



# MMWR<sup>TM</sup>

## Morbidity and Mortality Weekly Report

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### Fatal Cases of Rocky Mountain Spotted Fever in Family Clusters — Three States, 2003

Rocky Mountain spotted fever (RMSF), a tickborne infection caused by *Rickettsia rickettsii* and characterized by a rash (Figure), has a case-fatality rate as high as 30% in certain untreated patients (1). Even with treatment, hospitalization rates of 72% and case-fatality rates of 4% have been reported (1–3). This report summarizes the clinical course of three fatal cases of RMSF in children and related illness in family members during the summer of 2003. These cases underscore the importance of 1) prompt diagnosis and appropriate antimicrobial therapy in patients with RMSF to prevent deaths and 2) consideration of RMSF as a diagnosis in family members and contacts who have febrile illness and share environmental exposures with the patient.

#### Case Reports

**Oklahoma.** In late May, a female child aged 7 years was taken to an emergency department (ED) with 2 days of fever (102.7° F [39.3° C]), malaise, abdominal pain, nausea, and vomiting. Viral gastroenteritis was diagnosed, and the patient was released. Four days later, the patient reported to a second ED with persistent fever, anorexia, irritability, photophobia, cough, diffuse myalgias, nausea, and vomiting. Physical examination showed hepatosplenomegaly and an erythematous papular rash with scattered petechiae on the trunk, arms, legs, palms, and soles. Laboratory results included an elevated white blood cell (WBC) count of  $11.4 \times 10^9$  cells/L (normal range:  $3.0\text{--}9.1 \times 10^9$  cells/L), thrombocytopenia ( $19 \times 10^9$  platelets/L [normal range:  $150\text{--}350 \times 10^9$  platelets/L]), elevated aspartate aminotransferase (AST) of 279 U/L (normal:  $\leq 42$  U/L), and elevated alanine aminotransferase (ALT) of 77 U/L (normal:  $\leq 48$  U/L). In the ED, the patient was treated with intravenous (IV) doxycycline for suspected RMSF and transferred to a pediatric intensive care unit at a tertiary care

**FIGURE.** Child with Rocky Mountain spotted fever has the rash that is characteristic but typically does not appear until several days after fever onset



Photo/CDC

medical center, where she had declining mental status, metabolic acidosis, and respiratory failure; the patient died 6 days after initially seeking treatment. IgG antibodies reactive with *R. rickettsii* at a reciprocal titer of 128 were demonstrated by using an indirect immunofluorescence antibody (IFA) assay in a serum specimen collected 2 days before death. Spotted fever group rickettsiae (SFGR) were detected by immunohistochemical (IHC) staining at CDC in autopsy specimens from the brain, skin, heart, lung, spleen, and kidney.

On June 1, the child's sister, aged 3 years, had fever, headache, myalgias, and vomiting; on the following day, she had

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#### Centers for Disease Control and Prevention

Julie L. Gerberding, M.D., M.P.H.  
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#### Division of Public Health Surveillance and Informatics

##### Notifiable Disease Morbidity and 122 Cities Mortality Data

Robert F. Fagan  
Deborah A. Adams  
Judith Allen  
Felicia J. Connor  
Lateka Dammond  
Rosaline Dhara  
Donna Edwards  
Patsy A. Hall  
Pearl C. Sharp

an erythematous maculopapular rash on the trunk, extremities, palms, and soles. RMSF was diagnosed, and the child was treated with doxycycline; she recovered. Seroconversion of IgG antibodies reactive with *R. rickettsii* was demonstrated in acute and convalescent phase serum specimens obtained during illness and 5 months later. Both children played frequently in grassy areas near their home. No history of tick bite was reported, although ticks were frequently observed on the family's pet dogs and often were manually removed by members of the household.

**Kentucky.** In early August, a male child aged 2 years was taken to a pediatrician after 1 day of fever (101.0° F [38.3° C]) with a papular rash on his legs, arms, trunk, and back. An unspecified viral syndrome was diagnosed, and the child was treated with nonsteroidal anti-inflammatory drugs. During the next 2 days, the child continued to have fevers, spiking to 102.0° F–103.0° F (38.9° C–39.4° C), and variable rash. The child was examined in an ED and discharged with a diagnosis of viral infection. Four days after initial treatment, the child was again evaluated by a pediatrician because of lethargy and refusal to walk. Laboratory tests showed thrombocytopenia ( $42 \times 10^9$  platelets/L), a WBC count of  $3.3 \times 10^9$  cells/L, anemia (hemoglobin 10.4 g/dL [normal range: 13.8–17.2 g/dL]), and hyponatremia (134 mmol sodium/L [normal range: 135–145 mmol sodium/L]). The next day, the child was admitted and treated with IV ceftriaxone and methylprednisolone. Two days later, the child was transferred to a tertiary care hospital. Physical examination at admission revealed a fine petechial rash on the groin, trunk, ankles, and palms. The patient was treated with IV vancomycin, cefotaxime, and doxycycline. His condition continued to deteriorate; 8 days after initial treatment, he died from multiple system failure. A serum specimen collected 2 days earlier tested positive by enzyme immunoassay for IgM antibodies reactive with *R. rickettsii* at 9.4 index value units (index values >2.0 were considered reactive by the testing laboratory). SFGR were detected by IHC stain in autopsy specimens of the brain, skin, heart, lung, spleen, kidney, lung, and adrenal gland.

The child's mother, aged 40 years, was hospitalized 2 days before her son's death with 2 days of diplopia, dizziness, headache, and fever. Oral doxycycline and IV ceftriaxone were administered; she was discharged after 5 days. Seroconversion of IgG antibodies reactive with *R. rickettsii* was demonstrated in acute and convalescent phase serum specimens obtained during illness and 2 weeks later. The family lived near a lake with woods. The mother did not recall any recent tick bites, travel, or participation in outdoor activities, by herself or her son prior to illness onset.

**Arizona.** In mid-August, a male child aged 14 months was taken to a community health clinic after 1 day of fever (103.7°

**BOX. Epidemiology, clinical findings, diagnosis, treatment, and prevention of Rocky Mountain spotted fever (RMSF)****Epidemiology**

- RMSF is a zoonotic disease caused by the bacterium *Rickettsia rickettsii* and is transmitted to humans through the bite of the American dog tick (*Dermacentor variabilis*) and Rocky Mountain wood tick (*D. andersoni*).
- Cases have been reported from most states in the continental United States, most frequently from southeastern and south central states.
- Age-specific incidence is highest in children aged 1–9 years.
- Case-fatality rate is as high as 30% for certain untreated patients but decreases markedly with prompt and appropriate antibiotic treatment.

**Clinical Findings**

- Incubation period typically is 5–10 days after a tick bite.
- Early signs and symptoms are nonspecific and can include fever, nausea, vomiting, severe headache, muscle pain, and loss of appetite.
- Later signs and symptoms include abdominal pain, joint pain, and diarrhea.
- Rash is a frequent finding that usually occurs several days after onset of fever. Initial appearance of the rash usually is represented as faint macules on the wrists or ankles.
- As the disease progresses, the rash can become petechial and involve the trunk, extremities, palms, and soles.
- Laboratory abnormalities can include thrombocytopenia, hyponatremia, and elevations of hepatic aminotransferase levels.
- Severe manifestations can include pneumonitis, encephalitis, disseminated intravascular coagulopathy, and skin necrosis requiring amputation.

**Diagnosis**

- A working diagnosis primarily is based on clinical findings (e.g., fever and rash), seasonality (e.g., onset during April–September), and history of tick bite or tick exposure.
- Serologic tests for RMSF are available at commercial laboratories, state public health laboratories, and CDC. Early serologic tests (within 1 week of illness onset) frequently are negative, and testing of acute and convalescent phase serum samples is recommended to confirm diagnosis.
- Nucleic acid detection (e.g., by using polymerase chain reaction assay), immunohistochemical staining of formalin-fixed tissues, and cell culture of biopsy or autopsy specimens also can be used for diagnosis and are available at specialized research laboratories and CDC.

**Treatment**

- Doxycycline is the treatment of choice for all patients.
  - Dosage for adults is 100 mg twice daily.
  - Dosage for children weighing <99 pounds (<45 kg) is 2.2 mg/kg twice daily; children weighing ≥99 pounds should receive the adult dosage.
- Duration of therapy usually is 7–10 days; longer courses of therapy might be warranted in patients with more severe illness.

**Prevention and Reporting**

- RMSF is a nationally notifiable disease; cases should be reported to state health departments.
- No RMSF vaccine for humans is available.
- Prevention should focus on reducing exposure to ticks through avoidance of tick habitats and personal protective measures (e.g., tick checks and repellent).
- Additional information is available at <http://www.cdc.gov/ncidod/dvrd/rmsf>.

