

**Outbreak of Bacterial Conjunctivitis at a College — New Hampshire, January–March, 2002**

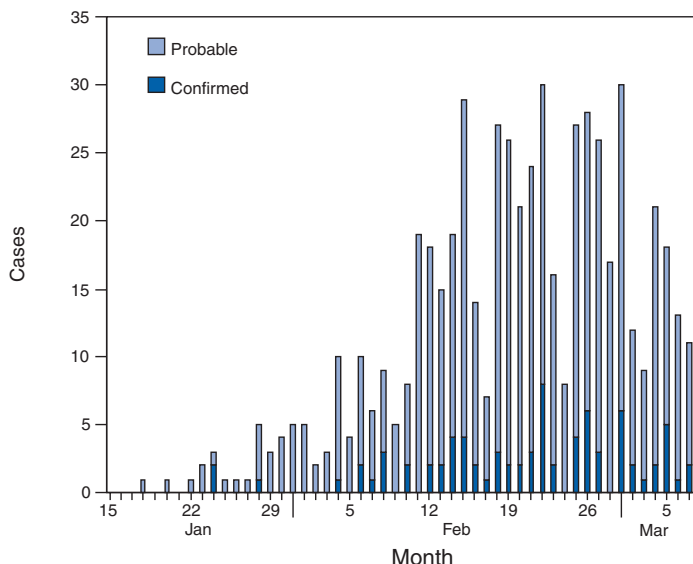
During February 1–14, 2002, approximately 100 students presented to a New Hampshire college’s student health service with clinical signs of conjunctivitis (Figure 1). The cause of conjunctivitis was initially thought to be viral. However, because of the high number of cases, eye cultures were collected from 12 consecutive students; *Streptococcus pneumoniae* was isolated from cultures of all 12 students. The medical director of the student health service notified the New Hampshire Department of Health and Human Services about the outbreak and on February 22, the state health department requested assistance from CDC. This report summarizes preliminary results of the investigation of this outbreak, which indicate that an uncommon strain of pneumococcus caused this outbreak and that health-care providers should consider

pneumococcus as a cause of conjunctivitis among college students.

Students at the college are entitled to medical care at the student health service, and school officials estimate that approximately 95% of students use the health service for nonemergency health care. Discharge diagnoses of visits to the student health center were reviewed to identify episodes of conjunctivitis. A case of probable pneumococcal conjunctivitis was defined as a diagnosis of conjunctivitis-*unspecified* (*International Classification of Diseases, Ninth Revision* [ICD-9] code 372.30), pink eye or mucopurulent conjunctivitis (ICD-9 code 372.03), or viral conjunctivitis (ICD-9 code 077.99) in a student who presented to the student health service during January 15–March 7, 2002. A case of confirmed pneumococcal conjunctivitis was defined as a diagnosis of conjunctivitis with *S. pneumoniae* isolated from eye secretions.

Among 5,060 students enrolled for the winter term, 493 (9.7%) students had probable pneumococcal conjunctivitis, and 81 (1.6%) had confirmed pneumococcal conjunctivitis

**FIGURE 1. Number of cases of conjunctivitis in students at a college — New Hampshire, January 15–March 7, 2002**



**INSIDE**

- 207 Update: Allograft-Associated Bacterial Infections — United States, 2002
- 210 Chagas Disease After Organ Transplantation — United States, 2001
- 212 Cat-Scratch Disease in Children — Texas, September 2000–August 2001
- 214 Acquired Rifamycin Resistance in Persons with Advanced HIV Disease Being Treated for Active Tuberculosis with Intermittent Rifamycin-Based Regimens
- 215 Notices to Readers

The *MMWR* series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

#### SUGGESTED CITATION

Centers for Disease Control and Prevention. [Article Title]. *MMWR* 2002;51:[inclusive page numbers].

#### Centers for Disease Control and Prevention

Jeffrey P. Koplan, M.D., M.P.H.  
*Director*

David W. Fleming, M.D.  
*Deputy Director for Science and Public Health*

Dixie E. Snider, Jr., M.D., M.P.H.  
*Associate Director for Science*

#### Epidemiology Program Office

Stephen B. Thacker, M.D., M.Sc.  
*Director*

#### Office of Scientific and Health Communications

John W. Ward, M.D.  
*Director*  
*Editor, MMWR Series*

David C. Johnson  
*Acting Managing Editor, MMWR (Weekly)*

Jude C. Rutledge  
Jeffrey D. Sokolow, M.A.  
*Writers/Editors, MMWR (Weekly)*

Lynda G. Cupell  
Malbea A. Heilman  
Beverly J. Holland  
Jim A. Walters  
*Visual Information Specialists*

Michele D. Renshaw  
Erica R. Shaver  
*Information Technology Specialists*

#### Division of Public Health Surveillance and Informatics

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

Carol M. Knowles  
Deborah A. Adams  
Felicia J. Connor  
Patsy A. Hall  
Mechele A. Hester  
Pearl C. Sharp

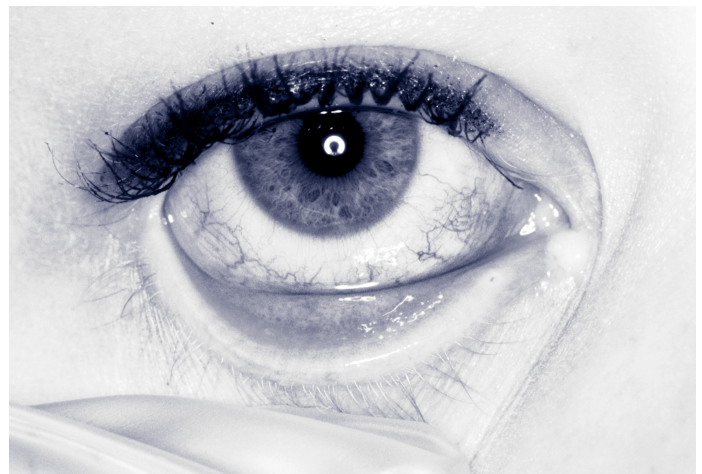
(Figure 1). The attack rate was highest among freshmen (18.0%) followed by sophomores (14.9%), juniors (12.8%), seniors (12.0%), and graduate students (1.7%). A survey of college faculty and interviews with local child care centers, schools, ophthalmologists, and primary-care physicians did not identify excessive episodes of conjunctivitis in persons other than college students.

A systematic clinical examination of 80 students with conjunctivitis found that most reported eye crusting on awakening. The findings of eye examinations were variable, ranging from mildly inflamed conjunctiva with a clear watery discharge to severe conjunctival inflammation with purulent discharge and preauricular adenopathy (Figure 2). Students examined by an ophthalmologist showed a papillary rather than follicular conjunctival response. Giemsa stains of conjunctival discharge from seven students showed lancet-shaped diplococci in a preponderance of neutrophils. No smears showed a predominantly lymphocytic response or viral inclusions. Students were treated with topical antibiotics.

Of eye specimens cultured from 189 students, 81 (42.9%) grew bacteria identified as *S. pneumoniae* by optochin sensitivity and bile solubility tests. Strains were resistant to erythromycin but susceptible to bacitracin, sulfonamides, and quinolones. Thirty strains were sent to CDC for serotyping but could not be typed using the Quellung reaction. Viral cell cultures of specimens from 70 students were negative for adenovirus (no cytopathic effect after 10 days' incubation).

School health officials used campus-wide e-mail, posters, and the college newspaper to notify students, faculty, and staff about the outbreak and ways to reduce transmission. The messages instructed students to wash their hands frequently; to avoid sharing towels, drinking glasses, or other utensils;

**FIGURE 2. Eye of a New Hampshire college student with pneumococcal conjunctivitis**



Photo/M. Zegans/Dartmouth Medical School

and to make an appointment with the student health service if they developed signs or symptoms of conjunctivitis.

The student health service provided topical antibiotic therapy to students presenting with signs or symptoms of conjunctivitis. In addition, bottles of alcohol-based antiseptic gel were provided to all undergraduate students along with an information sheet that provided instructions on proper hand antisepsis using the gel. Local primary-care physicians and ophthalmologists were notified about the outbreak and asked to obtain cultures from patients presenting with conjunctivitis and to report cases to the investigating team. A student health service listserv was used to notify other student health services in the United States about the outbreak.

The college's winter term ended March 14, 2002, and students will be departing for spring break. As of March 13, the student health service was still reporting new cases of conjunctivitis.

**Reported by:** JH Turco, MD, JH Pryor, MA, YY Baumgartner, MBA, Dartmouth College Health Svc; ME Zegans, MD, P Sanchez, Dartmouth Medical School; A Bashir, MD, JD Schwertzman, MD, Dartmouth Hitchcock Medical Center, Hanover; J Puffer, JT Montero, MD, New Hampshire Dept of Health and Human Svcs. S Sodha, J Elliott, PhD, CG Whitney, MD, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; M Martin, MD, EIS Officer, CDC.

**Editorial Note:** This report describes an outbreak of conjunctivitis attributed to an unusual nontypeable strain of *S. pneumoniae*. Outbreaks caused by nontypeable pneumococci have been reported previously (1,2). Person-to-person transmission of the outbreak strain may be occurring from eye secretions, respiratory droplets, or hands. Prevention messages were intended to reduce contact that would encourage transmission. The use of alcohol-based antiseptic gel improves hand hygiene in the hospital setting (3); however, its benefit in the setting of a community outbreak is unknown.

Some of the college's students will have left campus for spring break with active *S. pneumoniae* conjunctivitis. Others will have left during the incubation period of the infection or might be asymptomatic carriers of the epidemic strain of *S. pneumoniae*. Some students will be traveling to popular college student vacation spots. Crowding and limited access to handwashing facilities might result in further transmission of this highly infectious strain of *S. pneumoniae*.

Students who develop symptoms of conjunctivitis (e.g., red eyes, crusting of eyes in the morning, or increased eye discharge) should seek medical care. Health-care providers who see college students with conjunctivitis should suspect a bacterial etiology, and consider obtaining a culture of eye secretions, treating with a topical antibiotic, and ensuring that standard infection-control practices are followed (4). Outbreaks of conjunctivitis attributed to *S. pneumoniae* should

be reported to state health departments, and state health department personnel should notify CDC, telephone (404) 639-2215.

### Acknowledgements

This report is based on data contributed by J Greenblatt, MD, S Macrae, MS, M Sweeney, MS, New Hampshire Dept of Health and Human Svcs. M Richardson, MS, C Bradley, S Power, D Fisk, D Cook, S Robinson, L Clancy, J Karlen, C Henderson, and clinicians and staff, Dartmouth College Health Svc; Nathan Smith Pre-Med Society, Dartmouth College, Hanover, New Hampshire. A Schuchat, MD, RR Facklam, PhD, DM Jackson, MS, Div of Bacterial and Mycotic Diseases; N Khetsuriani, MD, U Parashar, MPH, DD Erdman, DrPH, Div of Viral and Rickettsial Diseases; SK Fridkin, MD, Div of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC.

### References

1. Shayegani M, Parsons LM, Gibbons WE Jr, Campbell D. Characterization of nontypable *Streptococcus pneumoniae*-like organisms isolated from outbreaks of conjunctivitis. *J Clin Microbiol* 1982;16:8-14.
2. Ertugrul N, Rodriguez-Barradas MC, Musher DM, et al. BOX-Polymerase chain reaction-based DNA analysis of nonserotypeable *Streptococcus pneumoniae* implicated in outbreaks of conjunctivitis. *J Infect Dis* 1997;176:1401-5.
3. Bischoff WE, Reynolds TM, Sessler CN, Edmond MB, Wenzel RP. Handwashing compliance by health care workers: the impact of introducing an accessible, alcohol-based hand antiseptic. *Arch Intern Med* 2000;160:1017-21.
4. Garner JS. Guideline for isolation precautions in hospitals: The Hospital Infection Control Practices Advisory Committee. *Infect Control Hospital Epidemiol* 1996;17:53-80.

