about these cases and, with the National Hemophilia Foundation, has initiated collaborative surveillance. A Public Health Service advisory committee is being formed to consider the implication of these findings. Physicians diagnosing opportunistic infections in hemophilia patients who have not received antecedent

*Pneumocystis Carinii pneumonia — Continued*

immunosuppressive therapy are encouraged to report them to the CDC through local and state health departments.

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2. CDC. Update on Kaposi's sarcoma and opportunistic infections in previously healthy persons—United States. MMWR 1982;31:294,300-1.
3. CDC. Opportunistic infections and Kaposi's sarcoma among Haitians in the United States. MMWR 1982;31:353-4,360-1.
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## *Current Trends*

### Lyme Disease

Lyme disease is an illness recently described in the United States and is named after Lyme, Connecticut, where it was first studied in 1975. The disease has subsequently been recognized in at least 14 additional states. Cases have been reported primarily from three geographic areas: the East (Connecticut, Delaware, Georgia, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island), the Midwest (Minnesota, Wisconsin), and the West (California, Nevada, Oregon); a case has also been reported in Arkansas. As awareness of the disease increases, it is likely that additional states will be added to this list.

Lyme disease is a systemic illness characterized by a distinctive primary skin lesion (erythema chronicum migrans [ECM]) and, in many cases, subsequent development of significant cardiac, neurologic, and/or arthritic complications. Nonspecific systemic symptoms such as fever, chills, malaise, arthralgia and headache are also usually present.

ECM, the most characteristic feature of the disease, begins as a red macule or papule that expands in a circular manner over a number of days. As the lesion expands, central clearing often occurs. Lesions can reach diameters of 12 inches or more, and many people will have multiple skin lesions, generally beginning several days after an initial lesion. With time, the skin lesions fade, lasting a median of 3 weeks.

Days to weeks after the skin lesion appears, cardiac, neurologic, or joint manifestations may develop. Not all persons with ECM, however, will develop these complications. The usual cardiac manifestations are atrioventricular conduction defects, although electrocardiographic changes consistent with myocarditis or pericarditis may occur. The most common neurologic manifestations are headache and stiff neck, consistent with meningoencephalitis. Cranial nerve palsies, as well as motor and sensory radiculitis, may also be seen. Both cardiac and neurologic abnormalities tend to be self-limited, although repeated episodes may occur.

The arthritic manifestations, which begin weeks to as long as two years (median, four weeks) after the appearance of ECM, are characterized by intermittent attacks of acute arthritis, usually of the large joints, with each episode lasting days to several months. About 10% of people with Lyme disease, primarily those with preceding attacks of acute arthritis, subsequently develop chronic arthritis, usually in the knee.

Lyme disease is thought to be caused by an infectious agent transmitted by *Ixodes* ticks, although other vectors could be involved. In Connecticut, about 20% of patients remember a

*Lyme Disease — Continued*

tick bite 3-30 days before the appearance of ECM at the site; in those cases in which the tick was examined, it was identified as *I. dammini*. In California and Oregon, *I. pacificus* ticks have been implicated. As further evidence for an infectious etiology, antimicrobial therapy has been shown to significantly alter the course of the disease. Penicillin V or tetracycline, 250 mg, orally, four times a day for 10 days, can successfully treat the early phases of the disease when ECM is present and can prevent, or at least ameliorate, the subsequent, more severe cardiac, neurologic, or arthritic phases.

Work is underway to identify an agent of the disease and to develop a diagnostic laboratory test. Recently, a spirochete was isolated from *I. dammini* ticks; indirect fluorescent antibody testing of patient sera suggests that this may be the etiologic agent of Lyme disease. At present, however, the diagnosis of Lyme disease rests on clinical grounds, based principally on recognition of typical ECM skin lesions in association with cardiac, neurologic, and arthritic abnormalities.

The majority of Lyme disease patients become ill in the summer months. Because the full geographical distribution and the number of cases are not known, State and Territorial Epidemiologists and CDC are attempting to identify all cases of Lyme disease that occur in the United States this year. Health care providers are encouraged to report cases to appropriate local and state health departments.

*Reported by AC Steere, MD, Yale University School of Medicine, New Haven, Connecticut; Special Pathogens Br, Bacterial Diseases Div, Center for Infectious Diseases, CDC.*

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4. Burgdorfer W, Barbour AG, Hayes SF, Benach JL, Grunwaldt E, Davis JP. Lyme disease—a tick-borne spirochetosis? Science 1982;216:1317-19.

## Surveillance of Childhood Lead Poisoning — United States, First Quarter Fiscal Year 1982

For the first quarter of fiscal year 1982, 51 lead-poisoning control programs reported screening 92,769 children and identifying 3,061 with lead toxicity (Table 1). The reported number of children screened is 35% lower than the 143,000 tested for lead toxicity the previous quarter and is the smallest number reported screened in any quarter since early 1978.

Screening for lead toxicity is somewhat seasonal. More children are tested from April through September than from October through March—with the fourth quarter of the fiscal year (i.e., June 1-September 30) usually being the peak period. However, the 35% decline between the last quarter of fiscal year 1981 and the first quarter of fiscal year 1982 greatly exceeds the 4%-10% reduction for these periods usually seen in previous years.

The decline in the number of children reported screened in the first quarter of fiscal year 1982, as compared with the immediately preceding quarter, can be accounted for in two ways: 1) Eight fewer communities reported than in the previous quarter (several cities, such as Chicago, Detroit, St. Louis, and Newark, that traditionally have reported a substantial level of activity did not report); and 2) two-thirds of the communities that did report showed de-

*Childhood Lead Poisoning — Continued*

creases in numbers screened; 19 of these programs recorded declines of 20% or more—with Philadelphia having the most marked reduction—75%.

*Reported by Environmental Health Svcs Div, Center for Environmental Health, CDC.*

## TABLE 1. Results of screening in childhood lead poisoning prevention programs, United States, first quarter fiscal year 1982 (October 1-December 31, 1981)