F [39.8° C]), with a maculopapular rash, including the palms and soles, and thick white exudates on the tongue. Chest radiographic evaluation showed a possible right lower lobe infiltrate. The child was treated with intramuscular cefotaxime, acetaminophen, and antifungal medication for presumptive thrush. The next day, the child visited the clinic with nausea, vomiting, anorexia, and dehydration. The patient was transferred to a referral hospital for treatment of pneumonia, roseola infantum, and thrush; on admission, the patient had a temperature of 105.7° F (41° C). After 3 days, he was transferred to a tertiary care hospital with a diagnosis of sepsis and disseminated intravascular coagulopathy. The patient was treated with IV ceftazidime and vancomycin. Laboratory findings included an elevated WBC count (16.2 x 10<sup>9</sup> cells/L), thrombocytopenia (46 x 10<sup>9</sup> platelets/L), and elevated levels of AST

(291 U/L) and ALT (99 U/L). Six days after initial treatment, the child died of pulmonary hemorrhage; an autopsy was not performed. A serum specimen obtained 5 days before the child's death tested negative by IFA for IgM and IgG antibodies reactive with *R. rickettsii*; however, *R. rickettsii* DNA was amplified from serum by polymerase chain reaction (PCR) assay. A serum specimen obtained from a brother, aged 5 years, showed IgM and IgG antibodies reactive to *R. rickettsii*, indicating recent exposure. The children lived in a rural environment with low shrubs and grasses and frequently interacted with free-roaming dogs with ticks; however, neither child had a history of recent tick bite.

**Reported by:** C Levy, MS, J Burnside, MS, T Tso, Arizona Dept of Health Svcs. S Englander, MD, M Auslander, DVM, S Billings, DVM,

*Div of Epidemiology and Health Planning, Kentucky Dept for Public Health. K Bradley, DVM, J Bos, MPH, L Burnsed, MPH, Div Communicable Diseases, Oklahoma Dept of Health. J Brown, MD, D Mahoney, MD, K Chamberlain, M Porter, C Duncan, B Johnson, R Ethelbah, K Robinson, M Wessel, S Savoia, MD, C Garcia, J Dickson, D Kvamme, D Yost, MD, M Traeger, MD, Indian Health Svc. J Krebs, MS, C Paddock, MD, W Shieh, MD, J Guarner, MD, S Zaki, MD, D Swerdlow, MD, J McQuiston, DVM, WL Nicholson, PhD, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; L Demma, PhD, EIS Officer, CDC.*

**Editorial Note:** RMSF is the most commonly fatal tickborne illness in the United States. Characterized by fever and a macular rash in its early stages, untreated RMSF can result in severe systemic manifestations, including pneumonitis, myocarditis, hepatitis, acute renal failure, encephalitis, gangrene, and death. An estimated 612 deaths were attributable to RMSF in the United States during 1983–1998, and approximately 12% of reported deaths occurred in children aged <10 years (4). Family clusters of infection are a well-recognized feature of RMSF because of shared residence and risks for vector exposure (5).

In its early stages, RMSF can resemble many other infectious and noninfectious conditions and can be difficult to diagnose (Box), even for physicians familiar with the disease (3,6). The majority of patients do not have the classic RMSF triad of fever, rash, and history of tick bite on their first visit for medical care; often the rash appears several days after onset of fever and can evolve to become petechial. The absence of known tick bite is common and should not dissuade clinicians from suspecting RMSF. None of the patients in this report recalled a tick bite before illness onset, although all lived near wooded or grassy areas where ticks might have been present.

The infection can have a rapid course; 50% of RMSF deaths occur within 9 days of illness onset (1,2). Doxycycline therapy is considered the best treatment for RMSF in both adults and pediatric patients and is most successful when initiated within 5 days of illness onset (1,7). Delay of doxycycline therapy can increase the risk for severe or fatal outcomes; treatment should never be delayed pending laboratory confirmation.

Criteria for diagnosis\* of a confirmed infection include the presence of a clinically compatible illness, plus at least one of the following: 1) serologic evidence of a significant change (fourfold increase or greater) in antibody titer reactive with *R. rickettsii* antigens between paired serum specimens, as measured by a standardized assay conducted in a commercial, state, or reference laboratory; 2) demonstration of *R. rickettsii* antigen by IHC in a clinical specimen such as skin biopsy or

other tissue; 3) detection of *R. rickettsii* DNA by PCR in a clinical specimen, such as whole blood or tissue; or 4) isolation of *R. rickettsii* from a clinical specimen in cell culture. Probable cases have a clinically compatible illness and serologic evidence of antibodies reactive with *R. rickettsii* in a single serum sample at a titer considered indicative of current or past infection (cutoff titers are determined by individual laboratories). At CDC, reciprocal IFA IgG titers of  $\geq 64$  are considered to be evidence of current or past infection.

The most effective measures to reduce the risk for RMSF (particularly in children) are to 1) limit exposure to ticks during periods of peak tick activity (i.e., April–September); 2) inspect the head, body, and clothes for ticks thoroughly after being in wooded or grassy areas, especially along the edges of trails, roads, or yards; and 3) remove attached ticks immediately by grasping them with tweezers or forceps close to the skin and pulling gently with steady pressure. Because rapid laboratory confirmation of RMSF infection is not available, clinicians should consider initiating empiric therapy in patients with a compatible clinical presentation (e.g., fever usually with subsequent development of a macular or petechial rash) and epidemiologic circumstance (e.g., recent recreational or occupational activities during spring and summer months that could have exposed persons to ticks) to reduce morbidity and mortality resulting from delayed diagnosis (3,6). As a nationally notifiable disease, all RMSF cases should be reported to state health departments. Additional information about RMSF is available at <http://www.cdc.gov/ncidod/dvrd/rmsf/index.htm>.

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\* A case definition for RMSF is available at <http://www.cste.org/ps/2003pdfs/2003finalpdf/03-id-08revised.pdf>.

a•ware: *adj*

(ə-'wâr) 1 : marked by comprehension, cognizance, and perception; see also *MMWR*.



know what matters.



## Multifocal Autochthonous Transmission of Malaria — Florida, 2003

The majority of malaria cases diagnosed in the United States are imported, usually by persons traveling from areas where malaria is endemic (1). However, small outbreaks of locally acquired mosquito-borne malaria continue to occur (2–4). During July–September 2003, an outbreak of malaria (eight cases of *Plasmodium vivax* malaria) occurred in Palm Beach County, Florida (5). During the same period, two patients were evaluated for malaria in neighboring Okeechobee County, approximately 75 miles from the Palm Beach County transmission area. One patient was thought to have acquired infection with the same parasite species (*P. vivax*), and concerns were raised about a possible link. To determine whether infection was acquired in Okeechobee County and whether a possible link existed to the Palm Beach County outbreak, the Florida Department of Health (FDOH) initiated an investigation. This report describes that investigation, which determined that although initial laboratory results suggested local transmission, subsequent evaluation and testing confirmed the case as imported malaria. These findings underscore the importance of a rapid and thorough investigation of any malaria case suspected to be acquired through local mosquito-borne transmission.

In August 2003, two men were evaluated for malaria at an Okeechobee County clinic after 4 days of fever, chills, myalgias, fatigue, nausea, and headache. The first patient was a native of Uganda (patient 1) who had arrived in the United States 2 months before onset of symptoms; the second patient was a U.S.-born Florida resident (patient 2) with no recent foreign travel to areas where malaria is endemic or other risk factors for malaria. Both patients were treated presumptively for symptoms with doxycycline and diclofenac, and thick and thin blood smears were obtained for testing. A private laboratory identified *P. vivax* on the smear from patient 1; no malaria parasites were identified on the smear from patient 2. Because of increased malaria awareness from the Palm Beach County outbreak, smears for both patients were forwarded to the Florida State Laboratory (FSL) and CDC for confirmation.

After microscopic examination of both smears, FSL and CDC observed that the smears had been prepared poorly. However, malaria parasites were confirmed on the smear labeled as collected from patient 2 rather than patient 1, and *P. vivax* was identified as the most likely species. Because neither patient reported travel to the Palm Beach County transmission area, investigators considered the possibility of local mosquito-borne transmission in Okeechobee County.

Discrepancies in the smear results reported by the private laboratory, FSL, and CDC prompted investigators to suspect the smears were switched en route to FSL. An audit was conducted to trace the positive smear to the correct patient. In addition, blood smear microscopy, serology, and polymerase chain reaction (PCR) were conducted on specimens drawn from both patients after treatment was started. The audit revealed that the positive smear originated from patient 1. No evidence of previous or current infection was confirmed in specimens for patient 2. For patient 1, serology confirmed either previous or recent infection with malaria, and PCR revealed current infection with *P. ovale*, not *P. vivax*. These conflicting results prompted a review of the original microscopic diagnosis of *P. vivax*. Because whole blood specimens from the original positive smear were not available, PCR analysis of material scraped from the original positive blood smear confirmed infection with *P. ovale* as the diagnosis for patient 1.

