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# Tetanus — Puerto Rico, 2002

During February–May 2002, the Puerto Rico Department of Health (PRDOH) received reports of three tetanus cases, two of which were fatal. The last reported case of tetanus in Puerto Rico had occurred in 1999. This report summarizes the investigations of these three cases, which underscore that health-care providers should ensure that all patients have been vaccinated fully against tetanus (*1,2*).

## Case Reports

**Case 1.** On December 19, 2001, a man aged 86 years with a history of hypertension and coronary artery disease (CAD) sustained a splinter in his right hand while gardening. On December 22, the patient saw a physician for wound care. At that time, he was not treated with either a tetanus toxoid vaccine or prophylactic tetanus immune globulin (TIG). His tetanus vaccination history was not documented in the medical record; he had no history of military service.

On December 26, the patient received treatment for pharyngitis from a local physician. On December 29, he presented to an emergency department (ED) with difficulty talking, swallowing, and breathing and with chest pain and disorientation of 2 days' duration. He was admitted to a general medicine ward with a preliminary diagnosis of stroke.

On January 2, 2002, the patient had neck rigidity and respiratory failure requiring tracheotomy and mechanical ventilation and was transferred to the intensive care unit (ICU) with tetanus diagnosed. He was administered a dose of tetanus and diphtheria toxoids (Td); TIG was ordered but was unavailable. On January 11, the patient received nonspecific intravenous immune globulin (pooled plasma, 7.5 grams). His hospital course was complicated by two myocardial infarctions, congestive heart failure, a lacunar stroke, and pneumonia. He died on February 2.

**Case 2.** On April 18, 2002, a man aged 68 years with a history of diabetes mellitus, CAD, and mitral valve replacement sustained a puncture wound in his right foot from stepping on a rusted nail. His spouse cleaned the wound with a surface antiseptic (benzalkonium chloride). The following day, the patient sought care from a primary-care physician who administered intravenous cefazolin and prescribed oral ciprofloxacin and oxycodone. The patient requested vaccination against tetanus but was told that the vaccine was unavailable. The patient did not know if he had been vaccinated previously against tetanus; he had not served in the military.

On April 22, the patient presented to an ED complaining of difficulty swallowing, mild shortness of breath, abdominal pain, throat pain, and mandibular rigidity. On physical examination, he had trismus, risus sardonicus, muscular rigidity, and difficulty speaking. He was admitted to the ICU with diagnoses of suspected tetanus and right foot cellulitis. He was treated with metronidazole, ciprofloxacin, and midazolam by continuous intravenous infusion. On April 23, the patient had seizures and respiratory failure requiring mechanical ventilation. He also was given intramuscular TIG (500 units) and Td (0.5 cc) at that time. Despite midazolam therapy and supplemental diazepam for seizures, the patient's muscle spasms persisted. He died on April 27.

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**Case 3.** On April 10, 2002, a man aged 76 years with a history of hypertension sustained a splinter in his right hand. On April 18, the patient experienced weakness and dysphagia, and on the following day, trismus. At that time, he was treated for otitis media but refused Td vaccination. His previous tetanus vaccination status was unknown; he had not served in the military.

On April 20, the patient presented to an ED with difficulty walking, talking, and swallowing. He did not report any wound history to the attending physician. He was treated with an intramuscular corticosteroid injection and an antihistamine. On April 21, the patient sought care at another ED. He was admitted to the ICU with diagnosed tetanus and intubated preemptively. On April 22, he received 3,000 units of TIG and was started on metronidazole. His course was complicated by methicillin-sensitive *Staphylococcus aureus* pneumonia and pseudomembranous colitis. He was released from the hospital on June 17.

## Case Summary

During January 1990–April 2002, PRDOH received reports of 20 cases of tetanus (average annual incidence rate: 0.04 per 100,000 population). Of these, 18 (90%) were in men; the median age was 70 years (range: 55–86 years). Among the 11 (55%) for whom supplemental information was available, none had a definite history of previous vaccination with tetanus toxoid. Five (25%) patients had a history of diabetes mellitus. The overall case-fatality rate was 68%.

As a result of the Td shortage affecting the United States during 2000–2002, PRDOH instituted a protocol in March 2001 consistent with the modified guidelines for Td use during the shortage (*3,4*). Priority was given to persons requiring prophylaxis for wound management and to persons who had previously received fewer than 3 doses of tetanus-containing vaccine, and routine Td boosters in adolescents and adults were deferred. The shortage reduced Td use in Puerto Rico by 67% during 2000–2001 (Puerto Rico Immunization Program, unpublished data, 2002).