| Programs | Number of children | | | | | | Number of dwellings related to children with lead toxicity | | |
|---|---|---|---|---|---|---|---|---|---|
| | | With lead toxicity* | | | | | | | |
| | | Requiring pediatric management | | | Receiving pediatric management | Identified with iron deficiency | Inspected | Found with lead | Reduced |
| | Screened | Total | Class II | Classes III & IV | | | | | |
| Bridgeport, Conn. | 758 | 33 | 27 | 6 | 183 | 31 | 33 | 29 | 21 |
| Waterbury, Conn. | 799 | 10 | 9 | 1 | 104 | 92 | 21 | 15 | 19 |
| Boston, Mass. | 5,505 | 184 | 126 | 58 | 653 | 208 | 76 | 75 | 48 |
| Lawrence, Mass. | 1,180 | 98 | 71 | 27 | 221 | 18 | 57 | 52 | 44 |
| Worcester, Mass. | 1,308 | 23 | 16 | 7 | 98 | 4 | 31 | 31 | 24 |
| Rhode Island | 1,416 | 41 | 22 | 19 | 432 | 28 | 74 | 35 | 30 |
| **REGION I TOTAL** | **10,966** | **389** | **271** | **118** | **1,691** | **381** | **292** | **237** | **186** |
| Atlantic City, N.J. | 246 | 16 | 10 | 6 | 27 | 0 | 5 | 5 | 11 |
| Camden, N.J. | 886 | 35 | 27 | 8 | 218 | 29 | 34 | 18 | 17 |
| East Orange, N.J. | 750 | 40 | 35 | 5 | 174 | 61 | 13 | 9 | 10 |
| Elizabeth, N.J. | 654 | 36 | 30 | 6 | 120 | 49 | 11 | 10 | 13 |
| Jersey City, N.J. | 733 | 76 | 21 | 55 | 154 | 50 | 52 | 45 | 45 |
| Long Branch, N.J. | 172 | 0 | 0 | 0 | 26 | 3 | 10 | 7 | 7 |
| Paterson, N.J. | 942 | 43 | 17 | 26 | 621 | 122 | 33 | 30 | 49 |
| Plainfield, N.J. | 843 | 28 | 22 | 6 | 112 | 31 | 23 | 19 | 3 |
| New York City | 28,150 | 1,081 | 756 | 325 | 2,338 | 2,325 | 526 | 337 | 182 |
| Monroe Co., N.Y. | 1,240 | 94 | 72 | 22 | 206 | 35 | 27 | 20 | 22 |
| Westchester Co., N.Y. | 1,312 | 29 | 18 | 11 | 255 | 75 | 42 | 28 | 36 |
| **REGION II TOTAL** | **35,928** | **1,478** | **1,008** | **470** | **4,251** | **2,780** | **776** | **528** | **395** |
| Delaware State | 1,125 | 26 | 18 | 8 | 197 | 32 | 20 | 12 | 9 |
| Washington, D.C. | 2,618 | 51 | 33 | 18 | 244 | 307 | 93 | 72 | 46 |
| Baltimore, Md. | 5,165 | 151 | 110 | 41 | 670 | 120 | 226 | 107 | 77 |
| Chester, Pa. | 471 | 12 | 8 | 4 | 101 | 13 | 15 | 12 | 12 |
| Philadelphia, Pa. | 1,287 | 82 | 55 | 27 | 1,826 | 4 | 61 | 59 | 33 |
| Wilkes-Barre, Pa. | 399 | 12 | 8 | 4 | 74 | 24 | 11 | 10 | 4 |
| York, Pa. | 139 | 0 | 0 | 0 | 2 | 11 | 0 | 0 | 0 |
| Lynchburg, Va. | 410 | 5 | 2 | 3 | 55 | 6 | 11 | 8 | 6 |
| Newport News, Va. | 712 | 3 | 2 | 1 | 57 | 79 | 7 | 7 | 3 |
| Norfolk, Va. | 972 | 8 | 6 | 2 | 170 | 21 | 17 | 15 | 6 |
| Portsmouth, Va. | 598 | 12 | 9 | 3 | 99 | 13 | 21 | 12 | 5 |
| Richmond, Va. | 751 | 11 | 10 | 1 | 85 | 8 | 5 | 5 | 5 |
| **REGION III TOTAL** | **14,647** | **373** | **261** | **112** | **3,580** | **638** | **487** | **319** | **206** |
| Savannah-Chatham Co., Ga. | 1,219 | 28 | 15 | 13 | 239 | 16 | 117 | 110 | 60 |
| Louisville, Ky. | 2,640 | 44 | 33 | 11 | 286 | 75 | 82 | 64 | 97 |
| Cabarrus Co., N.C. | 369 | 0 | 0 | 0 | 11 | 6 | 6 | 2 | 1 |
| South Carolina State | 7,843 | 66 | 52 | 14 | 419 | 0 | 79 | 53 | 58 |
| **REGION IV TOTAL** | **12,071** | **138** | **100** | **38** | **955** | **97** | **284** | **229** | **216** |
| Kankakee, Ill. | 408 | 23 | 17 | 6 | 75 | 65 | 46 | 44 | 18 |
| Madison Co., Ill. | 1,551 | 30 | 27 | 3 | 123 | 4 | 23 | 18 | 2 |
| Rockford, Ill. | 786 | 1 | 0 | 1 | 68 | 7 | 2 | 2 | 16 |
| Waukegan-Lake Co., Ill.† | 547 | 3 | 2 | 1 | 64 | 13 | 4 | 1 | 1 |
| Ill. (other local progs.)† | 1,265 | 14 | 11 | 3 | 31 | 1 | 15 | 10 | 2 |
| Grand Rapids, Mich.† | 665 | 11 | 9 | 2 | NA | 28 | 9 | 8 | 4 |
| Wayne Co., Mich. | 426 | 20 | 8 | 12 | 79 | 18 | 15 | 11 | 10 |
| Akron, Ohio | 580 | 14 | 13 | 1 | 106 | 30 | 20 | 15 | 22 |
| Cleveland, Ohio | 3,410 | 321 | 254 | 67 | 885 | 355 | 70 | 26 | 27 |
| Beloit, Wis. | 225 | 10 | 8 | 2 | 17 | 9 | 7 | 7 | 0 |
| Milwaukee, Wis. | 1,189 | 69 | 43 | 26 | 308 | 74 | 110 | 80 | 126 |
| **REGION V TOTAL** | **11,052** | **516** | **392** | **124** | **1,756** | **604** | **321** | **222** | **228** |
| Arkansas State | 1,986 | 49 | 29 | 20 | 213 | 61 | 49 | 29 | 33 |
| New Orleans, La. | 2,613 | 70 | 57 | 13 | 573 | 138 | 93 | 52 | 79 |
| Houston, Tex. | 1,433 | 14 | 7 | 7 | 126 | 27 | 19 | 8 | 3 |
| **REGION VI TOTAL** | **6,032** | **133** | **93** | **40** | **912** | **226** | **161** | **89** | **115** |
| Cedar Rapids-Linn Co., Iowa | 631 | 7 | 4 | 3 | 47 | 12 | 7 | 7 | 11 |
| Davenport-Scott Co., Iowa† | 896 | 10 | 6 | 4 | 61 | 6 | 15 | 8 | 4 |
| Springfield, Mo.† | 288 | 9 | 8 | 1 | 9 | 284 | 13 | 8 | 2 |
| Omaha-Douglas Co., Neb. | 258 | 8 | 6 | 2 | 139 | 7 | 30 | 24 | 38 |
| **REGION VII TOTAL** | **2,073** | **34** | **24** | **10** | **256** | **309** | **65** | **47** | **55** |
| **U.S. TOTAL** | **92,769** | **3,061** | **2,149** | **912** | **13,401** | **5,035** | **2,386** | **1,671** | **1,401** |

*Screening Class II and Classes III & IV defined in CDC Statement, "Preventing Lead Poisoning in Young Children," April 1978.
†Reporting program not receiving lead poisoning grant support.
NA — Not available.

*Epidemiologic Notes and Reports*

## Follow-Up of Gynecomastia among Haitian Males

The following account updates the recent report of gynecomastia among Haitian male entrants located at the Immigration and Naturalization Service's (INS) Service Processing Centers (*1*). Current findings continue to indicate a correlation between the date of entrant arrival and spontaneous resolution of gynecomastia. The prevalence of gynecomastia at the INS Fort Allen Service Processing Center, Puerto Rico, has decreased from 77 (14.3%) of 540 examined in December, 1981, to 47/508 (9.3%) in May 1982.

On May 11, 1982, 66 of the 77 Haitian males with gynecomastia detected at Fort Allen in early December 1981 were re-examined; 46 patients (69.7%) no longer had evidence of gynecomastia, and six had decreased breast size. Therefore, of the originally detected cases, 52/66 (78.8%) have either totally or partially remitted. Most of these cases occurred among Haitians who had arrived in the United States by late August 1981. In addition, 10 of 12 Haitian males with gynecomastia detected at Fort Allen after their transfer from the El Paso, Texas, and Otisville, New York, Service Processing Centers between late December and early March were examined on May 11; nine (90%) no longer had evidence of gynecomastia.

*(Continued on page 375)*

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

| DISEASE | | 27th WEEK ENDING | | | CUMULATIVE, FIRST 27 WEEKS | | |
|---|---|---|---|---|---|---|---|
| | | July 10, 1982 | July 11, 1981 | MEDIAN 1977-1981 | July 10, 1982 | July 11, 1981 | MEDIAN 1977-1981 |
| Aseptic meningitis | | 182 | 207 | 121 | 2,339 | 2,295 | 1,673 |
| Brucellosis | | 6 | 2 | 3 | 80 | 80 | 88 |
| Encephalitis: | Primary (arthropod-borne & unspec.) | 25 | 25 | 14 | 413 | 410 | 340 |
| | Post-infectious | 1 | 5 | 5 | 41 | 60 | 109 |
| Gonorrhea: | Civilian | 14,205 | 17,629 | 18,105 | 462,544 | 504,383 | 490,017 |
| | Military | 586 | 282 | 656 | 13,427 | 14,901 | 14,076 |
| Hepatitis: | Type A | 410 | 380 | 460 | 11,306 | 13,178 | 14,853 |
| | Type B | 370 | 359 | 311 | 10,572 | 10,359 | 8,489 |
| | Non A, Non B | 45 | N | N | 1,102 | N | N |
| | Unspecified | 149 | 142 | 165 | 4,660 | 5,634 | 5,159 |
| Legionellosis | | 6 | N | N | 196 | N | N |
| Leprosy | | 5 | 13 | 7 | 98 | 122 | 90 |
| Malaria | | 33 | 39 | 25 | 466 | 715 | 320 |
| Measles (rubeola) | | 38 | 46 | 284 | 973 | 2,316 | 11,934 |
| Meningococcal infections: | Total | 46 | 43 | 33 | 1,783 | 2,189 | 1,638 |
| | Civilian | 44 | 43 | 33 | 1,773 | 2,181 | 1,621 |
| | Military | 2 | - | - | 10 | 8 | 11 |
| Mumps | | 37 | 51 | 128 | 3,846 | 2,839 | 10,113 |
| Pertussis | | 18 | 18 | 35 | 544 | 530 | 602 |
| Rubella(German measles) | | 51 | 34 | 192 | 1,753 | 1,510 | 9,983 |
| Syphilis (Primary & Secondary): | Civilian | 494 | 471 | 380 | 16,775 | 15,376 | 12,308 |
| | Military | 2 | 10 | 6 | 201 | 193 | 159 |
| Tuberculosis | | 467 | 409 | 467 | 13,177 | 13,550 | 14,286 |
| Tularemia | | 7 | 2 | 4 | 89 | 101 | 82 |
| Typhoid fever | | 14 | 14 | 11 | 199 | 253 | 232 |
| Typhus fever, tick-borne (RMSF) | | 64 | 52 | 48 | 434 | 576 | 443 |
| Rabies, animal | | 108 | 163 | 89 | 3,229 | 3,998 | 2,477 |

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

| | CUM. 1982 | | CUM. 1982 |
|---|---|---|---|
| Anthrax | - | Poliomyelitis: Total | 3 |
| Botulism (Ohio 1, Wash. 1, Calif. 3) | 45 | Paralytic (Indiana 1) | 3 |
| Cholera | - | Psittacosis (Vt. 1, Calif. 3) | 61 |
| Congenital rubella syndrome | 5 | Rabies, human | - |
| Diphtheria | - | Tetanus (Minn. 1, Ore. 1, Calif. 1) | 38 |
| Leptospirosis (Hawaii 1) | 30 | Trichinosis | 54 |
| Plague (Wyo. 1) | 5 | Typhus fever, flea-borne (endemic, murine)(Tex. 1, Miss. 1) | 16 |