## Update: Allograft-Associated Bacterial Infections — United States, 2002

Tissue allografts are commonly used in orthopedic surgical procedures; in 1999, approximately 650,000 musculoskeletal allografts were distributed by tissue processors (1). A rare complication of musculoskeletal allografts is bacterial infection (2,3). After the reported death of a recipient of an allograft contaminated with *Clostridium* spp. (an anaerobic spore and toxin-forming organism) (3), CDC investigated this case and solicited additional reports of allograft-associated infections; 26 cases have been identified. This report summarizes the investigation of these cases and describes additional steps given to a tissue processor to enhance tissue transplant safety.

On November 7, 2001, a man aged 23 years underwent reconstructive knee surgery at a hospital in Minnesota using a femoral condyle (bone-cartilage) allograft. On November

10, he developed pain at the surgical site, which rapidly progressed to shock; the patient died the following day (3). Blood cultures obtained pre-mortem grew *Clostridium sordellii*.

On November 13, a man aged 17 years underwent reconstructive knee surgery in Illinois using a femoral condyle (fresh) and a meniscus (frozen). The next day, the patient developed fever, which did not respond to first-generation cephalosporin antibiotics. Eight days after surgery, he was admitted to a local hospital for septic arthritis; his temperature on admission was 103.5° F (39.7° C). The patient received ampicillin-sulbactam, and the fever subsided within 24 hours. The patient is recovering. Cultures for anaerobic bacteria, including *C. sordellii*, were not obtained.

The three allografts received by these two patients came from the same cadaveric donor (donor A) and were supplied by tissue processor A (TP-A). Based on records from the medical examiner, no evidence indicated that donor A was septic or had risk factors for *Clostridium* spp. infection (e.g., injecting drug use or abdominal trauma). The body of donor A was refrigerated 19 hours after death; tissue was procured 23.5 hours after death. One tissue-procurement organization recovered the tissue and sent all tissue to TP-A for processing.

Including the two cases described above, 10 tissues from donor A were transplanted into nine patients located in eight states. No additional infections were identified. CDC obtained 19 nonimplanted tissues from donor A and identified *C. sordellii* in two tissues (fresh femoral condyle and frozen meniscus) and from the fluid bathing the tissues.

TP-A used aseptic processing of harvested tissues. Companion tissue (e.g., a sliver of cartilage from a femoral condyle) was processed alongside the allograft. After suspension of the allograft and companion tissue in an antibiotic/antifungal solution, the companion tissue was cultured. The aerobic and anaerobic cultures of the companion tissues from donor A were reported as negative at TP-A. No other cultures were taken before tissue processing. No swab cultures were taken; all cultures were destructive (i.e., performed on tissue that had been ground up).

To identify additional cases of allograft-associated infections, CDC solicited case reports through electronic listservers and *MMWR* (2,3) and by contacting the Food and Drug Administration (FDA) and state regulatory authorities (2). A case of allograft-associated infection was defined as any surgical site infection (SSI) at the site of allograft implantation occurring within 12 months of allograft implantation in an otherwise healthy patient with no known risk factors for SSI (e.g., diabetes). Cases could be culture-negative if diagnosed by infectious diseases physicians or surgeons and diagnostic (e.g., knee aspirate) or operative findings supported SSI diagnosis. If only

*Staphylococcus aureus* or *Staphylococcus* spp. were isolated, patients were excluded unless additional epidemiologic or microbiologic evidence suggested allograft contamination.

As of March 11, 2002, CDC has received 26 reports of bacterial infections associated with musculoskeletal tissue allografts including the previously reported cases (2,3). Thirteen (50%) of the 26 patients were infected with *Clostridium* spp. (*C. septicum* [12], *C. sordellii* [one]); 11 (85%) of these patients received tissue processed by TP-A. Allografts that were implicated in *Clostridium* spp. infections were tendons used for anterior cruciate ligament (ACL) reconstruction (eight), femoral condyles (two), bone (two), and meniscus (one). Eleven (85%) of the allografts were frozen and two (15%) were fresh (femoral condyles). All allografts were processed aseptically but did not undergo terminal sterilization. In 11 of these 13 cases, additional evidence (e.g., common donors or cultures of nonimplanted tissue) implicated the allograft as the source of the infection. CDC has requested additional information for the other two cases. The median age of these 13 patients was 35 years (range: 15–52 years); onset of symptoms occurred at a median of 8.5 days (range: 2–85 days) following allograft implantation. One patient died.

Eleven patients were infected with gram-negative bacilli; five had polymicrobial infection. Cultures from two patients were negative: the Illinois patient and a patient with necrotizing soft tissue infection treated with multiple debridements, hyperbaric oxygen, and intravenous antibiotics that covered anaerobes. The transplanted tissues included ACL (10), femoral condyle (one), meniscus (one), and bone (one). One tissue was fresh (femoral condyle), one was freeze dried (bone), and the rest were frozen. For eight (62%) of these 13 cases, additional evidence implicated the allograft (e.g., common donors or positive pre-implantation or processing cultures with matching microorganisms) (2). CDC continues to investigate these cases. Eight patients received allografts that had undergone aseptic processing but no terminal sterilization. Three patients received allografts that were reported to have undergone gamma irradiation.

In response to the initial case investigation and the subsequent reports of *Clostridium* spp. infections, CDC provided to TP-A some additional steps to reduce the risk for allograft associated infections.

When possible, a method that can kill bacterial spores should be used to process tissue. Existing sterilization technologies used for tissue allografts such as gamma irradiation, or new technologies effective against bacterial spores should be considered. Unless a sporicidal method is used, aseptically processed tissue should not be considered sterile, and health-care providers should be informed of the possible risk for bacterial infection.

If no sporicidal method is available (e.g., for certain tissues such as fresh femoral condyles), efforts should be made to minimize the potential for *Clostridium* spp. and other bacterial contamination. First, tissue should be cultured before suspension in antimicrobial solutions (4), and if *Clostridium* spp. or other bowel flora are isolated, all tissue from that donor that cannot be sterilized should be discarded. Second, culture methods should be validated to ensure that residual antimicrobials do not result in false negative culture results (5). Performing both destructive and swab cultures should be considered. Third, recommended time limits for tissue retrieval should be followed (4).

After receiving a report of potential allograft-associated infection, remaining tissue from that donor should not be released until it is determined that the allograft is not the source of infection (4). Tissue processors should contact health-care providers of recipients of tissue from the same donor implicated in an allograft-associated infection. In these cases, a sample of nonimplanted tissues that underwent the same processing method should be cultured by an independent laboratory using a validated method. CDC has recommended that TP-A perform a one-time audit of its unreleased tissue inventory to estimate the proportion of unreleased tissue that might be contaminated with microorganisms or spores.

**Reported by:** LK Archibald MD, DB Jernigan MD, Div of Healthcare Quality Promotion, National Center for Infectious Diseases; MA Kainer, MD, EIS Officer, CDC.

**Editorial Note:** Tissue allografts can improve substantially the quality of life for many patients. However, infections associated with bacterial contamination of allografts can result in serious morbidity and death (2,3). As of March 11, 26 patients with allograft-associated infections have been identified: 13 with *Clostridium* spp. infection and 14 associated with a single tissue processor. The findings in this report have important implications for patient safety and indicate that current federal regulations and industry standards on processing and quality control methods need to be enhanced and implemented to prevent *Clostridium* spp. and other allograft-associated infections.

At CDC, destructive cultures of nonimplanted tissues from donor A were positive for *C. sordellii*. In contrast, destructive cultures of the companion tissue from donor A were reported to be negative at TP-A. Two factors might explain this discrepancy. First, because tissues were cultured at TP-A only after suspension in the antibiotic/antifungal solution, residual antibiotics on the tissues might have caused a false-negative culture result because of bacteriostasis. Second, cultures of the smaller companion tissues might not have been representative of the allografts. Although American Association of

Tissue Banks standards recommend that cultures be obtained before and after processing, these standards do not address the potential problem of bacteriostasis after processing or specify a culture method (4). Although destructive cultures used by TP-A are very sensitive, a combination of swab and destructive cultures would be most sensitive in detecting bacterial contamination (6).

Donor A tissue probably became hematogenously seeded by bowel flora, including *Clostridium* spp., before harvesting (7). Factors that may contribute to contamination with bowel flora include time interval between death and tissue retrieval and delays in refrigeration and mode of death (e.g., trauma) (7). Aseptic processing does not eradicate contamination with organisms (2), and antibiotic/antifungal solutions will not eliminate spores of organisms such as *Clostridium* spp.

Sterilization of tissue that does not adversely affect the functioning of tissue when transplanted into patients is the best way to reduce the risk for allograft-associated infections. However, two sterilization methods (ethylene oxide and gamma irradiation) that would eliminate spores have associated technical problems that limit their use in processing of tissues for transplantation (2). New low-temperature chemical sterilization technologies that kill spores (8) but preserve the biomechanical integrity and function of some allografts are being evaluated (9,10).

FDA regulations state that each tissue bank is required to have written procedures for prevention of infectious disease contamination or cross-contamination by tissue during processing. In response to these cases reports, FDA has released new guidelines for tissue processors (<http://www.fda.gov/cber/guidelines.htm#tissval>).

CDC, in collaboration with state health departments, tissue processors, and clinicians, continues to solicit and investigate case reports to identify risk factors associated with acquisition of infection following receipt of an allograft. When septic arthritis occurs after use of an allograft, contamination should be suspected, and diagnostic work-up should include obtaining anaerobic cultures. Clinicians should consider expanding empiric antibiotic therapy to include agents effective against gram-negative organisms and anaerobes. Clinicians should report infections involving allograft tissue to tissue processors, FDA's Medwatch System, and CDC, telephone (800) 893-0485.

### Acknowledgements

This report is based on data contributed by JC Davis, MD, Alabama Sportsmedicine and Orthopedic Center, Birmingham, Alabama. SA Barbour, MD, Warren King Sports Medicine Fellowship; W King, MD, Palo Alto Medical Foundation, Palo Alto, California; J Rosenberg, MD, Div of

Communicable Disease Control, California Dept of Health Svcs. DC Bartley, MD, St Vincents Medical Center, Jacksonville; D Dodson, MD, West Palm Beach; JM Malecki, MD, Palm Beach County Health Dept; AC Morse, Div of Sports Medicine, Florida Orthopedic Institute, Tampa; OV Martinez, PhD, Univ of Miami, Miami; S Wiersma, MD, Florida Dept of Health. HJ Cohen, MD, Northside Hospital; G Cierney III, MD, St Joseph's Hospital; MA Blass, MD, Georgia Infectious Diseases; EW Carson, MD, Resurgens Orthopaedics; DL Dickensheets, MD, JC Garrett, MD, Atlanta, Georgia. DJ Raab, MD, Illinois Bone and Joint Institute, Des Plaines; MJ Joyce, MD, American Academy of Orthopaedic Surgeons, Rosemont, Illinois. T Tibbot, Indiana Cardiac Retrieval, New Haven, Indiana. B Lutz, MD, Memorial Medical Center-Baptist Campus, New Orleans; R Ratard, MD, Louisiana Dept of Health and Hospitals. BS Wolock MD, Orthopedic Associates, Towson office, Baltimore; RJ Brechner, MD, Maryland Dept of Health and Mental Hygiene. SM Mulawka, MD, DJ Whitlock, MD, SJ Petrowski, MF Buhl, St. Cloud Hospital, St. Cloud; PM Hoeft, MD, Rice Memorial Hospital, Willmar; KH LeDell, MPH, R Lynfield, MD, RN Danila, PhD, HF Hull, MD, Minnesota Dept of Health. EA Bresnitz, MD, New Jersey Dept of Health and Senior Svcs. SG Jenkins, PhD, Mt Sinai Medical Center, New York; J Linden, MD, Blood and Tissue Resources, New York State Dept of Health. D Perrotta, PhD, Texas Dept of Health. DA Deneka, MD, Middle Tennessee Orthopedics and Sports Medicine, Murfreesboro; TF Jones, MD, AS Craig, MD, Tennessee Dept of Health. J Mowe, SH Doppelt, MD, RE Stevenson, PhD, American Association of Tissue Banks, McLean, Virginia. RD Noyce, MD, Midelfort Clinic, Eau Claire; TA Israel, MD, Sports Medicine, Luther/Midelfort, Mayo Health Systems, Eau Claire; JP Davis, MD, Wisconsin Div of Public Health. BJ Jensen, MS, MJ Arduino, DrPH, DN Whaley, HT Holmes, PhD, Div of Healthcare Quality Promotion, National Center for Infectious Diseases; DL Kirschke MD, ML Castor MD, EIS officers, CDC.