In September, additional case finding was initiated to determine whether local mosquito-borne transmission occurred in Okeechobee County. Medical charts were reviewed for 232 patients with unexplained febrile illness during the 2 weeks before symptom onsets for patients 1 and 2; no other cases of malaria were found. After *P. ovale* was identified in patient 1, whose only risk factor was recent travel to malaria-endemic Uganda, investigators concluded this was a case of imported malaria, and measures to control local transmission of malaria were decreased. Patient 1 received additional treatment with primaquine to prevent relapse of *P. ovale*. Education materials about recognizing symptoms of malaria and preventing mosquito-borne diseases were distributed to neighbors of patient 1. Patient 2 recovered from his symptoms without further treatment, and a nonspecific viral syndrome was diagnosed.

During September–October, Okeechobee County physicians continued to evaluate patients with febrile illness for malaria; no additional cases were found. Mosquito trapping and testing in the county confirmed the presence of competent vectors (*Anopheles* sp.), but no mosquitoes tested positive for malaria.

**Reported by:** C Selover, C Thacker, M Hill, MPH, Okeechobee County Health Dept, Okeechobee; F Lugo, MPH, Palm Beach County Health Dept, West Palm Beach; M Lo, MPH, M Pawlowicz, PhD, J Schulte, DO, C Blackmore, DVM, D Ward, L Crockett, MD, Florida Dept of Health. LM Causer, MBBS, M Parise, MD, J Barnwell, PhD, A DaSilva, PhD, Div of Parasitic Diseases, National Center for Infectious Diseases; DF Argüello, MD, S Filler, MD, EIS officers, CDC.

**Editorial Note:** Approximately 60 cases of malaria are reported in Florida annually; nearly all are imported. Since the 1950s, only three outbreaks of local mosquito-borne transmission (Bay County 1990, one case of *P. vivax*; Palm Beach County

1996 and 2003, two and eight cases of *P. vivax*, respectively) have been reported (5–7). Because of its climate, proximity of human and mosquito populations, and the frequent travel of its residents and visitors from malarious areas, Florida often is perceived as vulnerable to the reestablishment of endemic malaria. However, endemic malaria was eradicated from Florida since the early 1950s, and reestablishment of endemic malaria is unlikely as long as present socioeconomic conditions and current health-care, mosquito-control, and public health infrastructures remain intact (2,4). Nevertheless, conditions exist for small outbreaks of locally acquired mosquito-borne transmission to occur sporadically.

This investigation demonstrates the need for proper smear preparation and accurate microscopic evaluation in confirming a case of malaria suspected as acquired through local mosquito-borne transmission. Errors in specimen handling and improper smear preparation complicated the process of identifying infection of patients and deciding whether control efforts were needed to prevent local mosquito-borne transmission. Investigators relied on additional laboratory methods (i.e., PCR and serology) to determine that the Okeechobee County case was not related to local mosquito-borne transmission.

Although additional testing was required to confirm diagnosis in the Okeechobee case, microscopic examination of thick and thin blood smears remains the standard for malaria diagnosis. Once a case of malaria is confirmed microscopically, a rapid and thorough case investigation must ensue to establish whether acquisition occurred locally or abroad. Control efforts must proceed on the basis of smear results and epidemiologic evidence and should not be delayed for additional tests. Local and state health officials should recognize that a patient who has malaria with no risk factors for malaria should be considered to have acquired the infection locally through mosquito-borne transmission until proven otherwise and investigated immediately.

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#### Notice to Readers

### Availability of Diphtheria Antitoxin Through an Investigational New Drug Protocol

Cases of respiratory diphtheria continue to occur sporadically among persons in the United States (1). Respiratory diphtheria is caused by toxigenic *Corynebacterium diphtheriae* (also, rarely, by toxigenic *C. ulcerans*) and frequently manifests insidiously as a membranous nasopharyngitis or obstructive laryngotracheitis accompanied by a low-grade fever. Respiratory diphtheria most often affects unvaccinated or inadequately vaccinated persons, particularly those who travel to areas where diphtheria is endemic and those who come into close contact with travelers from such areas (1). Effective treatment of respiratory diphtheria includes early administration of an equine diphtheria antitoxin (DAT). Delay in DAT administration can lead to life-threatening respiratory obstruction, myocarditis, and other complications. To ensure quick access to DAT, CDC maintains a stock of DAT for release to U.S. physicians.

No manufacturer has sought U.S. licensure of a DAT product since 1996. In 1997, an equine DAT product manufactured by Pasteur Merieux (Lyons, France) was made available in the United States through a Food and Drug Administration (FDA)-approved Investigational New Drug (IND) protocol (2). Production of this product ceased in 2002, and remaining supplies at CDC will expire on May 30, 2004.

To ensure the continued availability of DAT in the United States, CDC has procured an equine DAT product from the Instituto Butantan in Brazil. CDC will provide this product to U.S. physicians under an FDA-approved IND protocol. U.S. physicians caring for patients with suspected respiratory diphtheria can obtain DAT by contacting the diphtheria duty officer at CDC's Bacterial Vaccine Preventable Disease Branch in the Epidemiology and Surveillance Division of the National Immunization Program (telephone, 404-639-8257) from 8 a.m. to 4:30 p.m. Eastern time or from the Emergency Operations Center (telephone, 770-488-7100) at all other times. The duty officer will discuss the case and protocol with the physician and, if indicated, DAT will be rushed from one of eight U.S. Public Health Service quarantine stations. Respiratory diphtheria is a reportable disease; physicians should report any suspected case of respiratory diphtheria promptly to their local and state health departments.

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### *Notice to Readers*

## **New Definitions for Travel Notices Regarding Diseases Abroad**

The Division of Global Migration and Quarantine, Travelers' Health, National Center for Infectious Diseases, is announcing new, scalable definitions for travel notices about disease occurrences abroad. The purpose is to refine the announcements so they are more easily understood by international travelers, U.S. citizens living abroad, health-care providers, and the general public. In addition, defining and describing levels of risk will clarify the need for travelers to take recommended preventive measures.

From a public health perspective, scalable definitions will enhance the usefulness of the travel notices, enabling them to be tailored readily in response to events and circumstances. A complete description of the definitions and criteria for issuing and removing travel notices at each of the four levels is available at <http://www.cdc.gov/travel>.

The new notices are as follows:

**In the News.** This notice provides information about sporadic cases of disease or an occurrence of disease of public

health concern affecting a traveler or travel destination. At this level, the risk for an individual traveler does not differ from the usual risk in that area.

**Outbreak Notice.** Information is provided regarding a disease outbreak in a limited geographic area or setting. The risk for travelers is defined and limited, and the notice reminds travelers about standard or enhanced travel recommendations such as vaccination.

**Travel Health Precaution.** Specific information is provided to travelers regarding a disease outbreak of greater scope and over a larger geographic area, aimed at reducing the risk for infection. This precaution also provides guidance to travelers about what to do if they become ill while in the area. At this level, CDC does not recommend against travel to a specific area, but might recommend limiting exposure to a defined setting (e.g., poultry farms or health-care facilities).

**Travel Health Warning.** A recommendation is issued against nonessential travel to an area because a disease of public health concern is expanding beyond the locales or populations that were affected initially. The purpose of a travel warning is to reduce the volume of traffic to affected areas, limiting the risk for spreading the disease to unaffected areas.