N: Not notifiable

## TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 10, 1982 and July 11, 1981 (27th week)

| REPORTING AREA | ASEPTIC MENINGITIS | BRUCELLOSIS | ENCEPHALITIS | | GONORRHEA (Civilian) | | HEPATITIS (Viral), by type | | | | LEGIONELLOSIS | LEPROSY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Primary | Post-infectious | | | A | B | NA,NB | Unspecified | | |
| | 1982 | CUM. 1982 | CUM. 1982 | CUM. 1982 | CUM. 1982 | CUM. 1981 | 1982 | 1982 | 1982 | 1982 | 1982 | CUM. 1982 |
| UNITED STATES | 182 | 80 | 413 | 41 | 462,544 | 504,383 | 410 | 370 | 45 | 149 | 6 | 98 |
| NEW ENGLAND | 11 | 3 | 16 | 5 | 11,435 | 12,324 | 8 | 17 | 4 | 11 | 1 | 1 |
| Maine | 2 | – | – | – | 538 | 613 | – | 1 | – | – | – | – |
| N.H. | 2 | – | – | – | 327 | 427 | – | – | 1 | – | – | – |
| Vt. | – | – | – | – | 228 | 211 | 4 | 1 | 1 | – | – | – |
| Mass. | 4 | – | 6 | – | 5,294 | 5,208 | 2 | 8 | 1 | 11 | – | – |
| R.I. | 3 | – | – | – | 789 | 630 | 1 | 3 | – | – | – | – |
| Conn. | – | 3 | 10 | 5 | 4,259 | 5,235 | 1 | 4 | 1 | – | 1 | 1 |
| MID. ATLANTIC | 12 | 2 | 53 | 11 | 59,013 | 58,813 | 74 | 70 | 1 | 20 | 1 | 4 |
| Upstate N.Y. | 2 | 2 | 19 | 3 | 9,580 | 9,760 | 5 | 7 | – | – | – | 1 |
| N.Y. City | 2 | – | 11 | – | 24,628 | 24,088 | 8 | 16 | – | 2 | – | 1 |
| N.J. | 7 | – | 10 | – | 10,758 | 11,260 | 21 | 34 | 1 | 11 | – | 1 |
| Pa. | 1 | – | 13 | 8 | 14,047 | 13,705 | 40 | 13 | – | 7 | 1 | 1 |
| E.N. CENTRAL | 14 | – | 87 | 7 | 62,947 | 77,535 | 31 | 28 | 2 | 5 | 2 | 3 |
| Ohio | 10 | – | 28 | 4 | 18,583 | 26,565 | 8 | 9 | 1 | – | – | – |
| Ind. | – | – | 18 | 2 | 7,844 | 6,917 | 11 | 3 | 1 | 3 | – | – |
| Ill. | – | – | 6 | 1 | 14,325 | 21,241 | – | 3 | – | – | – | 3 |
| Mich. | 4 | – | 33 | – | 15,935 | 16,035 | 10 | 13 | – | 2 | 2 | – |
| Wis. | – | – | 2 | – | 6,260 | 6,777 | 2 | – | – | – | – | – |
| W.N. CENTRAL | 7 | 9 | 26 | 3 | 22,669 | 23,849 | 10 | 14 | 3 | 1 | 1 | 3 |
| Minn. | – | – | 6 | 1 | 3,437 | 3,733 | 6 | 4 | 1 | – | – | 1 |
| Iowa | 1 | 1 | 11 | 1 | 2,395 | 2,612 | – | 4 | 1 | – | – | – |
| Mo. | – | 3 | 4 | – | 10,526 | 11,002 | 3 | 5 | – | – | 1 | 1 |
| N. Dak. | – | – | – | – | 308 | 331 | – | – | – | – | – | – |
| S. Dak. | – | 1 | – | 1 | 616 | 682 | – | – | – | – | – | 1 |
| Nebr. | 4 | 1 | 3 | – | 1,396 | 1,813 | – | 1 | 1 | 1 | – | – |
| Kans. | 2 | 3 | 2 | – | 3,991 | 3,676 | 1 | – | – | – | – | – |
| S. ATLANTIC | 43 | 16 | 61 | 6 | 111,129 | 124,040 | 69 | 75 | 3 | 22 | – | 5 |
| Del. | – | – | – | – | 1,889 | 1,891 | 1 | 3 | – | – | – | – |
| Md. | 6 | – | 13 | – | 15,678 | 13,847 | 2 | 13 | – | 2 | – | 2 |
| D.C. | – | – | – | – | 6,733 | 7,702 | – | – | – | – | – | – |
| Va. | 4 | 6 | 16 | 1 | 10,617 | 11,194 | 7 | 9 | – | 3 | – | 1 |
| W. Va. | – | – | 1 | – | 1,385 | 1,890 | 4 | 3 | – | 1 | – | – |
| N.C. | 10 | – | 6 | 1 | 20,029 | 19,316 | 3 | 3 | – | 6 | – | – |
| S.C. | 2 | 2 | – | – | 12,092 | 11,929 | 8 | 4 | – | 1 | – | – |
| Ga. | – | 1 | – | – | 9,483 | 25,509 | 12 | 18 | 2 | 1 | – | – |
| Fla. | 21 | 7 | 25 | 4 | 33,223 | 30,762 | 32 | 22 | 1 | 8 | – | 2 |
| E.S. CENTRAL | 5 | 10 | 23 | 2 | 40,761 | 42,056 | 7 | 29 | 1 | – | – | – |
| Ky. | 1 | – | – | – | 5,516 | 5,327 | – | 2 | – | – | – | – |
| Tenn. | 2 | 6 | 12 | – | 15,937 | 15,855 | 4 | 15 | – | – | – | – |
| Ala. | 2 | 3 | 8 | 2 | 12,116 | 12,928 | 2 | 11 | 1 | – | – | – |
| Miss. | – | 1 | 3 | – | 7,192 | 7,946 | 1 | 1 | – | – | – | – |
| W.S. CENTRAL | 41 | 23 | 47 | 1 | 66,500 | 66,082 | 91 | 37 | 3 | 45 | – | 15 |
| Ark. | – | 4 | 1 | – | 5,521 | 4,773 | 1 | 1 | – | 5 | – | – |
| La. | 5 | 6 | 6 | – | 12,125 | 10,058 | 7 | 2 | – | 8 | – | – |
| Okla. | 6 | 3 | 14 | – | 7,336 | 7,105 | 12 | 6 | 3 | 3 | – | – |
| Tex. | 30 | 10 | 26 | 1 | 41,518 | 44,146 | 71 | 28 | – | 29 | – | 15 |
| MOUNTAIN | 4 | – | 18 | 3 | 16,697 | 19,659 | 30 | 16 | – | 5 | 1 | 2 |
| Mont. | – | – | – | – | 690 | 693 | 1 | – | – | – | – | – |
| Idaho | – | – | – | – | 774 | 839 | 5 | – | – | – | 1 | 1 |
| Wyo. | 1 | – | – | – | 494 | 465 | 1 | – | – | 1 | – | – |
| Colo. | 1 | – | 8 | 1 | 4,415 | 5,308 | 2 | 7 | – | 1 | – | – |
| N. Mex. | – | – | – | – | 2,058 | 2,160 | – | – | – | – | – | – |
| Ariz. | 1 | – | 6 | – | 4,614 | 6,012 | 17 | 7 | – | 3 | – | – |
| Utah | – | – | – | 2 | 766 | 929 | 2 | 1 | – | – | – | 1 |
| Nev. | 1 | – | 4 | – | 2,886 | 3,253 | 2 | 1 | – | – | – | – |
| PACIFIC | 45 | 17 | 82 | 3 | 71,393 | 80,025 | 90 | 84 | 28 | 40 | – | 65 |
| Wash. | 2 | – | 9 | – | 5,731 | 6,544 | – | 3 | 4 | 2 | – | 6 |
| Oreg. | – | – | 1 | – | 3,983 | 4,915 | 1 | 3 | 1 | 3 | – | – |
| Calif. | 38 | 16 | 68 | 3 | 58,651 | 65,056 | 88 | 77 | 23 | 35 | – | 39 |
| Alaska | – | 1 | 3 | – | 1,776 | 1,978 | – | – | – | – | – | 1 |
| Hawaii | 5 | – | 1 | – | 1,252 | 1,532 | 1 | 1 | – | – | – | 19 |
| Guam | U | – | – | – | 53 | 70 | U | U | U | U | U | – |
| P.R. | – | – | 1 | – | 1,579 | 1,701 | 7 | 1 | – | 2 | – | – |
| V.I. | – | – | – | – | 117 | 90 | – | – | – | – | – | – |
| Pac. Trust Terr. | U | – | – | – | 187 | 224 | U | U | U | U | U | 10 |