In response to the recent tetanus cases, PRDOH has 1) continued reminding health-care providers of the increased risk for tetanus among persons aged ≥60 years and those with no history of primary vaccination against tetanus; 2) promoted an increase in the availability of TIG for prophylactic and therapeutic use; and 3) notified physicians that the Td shortage has ended and that Td is available for routine indications (*5*).

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**Editorial Note:** Tetanus is a rare disease in the United States; following the introduction of vaccination with tetanus toxoid in the 1940s, the overall incidence of tetanus declined from 0.4 per 100,000 population in 1947 to 0.02 during the latter half of the 1990s. The overall case-fatality ratio declined from 91% to 11% during the same period. The majority of tetanus cases reported during 1989–1997 occurred in persons who had not completed a 3-dose primary tetanus toxoid vaccination series or for whom vaccination histories were uncertain; no tetanus deaths occurred in persons who received primary tetanus vaccination (*5–7*; CDC, unpublished data, 2002).

Adults aged ≥60 years are at greatest risk for tetanus and tetanus-related mortality (*5–7*). During 1998–2000, the average annual incidence of tetanus in persons aged ≥60 years was 0.03 with a case-fatality ratio of 31%, both more than twice that of adults aged <60 years. The increased risk for tetanus with increasing age is thought to be related to the lower prevalence of protective immunity in older age groups. Protective levels of antibodies against tetanus toxoid decline with age; by age 70 years, only 30% of the population is protected (*8*). Older persons might never have received a primary vaccination series or might not have received subsequent Td boosters. Women are significantly less likely to be protected against tetanus than men (*8*) probably, in part, because women are less likely to have received a Td booster in conjunction with military service.

The Td shortage during 2000–2002 necessitated deferral of routine Td boosters in adolescents and adults. However, booster doses given as part of wound management and administration of primary series in unvaccinated persons remained priorities (*3*). Previous reports on tetanus cases occurring in the United States during the 1980s and 1990s indicated that even during periods in which Td was in ample supply, <60% of persons for whom Td was indicated received a dose during wound management (*5–7*).

Recommendations for the use of Td and TIG for wound care depend on the nature of the wound and the patient's vaccination history. Persons who have received a primary tetanus vaccination series but who have not had a Td booster during the 10 years preceding any injury should receive a booster dose. Persons who present with wounds contaminated with dirt, feces, or saliva, deep wounds, or wounds with necrotic tissue and who have not had a booster during the preceding 5 years also should receive a dose of Td. Persons who have never received tetanus vaccination or those with unknown or uncertain vaccination histories should receive the first dose of a primary series at the time of presentation. These patients also should receive TIG (250 units injected intramuscularly at a site distant from that used for Td administration) unless the wound is superficial and clean, because a single dose of Td in the absence of previous tetanus vaccination will not induce the production of protective levels of antibody. Therapeutic TIG (3,000–6,000 units as 1 dose) should be administered as soon as possible to any patient presenting with tetanus (*9*).

The majority of cases of tetanus and virtually all tetanus-associated deaths are preventable through adequate vaccination. Because all wounds, even minor and relatively clean wounds, confer a risk for tetanus, health-care providers should review the vaccination status of all patients and administer indicated tetanus toxoid vaccine to keep their patients fully protected (*1,2*).

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# Pertussis Deaths — United States, 2000

Pertussis (i.e., whooping cough) is associated typically with an inspiratory "whoop," prolonged paroxysmal cough, and posttussive vomiting; however, persons infected with *Bordetella pertussis* sometimes experience atypical symptoms, making prompt recognition difficult (*1*) and probably increasing infection transmission. All infants aged <6 months and any infants who have not yet received 3 doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine are especially vulnerable to *B. pertussis* infection (*2*). This report summarizes the investigations of two pertussis deaths that occurred in 2000. Clinicians should consider pertussis as a cause of illness, especially among vulnerable infants who present with cough illness, respiratory distress, or apnea. Timely diagnosis of pertussis in caregivers and other contacts of infants could prevent infant pertussis fatalities.