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*Notice to Readers***Third Annual Partnership Conference  
on Public Health Law, June 14–16, 2004**

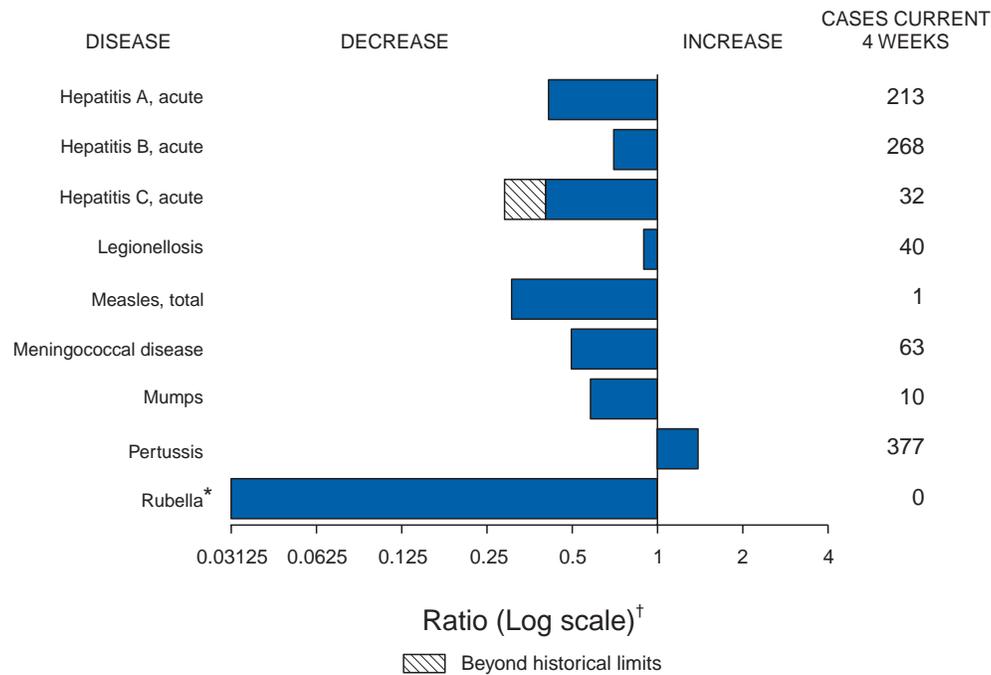
CDC and 20 multidisciplinary partner organizations are convening the conference, “The Public’s Health and the Law in the 21st Century,” June 14–16, 2004, in Atlanta, Georgia. The central theme is the practical use of law as a tool for improving community health.

Selected faculty include William H. Foege, senior medical advisor, Gates Foundation’s Global Health Program; Georges C. Benjamin, executive director, American Public Health Association; William S. Duffey Jr., U.S. attorney for the Northern District of Georgia; M. Jane Brady, attorney general, Delaware; John Hurson, president-elect of the National Conference of State Legislatures; John O. Agwunobi, secretary of health,

Florida Department of Health; Fay W. Boozman, director, Arkansas Department of Public Health; William Kassler, medical director, New Hampshire Department of Health and Human Services; John Nilson, minister of health and minister responsible for seniors, Saskatchewan, Canada; Myongsei Sohn, professor and chairman, Department of Bioethics and Medical Law, Yonsei University, Seoul, Republic of Korea; Ralph Hingson, associate director for epidemiology and prevention research, National Institute for Alcohol Abuse and Alcoholism, National Institutes for Health; other state and local health directors; and CDC officials.

Continuing education credits are offered. Advance registration ends May 25. Additional program and registration information is available at [https://www.aslme.org/aslmesecure/info/description.php?conf\\_id=24](https://www.aslme.org/aslmesecure/info/description.php?conf_id=24) and by e-mail, [tlr8@cdc.gov](mailto:tlr8@cdc.gov).

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 15, 2004, with historical data**



\* No rubella cases were reported for the current 4-week period yielding a ratio for week 19 of zero (0).

<sup>†</sup> Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending May 15, 2004 (19th Week)\***

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal <sup>†</sup>	22	38
Botulism:	-	-	HIV infection, pediatric <sup>†§</sup>	52	86
foodborne	6	6	Measles, total	8 <sup>†</sup>	22 <sup>**</sup>
infant	23	28	Mumps	60	79
other (wound & unspecified)	4	6	Plague	-	-
Brucellosis <sup>†</sup>	28	31	Poliomyelitis, paralytic	-	-
Chancroid	10	22	Psittacosis <sup>†</sup>	2	5
Cholera	2	1	Q fever <sup>†</sup>	11	22
Cyclosporiasis <sup>†</sup>	41	14	Rabies, human	-	-
Diphtheria	-	-	Rubella	10	3
Ehrlichiosis:	-	-	Rubella, congenital syndrome	-	1
human granulocytic (HGE) <sup>†</sup>	14	21	SARS-associated coronavirus disease <sup>††</sup>	-	5
human monocytic (HME) <sup>†</sup>	16	18	Smallpox <sup>† §§</sup>	-	NA
human, other and unspecified	-	5	<i>Staphylococcus aureus</i> :	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA) <sup>† §§</sup>	4	NA
California serogroup viral <sup>†</sup>	1	-	Vancomycin-resistant (VRSA) <sup>† §§</sup>	-	NA
eastern equine <sup>†</sup>	-	-	Streptococcal toxic-shock syndrome <sup>†</sup>	39	82
Powassan <sup>†</sup>	-	-	Tetanus	3	2
St. Louis <sup>†</sup>	1	-	Toxic-shock syndrome	41	51
western equine <sup>†</sup>	-	-	Trichinosis	2	-
Hansen disease (leprosy) <sup>†</sup>	27	30	Tularemia <sup>†</sup>	9	4
Hantavirus pulmonary syndrome <sup>†</sup>	4	5	Yellow fever	-	-

-: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

<sup>†</sup> Not notifiable in all states.

<sup>§</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update March 26, 2004.

<sup>††</sup> Of eight cases reported, five were indigenous, and three were imported from another country.

<sup>\*\*</sup> Of 22 cases reported, 16 were indigenous, and six were imported from another country.

<sup>†††</sup> Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).

<sup>§§</sup> Not previously notifiable.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\***

Reporting area	AIDS		Chlamydia†		Coccidiomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2004§	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	8,989	15,309	294,394	312,148	1,642	1,216	819	684	4	-
NEW ENGLAND	312	499	10,105	10,027	-	-	46	45	-	-
Maine	5	23	652	707	N	N	9	2	-	-
N.H.	11	12	562	571	-	-	12	7	-	-
Vt.	8	6	357	377	-	-	6	7	-	-
Mass.	84	226	5,038	3,762	-	-	13	22	-	-
R.I.	32	38	1,238	1,185	-	-	1	5	-	-
Conn.	172	194	2,258	3,425	N	N	5	2	-	-
MID. ATLANTIC	1,286	3,333	39,919	37,976	-	-	130	104	-	-
Upstate N.Y.	134	182	7,881	6,782	N	N	30	24	-	-
N.Y. City	380	1,627	11,312	12,900	-	-	29	38	-	-
N.J.	387	595	4,730	5,388	-	-	7	3	-	-
Pa.	385	929	15,996	12,906	N	N	64	39	-	-
E.N. CENTRAL	809	1,390	49,454	57,257	5	2	189	163	-	-
Ohio	231	228	11,488	15,820	-	-	52	21	-	-
Ind.	118	224	6,131	6,136	N	N	30	14	-	-
Ill.	279	595	12,846	17,906	-	-	13	28	-	-
Mich.	132	277	14,614	11,114	5	2	48	29	-	-
Wis.	49	66	4,375	6,281	-	-	46	71	-	-
W.N. CENTRAL	228	288	17,112	17,893	4	1	93	63	1	-
Minn.	48	56	3,194	3,965	N	N	40	32	-	-
Iowa	11	34	1,087	1,851	N	N	14	10	-	-
Mo.	107	139	6,938	6,488	3	1	16	6	1	-
N. Dak.	10	-	369	506	N	N	-	2	-	-
S. Dak.	-	6	944	872	-	-	10	10	-	-
Nebr.†	6	22	1,873	1,667	1	-	3	2	-	-
Kans.	46	31	2,707	2,544	N	N	10	1	-	-
S. ATLANTIC	3,515	4,482	54,557	57,444	-	1	173	93	2	-
Del.	42	80	1,091	2,278	N	N	-	1	-	-
Md.	343	411	7,072	5,949	-	1	9	8	-	-
D.C.	149	476	1,285	1,240	-	-	2	-	-	-
Va.	141	421	8,277	6,586	-	-	22	11	-	-
W. Va.	30	32	1,019	933	N	N	2	-	-	-
N.C.	243	504	9,815	8,167	N	N	31	10	-	-
S.C.†	205	311	6,465	4,600	-	-	7	2	2	-
Ga.	509	609	4,971	12,533	-	-	55	33	-	-
Fla.	1,853	1,638	14,562	15,158	N	N	45	28	-	-
E.S. CENTRAL	448	621	19,147	20,249	N	N	35	41	-	-
Ky.	42	67	2,033	3,049	N	N	9	9	-	-
Tenn.	189	269	8,114	6,981	N	N	12	12	-	-
Ala.	127	144	4,138	5,477	-	-	9	17	-	-
Miss.	90	141	4,862	4,742	N	N	5	3	-	-
W.S. CENTRAL	1,309	1,634	37,928	38,863	1	-	23	15	1	-
Ark.	43	47	2,950	2,571	1	-	8	2	-	-
La.	281	192	9,373	6,883	N	N	-	1	1	-
Okla.	37	74	3,689	3,802	N	N	7	3	-	-
Tex.	948	1,321	21,916	25,607	-	-	8	9	-	-
MOUNTAIN	259	586	15,041	18,913	1,017	843	39	31	-	-
Mont.	-	8	575	850	N	N	4	6	-	-
Idaho	2	10	1,145	938	N	N	4	6	-	-
Wyo.	2	4	412	380	-	-	2	1	-	-
Colo.	48	127	2,687	4,768	N	N	20	6	-	-
N. Mex.	20	42	2,298	2,738	9	1	1	1	-	-
Ariz.	109	274	5,388	5,760	975	826	6	2	-	-
Utah	19	29	845	1,252	12	2	1	7	-	-
Nev.	59	92	1,691	2,227	21	14	1	2	-	-
PACIFIC	823	2,476	51,131	53,526	613	368	91	129	-	-
Wash.	127	178	6,345	5,688	N	N	9	12	-	-
Oreg.	53	108	2,069	2,788	-	-	11	15	-	-
Calif.	604	2,148	40,790	41,714	613	368	70	102	-	-
Alaska	8	9	1,349	1,356	-	-	-	-	-	-
Hawaii	31	33	578	1,980	-	-	1	-	-	-
Guam	1	1	-	-	-	-	-	-	-	-
P.R.	143	437	594	787	N	N	N	N	-	-
V.I.	2	13	20	122	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	32	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update March 26, 2004.