N: Not notifiable U: Unavailable

## TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 10, 1982 and July 11, 1981 (27th week)

| REPORTING AREA | MALARIA | | MEASLES (RUBEOLA) | | | MENINGOCOCCAL INFECTIONS (Total) | | MUMPS | | PERTUSSIS | RUBELLA | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | CUM. 1982 | 1982 | CUM. 1982 | CUM. 1981 | 1982 | CUM. 1982 | 1982 | CUM. 1982 | 1982 | 1982 | CUM. 1982 | CUM. 1981 |
| UNITED STATES | 33 | 466 | 38 | 973 | 2,316 | 46 | 1,783 | 37 | 3,846 | 18 | 51 | 1,753 | 1,510 |
| NEW ENGLAND | – | 24 | – | 9 | 72 | 3 | 95 | 3 | 153 | – | – | 14 | 106 |
| Maine | – | – | – | – | 5 | – | 5 | – | 33 | – | – | – | 33 |
| N.H. | – | – | – | 2 | 6 | – | 13 | – | 12 | – | – | 8 | 43 |
| Vt. | – | – | – | 2 | 2 | – | 6 | – | 5 | – | – | – | – |
| Mass. | – | 19 | – | 2 | 51 | 1 | 23 | 2 | 76 | – | – | 3 | 18 |
| R.I. | – | 1 | – | – | – | – | 11 | 1 | 14 | – | – | 1 | – |
| Conn. | – | 4 | – | 3 | 8 | 2 | 37 | – | 13 | – | – | 2 | 12 |
| MID. ATLANTIC | 6 | 64 | 10 | 153 | 755 | 8 | 319 | 3 | 240 | 6 | 3 | 85 | 181 |
| Upstate N.Y. | – | 14 | 4 | 104 | 194 | 2 | 104 | 1 | 48 | 1 | – | 40 | 78 |
| N.Y. City | 1 | 21 | 6 | 41 | 57 | 3 | 57 | – | 38 | 1 | 3 | 31 | 47 |
| N.J. | 4 | 20 | – | 4 | 50 | – | 64 | – | 36 | 4 | – | 14 | 46 |
| Pa. | 1 | 9 | – | 4 | 454 | 3 | 94 | 2 | 118 | – | – | – | 10 |
| E.N. CENTRAL | 3 | 32 | – | 65 | 73 | 5 | 213 | 9 | 2,089 | 1 | 1 | 145 | 326 |
| Ohio | 2 | 9 | – | 1 | 15 | 3 | 82 | 5 | 1,536 | 1 | – | – | 1 |
| Ind. | – | 1 | – | 2 | 8 | – | 22 | – | 33 | – | – | 26 | 113 |
| Ill. | – | 3 | – | 23 | 21 | – | 56 | 2 | 159 | – | – | 55 | 78 |
| Mich. | 1 | 17 | – | 39 | 28 | 1 | 41 | 1 | 280 | – | – | 42 | 33 |
| Wis. | – | 2 | – | – | 1 | 1 | 12 | 1 | 81 | – | 1 | 22 | 101 |
| W.N. CENTRAL | 1 | 14 | 1 | 39 | 7 | 1 | 76 | 7 | 524 | – | 1 | 59 | 75 |
| Minn. | – | 2 | – | – | 3 | – | 19 | 6 | 401 | – | 1 | 9 | 7 |
| Iowa | – | 5 | – | – | 1 | – | 5 | – | 29 | – | – | – | 4 |
| Mo. | – | 3 | – | 2 | 1 | 1 | 22 | 1 | 15 | – | – | 38 | 2 |
| N. Dak. | – | – | – | – | – | – | 6 | – | – | – | – | – | – |
| S. Dak. | – | – | – | – | – | – | 3 | – | 1 | – | – | 1 | – |
| Nebr. | 1 | 3 | – | – | 1 | – | 9 | – | – | – | – | – | 1 |
| Kans. | – | 1 | 1 | 37 | 1 | – | 12 | – | 78 | – | – | 11 | 61 |
| S. ATLANTIC | 5 | 69 | – | 33 | 325 | 9 | 355 | 2 | 217 | 3 | 1 | 64 | 120 |
| Del. | – | – | – | – | – | – | – | – | 10 | – | – | 1 | 1 |
| Md. | 1 | 9 | – | 2 | 2 | – | 21 | – | 21 | – | – | 33 | 1 |
| D.C. | – | 3 | – | 1 | 1 | – | 2 | – | – | – | – | – | – |
| Va. | – | 22 | – | 14 | 6 | 1 | 38 | – | 30 | – | 1 | 12 | 4 |
| W. Va. | 2 | 5 | – | 2 | 8 | – | 7 | – | 81 | – | – | 1 | 22 |
| N.C. | 1 | 1 | – | – | 3 | 4 | 73 | – | 10 | – | – | 1 | 4 |
| S.C. | – | 3 | – | – | – | – | 40 | 1 | 13 | 3 | – | 1 | 8 |
| Ga. | – | 10 | – | – | 104 | 3 | 77 | – | 10 | – | – | 5 | 33 |
| Fla. | 1 | 16 | – | 14 | 201 | 1 | 97 | 1 | 42 | – | – | 10 | 47 |
| E.S. CENTRAL | – | 5 | 1 | 8 | 2 | 2 | 121 | – | 32 | 3 | 2 | 39 | 23 |
| Ky. | – | 4 | – | 1 | – | – | 20 | – | 9 | 2 | 1 | 22 | 14 |
| Tenn. | – | – | 1 | 6 | – | 2 | 50 | – | 13 | 1 | 1 | 1 | 8 |
| Ala. | – | – | – | – | 2 | – | 44 | – | 5 | – | – | – | 1 |
| Miss. | – | 1 | – | 1 | – | – | 7 | – | 5 | – | – | 16 | – |
| W.S. CENTRAL | 1 | 33 | – | 14 | 753 | 3 | 213 | 3 | 143 | 2 | 3 | 94 | 123 |
| Ark. | – | 3 | – | – | 1 | – | 12 | – | 6 | – | – | 1 | 2 |
| La. | – | 3 | – | 2 | – | – | 37 | – | 3 | 1 | – | 1 | 9 |
| Okla. | 1 | 4 | – | – | 5 | – | 20 | – | – | – | – | 3 | – |
| Tex. | – | 23 | – | 12 | 747 | 3 | 144 | 3 | 134 | 1 | 3 | 89 | 112 |
| MOUNTAIN | 5 | 15 | – | 5 | 31 | – | 83 | 3 | 58 | 1 | – | 53 | 73 |
| Mont. | – | – | – | – | – | – | 4 | – | 3 | – | – | 4 | 3 |
| Idaho | 1 | 1 | – | – | 1 | – | 6 | – | 3 | – | – | 1 | 3 |
| Wyo. | – | – | – | – | – | – | 5 | – | 2 | – | – | 5 | 1 |
| Colo. | 2 | 8 | – | 5 | 8 | – | 33 | – | 8 | 1 | – | 4 | 30 |
| N. Mex. | – | 2 | – | – | 8 | – | 12 | – | – | – | – | 7 | 5 |
| Ariz. | 2 | 3 | – | – | 4 | – | 13 | 3 | 27 | – | – | 7 | 18 |
| Utah | – | 1 | – | – | – | – | 7 | – | 11 | – | – | 16 | 4 |
| Nev. | – | – | – | – | 10 | – | 3 | – | 4 | – | – | 9 | 9 |
| PACIFIC | 12 | 210 | 26 | 647 | 298 | 15 | 308 | 7 | 390 | 2 | 40 | 1,200 | 483 |
| Wash. | – | 11 | 6 | 31 | 1 | 1 | 31 | 1 | 60 | 1 | – | 32 | 55 |
| Oreg. | 2 | 8 | – | – | 3 | 2 | 63 | – | – | – | – | 5 | 48 |
| Calif. | 10 | 189 | 20 | 612 | 292 | 12 | 201 | 6 | 317 | 1 | 40 | 1,154 | 369 |
| Alaska | – | – | – | 1 | – | – | 10 | – | 6 | – | – | 1 | – |
| Hawaii | – | 2 | – | 3 | 2 | – | 3 | – | 7 | – | – | 8 | 11 |
| Guam | U | 1 | U | 5 | 6 | U | 2 | U | 3 | U | U | 2 | 1 |
| P.R. | – | 4 | 5 | 76 | 233 | 2 | 7 | – | 43 | 1 | 2 | 6 | 3 |
| V.I. | – | – | – | – | 11 | – | – | – | – | – | – | – | 1 |
| Pac. Trust Terr. | U | – | U | – | 1 | U | – | U | 1 | U | U | – | 1 |

U: Unavailable

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 10, 1982 and July 11, 1981 (27th week)