## Case Reports

**Colorado.** On January 6, 2000, a full-term, white, non-Hispanic female infant aged 3 months was evaluated by her pediatrician for rhinorrhea and cough of 7 days' duration. A test for respiratory syncytial virus (RSV) was negative, and the infant received her first vaccinations, including DTaP vaccine. On January 17, the infant returned with persistent symptoms that had progressed during the preceding 2–3 days to include paroxysmal cough, breathing difficulty, and fever. Perioral cyanosis, intercostal retractions, tachypnea, and hypoxia were noted. A chest radiograph revealed marked hyperinflation and bilateral perihilar infiltrates. The infant's mother reported a cough illness with onset 3–4 weeks before the infant's cough onset; the infant's sibling aged 3 years (who had received 4 DTaP vaccinations) also had a mild cough illness. On hospital admission that day, the infant's leukocyte count was 129,000 (normal: 5,000–20,000). Specimens of nasopharyngeal (NP) secretions were collected for *B. pertussis* culture and repeat RSV testing. A blood sample was obtained for culture, and empiric treatment for pertussis was initiated with oral azithromycin, which was later replaced with oral erythromycin. On January 18, the infant became increasingly irritable, had a temperature of 104º F (40º C), and was transferred to a tertiary medical center. Pertussis complicated by bacterial pneumonia was diagnosed presumptively and the infant was treated with intravenous erythromycin, nafcillin, and cefotaxime. NP specimens were tested by polymerase chain reaction (PCR) assay for *B. pertussis* DNA; a positive assay result was reported on January 20. Recurrent apnea was followed on January 22 by acute respiratory decompensation, requiring mechanical ventilation. Management of disseminated intravascular coagulation, hypotension, hyponatremia, and hypoalbuminemia was necessary. On January 24, the infant's antibiotic regimen was augmented empirically with ceftazidime and tobramycin, and a tracheal aspirate culture confirmed *Pseudomonas aeruginosa* infection later that day. An echocardiogram revealed severe pulmonary hypertension and right ventricular dilatation. The infant had multiple cardiac arrests, including one during initiation of extracorporeal membrane oxygenation (ECMO). On January 25, a cranial ultrasound revealed severe frontal hemorrhage; support was withdrawn, and the infant died. An autopsy confirmed that the infant died because of *B. pertussis* infection, superimposed *P. aeruginosa* sepsis, and severe necrotizing bronchopneumonia. Microscopic examination of the lung revealed necrosis, hemorrhage, and gram-negative bacilli. *B. pertussis* was isolated from nasopharyngeal secretions collected on January 17. A blood culture collected on January 23 and postmortem cultures from multiple sites yielded *P. aeruginosa.* No other pathogens were identified.

**Texas.** On November 10, 2000, a full-term, white, Hispanic female infant aged 3 weeks was evaluated by her pediatrician for a 3-day history of cough, posttussive emesis, and poor feeding; supportive care was recommended. That evening, the infant had worsening cough and posttussive emesis and was taken to the emergency department of hospital A. A chest radiograph revealed a right upper lobe infiltrate; the infant's leukocyte count was 8,800. A blood sample was obtained for culture. Intramuscular ceftriaxone was administered, and the patient was discharged. The next morning, because of respiratory distress and hypoxia, the infant was admitted to hospital B. A second chest radiograph revealed a right-sided infiltrate. Ampicillin, gentamicin, and vancomycin were administered empirically. The infant was intubated and transported to a tertiary care center. On her arrival at hospital C, a third chest radiograph revealed extensive bilateral infiltrates; the infant's leukocyte count was 112,000. Specimens of NP secretions were obtained to test by PCR assay for *B. pertussis* DNA. Ampicillin and cefotaxime were administered empirically. Following transfer, the maternal grandmother reported a 1-month history of severe cough; both parents reported 2 weeks of severe cough illness with posttussive emesis. The infant's cardiopulmonary status did not improve with either conventional or high-frequency oscillatory ventilation and was complicated by a right-sided pneumothorax and hypotension. An echocardiogram suggested pulmonary hypertension. Having failed to respond to inhaled nitric oxide therapy, the infant was placed on ECMO with transient stabilization on November 12. Because

pathogens including *B. pertussis* and herpes simplex viruses were suspected, erythromycin, acyclovir, and clindamycin were administered empirically. Later that day, the infant had a cardiac arrest and died. An autopsy was not performed. After the infant's death, *B. pertussis* DNA was detected by PCR, and herpes simplex virus was detected by direct fluorescent antibody testing. Blood cultures from hospitals A and C, and viral cultures from hospital C, did not identify other pathogens.