#### References

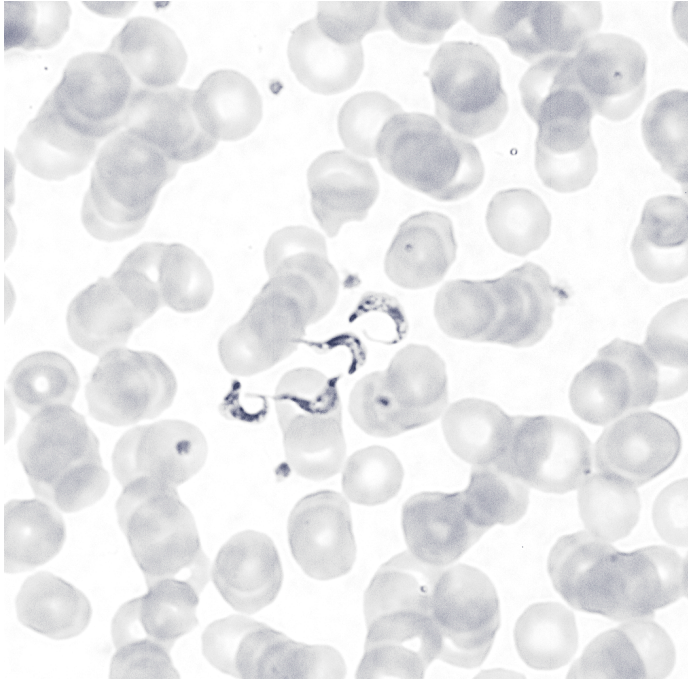
1. U.S. Census Bureau. Statistical Abstract of the United States 2001, No. 168 Organ Transplants and Grafts, 1990 to 2000. Available at <http://www.census.gov/prod/2002pubs/01statab/health.pdf>. Accessed March 2002.
2. CDC. Septic arthritis following anterior cruciate ligament reconstruction using tendon allografts—Florida and Louisiana, 2000. *MMWR* 2001;50:1081–3.
3. CDC. Update: Unexplained deaths following knee surgery—Minnesota, 2001. *MMWR* 2001;50:1080.
4. Woll JE, Kasprisin D. Standards for Tissue Banking. McLean, Virginia: American Association of Tissue Banks, 2001.
5. United States Pharmacopeia XXV. Chapter 71 Sterility Tests. Rockville, Maryland: The United States Pharmacopeial Convention, Inc. 2001:1878–83.
6. Mills AR, Roberts MR. Evaluation of culturing methods at predicting allograft sterility for aseptically processed tissue. Proceedings of the 25th Annual Meeting of the American Association of Tissue Banks, Washington DC, August 25–29, 2001.
7. Martinez OV, Malinin TI. The effect of postmortem interval and manner of death on blood and bone marrow cultures from non-septic cadaver donors of tissues for transplantation. Abstracts of the 96th Meeting of the American Society for Microbiology, New Orleans, Louisiana, 1996.
8. Wang JC, Kopf PK, Scurti G, Roberts M, Bianchi JR. Batch processed allograft bone versus single donor processing for antimicrobial capacity. Proceedings of the 29th Annual Meeting of the Cervical Spine Research Society. Monterey, California, 2001.
9. Summitt MC, Bianchi JR, Keesling JE, Roberts M, Mills CR. Mechanical Evaluation of soft tissue treated through a new tissue cleaning process. Proceedings of the 25th Annual Meeting of the American Association of Tissue Banks, Washington DC, August 25–29, 2001.
10. Summitt MC, Bianchi JR, Keesling JE, Roberts M, Mills CR. Biomechanical testing of bone treated through a new tissue cleaning process. Proceedings of the 25th Annual Meeting of the American Association of Tissue Banks, Washington DC, August 25–29, 2001.

## Chagas Disease After Organ Transplantation — United States, 2001

Chagas disease (American trypanosomiasis) is caused by the protozoan parasite *Trypanosoma cruzi*. Chagas disease following solid-organ transplantation has occurred in Latin America, where Chagas disease is endemic, but has not been reported previously in the United States. This report describes three cases in the United States of *T. cruzi* infection associated with transplantation of organs from a single donor. CDC and the U.S. organ transplantation organizations will consider whether to recommend screening of potential donors for *T. cruzi* infection and, if so, which donors to screen, how to screen, and what to do if the screening tests are positive.

On April 23, 2001, a physician notified CDC of an acute case of Chagas disease. A woman aged 37 years who had received cadaveric kidney and pancreas transplants on March 5 returned to the hospital on April 19 for evaluation of a febrile illness. On April 23, *T. cruzi* trypomastigotes were identified on a peripheral blood smear (Figure 1). Subsequently, two other persons who had received organs from the same donor—a woman aged 32 years who had received the liver and a woman aged 69 years who had received the other kidney—were found to be infected with *T. cruzi*. Cultures of blood from all three recipients were positive for *T. cruzi*. The donor, an immigrant from Central America, presumably had been infected with

**FIGURE 1.** *Trypanosoma cruzi* trypomastigotes on a peripheral blood smear from a patient aged 37 years



Photo/CDC file

*T. cruzi*; however, no specimens from the donor were available for testing.

After infection was detected, the recipients were treated with nifurtimox provided by the CDC Drug Service, which provides U.S.-licensed physicians with drugs that otherwise would not be available in the United States. The woman aged 69 years who had received a kidney was treated for approximately 4 months and, as of March 2002, has done well with no evidence of recurrence of *T. cruzi* infection. The other two patients died. The recipient of the kidney and pancreas transplants, who was the most immunosuppressed of the three patients, experienced recurrent, symptomatic *T. cruzi* parasitemia several weeks after completing a 4-month course of treatment with nifurtimox. On October 8, she died of acute Chagasic myocarditis, 2 weeks into her second course of nifurtimox therapy. On July 8, after several weeks of nifurtimox therapy, the recipient of the liver died of sepsis and hepatic and renal failure, which were unrelated to *T. cruzi* infection.

**Reported by:** CF Zayas, MD, C Perlino, MD, A Caliendo, MD, D Jackson, MT(ASCP), EJ Martinez, MD, P Tso, MD, TG Heffron, MD, Emory Univ School of Medicine, Atlanta, Georgia. JL Logan, MD, Univ of Arizona College of Medicine, Tucson. BL Herwaldt, MD, AC Moore, MD, FJ Steurer, MS, C Bern, MD, JH Maguire, MD, Div of Parasitic Diseases, National Center for Infectious Diseases, CDC.

**Editorial Note:** Chagas disease is endemic in parts of Central and South America and Mexico, where an estimated 16–18 million persons are infected with *T. cruzi* (1). An estimated 25,000–100,000 Latin American immigrants living in the United States are infected with *T. cruzi* (2). In nature, *T. cruzi* is transmitted when mucous membranes or breaks in the skin are contaminated with the feces of infected triatomine bugs. Congenital infection and transmission by blood transfusion and organ transplantation also occur.

In humans, the acute phase of vectorborne *T. cruzi* infection lasts for weeks to months and typically is asymptomatic or associated with fever and other mild, nonspecific manifestations. However, life-threatening myocarditis or meningoencephalitis can occur during the acute phase, particularly in young children and immunocompromised persons. After years to decades of subclinical infection, 10%–30% of infected persons develop chronic Chagas disease, which is characterized by potentially lethal cardiomyopathy or megasyndromes (i.e., megaesophagus and megacolon) (1). Even persons who remain asymptomatic probably are infected and infectious for life, with low levels of the parasite in blood and other tissues.

During the acute phase of infection, diagnosis involves detection of circulating organisms by microscopic examination of a fresh blood specimen or stained blood smear, hemoculture, or xenodiagnosis (1). Thereafter, diagnosis typically involves serologic testing because the level of parasitemia is too low to be detectable on blood smears. Hemoculture and xenodiagnosis can be positive, and polymerase chain reaction is a promising investigational technique for detecting low-level parasitemia (3). To decrease the risk for morbidity and mortality, infected persons should be treated as early in the course of infection as possible with either benznidazole (not available in the United States) or nifurtimox (available through the CDC Drug Service, telephone [404] 639-3670).

Transmission of *T. cruzi* infection by solid-organ transplantation (particularly renal transplants) has been reported in Latin America (4–9), where serologic screening of organ donors and recipients for antibody to *T. cruzi* is standard practice. In two instances, both recipients of a kidney from the same donor became infected with *T. cruzi* (8,9).

The cluster of three cases reported here represents the first recognized U.S. occurrence of *T. cruzi* infection through solid-organ transplantation. In the United States, no policies concerning the screening of potential organ donors for *T. cruzi* infection have been established. Although serologic tests for the diagnosis of *T. cruzi* infection are available in the United States, the tests vary in sensitivity and specificity. No test has

been licensed in the United States for screening organ or blood donors.

CDC has notified the United Network for Organ Sharing (UNOS), which operates the Organ Procurement and Transplantation Network (OPTN) under contract with the U.S. Department of Health and Human Services, about these cases of Chagas disease. CDC and the scientific committees of the OPTN/UNOS, which develops guidelines and policies for organ procurement, will consider whether to recommend screening of potential donors for *T. cruzi* infection and, if so, which donors to screen, how to screen, and what to do if the screening tests are positive.

#### References

1. World Health Organization. Control of Chagas disease: report of a WHO expert committee. Geneva, Switzerland: World Health Organization, 1991.
2. Kirchhoff LV, Gam AA, Gilliam FC. American trypanosomiasis (Chagas' disease) in Central American immigrants. *Am J Med* 1987;82:915–20.
3. Gomes ML, Galvao LMC, Macedo AM, Pena SDJ, Chiari E. Chagas' disease diagnosis: comparative analysis of parasitologic, molecular, and serologic methods. *Am J Trop Med Hyg* 1999;60:205–10.
4. Riarte A, Luna C, Sabbatiello R, et al. Chagas' disease in patients with kidney transplants: 7 years of experience, 1989–1996. *Clin Infect Dis* 1999;29:561–7.
5. Vázquez MC, Riarte A, Pattin M, Lauricella M. Chagas' disease can be transmitted through kidney transplantation. *Transplant Proc* 1993;25:3259–60.
6. Vazquez MC, Sabbatiello R, Schiavelli R, et al. Chagas disease and transplantation. *Transplant Proc* 1996;28:3301–3.
7. Carvalho MFC, de Franco MF, Soares VA. Amastigotes forms of *Trypanosoma cruzi* detected in a renal allograft. *Rev Inst Med Trop Sao Paulo* 1997;39:223–6.
8. Ferraz AS, Figueiredo JFC. Transmission of Chagas' disease through transplanted kidney: occurrence of the acute form of the disease in two recipients from the same donor. *Rev Inst Med Trop Sao Paulo* 1993;35:461–3.
9. de Faria JB, Alves G. Transmission of Chagas' disease through cadaveric renal transplantation. *Transplantation* 1993;56:1583–4.

## Cat-Scratch Disease in Children — Texas, September 2000–August 2001

Cat-scratch disease (CSD), a bacterial infection caused by *Bartonella henselae*, has emerged as a relatively common and occasionally serious zoonotic disease among children and adults. To illustrate the spectrum of clinical manifestations of CSD observed during a 1-year period, Texas Children's Hospital (TCH) in Houston reviewed the medical records of 32 children evaluated at TCH during September 2000–August 2001 whose antibody titers indicated recent *Bartonella* infection. This report summarizes the evaluations of these cases

and highlights four manifestations of infection with this pathogen in children. The findings emphasize that although CSD is generally a mild, self-limited illness, the differential diagnosis often includes more serious conditions (e.g., lymphoma, carcinoma, mycobacterial or fungal infection, or neuroblastoma) that might result in protracted hospital stays and lengthy treatments before diagnosis. Timely assessment of CSD is important, particularly when invasive diagnostic measures are being considered.