¶ Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\*

Reporting area	<i>Escherichia coli</i> , Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003				
UNITED STATES	371	376	41	71	44	30	5,132	5,474	102,131	115,788
NEW ENGLAND	26	19	2	11	8	2	454	406	2,369	2,522
Maine	-	3	-	-	-	-	47	41	97	68
N.H.	4	6	1	1	-	-	13	19	43	44
Vt.	-	-	-	-	-	-	34	30	26	32
Mass.	10	4	-	5	8	2	242	206	1,174	949
R.I.	2	1	-	-	-	-	37	42	336	351
Conn.	10	5	1	5	-	-	81	68	693	1,078
MID. ATLANTIC	30	44	2	5	10	9	1,153	1,152	12,676	14,749
Upstate N.Y.	10	13	2	3	4	4	372	277	2,641	2,525
N.Y. City	4	3	-	-	-	-	354	439	3,597	4,892
N.J.	4	5	-	-	2	-	102	158	1,856	3,269
Pa.	12	23	-	2	4	5	325	278	4,582	4,063
E.N. CENTRAL	66	95	11	16	4	6	619	981	19,943	24,950
Ohio	19	19	1	9	4	6	264	285	5,504	8,102
Ind.	8	11	-	-	-	-	-	-	2,118	2,326
Ill.	14	20	-	1	-	-	84	297	5,383	7,677
Mich.	10	18	2	-	-	-	187	231	5,717	4,700
Wis.	15	27	8	6	-	-	84	168	1,221	2,145
W.N. CENTRAL	60	50	7	7	9	6	611	537	5,517	5,905
Minn.	23	18	3	6	2	-	205	178	1,167	960
Iowa	10	6	-	-	-	-	86	77	160	403
Mo.	8	16	4	1	2	-	170	160	2,763	3,024
N. Dak.	2	1	-	-	3	1	11	16	39	25
S. Dak.	2	2	-	-	-	-	19	15	100	62
Nebr.	8	5	-	-	-	-	53	46	368	529
Kans.	7	2	-	-	2	5	67	45	920	902
S. ATLANTIC	37	28	14	21	6	1	848	825	24,394	27,755
Del.	-	-	N	N	N	N	35	15	355	888
Md.	4	1	-	-	-	1	33	41	3,001	2,776
D.C.	1	1	-	-	-	-	23	14	840	885
Va.	1	8	6	1	-	-	132	93	3,324	3,037
W. Va.	1	1	-	-	-	-	9	9	305	306
N.C.	-	-	4	9	-	-	N	N	5,313	4,517
S.C.	1	-	-	-	-	-	17	42	2,929	2,675
Ga.	13	6	3	2	-	-	222	268	2,329	6,007
Fla.	16	11	1	9	6	-	377	343	5,998	6,664
E.S. CENTRAL	16	20	1	-	5	3	107	108	8,336	9,856
Ky.	7	8	1	-	3	3	N	N	842	1,277
Tenn.	3	9	-	-	2	-	48	48	2,881	2,909
Ala.	2	2	-	-	-	-	59	60	2,407	3,279
Miss.	4	1	-	-	-	-	-	-	2,206	2,391
W.S. CENTRAL	20	17	-	2	1	-	94	82	14,125	15,435
Ark.	4	2	-	-	-	-	43	43	1,381	1,330
La.	-	1	-	-	-	-	12	6	4,259	3,821
Okla.	4	2	-	-	-	-	39	33	1,581	1,456
Tex.	12	12	-	2	1	-	-	-	6,904	8,828
MOUNTAIN	59	41	3	7	1	3	434	431	3,532	3,975
Mont.	2	1	-	-	-	-	14	20	19	52
Idaho	10	11	1	4	-	-	55	57	32	30
Wyo.	-	1	-	-	-	-	5	5	21	18
Colo.	25	14	1	1	1	3	145	125	862	1,076
N. Mex.	4	1	-	2	-	-	20	17	267	450
Ariz.	6	9	N	N	N	N	72	75	1,531	1,514
Utah	7	3	-	-	-	-	90	89	102	128
Nev.	5	1	1	-	-	-	33	43	698	707
PACIFIC	57	62	1	2	-	-	812	952	11,239	10,641
Wash.	16	19	-	1	-	-	91	80	978	1,050
Oreg.	9	8	1	1	-	-	144	106	265	349
Calif.	26	34	-	-	-	-	523	700	9,627	8,659
Alaska	1	1	-	-	-	-	24	30	230	196
Hawaii	5	-	-	-	-	-	30	36	139	387
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	-	8	41	57	82
V.I.	-	-	-	-	-	-	-	-	4	37
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	3	U

N: Not notifiable. U: Unavailable. -: No reported cases.  
 \* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\*