## United States

A total of 17 deaths of persons having pertussis symptom onset in 2000 were reported to CDC by 12 states. All deaths occurred among infants born in the United States, with onset of pertussis symptoms at age <4 months. Nine (53%) deaths occurred among males. Of the 17 deceased infants, 14 (82%) were white, one (6%) was black, and one (6%) was American Indian/Alaska Native; race was not reported for one (6%). Data on ethnicity were reported for 15 (88%) infants; seven (41%) of the 17 deceased infants were Hispanic.

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**Editorial Note:** Despite record high vaccination coverage levels with 3 doses of DTaP among U.S. children aged 19–35 months (*3*), pertussis continues to cause fatal illness among vulnerable infants. During 1980–1998, the average annual incidence of reported pertussis cases and deaths among U.S. infants increased 50% (*4*). The increased morbidity and mortality occurred primarily among infants aged <4 months, who were too young to have received the recommended three DTaP vaccinations at ages 2, 4, and 6 months (*1,2,4*). During 1990–1999, a disproportionately high number of pertussis deaths occurred among Hispanic infants; of 89 infants who died from pertussis for whom data on ethnicity were available, 31 (35%) were Hispanic (*5*; CDC, unpublished data, 2002). Academic investigators and public health agencies, including CDC, are initiating studies to identify the risk factors for severe and fatal pertussis.

Infants with severe pertussis often are suspected initially of having systemic infection and are treated with broad-spectrum antibiotics. The two cases described in this report illustrate that pertussis can be fatal despite broad-spectrum antimicrobial therapy, specific therapy for pertussis, and supportive interventions. Severe respiratory insufficiency (caused by primary pertussis pneumonia, secondary bacterial pneumonia, or both) is the most commonly recognized immediate cause of death among infants with underlying pertussis infection (*5–8*). Co-infection with viral pathogens also has occurred (*7*).

Refractory pulmonary hypertension is associated with fatal outcomes among very young infants with pertussis (*8,9*). During 2000, of the eight deceased infants for whom medical records were available, six (including the two cases in this report) received ECMO for management of pulmonary hypertension before their deaths (CDC, unpublished data, 2002). Risk factors and optimal treatment for pulmonary hypertension associated with pertussis are not defined clearly and require further investigation (*9*).

Adults and children with pertussis sometimes experience mild respiratory symptoms or typical symptoms (e.g., an inspiratory "whoop," prolonged paroxysmal cough, and posttussive vomiting) (*6*). Although some vulnerable infants exhibit these manifestations, infants with pertussis also can present with respiratory distress or apnea. Because the spectrum of symptoms among infected persons is broad, a timely diagnosis of pertussis can be difficult. Clinicians should consider pertussis as a possible cause of acute respiratory illness and apnea among vulnerable infants and as a possible cause of acute cough illness among noninfants, especially parents, siblings, and other contacts of infants. After collection of an NP specimen for *B. pertussis* culture, empiric macrolide antibiotic treatment should be initiated. Erythromycin is generally effective for *B. pertussis* treatment and chemoprophylaxis. Because published data describing the safety and efficacy of macrolides other than erythromycin are limited, erythromycin remains the preferred antibiotic for these indications (*6*).

Caregivers should minimize exposure of vulnerable infants to any persons with respiratory illness. As illustrated by these two cases, adult and adolescent caregivers and other family members have been linked epidemiologically as sources of pertussis infection for vulnerable infants (*10*). All suspected pertussis cases should be reported promptly to local public health officials, who will assist with control measures in households and communities.

Timely vaccination of infants and children according to current recommendations of the Advisory Committee on Immunization Practices remains the most effective way for infants' caregivers and health-care providers to prevent pertussis (*2*). Infants should receive the first DTaP vaccine at age 2 months, followed by doses at ages 4, 6, and 15–18 months and a booster dose at age 4–6 years. During a communitywide pertussis outbreak, an accelerated DTaP vaccination schedule may be used. Infants vaccinated with the accelerated DTaP vaccination schedule receive the first DTaP dose at age 6 weeks and the next 2 doses at 4-week intervals (*6*).