### Case Reports

**Case 1.** In July 2000, a boy aged 5 years was admitted to a local hospital after having fever (with temperature reaching 104° F [40°C]) for 12 days and left upper quadrant pain for 8 days. Aspartate and alanine aminotransferase concentrations were normal; a blood culture grew a contaminant. The child was transferred to TCH for evaluation of unexplained fever. Except for fever and inflamed tympanic membranes, the physical examination was unremarkable. Peripheral white blood cell count was  $18.3 \times 10^3/\text{cu mm}$  (normal range:  $5\text{--}14.5 \times 10^3/\text{cu mm}$ ), erythrocyte sedimentation rate (ESR) was 97 mm/h (normal range: 0–20 mm/h), and IgG and IgM serologic test results for Epstein-Barr virus (EBV) were negative. A bone scan was unremarkable. Abdominal ultrasound revealed multiple small hypoechoic lesions in the spleen and retroperitoneal adenopathy. After 3 days of intravenous rifampin therapy, his temperature declined to <101° F (<38.3° C). The child had sustained a scratch from a kitten 2 months before onset of illness. His serologic titer for *B. henselae* obtained on day 14 of illness was 1:4096.

**Case 2.** In September 2000, a girl aged 10 years with a bicommissural aortic valve had persistent low-grade fever, myalgias, arthralgias, weight loss, splinter hemorrhages, and hematuria and was admitted to TCH for evaluation and surgical management of endocarditis. She had been evaluated during the previous 9 months at another medical center for culture negative endocarditis. A transesophageal echocardiogram showed aneurysmal dilatation of the ascending aorta and probable vegetations. She also had a pulsatile lesion on the right forearm. Endocarditis caused by *Chlamydia psittaci* was suspected on the basis of the patient's history of bird contact. During surgery, a large pseudoaneurysm of the ascending aorta and thickened dysplastic aortic valves were replaced with an aortic valve homograft. Histology demonstrated microabscess formation at the mouth of the aneurysm, noncaseating granulomatous inflammation in the wall of the aneurysm, and numerous gram-negative bacilli within vegetations. She also had resection of a brachial artery aneurysm



with reconstruction of the artery. All cultures of tissue were sterile. Serologic test results for *Coxiella burnetii*, *Brucella* spp., *Histoplasma capsulatum*, and *Coccidioides immitis* were negative. Because the child had exposure to kittens and birds, doxycycline was administered along with penicillin, cefotaxime, and gentamicin at the time of transfer back to the referring hospital. The *B. henselae* titer obtained on day 7 at TCH was 1:8192.

**Case 3.** In June 2001, a boy aged 4 years was admitted to TCH with a 4-day history of intermittent back pain and an inability to walk. He had no history of trauma or contact with cats. He had a temperature of 99° F (38.2° C), no tenderness over the vertebrae, normal reflexes, and a 2x3 cm right inguinal lymph node. ESR was 96 mm/h, and three blood cultures were negative. Plain radiographs of the back and a bone scan were normal. Magnetic resonance imagery (MRI) demonstrated a diffuse abnormal marrow signal in the L1 vertebral body without destruction or apparent collapse of adjacent disc spaces. A small amount of material elevating the subligamentous space was observed just posterior to the L1 vertebra. A CT-guided fine needle aspiration biopsy showed no pathologic abnormalities. During the next several weeks, the child's back pain resolved without specific therapy. A repeat MRI performed 2 months later was normal. His *B. henselae* titer obtained on day 8 of illness was 1:2048.

**Case 4.** In August 2001, a girl aged 12 years was admitted to TCH after 3 weeks of intermittent fevers (101°–105.1° F [38.3°–40.6° C]), 2 days of right upper quadrant pain, and weight loss. Physical examination revealed enlarged and tender left and right inguinal lymph nodes. ESR was 93 mm/h. Two blood cultures and a urine culture were sterile. Stool cultures for various bacterial pathogens, including *Yersinia enterocolitica*, were negative. Several enlarged lymph nodes in the right lower quadrant were found on an ultrasound of the abdomen, but an abdominal CT was normal. Serologic test results for *Toxoplasma gondii*, cytomegalovirus, and EBV were negative. On day 7 of hospitalization, the patient underwent a colonoscopy, which was normal except for nodularity with mucosal edema in the terminal ileum. She had a recent history of dog and kitten scratches. Her *B. henselae* titer obtained during week 4 of illness was >1:8192.

Of the 32 patients, median age was 6 years (range: 2–15 years). Among the remaining 28 CSD cases observed at TCH during this 1-year period, clinical manifestations included fever and regional adenopathy (classic CSD)(20); prolonged fever without organ involvement (four); hepatosplenic granulotata (three); and encephalitis (one). Fourteen of the children were hospitalized.

**Reported by:** S Kaplan, MD, Texas Children's Hospital, Houston; J Rawlings, MPH, Texas Dept of Health. C Paddock, MD, J Childs, ScD, R Regnery, PhD, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; M Reynolds, PhD, EIS Officer, CDC.

**Editorial Note:** CSD was first described as a clinical syndrome in 1931, but it was not until 1983 that a bacterial etiology was determined, and in 1992, the specific cause of CSD was identified. CSD is a feline-associated zoonotic disease, with an estimated annual incidence in the United States of 22,000 cases (1). Although CSD occurs in persons of all ages, the highest age-specific incidence is among children aged <10 years (2). Infection with *B. henselae* is one of the most common causes of chronic lymphadenopathy among children, and in some case series up to 25% of these infections result in severe systemic illness (3). Because TCH is a referral hospital, the frequency of severe manifestations seen in this series is probably disproportionately high relative to general practice. Other serious manifestations of CSD not included in this series are granulomatous conjunctivitis, neuroretinitis, and atypical pneumonia. In immunocompromised persons, *B. henselae* infections can cause other potentially life-threatening disease manifestations (e.g., bacillary angiomatosis and peliosis).

Serologic testing is the standard method of diagnosis (4,5) and should be considered for patients who present with adenopathy, fever, malaise, and history of feline contact. A single elevated indirect immunofluorescence assay titer or enzyme immunoassay value for IgG or IgM antibodies are generally sufficient to confirm CSD, because initiation of a humoral immune response generally precedes or is concurrent with symptom onset (4). IgG levels rise during the first 2 months after onset of illness, followed by a gradual decline (4). Other diagnostic assays, including polymerase chain reaction and bacterial culture, are available on a more limited basis at reference laboratories.

Treatment recommendations for *Bartonella*-associated diseases, including CSD, depend on the specific disease presentation. For most forms of CSD, assessing the efficacy of various antibiotics is difficult because symptoms are generally self-limiting over time, even in the absence of specific therapy. Recent experience with azithromycin suggests that this antibiotic hastens resolution of adenopathy of CSD (6). For patients with more severe disease, other antibiotic regimens have been successful, including azithromycin or doxycycline in combination with rifampin or rifampin alone (7); doxycycline or erythromycin are considered the drugs of choice for bacillary angiomatosis and peliosis (8).

CSD predominantly occurs in fall and winter because of either seasonal fluctuations in zoonotic transmission between felines or temporal changes in animal behavior and reproduction. Cat fleas (*Ctenocephalides felis*) are involved in the transmission of *B. henselae* among cats, but the role of fleas or other arthropods in the transmission of this pathogen to humans is not known. Scratches, licks, and bites from domestic cats, particularly kittens, are important risk factors for infection (9). Recommendations for prevention of CSD include vigilant elimination of fleas from feline pets and avoidance of traumatic injury from cats for persons who are immunocompromised (8) or who have heart-valve abnormalities (10). Cats rarely demonstrate overt signs of illness from infection, and no vaccines are commercially available to prevent *B. henselae* infection in animals.

### References

1. Jackson LA, Perkins BA, Wenger JD. Cat-scratch disease in the United States: an analysis of three national databases. *Am J Public Health* 1993;83:1707–11.
2. Hamilton DH, Zangwill KM, Hadler JL, Carter ML. Cat-scratch disease—Connecticut, 1992–1993. *J Infect Dis* 1995;172:570–3.
3. Bass JW, Vincent JM, Person DA. The expanding spectrum of *Bartonella* infection. II. Cat-scratch disease. *Pediatr Infect Dis J* 1997;16:163–79.
4. Dalton MJ, Robinson LE, Cooper J, Regnery RL, Olson JG, Childs JE. Use of *Bartonella* antigens for serologic diagnosis of cat-scratch disease at a national referral center. *Arch Intern Med* 1995;155:1670–6.
5. Sander A, Berner R, Ruess M. Serodiagnosis of cat scratch disease: response to *Bartonella henselae* in children and a review of diagnostic methods. *Eur J Clin Microbiol Infect Dis* 2001;20:392–401.
6. Bass JW, Freitas BC, Freitas AD, et al. Prospective randomized double blind placebo-controlled evaluation of azithromycin for treatment of cat-scratch disease. *Pediatr Infect Dis J* 1998;17:447–52.
7. Arisoy ES, Correa AG, Wagner ML, Kaplan SL. Hepatosplenic cat-scratch disease in children: selected clinical features and treatment. *Clin Infect Dis* 1999;28:778–84.
8. Regnery RL, Childs JE, Koehler JE. Infections associated with *Bartonella* species in persons infected with human immunodeficiency virus. *Clin Inf Dis* 1995;21:S94–S8.
9. Zangwill KM, Hamilton DH, Perkins BA, et al. Cat-scratch disease in Connecticut. *N Engl J Med* 1993;329:8–12.
10. Fournier P, Lelievre H, Eykyn SJ, et al. Epidemiologic and clinical characteristics of *Bartonella quintana* and *Bartonella henselae* endocarditis. *Medicine* 2001;80:245–51.

### Notice to Readers

#### Acquired Rifamycin Resistance in Persons with Advanced HIV Disease Being Treated for Active Tuberculosis with Intermittent Rifamycin-Based Regimens

Rifamycin drugs (i.e., rifampin, rifabutin, and rifapentine) are essential for short-course chemotherapy in persons with active tuberculosis (TB). However, adverse drug-drug interactions complicate the concurrent use of rifamycins and

protease inhibitor drugs in persons with active TB who also are infected with human immunodeficiency virus (HIV-TB). CDC has recommended use of rifabutin in place of rifampin in multidrug regimens for the treatment of active TB in HIV-TB because rifabutin can be administered with antiretroviral treatment regimens that include protease inhibitors (1,2). These recommendations included twice-weekly intermittent therapy. Because intermittent rifabutin-based regimens had not been evaluated in clinical trials of HIV-TB, CDC's TB Trials Consortium (TBTC) initiated TBTC Study 23, a single-arm trial of twice-weekly rifabutin-based therapy for treatment of HIV-TB.

On March 6, TBTC's Data and Safety Monitoring Board (DSMB) advised CDC to suspend enrollment in Study 23 because of the occurrence of five cases of acquired rifamycin resistance among patients enrolled in the study. Although the rate of treatment failure or relapse in the study has been low (preliminary life table rate of 4.1% among the 156 patients with some time at risk), all five patients with failure/relapse had acquired rifamycin resistance. All are responding well to treatment with alternative regimens.

In the study, common features in patients with acquired rifamycin resistance were very low CD4 cell count (all <60/mm<sup>3</sup>) at TB diagnosis and receipt of twice-weekly therapy (in four of five) during the intensive phase (i.e., the first 2 months of rifamycin-based short-course therapy for TB); all five received twice-weekly therapy in the continuation phase. The low relapse rate suggests that rifabutin has excellent activity in the treatment of HIV-TB. However, a relation appears to exist between the frequency of dosing and the risk for acquired resistance. In an earlier study of treatment of HIV-TB using once-weekly rifapentine plus isoniazid, acquired rifamycin resistance was common (3). Acquired rifamycin resistance also occurred in a previous study of HIV-TB treated with twice-weekly rifampin plus isoniazid (4). It is not known whether the risk for acquired rifamycin resistance is greater with rifabutin than with rifampin. In all of these studies, patients with acquired rifamycin resistance had very low CD4 cell counts at the time of TB diagnosis. The consistency of these findings suggests that once- or twice-weekly therapy including isoniazid and a rifamycin increases the risk for acquired rifamycin resistance among TB patients with advanced HIV disease.