Reporting area	<i>Haemophilus influenzae</i> , invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years						A	
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		Cum.	Cum.
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	2004	2003
UNITED STATES	788	674	7	10	41	50	87	82	1,951	2,270
NEW ENGLAND	70	48	1	1	4	3	2	3	345	89
Maine	7	2	-	-	-	-	-	1	8	1
N.H.	12	5	-	-	2	-	-	-	6	6
Vt.	4	6	-	-	-	-	-	-	5	4
Mass.	29	23	1	1	-	3	2	1	291	43
R.I.	2	2	-	-	-	-	-	1	6	9
Conn.	16	10	-	-	2	-	-	-	29	26
MID. ATLANTIC	149	113	-	-	3	1	22	16	226	478
Upstate N.Y.	55	32	-	-	3	1	3	3	31	37
N.Y. City	27	20	-	-	-	-	6	4	75	176
N.J.	25	25	-	-	-	-	2	3	45	81
Pa.	42	36	-	-	-	-	11	6	75	184
E.N. CENTRAL	115	112	-	1	10	4	16	22	175	216
Ohio	55	29	-	-	2	-	9	6	19	36
Ind.	20	18	-	-	4	2	1	-	15	13
Ill.	19	47	-	-	-	-	5	13	63	69
Mich.	9	7	-	1	4	2	-	-	61	72
Wis.	12	11	-	-	-	-	1	3	17	26
W.N. CENTRAL	40	45	1	-	2	5	3	4	62	59
Minn.	14	18	-	-	2	5	-	-	10	14
Iowa	1	-	1	-	-	-	-	-	18	13
Mo.	13	17	-	-	-	-	2	4	19	16
N. Dak.	3	1	-	-	-	-	-	-	1	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	4	-	-	-	-	-	-	-	7	3
Kans.	5	8	-	-	-	-	1	-	5	13
S. ATLANTIC	216	137	-	-	9	6	18	9	377	531
Del.	11	-	-	-	-	-	4	-	6	4
Md.	35	31	-	-	2	4	-	-	59	50
D.C.	-	-	-	-	-	-	-	-	3	17
Va.	17	15	-	-	-	-	1	3	29	35
W. Va.	8	3	-	-	-	-	3	-	2	5
N.C.	24	10	-	-	3	-	-	-	25	26
S.C.	2	2	-	-	-	-	-	-	13	22
Ga.	69	28	-	-	-	-	10	4	145	214
Fla.	50	48	-	-	4	2	-	2	95	158
E.S. CENTRAL	27	40	-	1	-	2	7	4	64	62
Ky.	-	3	-	-	-	-	1	-	9	11
Tenn.	18	21	-	-	-	1	5	3	39	31
Ala.	9	16	-	1	-	-	2	1	6	9
Miss.	-	-	-	-	-	-	-	-	10	11
W.S. CENTRAL	29	35	1	-	3	4	1	3	134	220
Ark.	-	4	-	-	-	1	-	-	31	12
La.	4	12	-	-	-	1	1	3	5	21
Okla.	24	19	-	-	3	2	-	-	15	4
Tex.	1	-	1	-	-	-	-	-	83	183
MOUNTAIN	109	87	2	5	10	13	14	11	184	151
Mont.	-	-	-	-	-	-	-	-	3	2
Idaho	3	1	-	-	-	-	1	1	9	7
Wyo.	-	-	-	-	-	-	-	-	1	1
Colo.	31	15	-	-	-	-	5	4	27	20
N. Mex.	19	12	-	-	3	3	3	1	4	8
Ariz.	42	48	-	5	6	6	1	3	112	85
Utah	8	7	2	-	-	2	3	2	23	11
Nev.	6	4	-	-	1	2	1	-	5	17
PACIFIC	33	57	2	2	-	12	4	10	384	464
Wash.	3	3	2	-	-	2	1	1	21	24
Oreg.	21	18	-	-	-	-	-	2	26	28
Calif.	3	32	-	2	-	10	2	7	327	405
Alaska	1	-	-	-	-	-	1	-	3	4
Hawaii	5	4	-	-	-	-	-	-	7	3
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	7	32
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	2,113	2,310	418	405	345	355	145	171	2,458	2,774
NEW ENGLAND	83	122	1	1	6	14	6	7	213	286
Maine	1	-	-	-	-	-	2	-	31	-
N.H.	17	5	-	-	-	2	1	2	11	5
Vt.	1	1	1	1	-	1	-	-	9	3
Mass.	61	87	-	-	2	6	-	3	91	151
R.I.	1	3	-	-	1	1	1	-	21	66
Conn.	2	26	U	U	3	4	2	2	50	61
MID. ATLANTIC	308	315	42	45	77	71	31	34	1,898	2,074
Upstate N.Y.	36	25	4	7	17	22	10	7	703	645
N.Y. City	28	111	-	-	3	8	3	8	-	3
N.J.	135	86	-	-	19	5	8	6	394	509
Pa.	109	93	38	38	38	36	10	13	801	917
E.N. CENTRAL	171	173	23	62	78	79	20	20	32	81
Ohio	61	51	2	4	38	30	8	3	26	11
Ind.	8	10	2	-	7	4	4	1	-	5
Ill.	-	-	2	11	2	13	-	5	-	2
Mich.	102	90	17	44	29	25	7	7	-	-
Wis.	-	22	-	3	2	7	1	4	6	63
W.N. CENTRAL	152	107	173	88	8	12	4	4	36	27
Minn.	12	13	1	1	-	2	2	2	12	17
Iowa	6	4	-	-	2	4	1	-	5	4
Mo.	117	71	172	87	4	3	1	-	16	5
N. Dak.	1	-	-	-	1	1	-	-	-	-
S. Dak.	-	1	-	-	1	-	-	-	-	-
Nebr.	9	11	-	-	-	1	-	2	1	-
Kans.	7	7	-	-	-	1	-	-	2	1
S. ATLANTIC	679	609	66	69	90	101	25	38	235	223
Del.	16	3	-	-	6	-	N	N	37	44
Md.	60	41	5	5	13	17	4	4	129	136
D.C.	9	1	1	-	1	1	-	-	2	3
Va.	72	40	9	1	6	6	3	4	9	10
W. Va.	2	7	6	1	2	-	1	1	1	-
N.C.	57	50	6	3	8	9	4	7	34	17
S.C.	37	58	1	17	1	4	-	2	1	1
Ga.	232	189	7	6	8	10	6	10	1	5
Fla.	194	220	31	36	45	54	7	10	21	7
E.S. CENTRAL	218	141	30	36	14	15	6	5	8	14
Ky.	17	28	12	7	3	3	2	-	5	2
Tenn.	67	46	8	6	9	7	4	1	2	6
Ala.	22	29	-	4	2	3	-	3	-	-
Miss.	112	38	10	19	-	2	-	1	1	6
W.S. CENTRAL	55	344	46	64	23	21	13	21	2	36
Ark.	17	35	-	3	-	-	-	-	-	-
La.	23	60	25	39	1	1	1	1	-	4
Okla.	14	17	2	-	2	2	-	1	-	-
Tex.	1	232	19	22	20	18	12	19	2	32
MOUNTAIN	177	208	18	12	23	20	6	11	6	3
Mont.	-	8	2	1	-	-	-	1	-	-
Idaho	4	2	-	1	1	2	1	-	-	1
Wyo.	3	9	-	9	4	1	-	-	1	-
Colo.	27	32	4	4	3	4	1	4	-	-
N. Mex.	5	16	3	-	-	2	-	2	-	-
Ariz.	90	104	2	3	5	6	-	4	1	-
Utah	20	12	-	-	9	3	-	-	4	1
Nev.	28	25	7	3	1	2	4	-	-	1
PACIFIC	270	291	19	28	26	22	34	31	28	30
Wash.	22	29	4	7	5	2	5	3	3	-
Oreg.	41	-	4	4	N	N	4	1	9	8
Calif.	194	253	9	16	21	20	25	27	16	21
Alaska	12	3	-	-	-	-	-	-	-	1
Hawaii	1	6	2	1	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	9	54	-	-	1	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	343	347	632	758	2,858	2,320	1,273	2,524	176	111
NEW ENGLAND	28	8	28	35	640	236	174	162	9	-
Maine	2	1	7	5	-	2	18	14	-	-
N.H.	-	2	3	3	20	14	6	9	-	-
Vt.	1	-	1	-	26	26	6	10	-	-
Mass.	16	5	17	21	576	178	73	61	9	-
R.I.	2	-	-	2	9	1	10	20	-	-
Conn.	7	-	-	4	9	15	61	48	-	-
MID. ATLANTIC	66	83	77	86	776	210	141	298	14	10
Upstate N.Y.	13	17	19	14	590	80	108	104	1	-
N.Y. City	25	43	14	19	-	26	4	2	2	4
N.J.	12	9	15	11	67	35	-	62	3	4
Pa.	16	14	29	42	119	69	29	130	8	2
E.N. CENTRAL	22	36	91	120	321	161	10	13	9	2
Ohio	7	6	37	31	151	80	5	5	6	1
Ind.	-	-	10	18	23	22	2	2	1	-
Ill.	2	17	9	35	-	-	2	1	-	-
Mich.	8	10	29	21	36	16	1	5	2	1
Wis.	5	3	6	15	111	43	-	-	-	-
W.N. CENTRAL	22	14	36	55	146	108	127	242	6	4
Minn.	9	8	9	13	28	33	17	11	-	-
Iowa	1	2	9	10	21	33	19	25	-	1
Mo.	3	1	9	22	75	23	5	2	6	3
N. Dak.	2	-	-	-	5	2	21	22	-	-
S. Dak.	1	-	1	1	7	2	10	50	-	-
Nebr.	1	-	1	5	-	1	15	49	-	-
Kans.	5	3	7	4	10	14	40	83	-	-
S. ATLANTIC	111	86	123	140	181	151	630	1,023	94	85
Del.	4	-	2	8	6	1	18	16	-	-
Md.	26	24	5	12	35	17	50	139	7	14
D.C.	5	5	4	1	1	-	-	-	-	-
Va.	10	7	7	8	46	33	135	197	-	1
W. Va.	-	2	3	1	2	1	26	28	-	-
N.C.	5	6	18	16	33	54	238	263	78	47
S.C.	5	1	10	11	17	7	56	58	2	8
Ga.	16	14	15	18	18	14	98	134	4	12
Fla.	40	27	59	65	23	24	9	188	3	3
E.S. CENTRAL	10	9	25	32	37	42	45	76	23	8
Ky.	1	1	3	3	7	9	7	11	-	-
Tenn.	2	4	9	8	22	20	17	58	14	4
Ala.	5	2	6	9	4	9	19	6	3	-
Miss.	2	2	7	12	4	4	2	1	6	4
W.S. CENTRAL	28	42	58	98	100	122	63	610	16	1
Ark.	2	3	12	8	6	7	20	25	-	-
La.	2	2	14	29	2	4	-	-	3	-