| REPORTING AREA | SYPHILIS (Civilian) (Primary & Secondary) | | TUBERCULOSIS | | TULAREMIA | TYPHOID FEVER | | TYPHUS FEVER (Tick-borne) (RMSF) | | RABIES, Animal |
|---|---|---|---|---|---|---|---|---|---|---|
| | CUM. 1982 | CUM. 1981 | 1982 | CUM. 1982 | CUM. 1982 | 1982 | CUM. 1982 | 1982 | CUM. 1982 | CUM. 1982 |
| UNITED STATES | 16,775 | 15,376 | 467 | 13,177 | 89 | 14 | 199 | 64 | 434 | 3,229 |
| NEW ENGLAND | 275 | 330 | 16 | 355 | 2 | 2 | 14 | 1 | 5 | 21 |
| Maine | 1 | 2 | 2 | 27 | – | – | – | – | – | 19 |
| N.H. | 1 | 12 | 1 | 11 | – | – | – | – | 1 | – |
| Vt. | 1 | 13 | – | 7 | – | – | 2 | – | – | – |
| Mass. | 193 | 219 | 8 | 234 | 2 | 1 | 10 | 1 | 2 | – |
| R.I. | 13 | 19 | 2 | 16 | – | – | – | – | 1 | – |
| Conn. | 66 | 65 | 3 | 60 | – | 1 | 2 | – | 1 | 2 |
| MID. ATLANTIC | 2,293 | 2,341 | 114 | 2,193 | 7 | – | 32 | 3 | 12 | 83 |
| Upstate N.Y. | 239 | 218 | 8 | 372 | 7 | – | 3 | – | – | 44 |
| N.Y. City | 1,383 | 1,413 | 25 | 799 | – | – | 20 | – | 1 | – |
| N.J. | 297 | 313 | 19 | 449 | – | – | 5 | 3 | 9 | 1 |
| Pa. | 374 | 397 | 62 | 573 | – | – | 4 | – | 2 | 38 |
| E.N. CENTRAL | 888 | 1,054 | 68 | 2,004 | – | – | 15 | 8 | 41 | 372 |
| Ohio | 150 | 136 | 10 | 331 | – | – | 7 | 8 | 40 | 53 |
| Ind. | 104 | 109 | 13 | 268 | – | – | – | – | – | 57 |
| Ill. | 423 | 587 | 28 | 792 | – | – | 3 | – | 1 | 186 |
| Mich. | 154 | 174 | 16 | 506 | – | – | 5 | – | – | 3 |
| Wis. | 57 | 49 | 1 | 107 | – | – | – | – | – | 73 |
| W.N. CENTRAL | 316 | 302 | 5 | 397 | 12 | – | 7 | – | 12 | 711 |
| Minn. | 59 | 106 | – | 70 | – | – | 4 | – | – | 116 |
| Iowa | 17 | 13 | – | 47 | 1 | – | 1 | – | 2 | 222 |
| Mo. | 193 | 158 | 4 | 183 | 8 | – | 1 | – | 5 | 67 |
| N. Dak. | 4 | 6 | – | 7 | – | – | – | – | – | 62 |
| S. Dak. | – | 2 | – | 16 | – | – | – | – | – | 61 |
| Nebr. | 8 | 3 | – | 15 | 1 | – | – | – | – | 86 |
| Kans. | 35 | 14 | 1 | 59 | 2 | – | 1 | – | 5 | 97 |
| S. ATLANTIC | 4,569 | 4,048 | 97 | 2,704 | 8 | 2 | 29 | 35 | 246 | 533 |
| Del. | 9 | 7 | 2 | 24 | – | – | – | – | – | – |
| Md. | 253 | 311 | 12 | 315 | 1 | 1 | 7 | 2 | 27 | 27 |
| D.C. | 263 | 340 | – | 104 | – | – | – | – | – | – |
| Va. | 337 | 363 | – | 305 | 1 | – | 2 | 3 | 29 | 272 |
| W. Va. | 17 | 10 | 2 | 80 | – | – | 3 | – | 4 | 30 |
| N.C. | 309 | 319 | 9 | 431 | – | – | – | 19 | 104 | 32 |
| S.C. | 238 | 271 | 23 | 256 | 5 | – | 3 | 6 | 58 | 27 |
| Ga. | 937 | 1,030 | 10 | 397 | – | – | – | 5 | 23 | 110 |
| Fla. | 2,206 | 1,397 | 39 | 792 | 1 | 1 | 14 | – | 1 | 35 |
| E.S. CENTRAL | 1,171 | 983 | 30 | 1,215 | 6 | – | 14 | 4 | 26 | 393 |
| Ky. | 64 | 50 | 4 | 312 | – | – | – | – | – | 82 |
| Tenn. | 312 | 390 | 19 | 409 | 4 | – | 2 | 3 | 17 | 251 |
| Ala. | 426 | 272 | 7 | 339 | – | – | 9 | – | 4 | 60 |
| Miss. | 369 | 271 | – | 155 | 2 | – | 3 | 1 | 5 | – |
| W.S. CENTRAL | 4,361 | 3,693 | 49 | 1,572 | 39 | – | 17 | 13 | 85 | 651 |
| Ark. | 111 | 71 | 11 | 165 | 23 | – | 1 | 1 | 12 | 89 |
| La. | 944 | 820 | – | 268 | 3 | – | 1 | – | – | 16 |
| Okla. | 91 | 88 | 3 | 216 | 13 | – | 2 | 12 | 51 | 122 |
| Tex. | 3,215 | 2,714 | 35 | 923 | – | – | 13 | – | 22 | 424 |
| MOUNTAIN | 422 | 381 | 8 | 373 | 11 | 1 | 7 | – | 6 | 119 |
| Mont. | 3 | 9 | – | 25 | 2 | – | – | – | 1 | 47 |
| Idaho | 19 | 14 | 2 | 16 | 1 | – | – | – | 1 | 2 |
| Wyo. | 10 | 7 | – | 2 | 1 | – | – | – | 1 | 11 |
| Colo. | 117 | 124 | 1 | 49 | 1 | – | 2 | – | – | 15 |
| N. Mex. | 89 | 72 | 3 | 74 | – | – | – | – | 1 | 10 |
| Ariz. | 99 | 80 | 2 | 148 | – | 1 | 4 | – | – | 26 |
| Utah | 13 | 16 | – | 21 | 6 | – | 1 | – | – | 6 |
| Nev. | 72 | 59 | – | 38 | – | – | – | – | 2 | 2 |
| PACIFIC | 2,480 | 2,244 | 80 | 2,364 | 4 | 9 | 64 | – | 1 | 346 |
| Wash. | 107 | 82 | – | 143 | 1 | – | 3 | – | – | – |
| Oreg. | 64 | 48 | 6 | 94 | – | – | 1 | – | – | 1 |
| Calif. | 2,235 | 2,069 | 68 | 1,908 | 3 | 9 | 57 | – | 1 | 274 |
| Alaska | 8 | 6 | – | 47 | – | – | 1 | – | – | 71 |
| Hawaii | 66 | 39 | 6 | 172 | – | – | 2 | – | – | – |
| Guam | 1 | – | U | 4 | – | U | – | U | – | – |
| P.R. | 332 | 352 | 7 | 195 | – | – | 2 | – | – | 30 |
| V.I. | 10 | 11 | – | 1 | – | – | – | – | – | – |
| Pac. Trust Terr. | – | – | U | 68 | – | U | – | U | – | – |