Additional data are needed to clarify these issues. Until data become available, CDC recommends that persons with HIV-TB and CD4 cell counts <100/mm<sup>3</sup> should not be treated with highly intermittent (i.e., once- or twice-weekly) regimens. These patients should receive daily therapy during the intensive phase, and daily or three doses a week during the

continuation phase. In this group of patients, CDC recommends directly observed therapy for both daily and three-doses-a-week regimens. The low relapse rate suggests that current recommendations concerning duration are sufficient (i.e., 6 months minimum, extended to 9 months in patients with delayed response to therapy).

CDC does not advise additional action at this time for patients with advanced HIV disease who have completed TB therapy with intermittent regimens and are clinically stable. However, clinicians should treat suspected relapse in such patients with regimens active against rifamycin-resistant TB until results of susceptibility testing are available.

For HIV-TB patients with CD4 cell counts  $<100/\text{mm}^3$  who are being treated with twice-weekly rifamycin-based therapy, CDC recommends more frequent therapy with the same agents (i.e., daily or three times a week).

#### References

1. CDC. Prevention and treatment of tuberculosis among patients infected with human immunodeficiency virus: principles of therapy and revised recommendations. *MMWR* 1998;47(No. RR-20).
2. CDC. Updated guidelines for the use of rifabutin or rifampin for the treatment and prevention of tuberculosis among HIV-infected patients taking protease inhibitors or nonnucleoside reverse transcriptase inhibitors. *MMWR* 1999;49:185-9.
3. Vernon A, Burman W, Benator D, Khan A, Bozeman L, Tuberculosis Trials Consortium. Acquired rifamycin monoresistance in patients with HIV-related tuberculosis treated with once-weekly rifapentine and isoniazid. *Lancet* 1999;353:1843-7.
4. El-Sadr W, Perlman DC, Matts JP, et al. Evaluation of an intensive intermittent-induction regimen and duration of short-course treatment for human immunodeficiency virus-related pulmonary tuberculosis. *Clin Infect Dis* 1998;26:1148-58.

#### Notice to Readers

### **National Poison Prevention Week, March 17-23, 2002**

The theme of this year's National Poison Prevention Week (March 17-23, 2002) is "Children Act Fast...So Do Poisons!" Of the 2.2 million poisonings reported to U.S. poison centers in 2000, 52.7% involved children aged  $<6$  years (1). The most common substances to which young children were exposed included cosmetics and personal care products, cleaning substances, analgesics, foreign bodies, and plants. Of the 920 poisoning-related fatalities reported in the same year, 2.2% involved children aged  $<6$  years. Of poisoning emergencies reported, 74.7% were managed safely in the home.

In January 2002, U.S. poison centers and the American Association of Poison Control Centers (AAPCC) introduced a toll-free poison center number (1-[800]-222-1222) through

which callers from the 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands can reach local poison centers. Additional information on National Poison Prevention Week, other poison prevention programs, and poison center services is available from AAPCC at <http://www.aapcc.org> or <http://www.1-800-222-1222.info> and from the Poison Prevention Week Council at <http://www.poisonprevention.org>.

#### Reference

1. Litovitz TL, Klein-Schwartz W, White S, et al. 2000 Annual Report of the American Association of Poison Control Centers Toxic Exposure Surveillance System. *Am J Emerg Med* 2001;19:337-95.

#### Notice to Readers

### **Children's Environmental Health Information Resources Satellite Broadcast**

Children's Environmental Health Information Resources, a live, 2-hour, interactive satellite program, will be broadcast Thursday, March 21, 2002, starting at 1:00 p.m. (EST).

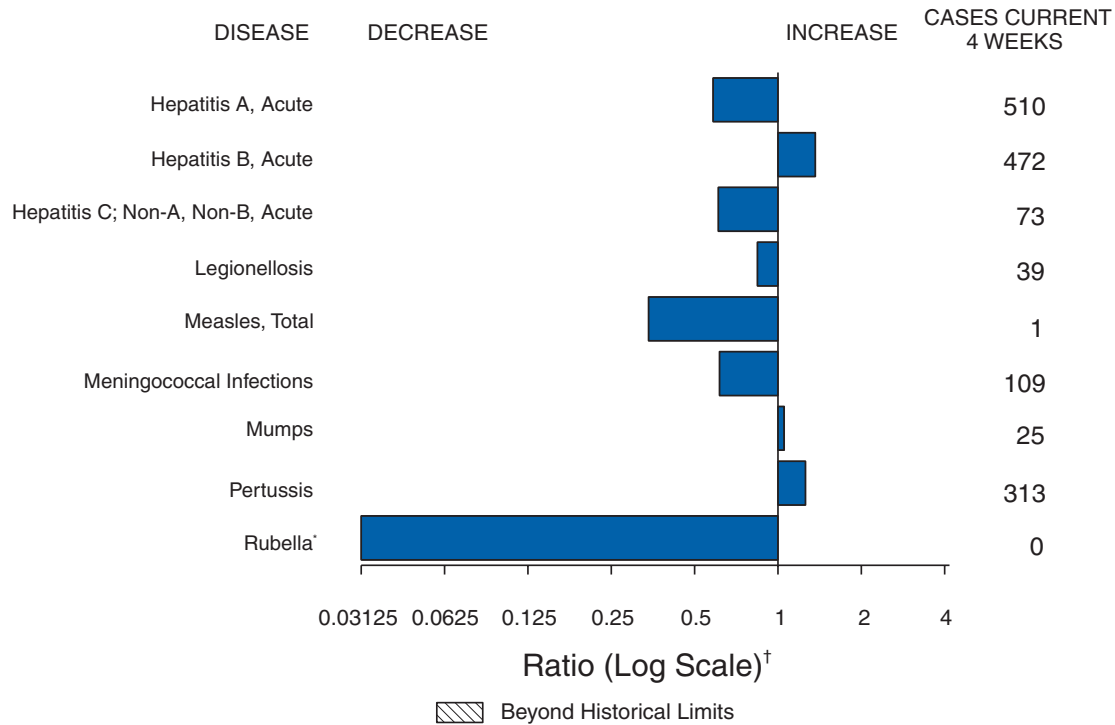
This program will demonstrate selected online resources in the context of important children's environmental health issues. Topics include pesticide exposure, environmental triggers of asthma, and lead poisoning prevention funding resources. The broadcast will feature a question-and-answer session in which participants nationwide can interact with the course instructors through toll-free telephone lines.

This broadcast is designed for physicians, nurses, physician assistants, nurse practitioners, epidemiologists, public health educators, counselors, administrators, librarians, or anyone providing environmental health-related services.

Additional information about program content, registration, course materials, and continuing education credit is available at <http://www.phppo.cdc.gov/phtn/child-env>. Information about registration also is available at CDC, telephone (800) 418-7246 or (404) 639-1292.



**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending March 9, 2002, with historical data**



\* No rubella cases were reported for the current 4-week period yielding a ratio for week 10 of zero (0).

† 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 March 9, 2002 (10th Week)\***

	Cum. 2002	Cum. 2001		Cum. 2002	Cum. 2001
Anthrax	-	-	Encephalitis: West Nile <sup>†</sup>	5	-
Botulism: foodborne	5	5	Hansen disease (leprosy) <sup>†</sup>	6	19
infant	11	18	Hantavirus pulmonary syndrome <sup>†</sup>	-	2
other (wound & unspecified)	3	-	Hemolytic uremic syndrome, postdiarrheal <sup>†</sup>	18	18
Brucellosis <sup>†</sup>	12	11	HIV infection, pediatric <sup>†§</sup>	31	30
Chancroid	9	8	Plague	-	-
Cholera	-	-	Poliomyelitis, paralytic	-	-
Cyclosporiasis <sup>†</sup>	20	32	Psittacosis <sup>†</sup>	8	2
Diphtheria	-	-	Q fever <sup>†</sup>	4	-
Ehrlichiosis: human granulocytic (HGE) <sup>†</sup>	11	16	Rabies, human	-	-
human monocytic (HME) <sup>†</sup>	1	4	Streptococcal toxic-shock syndrome <sup>†</sup>	8	19
other and unspecified	-	-	Tetanus	2	5
Encephalitis: California serogroup viral <sup>†</sup>	8	1	Toxic-shock syndrome	20	28
eastern equine <sup>†</sup>	-	-	Trichinosis	2	4
Powassan <sup>†</sup>	-	-	Tularemia <sup>†</sup>	5	3
St. Louis <sup>†</sup>	-	-	Yellow fever	-	-
western equine <sup>†</sup>	-	-			

-:No reported cases.

\* Incidence data for reporting year 2001 and 2002 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 (NCHSTP). Last update February 24, 2002.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	AIDS		Chlamydia†		Cryptosporidiosis		Escherichia coli			
	Cum. 2002 <sup>§</sup>	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	O157:H7		Shiga Toxin Positive, Serogroup non-O157	
							Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	6,546	7,142	119,586	137,698	335	306	193	177	10	7
NEW ENGLAND	213	194	4,049	4,195	11	8	12	16	-	1
Maine	1	3	236	235	-	-	-	1	-	-
N.H.	4	12	274	220	2	-	-	2	-	-
Vt.	4	9	140	114	1	3	-	1	-	-
Mass.	137	116	1,979	1,612	2	2	5	12	-	1
R.I.	23	22	509	574	3	1	2	-	-	-
Conn.	44	32	911	1,440	3	2	5	-	-	-
MID. ATLANTIC	1,403	2,616	10,142	12,973	30	44	15	18	-	-
Upstate N.Y.	75	516	1,949	1,877	7	8	14	9	-	-
N.Y. City	874	1,720	4,975	5,095	18	24	-	1	-	-
N.J.	269	214	562	1,929	-	2	1	8	-	-
Pa.	185	166	2,656	4,072	5	10	N	N	-	-
E.N. CENTRAL	671	457	18,170	26,956	102	110	65	36	-	-
Ohio	156	69	3,008	7,481	34	22	12	13	-	-
Ind.	85	44	2,652	2,840	11	10	6	6	-	-
Ill.	333	230	5,006	7,950	11	8	16	8	-	-
Mich.	66	97	5,950	5,458	20	21	13	3	-	-
Wis.	31	17	1,554	3,227	26	49	18	6	-	-
W.N. CENTRAL	105	116	5,121	7,294	23	10	24	17	3	-
Minn.	20	27	1,448	1,639	9	-	8	8	3	-
Iowa	23	15	461	590	3	3	8	2	-	-
Mo.	36	37	1,822	2,572	7	4	4	3	-	-
N. Dak.	-	1	37	190	-	-	-	-	-	-
S. Dak.	1	-	391	345	2	-	1	1	-	-
Nebr.	12	18	-	717	-	3	-	-	-	-
Kans.	13	18	962	1,241	2	-	3	3	-	-
S. ATLANTIC	2,041	1,634	24,038	26,776	78	54	30	24	5	4
Del.	46	37	470	577	4	-	1	-	-	-
Md.	255	129	2,771	2,801	4	5	-	-	-	-
D.C.	87	165	623	575	1	3	-	-	-	-
Va.	160	175	2,853	3,237	1	3	2	3	-	1
W. Va.	13	10	430	429	1	-	-	1	-	-
N.C.	155	77	3,728	3,832	9	8	6	13	-	-
S.C.	148	159	2,554	3,798	1	-	-	1	-	-
Ga.	476	187	4,686	5,756	41	23	17	3	4	3
Fla.	701	695	5,923	5,771	20	12	4	3	1	-
E.S. CENTRAL	278	336	9,639	9,293	17	4	3	7	-	-
Ky.	31	51	1,574	1,619	1	-	-	-	-	-
Tenn.	133	110	3,145	2,948	5	-	3	4	-	-
Ala.	57	94	3,145	2,404	10	2	-	3	-	-
Miss.	57	81	1,775	2,322	1	2	-	-	-	-
W.S. CENTRAL	752	590	19,892	20,606	4	6	-	20	-	-
Ark.	35	45	1,191	1,685	2	2	-	-	-	-
La.	192	175	3,536	3,371	1	2	-	-	-	-
Okla.	35	35	1,675	1,880	1	1	-	3	-	-
Tex.	490	335	13,490	13,670	-	1	-	17	-	-
MOUNTAIN	208	239	7,419	8,029	19	18	15	10	1	1
Mont.	4	3	442	285	-	-	2	-	-	-
Idaho	4	5	411	390	5	2	1	2	-	-
Wyo.	1	-	159	139	-	-	-	-	1	-
Colo.	35	53	914	2,460	6	10	2	4	-	1
N. Mex.	7	18	1,055	1,228	-	3	2	-	-	-
Ariz.	92	81	2,268	2,328	4	1	3	4	-	-
Utah	13	21	1,131	166	2	2	3	-	-	-
Nev.	52	58	1,039	1,033	2	-	2	-	-	-
PACIFIC	875	960	21,116	21,576	51	52	29	29	1	1
Wash.	86	113	2,632	2,500	10	U	5	3	-	-
Oreg.	92	38	1,220	1,147	7	6	7	1	1	1
Calif.	686	798	16,042	16,667	34	46	16	21	-	-
Alaska	2	2	570	465	-	-	-	-	-	-
Hawaii	9	9	652	797	-	-	1	4	-	-
Guam	1	4	-	-	-	-	N	N	-	-
P.R.	166	156	-	815	-	-	-	-	-	-
V.I.	46	1	-	33	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	25	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 year 2001 and 2002 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 3, 2002.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\*