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# Hepatitis B Vaccination Among High-Risk Adolescents and Adults — San Diego, California, 1998–2001

The national strategy to eliminate hepatitis B virus (HBV) transmission is based on 1) screening all pregnant women for hepatitis B surface antigen and post-exposure vaccination of infants of infected mothers; 2) vaccinating all infants as part of the childhood vaccination schedule; 3) vaccinating children and adolescents not vaccinated previously; and 4) vaccinating adolescents and adults in groups at increased risk for infection (*1,2*). These strategies have been implemented successfully in the United States except for the vaccination of adults and older adolescents at high risk (*2*). This report describes the initial findings of a hepatitis B vaccination program for potentially high-risk adolescents and adults conducted in areas of San Diego County, California. The findings indicate that high rates of hepatitis B vaccination can be achieved in clinics and programs that serve persons at high risk for HBV infection through the integration of hepatitis B vaccination into routine preventive health-care services. Improved efforts to vaccinate adolescents and adults at increased risk for HBV infection are critical to reduce disease incidence and prevent chronic HBV infection.

The San Diego Viral Hepatitis Prevention Project (VHPP) began in February 1998 with the selection of a convenience sample of sites* located primarily in the central and southeast areas of San Diego County, where the incidences of gonorrhea and chlamydia are higher than in other parts of the county. The population of San Diego County is approximately 2.9 million persons, and the population of the central and southeast areas is approximately 500,000 persons. Sites that serve both clients at high risk and those with a lower risk for HBV infection were selected. Hepatitis B vaccine was provided at no cost to participating sites, and project staff assisted site personnel in developing educational materials and administrative procedures and in monitoring vaccine coverage and completion. At sites that did not provide clinical services, the project provided a vaccination nurse on selected days.

At all participating sites, clinic managers/program administrators agreed to offer vaccine to all clients without collecting client-specific risk information. At most sites, clients starting vaccination were asked to complete a self-administered sexually transmitted disease (STD)/hepatitis risk-assessment form that included information about previous hepatitis B vaccination or infection. All STD clinic clients were asked to complete the risk-assessment form to determine the percentage of clients eligible to start vaccination (i.e., those with no self-reported history of previous hepatitis B vaccination or infection). Approximately 85% of STD clients were eligible to start hepatitis B vaccination; this percentage was used at other project sites to estimate the number of eligible clients. Risk criteria were not used to determine eligibility.

*Sites serving primarily persons with a high risk for HBV infection included clinics providing treatment for sexually transmitted diseases, centers providing services for men having sex with men, the Job Corps program for disadvantaged youth, clinics providing methadone treatment for injection-drug users, drug-offender rehabilitation programs, and correctional institutions. Sites serving primarily persons with a lower risk for HBV infection included clinics providing family planning services, teen services, university/college health care, and community primary care.

## STD Clinics

Hepatitis B vaccination was offered to all clients of the county health department's STD clinics. During February 1998–January 2001, risk-assessment forms were completed by 18,221 clients, of whom 1,900 (10%) reported previous completion of the hepatitis B vaccination series. Among men who have sex with men (MSM) and injection-drug users (IDUs), 16% (286 of 1,755) and 6% (67 of 1,106), respectively, reported having completed the vaccination series previously; among those aged <25 years, 12% (31 of 265) of MSM and 8% (12 of 153) of IDUs reported completion of the series.

Of 18,221 clients completing risk-assessment forms, 15,502 (85%) were eligible to begin the vaccination series, of whom 11,405 (74%) received the first dose of vaccine. Of the 9,697 clients for whom ≥6 months had elapsed since they received the first dose, 5,123 (53%) received the second dose, and 2,910 (30%) completed the 3-dose series (Table).

To improve vaccination acceptance rates, during October 1999–December 2000, the main clinic offered all clients a 5-minute counseling session about hepatitis B vaccination. The acceptance rate for the first dose increased from 66% (4,390 of 6,615) during February 1998–September 1999 (before counseling was initiated) to 77% (3,094 of 4,040) during the 15-month counseling period (rate ratio [RR]=1.15; 95% confidence interval [CI]=1.13–1.18; p<0.001). Because of staff shortages and scheduling difficulties, counselors were not available on all days; as a result, some clients were not counseled. Among the 1,861 clients counseled, the acceptance rate for the first dose was 80%, compared with 74% (1,610 of 2,189) for clients who were not counseled (RR=1.08; 95% CI=1.05–1.12; p<0.001). HIV counselors now provide hepatitis prevention and vaccination information as part of pretest HIV counseling offered to all clients.