U: Unavailable

## TABLE IV. Deaths in 121 U.S. cities,* week ending July 10, 1982 (27th week)

| REPORTING AREA | ALL CAUSES, BY AGE (YEARS) | | | | | | P&I** TOTAL |
|---|---|---|---|---|---|---|---|
| | ALL AGES | ≥65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 639 | 430 | 147 | 29 | 17 | 16 | 36 |
| Boston, Mass. | 169 | 100 | 39 | 13 | 7 | 10 | 17 |
| Bridgeport, Conn. | 45 | 34 | 7 | 3 | 1 | – | 2 |
| Cambridge, Mass. | 28 | 23 | 5 | – | – | – | 1 |
| Fall River, Mass. | 35 | 29 | 4 | 2 | – | – | – |
| Hartford, Conn. | 54 | 37 | 12 | 3 | 1 | 1 | 1 |
| Lowell, Mass. | 24 | 19 | 3 | – | 1 | 1 | 1 |
| Lynn, Mass. | 30 | 16 | 11 | 1 | 2 | – | – |
| New Bedford, Mass. | 32 | 23 | 7 | 1 | 1 | – | – |
| New Haven, Conn. | 37 | 24 | 12 | – | – | 1 | 1 |
| Providence, R.I. | 51 | 33 | 16 | – | 1 | 1 | 2 |
| Somerville, Mass. | 9 | 8 | 1 | – | – | – | 2 |
| Springfield, Mass. | 48 | 31 | 11 | 2 | 2 | 2 | 6 |
| Waterbury, Conn. | 31 | 20 | 6 | 4 | 1 | – | 1 |
| Worcester, Mass. | 46 | 33 | 13 | – | – | – | 2 |
| MID. ATLANTIC | 2,399 | 1,561 | 570 | 145 | 70 | 53 | 85 |
| Albany, N.Y. | 51 | 35 | 8 | 3 | – | 5 | – |
| Allentown, Pa. | 23 | 20 | 3 | – | – | – | 1 |
| Buffalo, N.Y. | 110 | 68 | 32 | 3 | 4 | 3 | 9 |
| Camden, N.J. | 28 | 16 | 8 | 2 | 2 | – | – |
| Elizabeth, N.J. | 25 | 19 | 5 | 1 | – | – | 2 |
| Erie, Pa.† | 36 | 27 | 6 | 3 | – | – | 1 |
| Jersey City, N.J. | 65 | 38 | 15 | 2 | 5 | 5 | 3 |
| N.Y. City, N.Y. | 1,286 | 851 | 294 | 85 | 30 | 26 | 41 |
| Newark, N.J. | 46 | 24 | 15 | 4 | 1 | 2 | 2 |
| Paterson, N.J. | 28 | 18 | 10 | – | – | – | 2 |
| Philadelphia, Pa.† | 299 | 175 | 82 | 23 | 11 | 8 | 12 |
| Pittsburgh, Pa.† | 59 | 37 | 14 | 4 | 4 | – | – |
| Reading, Pa. | 23 | 20 | 3 | – | – | – | 1 |
| Rochester, N.Y. | 93 | 65 | 18 | 3 | 4 | 3 | 6 |
| Schenectady, N.Y. | 23 | 15 | 5 | 3 | – | – | – |
| Scranton, Pa.† | 30 | 21 | 6 | – | 2 | 1 | 1 |
| Syracuse, N.Y. | 83 | 52 | 22 | 4 | 5 | – | 1 |
| Trenton, N.J. | 42 | 26 | 12 | 3 | 1 | – | 2 |
| Utica, N.Y. | 19 | 14 | 4 | – | 1 | – | – |
| Yonkers, N.Y. | 30 | 20 | 8 | 2 | – | – | 1 |
| E.N. CENTRAL | 1,998 | 1,275 | 467 | 129 | 67 | 59 | 52 |
| Akron, Ohio | 63 | 45 | 13 | 1 | 2 | 2 | – |
| Canton, Ohio | 41 | 25 | 12 | 3 | 1 | – | 1 |
| Chicago, Ill. | 483 | 287 | 112 | 43 | 17 | 24 | 10 |
| Cincinnati, Ohio | 93 | 64 | 23 | 3 | 2 | 1 | 9 |
| Cleveland, Ohio | 155 | 88 | 47 | 10 | 5 | 5 | 2 |
| Columbus, Ohio | 140 | 89 | 28 | 13 | 6 | 4 | 2 |
| Dayton, Ohio | 74 | 45 | 19 | 5 | 4 | 1 | 1 |
| Detroit, Mich. | 229 | 130 | 63 | 22 | 9 | 5 | 4 |
| Evansville, Ind. | 46 | 35 | 6 | 3 | 2 | – | 2 |
| Fort Wayne, Ind. | 56 | 35 | 13 | 3 | 5 | – | 1 |
| Gary, Ind. | 31 | 15 | 8 | 3 | 5 | – | – |
| Grand Rapids, Mich. | 62 | 40 | 16 | 2 | 2 | 2 | 4 |
| Indianapolis, Ind. | 110 | 73 | 29 | 5 | – | 3 | 4 |
| Madison, Wis. | 22 | 15 | 4 | 2 | – | 1 | 2 |
| Milwaukee, Wis. | 130 | 81 | 38 | 3 | 3 | 5 | 2 |
| Peoria, Ill. | 37 | 24 | 8 | 4 | – | 1 | 1 |
| Rockford, Ill. | 37 | 25 | 8 | 4 | – | – | 3 |
| South Bend, Ind. | 33 | 23 | 8 | – | – | 2 | – |
| Toledo, Ohio § | 98 | 95 | – | – | 2 | – | 2 |
| Youngstown, Ohio | 58 | 41 | 12 | – | 2 | 3 | 2 |
| W.N. CENTRAL | 656 | 446 | 117 | 47 | 25 | 20 | 22 |
| Des Moines, Iowa § | 53 | 51 | – | – | 1 | – | – |
| Duluth, Minn. | 24 | 17 | 2 | 3 | – | 2 | – |
| Kansas City, Kans. | 25 | 15 | 5 | 1 | 2 | 2 | – |
| Kansas City, Mo. | 122 | 70 | 31 | 11 | 4 | 6 | 10 |
| Lincoln, Nebr. | 20 | 15 | 4 | 1 | – | – | – |
| Minneapolis, Minn. | 81 | 55 | 12 | 8 | 2 | 4 | 2 |
| Omaha, Nebr. | 67 | 45 | 14 | 4 | 1 | 3 | 3 |
| St. Louis, Mo. | 146 | 95 | 30 | 11 | 8 | 2 | 3 |
| St. Paul, Minn. | 50 | 36 | 11 | 3 | – | – | – |
| Wichita, Kans. | 68 | 47 | 8 | 5 | 7 | 1 | 4 |
| S. ATLANTIC | 1,118 | 643 | 282 | 113 | 39 | 40 | 41 |
| Atlanta, Ga. | 98 | 50 | 33 | 11 | 4 | – | – |
| Baltimore, Md. | 307 | 163 | 85 | 36 | 14 | 9 | 8 |
| Charlotte, N.C. | 47 | 29 | 11 | 3 | 2 | 1 | 2 |
| Jacksonville, Fla. | 91 | 51 | 25 | 7 | 6 | 2 | 2 |
| Miami, Fla. | 83 | 38 | 20 | 12 | 3 | 10 | 2 |
| Norfolk, Va. | 29 | 21 | 3 | 3 | 1 | 1 | – |
| Richmond, Va. | 75 | 45 | 20 | 4 | 3 | 3 | 4 |
| Savannah, Ga. | 69 | 42 | 18 | 5 | 1 | 3 | 9 |
| St. Petersburg, Fla. | 70 | 57 | 7 | 3 | 2 | 1 | 2 |
| Tampa, Fla. | 75 | 49 | 16 | 6 | – | 4 | 3 |
| Washington, D.C. | 122 | 69 | 27 | 19 | 1 | 6 | 5 |
| Wilmington, Del. | 52 | 29 | 17 | 4 | 2 | – | 4 |
| E.S. CENTRAL | 578 | 357 | 133 | 32 | 20 | 36 | 28 |
| Birmingham, Ala. | 71 | 44 | 19 | 5 | 1 | 2 | – |
| Chattanooga, Tenn. | 35 | 23 | 8 | 2 | 1 | 1 | 4 |
| Knoxville, Tenn. | 47 | 36 | 6 | 3 | – | 2 | – |
| Louisville, Ky. | 122 | 72 | 29 | 9 | 6 | 6 | 8 |
| Memphis, Tenn. | 129 | 77 | 35 | 6 | 4 | 7 | 9 |
| Mobile, Ala. | 48 | 33 | 7 | – | 1 | 7 | 3 |
| Montgomery, Ala. | 27 | 22 | 4 | – | – | 1 | 1 |
| Nashville, Tenn. | 99 | 50 | 25 | 7 | 7 | 10 | 3 |
| W.S. CENTRAL | 1,087 | 566 | 310 | 103 | 60 | 48 | 20 |
| Austin, Tex. | 29 | 19 | 6 | 2 | 2 | – | – |
| Baton Rouge, La. | 19 | 9 | 5 | 3 | 1 | 1 | – |
| Corpus Christi, Tex. | 37 | 25 | 7 | 3 | 2 | – | – |
| Dallas, Tex. | 143 | 69 | 42 | 18 | 6 | 8 | – |
| El Paso, Tex. | 48 | 21 | 19 | 2 | 5 | 1 | 2 |
| Fort Worth, Tex. | 79 | 45 | 23 | 7 | 2 | 2 | 4 |
| Houston, Tex. | 292 | 136 | 84 | 38 | 17 | 17 | 5 |
| Little Rock, Ark. | 44 | 21 | 15 | 1 | 5 | 2 | 3 |
| New Orleans, La. | 143 | 85 | 32 | 17 | 5 | 4 | – |
| San Antonio, Tex. | 129 | 73 | 39 | 7 | 8 | 2 | 3 |
| Shreveport, La. | 69 | 32 | 21 | 4 | 3 | 9 | 2 |
| Tulsa, Okla. | 55 | 31 | 17 | 1 | 4 | 2 | 1 |
| MOUNTAIN | 521 | 319 | 124 | 27 | 30 | 21 | 17 |
| Albuquerque, N. Mex. | 50 | 30 | 13 | 5 | 1 | 1 | 3 |
| Colo. Springs, Colo. | 32 | 21 | 6 | 2 | 1 | 2 | 4 |
| Denver, Colo. | 110 | 64 | 27 | 9 | 4 | 6 | 1 |
| Las Vegas, Nev. | 58 | 36 | 15 | 2 | 5 | – | 1 |
| Ogden, Utah | 17 | 13 | 2 | – | – | 2 | 3 |
| Phoenix, Ariz. | 110 | 72 | 25 | 5 | 6 | 2 | – |
| Pueblo, Colo. | 18 | 11 | 4 | – | 2 | 1 | 1 |
| Salt Lake City, Utah | 46 | 21 | 9 | 3 | 8 | 5 | 1 |
| Tucson, Ariz. | 80 | 51 | 23 | 1 | 3 | 2 | 3 |
| PACIFIC | 1,622 | 1,077 | 322 | 102 | 58 | 61 | 73 |
| Berkeley, Calif. | 24 | 18 | 2 | 3 | 1 | – | – |
| Fresno, Calif. | 51 | 35 | 10 | 3 | 2 | 1 | 3 |
| Glendale, Calif. | 15 | 11 | 3 | – | – | 1 | – |
| Honolulu, Hawaii | 55 | 33 | 13 | 4 | 2 | 3 | 6 |
| Long Beach, Calif. | 87 | 54 | 20 | 6 | 3 | 4 | 2 |
| Los Angeles, Calif. | 504 | 328 | 100 | 39 | 20 | 17 | 16 |
| Oakland, Calif. § | 77 | 75 | – | – | 1 | – | 3 |
| Pasadena, Calif. | 22 | 18 | 4 | – | – | – | 1 |
| Portland, Oreg. | 87 | 58 | 17 | 3 | 2 | 6 | 5 |
| Sacramento, Calif. | 55 | 34 | 13 | 4 | 2 | 2 | 4 |
| San Diego, Calif. | 103 | 67 | 19 | 6 | 5 | 6 | 6 |
| San Francisco, Calif. | 153 | 96 | 38 | 10 | 4 | 5 | 5 |
| San Jose, Calif. | 160 | 98 | 41 | 11 | 8 | 2 | 12 |
| Seattle, Wash. | 128 | 83 | 24 | 6 | 4 | 11 | 5 |
| Spokane, Wash. | 47 | 28 | 12 | 4 | 3 | – | 2 |
| Tacoma, Wash. | 54 | 41 | 6 | 3 | 1 | 3 | 3 |
| TOTAL | 10,618†† | 6,674 | 2,472 | 727 | 386 | 354 | 374 |

*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.

††Total includes unknown ages.