Reporting Area	<i>Escherichia coli</i>		Giardiasis	Gonorrhea		<i>Haemophilus influenzae</i> , Invasive			
	Shiga Toxin Positive, Not Serogrouped					All Ages, All Serotypes		Age <5 Years	
	Cum. 2002	Cum. 2001						Serotype B	
						Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	1	2	2,074	53,401	65,033	304	309	1	4
NEW ENGLAND	-	-	198	1,229	1,146	26	9	-	1
Maine	-	-	30	13	28	1	-	-	-
N.H.	-	-	11	20	23	4	-	-	-
Vt.	-	-	18	21	18	2	-	-	-
Mass.	-	-	67	692	471	13	9	-	1
R.I.	-	-	18	174	149	-	-	-	-
Conn.	-	-	54	309	457	6	-	-	-
MID. ATLANTIC	-	-	424	4,722	6,564	50	49	-	-
Upstate N.Y.	-	-	147	1,047	1,274	27	8	-	-
N.Y. City	-	-	186	2,151	2,241	16	15	-	-
N.J.	-	-	-	382	919	4	20	-	-
Pa.	-	-	91	1,142	2,130	3	6	-	-
E.N. CENTRAL	1	1	441	9,422	13,679	35	49	-	-
Ohio	1	1	167	1,730	3,952	24	18	-	-
Ind.	-	-	-	1,214	1,257	6	5	-	-
Ill.	-	-	72	2,994	4,203	-	17	-	-
Mich.	-	-	145	2,998	3,083	2	3	-	-
Wis.	-	-	57	486	1,184	3	6	-	-
W.N. CENTRAL	-	-	208	2,422	3,152	9	4	-	-
Minn.	-	-	68	466	545	6	-	-	-
Iowa	-	-	45	134	185	1	-	-	-
Mo.	-	-	62	1,336	1,533	2	4	-	-
N. Dak.	-	-	-	-	8	-	-	-	-
S. Dak.	-	-	10	50	40	-	-	-	-
Nebr.	-	-	-	-	270	-	-	-	-
Kans.	-	-	23	436	571	-	-	-	-
S. ATLANTIC	-	-	354	14,248	17,196	83	103	-	1
Del.	-	-	10	298	314	-	-	-	-
Md.	-	-	19	1,465	1,651	16	27	-	-
D.C.	-	-	11	524	582	-	-	-	-
Va.	-	-	16	1,735	1,844	4	8	-	-
W. Va.	-	-	3	179	87	1	3	-	1
N.C.	-	-	-	2,768	3,180	10	16	-	-
S.C.	-	-	3	1,508	3,114	2	1	-	-
Ga.	-	-	115	2,616	3,167	29	25	-	-
Fla.	-	-	177	3,155	3,257	21	23	-	-
E.S. CENTRAL	-	1	49	5,524	6,173	12	15	1	-
Ky.	-	1	-	611	679	1	-	-	-
Tenn.	-	-	19	1,776	2,041	6	8	-	-
Ala.	-	-	30	2,060	2,005	5	6	1	-
Miss.	-	-	-	1,077	1,448	-	1	-	-
W.S. CENTRAL	-	-	12	9,139	10,268	15	7	-	-
Ark.	-	-	12	771	1,095	1	-	-	-
La.	-	-	-	2,294	2,353	-	1	-	-
Okla.	-	-	-	718	936	14	6	-	-
Tex.	-	-	-	5,356	5,884	-	-	-	-
MOUNTAIN	-	-	214	1,960	1,922	43	52	-	1
Mont.	-	-	9	26	15	-	-	-	-
Idaho	-	-	5	18	18	1	1	-	-
Wyo.	-	-	1	14	13	1	-	-	-
Colo.	-	-	73	669	688	10	9	-	-
N. Mex.	-	-	23	210	209	9	9	-	-
Ariz.	-	-	42	612	610	17	32	-	1
Utah	-	-	33	86	18	3	-	-	-
Nev.	-	-	28	325	351	2	1	-	-
PACIFIC	-	-	174	4,735	4,933	31	21	-	1
Wash.	-	-	38	592	548	-	-	-	-
Oreg.	-	-	93	178	201	22	-	-	-
Calif.	-	-	-	3,755	4,000	-	15	-	1
Alaska	-	-	17	120	52	1	1	-	-
Hawaii	-	-	26	90	132	8	5	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	225	-	-	-	-
V.I.	-	-	-	-	5	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	3	U	-	U	-	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	<i>Haemophilus influenzae</i> , Invasive				Hepatitis (Viral, Acute), By Type					
	Age <5 Years				A		B		C; Non-A, Non-B	
	Non-Serotype B		Unknown Serotype		Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001						
UNITED STATES	52	60	2	5	1,501	2,522	988	1,179	250	1,048
NEW ENGLAND	5	4	-	-	76	89	28	25	4	14
Maine	-	-	-	-	3	1	-	1	-	-
N.H.	-	-	-	-	3	2	3	3	-	-
Vt.	-	-	-	-	-	2	2	1	4	3
Mass.	3	4	-	-	37	34	22	4	-	11
R.I.	-	-	-	-	4	3	1	4	-	-
Conn.	2	-	-	-	29	47	-	12	-	-
MID. ATLANTIC	6	8	-	-	167	256	196	274	63	504
Upstate N.Y.	3	-	-	-	32	31	17	13	13	10
N.Y. City	3	3	-	-	79	83	127	125	-	-
N.J.	-	1	-	-	13	107	22	92	48	481
Pa.	-	4	-	-	43	35	30	44	2	13
E.N. CENTRAL	4	10	-	-	166	647	143	118	19	65
Ohio	3	2	-	-	54	52	21	25	1	4
Ind.	1	-	-	-	9	8	4	3	-	-
Ill.	-	6	-	-	46	485	8	7	1	20
Mich.	-	-	-	-	43	87	110	83	17	41
Wis.	-	2	-	-	14	15	-	-	-	-
W.N. CENTRAL	1	-	1	1	61	107	38	37	82	248
Minn.	1	-	-	-	4	3	2	1	-	-
Iowa	-	-	-	-	19	9	5	5	1	-
Mo.	-	-	1	1	12	34	26	23	81	246
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	2	1	-	1	-	-
Nebr.	-	-	-	-	-	17	-	4	-	1
Kans.	-	-	-	-	24	43	5	3	-	1
S. ATLANTIC	14	17	-	2	446	346	292	266	20	17
Del.	-	-	-	-	2	1	1	4	3	1
Md.	-	1	-	-	81	48	25	24	3	4
D.C.	-	-	-	-	20	7	2	2	-	-
Va.	1	3	-	-	9	27	20	16	-	-
W. Va.	-	-	-	-	3	-	6	1	-	-
N.C.	1	1	-	2	68	23	36	49	3	4
S.C.	-	-	-	-	11	9	5	-	1	2
Ga.	6	6	-	-	61	137	133	123	1	1
Fla.	6	6	-	-	191	94	64	47	9	5
E.S. CENTRAL	4	2	-	1	35	57	30	83	24	16
Ky.	-	-	-	-	13	6	7	13	1	1
Tenn.	2	1	-	-	-	30	-	26	7	12
Ala.	2	-	-	1	7	19	12	24	2	-
Miss.	-	1	-	-	15	2	11	20	14	3
W.S. CENTRAL	4	1	-	-	22	441	48	54	1	148
Ark.	-	-	-	-	9	16	23	17	-	1
La.	-	-	-	-	3	19	-	21	1	65
Okla.	4	1	-	-	9	35	1	16	-	1
Tex.	-	-	-	-	1	371	24	-	-	81
MOUNTAIN	10	7	1	1	144	181	77	106	16	12
Mont.	-	-	-	-	5	4	1	1	-	-
Idaho	-	-	-	-	-	22	-	4	-	1
Wyo.	-	-	-	-	2	1	5	-	4	2
Colo.	1	-	-	-	25	23	17	20	9	2
N. Mex.	4	3	-	1	4	5	9	32	-	5
Ariz.	4	4	-	-	80	87	34	34	-	-
Utah	-	-	-	-	11	13	5	4	-	-
Nev.	1	-	1	-	17	26	6	11	3	2
PACIFIC	4	11	-	-	384	398	136	216	21	24
Wash.	-	-	-	-	19	9	9	14	2	4
Oreg.	3	-	-	-	27	3	25	4	6	1
Calif.	-	10	-	-	335	375	101	193	13	19
Alaska	1	-	-	-	3	10	1	1	-	-
Hawaii	-	1	-	-	-	1	-	4	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	1	18	-	35	-	1
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	4	U	-	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).



**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	Legionellosis		Listeriosis		Lyme Disease		Malaria		Measles Total	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	118	138	57	76	625	818	168	222	1	37†
NEW ENGLAND	5	2	7	7	30	126	9	19	-	4
Maine	-	-	1	-	-	-	1	-	-	-
N.H.	1	-	2	-	10	2	4	-	-	-
Vt.	-	1	-	-	1	1	-	-	-	1
Mass.	2	1	1	5	16	45	-	9	-	3
R.I.	-	-	-	-	3	-	-	-	-	-
Conn.	2	-	3	2	-	78	4	10	-	-
MID. ATLANTIC	17	30	8	10	470	570	35	53	-	2
Upstate N.Y.	6	5	3	3	331	149	7	5	-	1
N.Y. City	-	3	2	3	20	6	18	29	-	-
N.J.	1	4	-	2	23	107	6	12	-	-
Pa.	10	18	3	2	96	308	4	7	-	1
E.N. CENTRAL	44	45	10	11	11	24	14	39	-	2
Ohio	28	17	6	1	11	4	7	4	-	-
Ind.	3	3	-	-	-	-	-	7	-	-
Ill.	-	8	-	3	-	3	-	10	-	2
Mich.	13	11	2	5	-	-	6	11	-	-
Wis.	-	6	2	2	U	17	1	7	-	-
W.N. CENTRAL	4	10	1	2	9	6	16	5	-	2
Minn.	1	1	-	-	2	4	7	1	-	-
Iowa	-	2	-	-	3	-	2	1	-	-
Mo.	2	4	1	1	4	2	4	3	-	2
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	1	-	-	-	-	-	-	-	-	-
Nebr.	-	2	-	-	-	-	-	-	-	-
Kans.	-	1	-	1	-	-	3	-	-	-
S. ATLANTIC	27	18	8	8	75	61	53	48	1	3
Del.	3	-	-	-	5	4	1	1	-	-
Md.	5	6	1	1	47	51	19	16	-	3
D.C.	-	1	-	-	3	2	2	4	-	-
Va.	2	2	-	1	-	2	3	8	-	-
W. Va.	N	N	-	1	-	-	-	-	-	-
N.C.	3	2	1	-	5	2	5	1	-	-
S.C.	2	-	2	-	1	-	2	1	-	-
Ga.	3	2	3	2	-	-	11	10	-	-
Fla.	9	5	1	3	14	-	10	7	1	-
E.S. CENTRAL	2	8	3	4	1	2	3	8	-	-
Ky.	1	2	-	1	-	2	-	2	-	-
Tenn.	-	2	2	2	1	-	1	3	-	-
Ala.	1	2	1	1	-	-	1	3	-	-
Miss.	-	2	-	-	-	-	1	-	-	-
W.S. CENTRAL	-	2	2	9	2	16	2	3	-	1
Ark.	-	-	-	1	-	-	-	-	-	-
La.	-	1	-	-	1	1	2	1	-	-
Okla.	-	-	2	-	-	-	-	1	-	-
Tex.	-	1	-	8	1	15	-	1	-	1
MOUNTAIN	11	5	5	5	5	-	7	12	-	1
Mont.	1	-	-	-	-	-	-	1	-	-
Idaho	2	-	-	-	-	-	-	1	-	1
Wyo.	3	-	-	-	-	-	-	-	-	-
Colo.	2	3	1	1	2	-	2	6	-	-
N.Mex.	1	-	1	1	1	-	-	1	-	-
Ariz.	-	1	3	1	2	-	2	1	-	-
Utah	2	-	1	-	-	-	2	1	-	-
Nev.	-	1	-	2	-	-	1	1	-	-
PACIFIC	8	18	13	20	22	13	29	35	-	22
Wash.	-	4	1	-	-	-	1	1	-	15
Oreg.	N	N	1	2	1	1	-	2	-	2
Calif.	8	14	11	18	21	12	25	29	-	3
Alaska	-	-	-	-	-	-	1	1	-	-
Hawaii	-	-	-	-	N	N	2	2	-	2
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	2	-	-	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 year 2001 and 2002 are provisional and cumulative (year-to-date).