## Other Sites

Other sites serving primarily clients at high-risk attained first-dose vaccination coverage rates of 4%–66%, with correctional institutions (i.e., county juvenile detention and adult jail) and a health-care clinic serving MSM having the lowest first-dose coverage rates (Table). At sites serving primarily clients at lower-risk, vaccine coverage was <30% at all sites except teen clinics, which had a first-dose coverage rate of 69%. Although community primary-care clinics vaccinated the most clients each month, their first-dose vaccination coverage rate was 11%. Clinic managers had agreed to implement a policy of offering vaccination to all new eligible clients; however, some clinics might have offered vaccine selectively based on clinical judgment of risk or were unable to integrate vaccination into their regular schedules.

Project support for hepatitis B vaccination continues at most high-risk sites. In addition, other viral hepatitis prevention services (e.g., selective hepatitis B and hepatitis C serologic screening, hepatitis A vaccination, and STD screening

**TABLE. Number and percentage of adults and adolescents eligible for and receiving Hepatitis B vaccination at sites serving high- and lower-risk clients, by site, dose, and number of months vaccinating — San Diego, California, February 1998–January 2001**

| Site | No. sites | Eligible no.* monthly/dose 1 | Dose 1 (%) | Dose 2† (%) | Dose 3† (%) | No. months vaccinating | Estimated total doses |
|---|---|---|---|---|---|---|---|
| **High-risk clients** | | | | | | | |
| STD clinic | 4 | 428 | (74)§ | (53) | (30) | 36 | **20,772** |
| Job Corps | 1 | 64 | (66) | (67) | (26) | 32 | **2,592** |
| Center for MSM¶ | 1 | 26 | (50) | (62) | (38) | 20 | **520** |
| Methadone clinic | 1 | 34 | (44) | (53) | (40) | 10 | **290** |
| Drug rehabilitation | 2 | 56 | (36) | (40) | (35) | 20 | **700** |
| Clinic for MSM | 2 | 24 | (25) | (67) | (33) | 24 | **288** |
| Juvenile detention | 1 | 340 | (18) | (94) | (31) | 18 | **2,502** |
| Women's jail | 1 | 221 | (12) | (65) | ( 8) | 23 | **1,035** |
| Men's jail | 3 | 1,020 | ( 4) | (51) | ( 2) | 24 | **1,656** |
| **Lower-risk clients** | | | | | | | |
| Teen clinic | 2 | 163 | (69) | (80) | (61) | 18 | **4,896** |
| Family planning | 1 | 102 | (25) | (68) | (36) | 17 | **867** |
| College health | 5 | 340 | (19) | (68) | (40) | 15 | **1,965** |
| University health | 1 | 1,530 | (11) | (69) | (44) | 19 | **6,821** |
| Community clinic | 4 | 2,040 | (11) | (49) | (34) | 28 | **11,312** |

* Estimated as 85% of new client visits (except for jail sites, which used 85% of sick call visits); 85% was selected based on experience of clinics treating sexually transmitted diseases (STDs) that 15% of clients self-reported previous hepatitis B vaccination or disease and were therefore ineligible to start the vaccine.

† Dose 2–3 percentages determined from individual dose-completion forms of persons receiving first dose and having ≥6 months of follow-up at STD clinics, Job Corps, methadone clinic, drug rehabilitation clinic, clinic for men having sex with men, and university health clinic; quarterly aggregate dose 2–3 reports used at all other sites.

§ Actual vaccine dose 1 acceptance rate among eligible clients determined from risk-assessment form given all clients at clinics for treatment of STDs.

¶ Men having sex with men.

services) have been or are being integrated into STD clinics, court-ordered drug-offender rehabilitation programs, and anonymous HIV counseling and testing sites. The San Diego VHPP developed a guide for establishing hepatitis B vaccination services in an STD clinic (http://www.cdc.gov/hepatitis/spotlights/integration.htm). The guide has been distributed to all state health department STD, hepatitis C prevention, and vaccination programs.

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**Editorial Note:** Data from the San Diego VHPP indicate that high rates of hepatitis B vaccination can be achieved in some clinics and programs that serve persons at high risk for HBV infection through the integration of hepatitis B vaccination into routine clinic and program services. In the United States, the incidence of reported cases of acute hepatitis B has declined 76% since the late 1980s (*3*). The greatest decline has occurred among persons aged 10–29 years, and the median age of persons with acute hepatitis B has increased approximately 5 years during the 1990s (*3*). Universal vaccination of infants and adolescents prevents HBV infections within these age groups and eventually will prevent transmission among adults. However, because it will take several decades to achieve the secondary benefit of hepatitis B vaccination of infants and young adolescents, vaccination of older adolescents and of adults at increased risk for HBV infection is needed to reduce disease incidence and chronic HBV infection prevalence in the near future (*3*).