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

*Gynecomastia – Continued*

Twenty-one new cases were detected at Fort Allen among Haitian males who had had no evidence of gynecomastia when examined in December. Of the 52 Haitian males transferred to Ft. Allen from El Paso and Otisville, six (11.5%) now have gynecomastia.

Analysis of serum specimens from participants in the case-control study at Fort Allen and at Krome North Service Processing Center, Miami, Florida, (*1*) for prolactin, luteinizing hormone, testosterone, estradiol, blood-urea-nitrogen, creatinine, serum glutamic oxaloacetic transaminase, serum glutamic pyruvic transaminase, bilirubin, creatinine phosphokinase, lactic dehydrogenase, and calcium showed no statistically significant differences between cases and controls. Additional analysis of sera from cases and controls at Krome for free testosterone, free estradiol, sex hormone binding globulin, and follicle stimulating hormone showed no statistically significant differences. However, the ratio of free testosterone to free estradiol ($FTE/Fe_2$) was lower in cases than in controls, $p = 0.051$.* Analysis of the Krome drinking water revealed no estrogen or estrogen-like contaminants.

*Reported by PHS Chief Medical Officers, Fort Allen (Puerto Rico) and Krome North (Miami, Florida) Immigration and Naturalization Svc's Service Processing Centers; Center for Environmental Health, Epidemiology Program Office, Quarantine Div, Center for Prevention Svcs, Family Planning Div, Center for Health Promotion and Education, CDC.*

**Editorial Note:** The epidemiologic findings at Fort Allen corroborate those at Krome (*1*), which showed that the cases of gynecomastia are spontaneously resolving and that the development and resolution of the process appear related to date of arrival. The lower $FTE/Fe_2$ for cases, as compared with controls, indicates a disturbance in the androgen-to-estrogen ratio; the development of gynecomastia is thought to be related to a decrease in this ratio (*2,3*). Two possible hypotheses for the cause of the gynecomastia remain: 1) a greatly improved diet for Haitians after arrival in the United States or 2) an exposure to an estrogen or estrogen-like substance during processing at Krome. Investigations are continuing.

*References*

1. CDC. Gynecomastia in Haitians—Puerto Rico, Florida, Texas, New York. MMWR 1982;31:205-6.
2. Emerson K, Wilson JD. Diseases of the breast and of milk formation. In: Isselbacker KJ, Adams RD, Braunwald E, Petersdorf RG, Wilson JD. Harrison's textbook of medicine, 9th ed. New York: McGraw Hill, 1980:1787-94
3. Carlson, HE. Medical intelligence: current concepts, gynecomastia. N Engl J Med 1980;303:795-9.

*Wilcoxon signed rank test.

## *Current Trends*

### Influenza Surveillance Summary, 1981-1982 Season

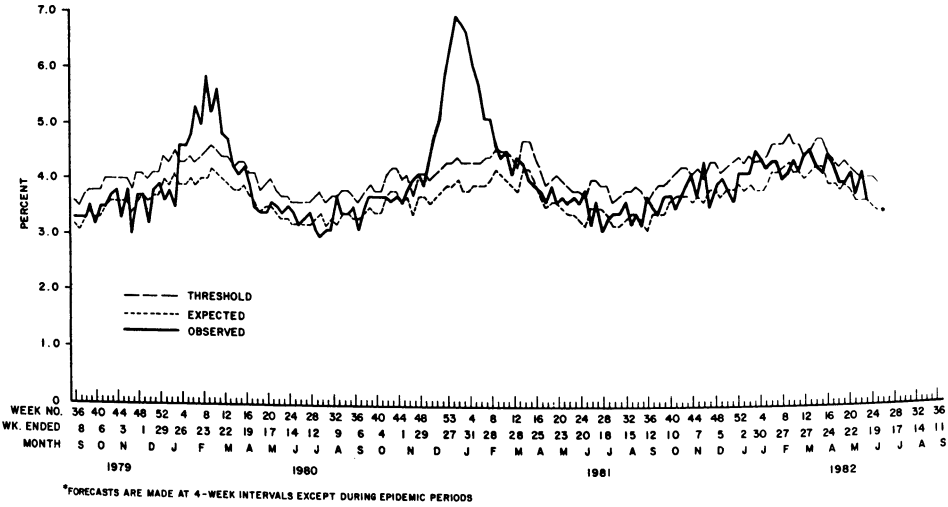
National data on influenza activity for the 1981-1982 season were obtained from three major sources: (a) weekly reports of mortality from 121 cities, including the ratio of pneumonia and influenza (P and I) deaths to total deaths, an index of the relative mortality attributable to influenza; (b) weekly reports of the number of respiratory specimens tested and the number and types of influenza isolates identified by 63 collaborating state, county, city, or military laboratories, and (c) weekly semi-quantitative estimates from each state health department of the extent of influenza-like morbidity indicated by their individual statewide

*Influenza – Continued*

surveillance systems. In addition, spontaneous reports of unusual cases and outbreaks of influenza were received by CDC.

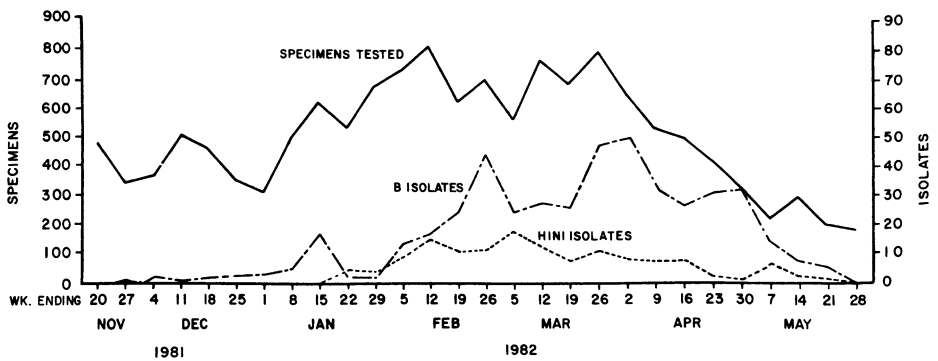
In terms of all the available criteria, the impact of influenza was low in the 1981-1982 season. Mortality statistics did not show a national increase in the ratio of deaths associated with P and I beyond the expected seasonal variation (Figure 1), despite presence of virus through May 1982 (Figure 2); widespread influenza activity was reported in only four states throughout the period of virus circulation (Figure 3). In the preceding season, by way of con-

**FIGURE 1. Observed and expected ratio of deaths atrributed to pneumonia and influenza in 121 United States cities, September 1979-May 1982**




*FORECASTS ARE MADE AT 4-WEEK INTERVALS EXCEPT DURING EPIDEMIC PERIODS

**FIGURE 2. Specimens tested and influenza viruses isolated by collaborating laboratories (including military sources), United States, 1981-1982***




*Not shown are 5 influenza A(H3N2) isolates: 2 from Guam in December, 2 from Texas in March, and 1 from Florida in March.

*Influenza – Continued*

trast, the ratio of P and I deaths to total deaths was elevated for 13 weeks, and 32 states reported widespread influenza activity. Both influenza type B and influenza type A(H1N1) viruses were commonly isolated during the 1981-1982 season, but the total number of isolates reported to CDC by collaborating laboratories was approximately 600, compared with a range of 1,000 to 2,000 in the 5 preceding years (Figure 4).

Of the isolates obtained by the collaborating laboratories, 74% were influenza type B virus; 23 states isolated only influenza type B virus. Seventeen states isolated both influenza B and influenza A(H1N1) viruses, and one state isolated only influenza A(H1N1) virus. Influenza B virus outbreaks were first detected during the season in the southwestern states beginning January to February, then spread east and north. By the end of the season, influenza B had been identified in almost all regions of the country (Figures 5, 6). Throughout the winter, influenza A(H1N1) virus was more prevalent in the southwestern and Pacific regions than elsewhere, although some activity was detected in the eastern regions. Only a few influenza A(H3N2) strains, associated with sporadic cases in Florida and Texas, were isolated from residents of the continental United States during the 1981-1982 season. In Nevada swine influenza-like virus was isolated from an immunocompromised child (*1*).

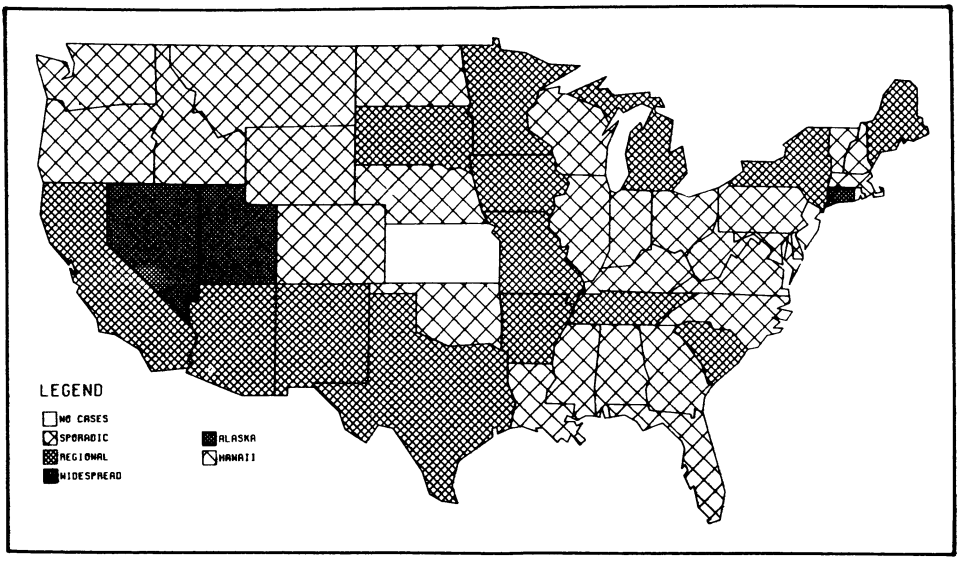
The predominant influenza B and influenza A(H1N1) viruses were frequently associated with reports of widely separated outbreaks among school children—typically with little evidence of community-wide impact, as judged by minimal increases in absenteeism for entire school districts and by lack of increases in numbers of hospital emergency room visits for influenza-like illness. From about March through May, occasional outbreaks of influenza B virus in nursing homes were documented.