† Of 37 cases reported, 26 were indigenous and 11 were imported from another country.

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	Meningococcal Disease		Mumps		Pertussis		Rabies, Animal	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	324	713	45	29	779	1,048	645	1,066
NEW ENGLAND	28	41	2	-	137	135	99	79
Maine	2	-	-	-	3	-	5	12
N.H.	3	3	2	-	1	14	1	1
Vt.	3	3	-	-	23	17	21	19
Mass.	17	24	-	-	110	99	28	20
R.I.	2	-	-	-	-	-	4	8
Conn.	1	11	-	-	-	5	40	19
MID. ATLANTIC	32	81	6	2	60	76	103	155
Upstate N.Y.	12	16	2	1	50	49	82	89
N.Y. City	4	15	1	1	5	7	5	1
N.J.	5	32	1	-	-	-	-	22
Pa.	11	18	2	-	5	20	16	43
E.N. CENTRAL	48	74	6	2	109	138	2	8
Ohio	23	22	3	1	76	95	1	-
Ind.	9	1	-	-	8	3	1	1
Ill.	-	18	1	1	11	8	-	-
Mich.	11	21	2	-	13	14	-	3
Wis.	5	12	-	-	1	18	-	4
W.N. CENTRAL	24	38	4	1	113	32	44	56
Minn.	4	-	-	-	26	-	5	12
Iowa	5	11	-	-	43	5	5	12
Mo.	11	16	2	-	28	17	1	3
N. Dak.	-	-	-	-	-	-	-	8
S. Dak.	2	2	-	-	5	2	16	10
Nebr.	-	2	-	-	-	-	-	-
Kans.	2	7	2	1	11	8	17	11
S. ATLANTIC	60	118	6	2	64	41	296	330
Del.	1	-	-	-	1	-	3	-
Md.	1	16	1	1	11	10	38	67
D.C.	-	-	-	-	-	-	-	-
Va.	5	12	1	1	15	6	88	64
W. Va.	-	3	-	-	1	1	22	21
N.C.	8	26	1	-	10	10	87	95
S.C.	10	6	1	-	18	5	11	9
Ga.	9	22	2	-	-	6	47	41
Fla.	26	33	-	-	8	3	-	33
E.S. CENTRAL	17	45	4	-	27	25	22	111
Ky.	2	7	1	-	8	8	3	2
Tenn.	5	15	1	-	18	11	14	106
Ala.	9	17	1	-	1	3	5	3
Miss.	1	6	1	-	-	3	-	-
W.S. CENTRAL	16	158	3	1	70	4	21	216
Ark.	7	7	-	-	5	2	-	-
La.	2	28	-	1	-	-	-	2
Okla.	6	11	-	-	7	1	21	12
Tex.	1	112	3	-	58	1	-	202
MOUNTAIN	31	30	2	4	114	492	23	50
Mont.	1	-	-	-	2	3	-	5
Idaho	-	3	1	-	12	111	-	-
Wyo.	-	-	-	1	1	-	1	15
Colo.	10	11	-	1	66	113	-	-
N. Mex.	-	5	-	2	18	11	-	1
Ariz.	10	6	-	-	9	249	22	29
Utah	4	2	1	-	5	5	-	-
Nev.	6	3	-	-	1	-	-	-
PACIFIC	68	128	12	17	85	105	35	61
Wash.	11	20	-	-	53	12	-	-
Oreg.	15	2	N	N	12	2	-	-
Calif.	39	101	12	10	18	83	17	37
Alaska	1	1	-	-	2	-	18	24
Hawaii	2	4	-	7	-	8	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	1	13	20
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	Rocky Mountain Spotted Fever		Rubella				Salmonellosis	
	Cum. 2002	Cum. 2001	Rubella		Congenital Rubella		Cum. 2002	Cum. 2001
			Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001		
UNITED STATES	52	14	-	1	-	-	4,157	4,565
NEW ENGLAND	-	-	-	-	-	-	235	283
Maine	-	-	-	-	-	-	39	11
N.H.	-	-	-	-	-	-	7	17
Vt.	-	-	-	-	-	-	9	15
Mass.	-	-	-	-	-	-	120	194
R.I.	-	-	-	-	-	-	5	11
Conn.	-	-	-	-	-	-	55	35
MID. ATLANTIC	4	1	-	1	-	-	424	726
Upstate N.Y.	-	-	-	1	-	-	110	105
N.Y. City	-	-	-	-	-	-	176	168
N.J.	-	-	-	-	-	-	48	275
Pa.	4	1	-	-	-	-	90	178
E.N. CENTRAL	3	2	-	-	-	-	714	607
Ohio	3	-	-	-	-	-	256	173
Ind.	-	1	-	-	-	-	44	39
Ill.	-	1	-	-	-	-	237	189
Mich.	-	-	-	-	-	-	115	111
Wis.	-	-	-	-	-	-	62	95
W.N. CENTRAL	4	3	-	-	-	-	318	249
Minn.	-	-	-	-	-	-	48	85
Iowa	-	-	-	-	-	-	53	29
Mo.	4	3	-	-	-	-	162	62
N. Dak.	-	-	-	-	-	-	-	1
S. Dak.	-	-	-	-	-	-	17	18
Nebr.	-	-	-	-	-	-	-	17
Kans.	-	-	-	-	-	-	38	37
S. ATLANTIC	39	5	-	-	-	-	1,170	1,035
Del.	-	-	-	-	-	-	9	13
Md.	8	1	-	-	-	-	99	115
D.C.	-	-	-	-	-	-	14	15
Va.	1	-	-	-	-	-	81	99
W. Va.	-	-	-	-	-	-	5	3
N.C.	26	4	-	-	-	-	182	186
S.C.	3	-	-	-	-	-	63	83
Ga.	-	-	-	-	-	-	338	312
Fla.	1	-	-	-	-	-	379	209
E.S. CENTRAL	2	2	-	-	-	-	234	256
Ky.	-	-	-	-	-	-	30	43
Tenn.	2	1	-	-	-	-	79	62
Ala.	-	1	-	-	-	-	85	101
Miss.	-	-	-	-	-	-	40	50
W.S. CENTRAL	-	-	-	-	-	-	94	489
Ark.	-	-	-	-	-	-	45	34
La.	-	-	-	-	-	-	1	88
Okla.	-	-	-	-	-	-	46	20
Tex.	-	-	-	-	-	-	2	347
MOUNTAIN	-	1	-	-	-	-	310	262
Mont.	-	-	-	-	-	-	4	8
Idaho	-	1	-	-	-	-	17	10
Wyo.	-	-	-	-	-	-	8	11
Colo.	-	-	-	-	-	-	88	70
N. Mex.	-	-	-	-	-	-	45	30
Ariz.	-	-	-	-	-	-	83	90
Utah	-	-	-	-	-	-	27	28
Nev.	-	-	-	-	-	-	38	15
PACIFIC	-	-	-	-	-	-	658	658
Wash.	-	-	-	-	-	-	26	44
Oreg.	-	-	-	-	-	-	53	10
Calif.	-	-	-	-	-	-	529	528
Alaska	-	-	-	-	-	-	12	8
Hawaii	-	-	-	-	-	-	38	68
Guam	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	9	146
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	1	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	Shigellosis		Streptococcal Disease, Invasive, Group A		<i>Streptococcus pneumoniae</i> , Drug Resistant, Invasive		<i>Streptococcus pneumoniae</i> , Invasive (<5 Years)	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	2,086	2,374	692	806	448	638	43	26
NEW ENGLAND	42	32	29	31	1	2	9	1
Maine	2	-	6	5	-	-	-	-
N.H.	2	-	12	4	-	-	-	-
Vt.	-	-	1	5	1	2	9	1
Mass.	34	26	10	17	-	-	-	-
R.I.	-	-	-	-	-	-	-	-
Conn.	4	6	-	-	-	-	-	-
MID. ATLANTIC	98	313	116	151	21	35	11	17
Upstate N.Y.	20	80	60	49	21	34	11	17
N.Y. City	60	90	30	56	U	U	-	-
N.J.	-	86	17	40	-	-	-	-
Pa.	18	57	9	6	-	1	-	-
E. N. CENTRAL	288	350	103	196	25	37	9	8
Ohio	167	77	39	49	-	-	1	-
Ind.	11	51	5	-	25	37	8	8
Ill.	62	119	1	69	-	-	-	-
Mich.	32	66	58	65	-	-	-	-
Wis.	16	37	-	13	-	-	-	-
W. N. CENTRAL	178	254	31	53	59	8	4	-
Minn.	22	113	4	-	24	-	4	-
Iowa	13	35	-	-	-	-	-	-
Mo.	30	56	14	25	1	1	-	-
N. Dak.	-	8	-	2	-	1	-	-
S. Dak.	95	3	3	2	1	-	-	-
Nebr.	-	14	-	5	-	3	-	-
Kans.	18	25	10	19	33	3	-	-
S. ATLANTIC	884	331	158	144	290	433	10	-
Del.	3	2	-	1	3	-	-	-
Md.	99	21	19	12	-	-	-	-
D.C.	7	9	3	-	4	2	8	-
Va.	188	15	11	32	-	-	-	-
W. Va.	2	3	-	3	6	10	-	-
N.C.	49	82	38	22	-	-	-	-
S.C.	10	14	8	1	41	59	2	-
Ga.	373	89	49	42	100	155	-	-
Fla.	153	96	30	31	136	207	-	-
E. S. CENTRAL	131	164	27	22	38	86	-	-
Ky.	29	56	4	9	3	9	-	-
Tenn.	14	19	23	13	35	76	-	-
Ala.	50	36	-	-	-	1	-	-
Miss.	38	53	-	-	-	-	-	-
W. S. CENTRAL	66	417	12	100	2	26	-	-
Ark.	23	64	-	-	2	8	-	-
La.	4	44	-	-	-	18	-	-
Okla.	38	1	11	14	-	-	-	-
Tex.	1	308	1	86	-	-	-	-
MOUNTAIN	83	130	100	81	12	10	-	-
Mont.	-	-	-	-	-	-	-	-
Idaho	2	5	1	1	-	-	-	-
Wyo.	1	-	3	1	6	-	-	-
Colo.	21	27	65	49	-	-	-	-
N. Mex.	11	27	31	24	6	10	-	-
Ariz.	34	59	-	5	-	-	-	-
Utah	7	4	-	1	-	-	-	-
Nev.	7	8	-	-	-	-	-	-
PACIFIC	316	383	116	28	-	1	-	-
Wash.	11	37	16	-	-	-	-	-
Oreg.	27	3	-	-	-	-	-	-
Calif.	265	334	85	16	-	-	-	-
Alaska	1	1	-	-	-	-	-	-
Hawaii	12	8	15	12	-	1	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	-	6	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	-	-	U	U
C.N.M.I.	-	U	-	U	-	-	-	U