As with other vaccines recommended to prevent disease among older adolescents and adults, achieving high levels of hepatitis B vaccine coverage among these groups at increased risk for HBV infection has been difficult. Several obstacles account for low vaccine coverage including 1) inability of health-care providers to identify and deliver vaccine to at-risk populations; 2) lack of a public health infrastructure to support adult vaccination; 3) lack of familiarity by health-care providers with practices required to achieve high rates of adult vaccination; and 4) limited private- and public-sector reimbursement for adult vaccination.

Many persons at increased risk for HBV infection are clients of programs that provide other prevention and clinical services, at times in nonclinical settings. The San Diego VHPP tested the feasibility of vaccinating adults and older adolescents at increased risk for HBV infection at sites that provide services to such persons. For example, hepatitis B vaccination is recommended for all persons seeking care at STD clinics, a setting that provides services to the greatest number of adults at increased risk for HBV infection. Among persons with acute hepatitis B reported annually to a CDC hepatitis surveillance system, approximately 35% have been treated previously for STDs, which indicates the importance of this setting in the prevention of HBV infections (*3*). Earlier attempts at hepatitis B vaccination in STD clinics had limited success; first-dose acceptance rates varied (range: 44%–70%), and <30% of persons completed the 3-dose series (*4*; CDC, unpublished data, 1993, 1997). By providing counseling as part of an integrated service, the San Diego VHPP was able to achieve first-dose acceptance rates as high as 80%.

The goal of hepatitis B vaccination programs is to achieve the highest possible rate of 3-dose vaccination coverage. However, not being able to ensure high 3-dose completion rates should not preclude the initiation of hepatitis B vaccination in STD clinics. Among healthy young adults, protective levels of antibody develop in 30%–55% following a single dose of hepatitis B vaccine and in 75% after 2 doses (*5*–*7*). Although long-term (i.e., >10 years) protection cannot be ensured with incomplete vaccination, most persons responding to the first dose are expected to have protection for at least 5 years, which parallels their expected loss of antibody (*8*). Vaccination completion rates should be monitored, and efforts to increase series completion, especially among those at the highest risk (e.g., MSM and IDUs), should be strongly considered.

Reimbursement remains a major barrier to hepatitis B vaccination of persons at increased risk for infection. Sites (e.g., STD clinics) that serve adolescents aged <19 years can obtain and offer vaccination through reimbursement under the Vaccines for Children (VFC) program (http://www.cdc.gov/nip/vfc). In the San Diego VHPP, the majority of sites were enrolled with the state vaccination program as VFC providers. However, vaccination of adults was supported only through funding provided by the project. Private- and public-sector health insurance plans rarely cover hepatitis B vaccination for adults. Although some states and local jurisdictions provide hepatitis B vaccine in STD clinics (*9*), drug-treatment clinics, and prison health programs, many adults with high-risk medical or behavioral conditions have limited access to recommended vaccinations. Providing additional funding to purchase vaccine for uninsured and underinsured adult populations (*10*) would overcome a major barrier to vaccinating persons at high risk.

The findings in this report are subject to at least three limitations. First, sites for integration of hepatitis B vaccination services were selected on the basis of convenience and might

not be representative of all sites. Second, the eligibility criteria used in the STD clinic (i.e., no self-report of previous hepatitis B vaccination or disease) also was used to estimate the percent eligible in all other sites, including sites (e.g., community clinics) that might serve persons for whom hepatitis B vaccination is not specifically recommended. Clinicians at these sites might not have encouraged vaccination for adults without specific risk factors; however, because written risk assessments were not completed for most clients in these settings, the actual percentage of high-risk clients who were offered and received hepatitis B vaccination cannot be determined. Finally, completion rates might be underestimated because persons receiving a first dose of hepatitis B vaccine might not have been followed long enough to track subsequent doses.

The findings in this report suggest that a sustained vaccination program, when combined with a short counseling session, might achieve high levels of vaccine acceptance. Even when vaccination cost is not a barrier, achieving high rates of vaccination coverage requires that program managers set vaccination-coverage goals, train staff, review the vaccination status of all clients routinely, and use appropriate health-education materials and counseling services.