Okla.	1	2	3	8	12	4	43	95	13	-
Tex.	23	35	29	53	80	107	-	490	-	1
MOUNTAIN	14	11	33	35	358	407	31	33	1	1
Mont.	-	-	1	2	7	-	4	5	-	-
Idaho	1	1	4	2	15	9	-	1	-	-
Wyo.	-	-	2	2	3	117	-	-	-	1
Colo.	6	8	14	5	198	146	2	1	1	-
N. Mex.	1	-	4	4	43	22	-	2	-	-
Ariz.	1	1	5	16	57	75	25	24	-	-
Utah	3	1	3	-	26	29	-	-	-	-
Nev.	2	-	-	4	9	9	-	-	-	-
PACIFIC	42	58	161	157	299	883	52	67	4	-
Wash.	2	8	13	14	144	145	-	-	-	-
Oreg.	7	5	34	28	112	111	-	1	2	-
Calif.	32	45	109	106	35	625	44	61	2	-
Alaska	-	-	1	2	3	-	8	5	-	-
Hawaii	1	-	4	7	5	2	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	2	5	1	-	17	25	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.  
 \* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		<i>Streptococcus pneumoniae</i> , invasive			
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Drug resistant, all ages		Age <5 years	
							Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	8,810	9,527	3,428	7,264	2,061	2,782	1,129	1,073	200	250
NEW ENGLAND	388	469	77	105	93	266	13	44	4	1
Maine	29	26	1	4	3	13	1	-	-	-
N.H.	24	32	3	3	9	15	-	-	N	N
Vt.	18	15	2	3	4	12	6	5	1	1
Mass.	225	273	53	68	61	123	N	N	N	N
R.I.	32	25	4	3	16	1	6	-	3	-
Conn.	60	98	14	24	-	102	-	39	U	U
MID. ATLANTIC	1,141	1,201	408	603	304	472	76	60	46	43
Upstate N.Y.	293	233	176	110	115	169	36	26	33	31
N.Y. City	307	358	118	147	39	64	U	U	U	U
N.J.	185	201	66	147	48	102	N	N	N	N
Pa.	356	409	48	199	102	137	40	34	13	12
E.N. CENTRAL	1,248	1,330	261	573	352	707	247	222	68	94
Ohio	326	384	64	92	125	153	186	146	45	51
Ind.	132	114	47	41	44	61	61	76	16	15
Ill.	321	449	87	316	35	197	-	-	-	-
Mich.	240	188	34	81	136	200	N	N	N	N
Wis.	229	195	29	43	12	96	N	N	7	28
W.N. CENTRAL	616	524	123	240	158	174	106	92	21	19
Minn.	154	145	17	33	73	82	-	-	18	16
Iowa	122	109	29	20	N	N	N	N	N	N
Mo.	169	134	39	89	38	38	5	6	3	1
N. Dak.	13	12	1	3	6	8	-	3	-	2
S. Dak.	23	22	6	8	8	14	1	-	-	-
Nebr.	45	42	7	60	8	17	-	-	N	N
Kans.	90	60	24	27	25	15	100	83	N	N
S. ATLANTIC	2,096	2,221	1,047	2,350	512	436	559	520	5	5
Del.	24	27	6	118	4	4	6	-	N	N
Md.	170	232	38	202	91	126	-	4	-	-
D.C.	14	12	19	24	4	4	3	-	3	-
Va.	229	219	31	105	35	45	N	N	N	N
W. Va.	43	18	-	-	12	16	55	27	2	5
N.C.	247	320	129	273	56	36	N	N	U	U
S.C.	111	127	143	107	28	16	41	80	N	N
Ga.	409	306	255	492	183	94	180	137	N	N
Fla.	849	960	426	1,029	99	95	274	272	N	N
E.S. CENTRAL	462	563	194	369	96	87	61	71	-	-
Ky.	95	103	26	44	31	22	16	6	N	N
Tenn.	138	186	85	124	65	65	45	65	N	N
Ala.	146	160	62	125	-	-	-	-	N	N
Miss.	83	114	21	76	-	-	-	-	-	-
W.S. CENTRAL	652	974	637	1,864	105	133	28	47	49	56
Ark.	94	98	17	24	5	3	5	17	5	4
La.	79	172	65	184	1	1	23	30	7	13
Okla.	86	71	146	243	28	35	N	N	22	22
Tex.	393	633	409	1,413	71	94	N	N	15	17
MOUNTAIN	735	619	255	320	253	234	15	15	7	32
Mont.	51	36	3	1	-	1	-	-	-	-
Idaho	49	67	5	8	4	10	N	N	N	N
Wyo.	20	12	1	1	5	-	4	2	-	-
Colo.	179	172	54	51	83	66	-	-	5	30
N. Mex.	61	53	37	64	36	58	5	13	-	-
Ariz.	238	177	120	162	101	94	-	-	N	N
Utah	75	61	16	17	23	4	4	-	2	2
Nev.	62	41	19	16	1	1	2	-	-	-
PACIFIC	1,472	1,626	426	840	188	273	24	2	-	-
Wash.	118	166	25	75	24	26	-	-	N	N
Oreg.	107	147	18	29	N	N	N	N	N	N
Calif.	1,118	1,217	366	721	131	204	N	N	N	N
Alaska	32	34	3	4	-	-	-	-	N	N
Hawaii	97	62	14	11	33	43	24	2	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	40	230	1	4	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	3	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 15, 2004, and May 10, 2003 (19th Week)\*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Primary & secondary		Congenital		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	2,414	2,582	82	176	2,767	4,023	85	109	6,822	6,877
NEW ENGLAND	52	71	1	-	99	117	8	9	348	1,605
Maine	-	3	-	-	-	4	-	-	43	485
N.H.	1	9	-	-	6	5	-	-	-	-
Vt.	-	-	-	-	-	3	-	-	305	355
Mass.	37	48	-	-	73	55	8	4	-	81
R.I.	6	4	-	-	10	15	-	2	-	2
Conn.	8	7	1	-	10	35	-	3	-	682
MID. ATLANTIC	341	293	10	28	658	716	16	19	24	8
Upstate N.Y.	33	8	1	1	70	82	2	3	-	-
N.Y. City	154	162	6	17	354	382	5	10	-	-
N.J.	63	62	3	10	131	127	5	5	-	-
Pa.	91	61	-	-	103	125	4	1	24	8
E.N. CENTRAL	255	355	27	35	286	354	3	13	2,920	2,665
Ohio	86	77	1	2	63	55	1	-	823	596
Ind.	17	15	7	6	16	46	-	2	-	-
Ill.	78	136	1	11	177	175	-	5	-	-
Mich.	66	117	18	16	8	61	2	6	1,985	1,654
Wis.	8	10	-	-	22	17	-	-	112	415
W.N. CENTRAL	50	76	-	3	122	165	2	2	109	16
Minn.	7	22	-	-	50	62	1	1	-	-
Iowa	2	6	-	-	13	10	-	1	N	N
Mo.	24	26	-	3	28	49	1	-	2	-
N. Dak.	-	-	-	-	2	-	-	-	67	16
S. Dak.	-	-	-	-	4	9	-	-	40	-
Nebr.	4	2	-	-	6	7	-	-	-	-
Kans.	13	20	-	-	19	28	-	-	-	-
S. ATLANTIC	666	671	11	33	613	746	18	23	1,061	1,029
Del.	2	8	-	-	-	-	-	-	7	7
Md.	126	102	2	6	73	72	2	5	-	-
D.C.	28	13	-	-	-	-	-	-	16	7
Va.	23	30	1	1	68	78	4	10	317	262
W. Va.	2	1	-	-	9	7	-	-	562	673
N.C.	53	63	1	5	71	76	2	4	-	-
S.C.	43	45	-	4	66	49	-	-	159	80
Ga.	111	166	-	7	11	178	8	2	-	-
Fla.	278	243	7	10	315	286	2	2	-	-
E. S. CENTRAL	130	125	4	7	169	241	4	2	2	-
Ky.	21	18	-	1	25	39	2	-	-	-
Tenn.	51	51	1	1	46	82	2	1	-	-
Ala.	47	47	2	4	65	89	-	1	-	-
Miss.	11	9	1	1	33	31	-	-	2	-
W. S. CENTRAL	388	299	16	25	171	672	6	5	1,058	1,425
Ark.	16	13	-	1	48	37	-	-	-	-
La.	82	34	-	-	-	-	-	-	5	7
Okla.	8	18	2	-	48	48	-	-	-	-
Tex.	282	234	14	24	75	587	6	5	1,053	1,418
MOUNTAIN	135	114	10	19	100	113	6	4	1,300	129
Mont.	-	-	-	-	-	-	-	-	-	-
Idaho	8	4	-	-	-	1	-	-	-	-
Wyo.	1	-	-	-	1	2	-	-	14	15
Colo.	7	13	-	3	31	33	3	3	984	-
N. Mex.	25	22	1	5	-	6	-	-	29	-
Ariz.	84	69	9	11	53	54	1	1	-	-
Utah	3	1	-	-	15	9	1	-	273	114
Nev.	7	5	-	-	-	8	1	-	-	-
PACIFIC	397	578	3	26	549	899	22	32	-	-
Wash.	32	24	-	-	71	87	1	1	-	-
Oreg.	9	15	-	-	26	33	1	1	-	-
Calif.	354	533	3	26	406	721	15	30	-	-
Alaska	-	-	-	-	8	21	-	-	-	-
Hawaii	2	6	-	-	38	37	5	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	45	70	-	8	14	33	-	-	98	240
V.I.	-	1	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	10	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,\* week ending May 15, 2004 (19th Week)