*Reported by Immunization Div, Center for Prevention Svcs, Consolidated Surveillance and Communications Activity, Epidemiology Program Office, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.*

*Reference*

1. CDC. Swine influenza-like isolate—Nevada. MMWR 1982;31:195.

**FIGURE 3. Highest level of influenza morbidity reported by state, January-June, 1982**



*Influenza – Continued*

**FIGURE 4. Isolation of influenza viruses in the United States reported to CDC by collaborating civilian and military laboratories, 1976-82**

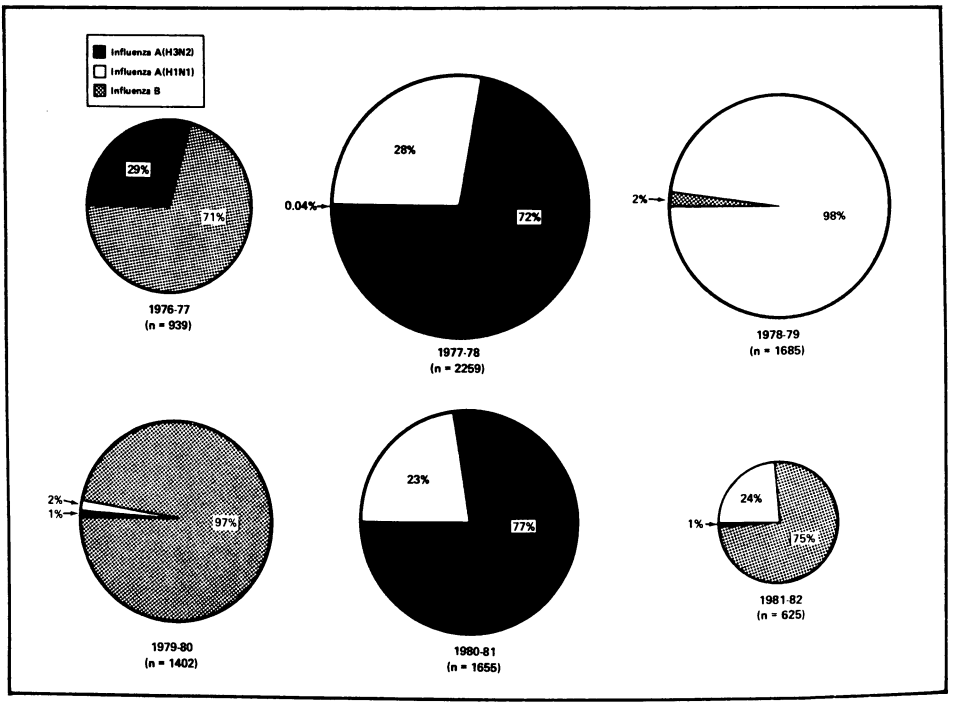
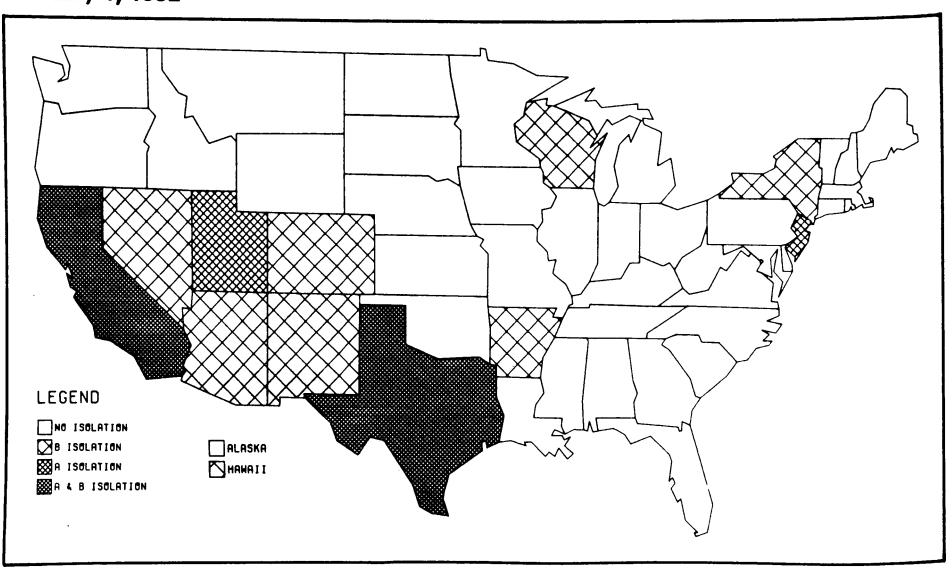
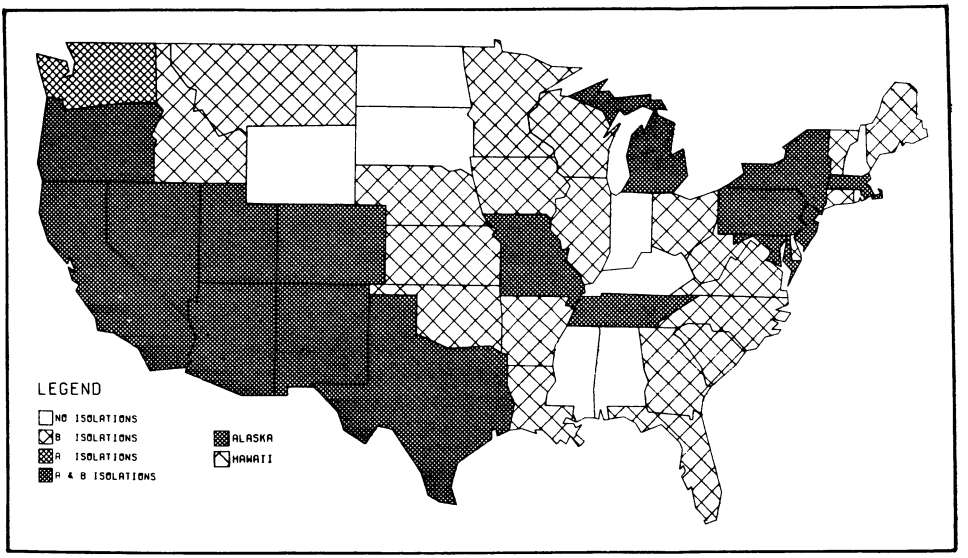



**FIGURE 5. Influenza virus isolations for the United States, 1981-1982 season until February 1, 1982**



*Influenza — Continued*

**FIGURE 6. Influenza virus isolations, United States, 1981-1982 season until June 1, 1982**




## Rabies — United States, 1981

In 1981, there were 7,211 laboratory-confirmed cases of animal rabies reported in the United States and its territories (Guam, Puerto Rico, and the United States Virgin Islands).

Forty-eight states and Puerto Rico reported rabid animals in 1981; only the District of Columbia, Guam, Hawaii, Vermont, and Virgin Islands reported no cases.

Seven types of animals accounted for 97% of all reported cases: skunks, 4,480 (62.1%); bats, 858 (11.9%); raccoons, 481 (6.7%); cattle, 465 (6.4%); cats, 285 (4.0%); dogs, 216 (3.0%); and foxes, 195 (2.7%). Wild animals accounted for 85% of the reported cases, and domestic animals 15%. Two cases of human rabies were reported in 1981 (*1,2*).

Bats and skunks continue to be the most widely distributed vectors, with confirmed cases caused by these two species in 46 states and 32 states, respectively. Raccoon rabies has become well established and is spreading in areas of northern Virginia, West Virginia, and

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

**Send mailing list additions, deletions and address changes to: Attn: Distribution Services, Management Analysis and Services Office, 1-SB-419, Centers for Disease Control, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.**

*Rabies – Continued*

Maryland (*3*). Virginia reported 102 cases of raccoon rabies in 1981, an increase of 1,350% over 1980 when seven cases were reported. West Virginia reported 22 cases of raccoon rabies in 1981, and Maryland reported six cases, all from a single county that borders on northern Virginia.

*Reported by Viral and Rickettsial Zoonoses Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.*

**Editorial Note:** Reports of documented animal rabies have more than doubled in the United States in the last 3 years: 3,298 cases for 1978 and 7,211 cases for 1981. In 1981, for the first time, rabid cats outnumbered rabid dogs—by 32%.

More cases of skunk rabies and bat rabies were reported in 1981 than ever before. This substantial upsurge in rabies activity underscores the importance of efforts aimed at prevention and control. Vaccination of pets and livestock is the most effective control measure in preventing disease and subsequent human exposure.

*References*

1. CDC. Human rabies—Oklahoma. MMWR 1981;30:343-4,349.
2. CDC. Human rabies acquired outside the United States from a dog bite. MMWR 1981;30:537-40.
3. CDC. Rabies in raccoons—Virginia. MMWR 1981;30:353-5.



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