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

\*Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 9, 2002, and March 10, 2001 (10th Week)\***

Reporting Area	Syphilis				Tuberculosis		Typhoid Fever	
	Primary & Secondary		Congenital†		Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001				
UNITED STATES	936	1,000	2	88	1,065	1,667	36	57
NEW ENGLAND	13	4	-	-	47	59	3	4
Maine	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	1	4	-	-
Vt.	-	-	-	-	-	1	-	-
Mass.	8	1	-	-	18	30	2	4
R.I.	2	-	-	-	7	5	-	-
Conn.	3	3	-	-	21	19	1	-
MID. ATLANTIC	78	80	-	13	234	271	6	21
Upstate N.Y.	5	3	-	9	23	35	1	4
N.Y. City	47	48	-	-	176	123	5	2
N.J.	22	11	-	4	-	71	-	15
Pa.	4	18	-	-	35	42	-	-
E.N. CENTRAL	196	162	-	17	164	159	7	3
Ohio	35	13	-	1	32	32	3	1
Ind.	9	29	-	2	17	15	1	-
Ill.	50	57	-	12	79	71	-	1
Mich.	99	57	-	2	30	26	2	1
Wis.	3	6	-	-	6	15	1	-
W.N. CENTRAL	5	20	-	1	68	57	-	4
Minn.	2	11	-	-	34	32	-	-
Iowa	-	-	-	-	-	9	-	-
Mo.	3	5	-	-	29	10	-	4
N. Dak.	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	5	1	-	-
Nebr.	-	-	-	-	-	5	-	-
Kans.	-	4	-	1	-	-	-	-
S. ATLANTIC	228	357	-	24	184	288	8	10
Del.	3	3	-	-	-	-	-	-
Md.	16	55	-	1	17	20	-	3
D.C.	10	7	-	1	-	16	-	-
Va.	7	28	-	-	7	25	-	1
W. Va.	-	-	-	-	6	7	-	-
N.C.	66	86	-	2	41	21	-	1
S.C.	25	52	-	7	18	21	-	-
Ga.	30	43	-	5	25	62	5	3
Fla.	71	83	-	8	70	116	3	2
E. S. CENTRAL	125	111	-	5	93	107	-	-
Ky.	12	9	-	-	17	14	-	-
Tenn.	48	59	-	2	32	23	-	-
Ala.	49	23	-	2	34	50	-	-
Miss.	16	20	-	1	10	20	-	-
W.S. CENTRAL	139	139	2	15	15	284	-	4
Ark.	6	11	-	2	4	21	-	-
La.	26	24	-	-	-	-	-	-
Okla.	13	16	-	1	11	6	-	-
Tex.	94	88	2	12	-	257	-	4
MOUNTAIN	42	37	-	3	32	67	3	2
Mont.	-	-	-	-	-	-	-	1
Idaho	1	-	-	-	-	3	-	-
Wyo.	-	-	-	-	1	-	-	-
Colo.	-	3	-	-	5	17	2	-
N. Mex.	6	4	-	-	7	8	-	-
Ariz.	33	25	-	3	12	20	-	-
Utah	2	4	-	-	5	3	1	-
Nev.	-	1	-	-	2	16	-	1
PACIFIC	110	90	-	10	228	375	9	9
Wash.	11	13	-	-	38	31	-	-
Oreg.	4	2	-	-	12	12	2	-
Calif.	94	72	-	10	142	296	7	8
Alaska	-	-	-	-	16	9	-	-
Hawaii	1	3	-	-	20	27	-	1
Guam	-	-	-	-	-	-	-	-
P.R.	-	71	-	1	-	11	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	11	U	-	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

† Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE III. Deaths in 122 U.S. cities,\* week ending March 9, 2002 (10th Week)

Reporting Area	All Causes, By Age (Years)						P&† Total	Reporting Area	All Causes, By Age (Years)						P&† Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	436	325	65	27	10	9	63	S. ATLANTIC	1,474	958	310	129	40	36	130
Boston, Mass.	154	109	23	10	5	7	24	Atlanta, Ga.	170	94	41	21	2	12	-
Bridgeport, Conn.	28	20	4	2	2	-	2	Baltimore, Md.	305	174	68	43	9	11	53
Cambridge, Mass.	22	16	4	2	-	-	-	Charlotte, N.C.	124	93	24	3	3	1	18
Fall River, Mass.	35	31	3	1	-	-	6	Jacksonville, Fla.	150	104	33	8	4	1	21
Hartford, Conn.	U	U	U	U	U	U	U	Miami, Fla.	116	83	22	9	1	1	5
Lowell, Mass.	21	15	2	3	1	-	3	Norfolk, Va.	63	42	9	3	7	2	-
Lynn, Mass.	12	11	1	-	-	-	1	Richmond, Va.	76	45	20	7	2	2	3
New Bedford, Mass.	27	23	4	-	-	-	5	Savannah, Ga.	48	36	6	3	1	2	3
New Haven, Conn.	26	19	3	3	1	-	6	St. Petersburg, Fla.	84	60	10	8	3	3	5
Providence, R.I.	U	U	U	U	U	U	U	Tampa, Fla.	229	154	48	18	7	1	20
Somerville, Mass.	4	4	-	-	-	-	1	Washington, D.C.	99	65	27	6	1	-	2
Springfield, Mass.	35	24	6	3	-	2	4	Wilmington, Del.	10	8	2	-	-	-	-
Waterbury, Conn.	16	9	4	3	-	-	2	E.S. CENTRAL	793	569	146	46	19	11	77
Worcester, Mass.	56	44	11	-	1	-	9	Birmingham, Ala.	223	158	45	13	6	-	23
MID. ATLANTIC	2,291	1,598	461	161	36	34	154	Chattanooga, Tenn.	83	63	12	2	4	1	7
Albany, N.Y.	60	43	10	5	2	-	4	Knoxville, Tenn.	73	54	13	5	-	1	3
Allentown, Pa.	21	20	1	-	-	-	2	Lexington, Ky.	79	51	16	9	2	1	8
Buffalo, N.Y.	116	84	22	9	1	-	26	Memphis, Tenn.	U	U	U	U	U	U	U
Camden, N.J.	35	24	5	4	-	2	6	Mobile, Ala.	132	98	25	4	2	3	7
Elizabeth, N.J.	28	19	4	5	-	-	-	Montgomery, Ala.	42	35	4	2	-	1	7
Erie, Pa.	55	42	9	2	1	1	1	Nashville, Tenn.	161	110	31	11	5	4	22
Jersey City, N.J.	44	32	8	4	-	-	-	W.S. CENTRAL	995	703	196	60	18	17	99
New York City, N.Y.	1,195	824	265	74	14	18	50	Austin, Tex.	96	64	22	8	1	1	15
Newark, N.J.	U	U	U	U	U	U	U	Baton Rouge, La.	105	77	20	5	1	2	3
Paterson, N.J.	33	23	7	2	1	-	5	Corpus Christi, Tex.	55	36	12	2	2	3	7
Philadelphia, Pa.	367	223	88	39	10	6	15	Dallas, Tex.	U	U	U	U	U	U	U
Pittsburgh, Pa.‡	33	27	5	1	-	-	4	El Paso, Tex.	85	59	16	8	1	1	9
Reading, Pa.	18	16	1	1	-	-	3	Ft. Worth, Tex.	130	93	25	5	5	2	15
Rochester, N.Y.	U	U	U	U	U	U	U	Houston, Tex.	U	U	U	U	U	U	U
Schenectady, N.Y.	31	25	5	1	-	-	6	Little Rock, Ark.	81	55	16	7	2	1	4
Scranton, Pa.	45	31	6	6	1	1	5	New Orleans, La.	38	27	6	1	2	1	-
Syracuse, N.Y.	161	127	16	6	6	6	24	San Antonio, Tex.	261	193	48	14	3	3	24
Trenton, N.J.	28	18	8	2	-	-	1	Shreveport, La.	25	20	3	2	-	-	6
Utica, N.Y.	21	20	1	-	-	-	2	Tulsa, Okla.	119	79	28	8	1	3	16
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	1,084	771	193	69	26	24	97
E.N. CENTRAL	2,204	1,524	451	153	37	39	175	Albuquerque, N.M.	138	99	16	15	4	4	12
Akron, Ohio	50	40	7	3	-	-	7	Boise, Idaho	44	36	5	3	-	-	2
Canton, Ohio	35	34	1	-	-	-	8	Colo. Springs, Colo.	81	59	11	7	3	1	4
Chicago, Ill.	402	235	99	47	9	12	29	Denver, Colo.	118	81	24	7	2	4	11
Cincinnati, Ohio	U	U	U	U	U	U	U	Las Vegas, Nev.	267	182	60	16	5	4	28
Cleveland, Ohio	134	89	33	6	1	5	6	Ogden, Utah	36	25	5	3	1	2	3
Columbus, Ohio	234	159	50	15	5	5	20	Phoenix, Ariz.	49	25	13	7	3	-	-
Dayton, Ohio	158	117	29	10	1	1	15	Pueblo, Colo.	20	13	6	-	1	-	3
Detroit, Mich.	222	141	52	17	5	7	21	Salt Lake City, Utah	126	89	21	10	5	1	15
Evansville, Ind.	59	40	15	3	1	-	5	Tucson, Ariz.	205	162	32	1	2	8	19
Fort Wayne, Ind.	74	57	15	1	-	1	7	PACIFIC	1,829	1,329	331	104	33	32	184
Gary, Ind.	25	17	7	1	-	-	1	Berkeley, Calif.	18	14	1	1	-	2	1
Grand Rapids, Mich.	69	51	6	8	3	1	3	Fresno, Calif.	165	125	30	6	2	2	13
Indianapolis, Ind.	222	156	47	16	2	1	15	Glendale, Calif.	11	8	2	1	-	-	2
Lansing, Mich.	43	31	8	4	-	-	10	Honolulu, Hawaii	95	73	15	5	1	1	12
Milwaukee, Wis.	129	90	29	5	2	3	8	Long Beach, Calif.	62	46	9	4	-	3	9
Peoria, Ill.	62	51	10	1	-	-	4	Los Angeles, Calif.	280	176	68	22	10	4	18
Rockford, Ill.	59	44	10	3	1	1	8	Pasadena, Calif.	33	26	6	1	-	-	6
South Bend, Ind.	69	48	12	8	-	1	4	Portland, Oreg.	187	128	39	11	5	4	15
Toledo, Ohio	81	63	12	2	3	1	3	Sacramento, Calif.	230	183	32	10	2	3	21
Youngstown, Ohio	77	61	9	3	4	-	1	San Diego, Calif.	196	137	39	12	4	4	25
W.N. CENTRAL	729	510	137	44	17	21	62	San Francisco, Calif.	U	U	U	U	U	U	U
Des Moines, Iowa	63	45	14	2	-	2	5	San Jose, Calif.	186	149	28	5	2	2	26
Duluth, Minn.	42	34	7	1	-	-	5	Santa Cruz, Calif.	39	31	6	2	-	-	6
Kansas City, Kans.	33	24	7	1	1	-	1	Seattle, Wash.	121	75	28	11	4	3	8
Kansas City, Mo.	89	61	17	6	2	3	9	Spokane, Wash.	67	58	7	1	-	1	9
Lincoln, Nebr.	42	30	8	2	2	-	6	Tacoma, Wash.	139	100	21	12	3	3	13
Minneapolis, Minn.	46	36	5	2	1	2	4	TOTAL	11,835 <sup>§</sup>	8,287	2,290	793	236	223	1,041
Omaha, Nebr.	118	91	15	8	1	3	9								
St. Louis, Mo.	126	73	28	12	6	7	8								
St. Paul, Minn.	73	49	15	4	3	2	7								
Wichita, Kans.	97	67	21	6	1	2	8								

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.

All *MMWR* references are available on the Internet at <http://www.cdc.gov/mmwr>. Use the search function to find specific articles.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

---

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to [listserv@listserv.cdc.gov](mailto:listserv@listserv.cdc.gov). The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/mmwr> or from CDC's file transfer protocol server at <ftp://ftp.cdc.gov/pub/Publications/mmwr>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (888) 232-3228.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

☆U.S. Government Printing Office: 2002-733-100/69013 Region IV