Reporting Area	All causes, by age (years)						P&I <sup>†</sup> Total	Reporting Area	All causes, by age (years)						P&I <sup>†</sup> Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	364	274	63	20	3	4	36	S. ATLANTIC	1,180	738	283	98	30	31	51
Boston, Mass.	U	U	U	U	U	U	U	Atlanta, Ga.	146	85	32	14	4	11	6
Bridgeport, Conn.	31	29	1	1	-	-	1	Baltimore, Md.	180	97	55	18	5	5	8
Cambridge, Mass.	15	13	1	-	1	-	3	Charlotte, N.C.	93	62	21	6	3	1	10
Fall River, Mass.	29	23	3	3	-	-	3	Jacksonville, Fla.	U	U	U	U	U	U	U
Hartford, Conn.	56	39	9	5	-	3	8	Miami, Fla.	166	112	32	17	4	1	5
Lowell, Mass.	22	19	3	-	-	-	-	Norfolk, Va.	54	28	15	4	5	2	1
Lynn, Mass.	8	5	2	1	-	-	1	Richmond, Va.	U	U	U	U	U	U	U
New Bedford, Mass.	29	22	6	1	-	-	3	Savannah, Ga.	66	44	13	6	1	2	5
New Haven, Conn.	U	U	U	U	U	U	U	St. Petersburg, Fla.	41	29	4	5	1	2	1
Providence, R.I.	62	45	12	3	1	1	-	Tampa, Fla.	214	147	53	10	1	3	10
Somerville, Mass.	6	5	1	-	-	-	-	Washington, D.C.	200	118	54	18	6	4	3
Springfield, Mass.	35	20	11	3	1	-	4	Wilmington, Del.	20	16	4	-	-	-	2
Waterbury, Conn.	22	20	2	-	-	-	2	E.S. CENTRAL	645	427	130	57	14	17	42
Worcester, Mass.	49	34	12	3	-	-	11	Birmingham, Ala.	185	129	38	12	2	4	14
MID. ATLANTIC	2,074	1,438	458	111	29	36	116	Chattanooga, Tenn.	79	49	20	8	1	1	4
Albany, N.Y.	47	34	9	2	-	2	1	Knoxville, Tenn.	119	73	23	19	2	2	-
Allentown, Pa.	19	15	4	-	-	-	-	Lexington, Ky.	U	U	U	U	U	U	U
Buffalo, N.Y.	87	54	24	6	1	2	9	Memphis, Tenn.	U	U	U	U	U	U	U
Camden, N.J.	25	15	5	3	1	1	1	Mobile, Ala.	63	45	14	3	1	-	3
Elizabeth, N.J.	12	8	3	1	-	-	-	Montgomery, Ala.	69	53	10	4	2	-	13
Erie, Pa.	45	39	5	1	-	-	1	Nashville, Tenn.	130	78	25	11	6	10	8
Jersey City, N.J.	U	U	U	U	U	U	U	W.S. CENTRAL	1,341	867	298	90	39	47	73
New York City, N.Y.	1,075	748	244	55	11	15	58	Austin, Tex.	86	57	19	4	6	-	1
Newark, N.J.	68	31	20	10	4	3	1	Baton Rouge, La.	U	U	U	U	U	U	U
Paterson, N.J.	21	15	4	-	-	2	-	Corpus Christi, Tex.	21	20	1	-	-	-	-
Philadelphia, Pa.	339	233	71	20	9	6	17	Dallas, Tex.	199	125	37	23	4	10	13
Pittsburgh, Pa. <sup>‡</sup>	29	19	7	1	1	1	2	El Paso, Tex.	114	84	22	3	3	2	5
Reading, Pa.	23	20	3	-	-	-	-	Ft. Worth, Tex.	124	81	28	7	3	5	3
Rochester, N.Y.	121	87	30	4	-	-	8	Houston, Tex.	424	262	104	30	16	12	30
Schenectady, N.Y.	13	9	3	1	-	-	3	Little Rock, Ark.	74	39	20	6	2	7	1
Scranton, Pa.	21	19	2	-	-	-	1	New Orleans, La.	39	24	13	2	-	-	-
Syracuse, N.Y.	83	57	17	3	2	4	9	San Antonio, Tex.	217	150	45	12	4	6	18
Trenton, N.J.	19	15	3	1	-	-	1	Shreveport, La.	43	25	9	3	1	5	2
Utica, N.Y.	20	14	3	3	-	-	4	Tulsa, Okla.	U	U	U	U	U	U	U
Yonkers, N.Y.	7	6	1	-	-	-	-	MOUNTAIN	576	365	121	51	24	15	50
E.N. CENTRAL	1,834	1,216	382	143	55	38	119	Albuquerque, N.M.	121	55	20	29	14	3	14
Akron, Ohio	55	37	11	3	1	3	11	Boise, Idaho	44	34	7	1	1	1	2
Canton, Ohio	48	38	9	1	-	-	6	Colo. Springs, Colo.	91	64	20	2	2	3	-
Chicago, Ill.	323	189	80	38	9	7	27	Denver, Colo.	49	30	14	3	-	2	5
Cincinnati, Ohio	66	46	14	2	2	2	-	Las Vegas, Nev.	U	U	U	U	U	U	U
Cleveland, Ohio	193	130	44	10	5	4	7	Ogden, Utah	35	26	6	3	-	-	3
Columbus, Ohio	238	169	38	16	9	6	19	Phoenix, Ariz.	132	89	29	8	4	2	13
Dayton, Ohio	94	74	8	9	2	1	5	Pueblo, Colo.	U	U	U	U	U	U	U
Detroit, Mich.	185	100	47	26	10	2	11	Salt Lake City, Utah	104	67	25	5	3	4	13
Evansville, Ind.	50	39	7	4	-	-	5	Tucson, Ariz.	U	U	U	U	U	U	U
Fort Wayne, Ind.	64	43	14	3	4	-	2	PACIFIC	928	639	198	57	16	17	66
Gary, Ind.	21	10	3	6	2	-	-	Berkeley, Calif.	U	U	U	U	U	U	U
Grand Rapids, Mich.	61	43	10	-	4	4	3	Fresno, Calif.	U	U	U	U	U	U	U
Indianapolis, Ind.	182	123	36	15	5	3	6	Glendale, Calif.	U	U	U	U	U	U	U
Lansing, Mich.	37	25	9	2	1	-	1	Honolulu, Hawaii	85	60	19	3	1	2	2
Milwaukee, Wis.	108	64	35	4	1	4	6	Long Beach, Calif.	U	U	U	U	U	U	U
Peoria, Ill.	48	38	6	2	-	2	4	Los Angeles, Calif.	U	U	U	U	U	U	U
Rockford, Ill.	61	48	11	2	-	-	6	Pasadena, Calif.	21	15	5	1	-	-	6
South Bend, Ind.	U	U	U	U	U	U	U	Portland, Oreg.	141	98	27	11	2	3	10
Toledo, Ohio	U	U	U	U	U	U	U	Sacramento, Calif.	198	140	42	14	2	-	17
Youngstown, Ohio	U	U	U	U	U	U	U	San Diego, Calif.	142	103	28	4	2	4	8
W.N. CENTRAL	537	346	109	41	22	17	26	San Francisco, Calif.	118	69	32	13	3	1	7
Des Moines, Iowa	31	25	4	-	1	1	2	San Jose, Calif.	152	101	31	11	4	5	11
Duluth, Minn.	26	18	4	3	1	-	1	Santa Cruz, Calif.	U	U	U	U	U	U	U
Kansas City, Kans.	28	20	4	3	1	-	2	Seattle, Wash.	U	U	U	U	U	U	U
Kansas City, Mo.	93	64	16	4	6	3	7	Spokane, Wash.	71	53	14	-	2	2	5
Lincoln, Nebr.	36	28	5	1	1	1	3	Tacoma, Wash.	U	U	U	U	U	U	U
Minneapolis, Minn.	69	43	17	5	3	1	2	TOTAL	9,479 <sup>†</sup>	6,310	2,042	668	232	222	579
Omaha, Nebr.	U	U	U	U	U	U	U								
St. Louis, Mo.	130	67	33	16	8	4	3								
St. Paul, Minn.	61	41	16	2	1	1	5								
Wichita, Kans.	63	40	10	7	-	6	1								

U: Unavailable. -:No reported cases.

\* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. 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 this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

§ Total includes unknown ages.



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