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## Weekly Update: West Nile Virus Activity — United States, July 10–16, 2002

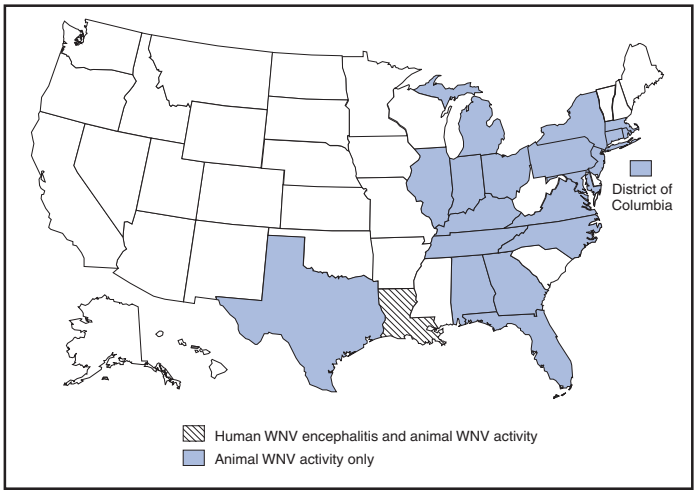
This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET and verified by states and other jurisdictions as of July 16, 2002.

During the reporting week of July 10–16, two human cases of WNV were reported, both in Louisiana. During the same period, WNV infections were reported in 55 dead crows, 115 other dead birds, nine horses, and 19 mosquito pools.

During 2002, three human cases of WNV encephalitis or meningitis have been reported, all from Louisiana. Among these cases, all were men, the median age was 62 years (range: 53–78 years), and the dates of illness onset ranged from June 10–28; no cases were fatal. In addition, 171 dead crows and 266 other dead birds with WNV infection were reported from 20 states and the District of Columbia (Figure); 23 WNV infections in horses have been reported from four states (Florida, Kentucky, Louisiana, and Texas). During 2002, WNV seroconversions have been reported in 10 sentinel chicken flocks from Florida; WNV seropositivity has been reported from two states (Indiana and Louisiana) in two wild birds that were caught and released; and 26 WNV-positive mosquito pools have been reported from six states (Alabama, Illinois, Indiana, Massachusetts, New Jersey, and Ohio).

Additional information about WNV activity is available at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and http://cindi.usgs.gov/hazard/event/west_nile/west_nile.html.

**FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2002***




* As of July 16, 2002.

*Public Health Dispatch*

## Poliomyelitis — Madagascar, 2002

Surveillance for acute flaccid paralysis (AFP) in Madagascar has detected a cluster of four cases of paralytic poliomyelitis from which type-2 vaccine-derived polioviruses have been isolated. Preliminary data indicate that these patients, residing in the Tolagnaro district of Toliara province in southeastern Madagascar, had onset of paralysis during March 20–April 12, 2002. None of the children affected was vaccinated fully. During March–April 2002, provincial authorities conducted a small-scale house-to-house vaccination response. Genetic sequencing studies of these vaccine-derived viruses indicate substantial genetic drift and recombination with nonpolio enteroviruses. These findings are compatible with an outbreak of paralytic polio associated with a circulating vaccine-derived poliovirus (cVDPV); however, further investigation is required.

The three outbreaks of cVDPV described previously occurred in areas where routine oral polio vaccine (OPV) coverage is low, AFP surveillance is suboptimal, and supplementary vaccination activities have not been conducted for years (*1,2*). Vaccination coverage data suggest that during 1999, 37% of children aged <1 year had received 3 doses of OPV. In 2001, the nonpolio AFP rate of 0.3 case per 100,000 population aged <15 years was below the target level of 1.0.

A joint mission by the Ministry of Health of Madagascar, the Pasteur Institute of Madagascar, the World Health Organization, and United Nations Children's Fund (UNICEF) is ongoing to 1) conduct a field investigation of the cases to verify early reports, 2) review health facility records for any missed cases, 3) enhance the quality of AFP surveillance nationwide, and 4) plan for a nationwide house-to-house polio vaccination response. The work of this mission is being complemented by laboratory work in Madagascar, South Africa, France, and the United States.

**Reported by:** *Ministry of Health; Pasteur Institute, Madagascar. National Institute for Communicable Diseases, South Africa. Pasteur Institute, Paris, France. World Health Organization Regional Office for Africa, Harare, Zimbabwe. Vaccines and Biologicals Dept, World Health Organization, Geneva, Switzerland. Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Global Immunization Div, National Immunization Program, CDC.*

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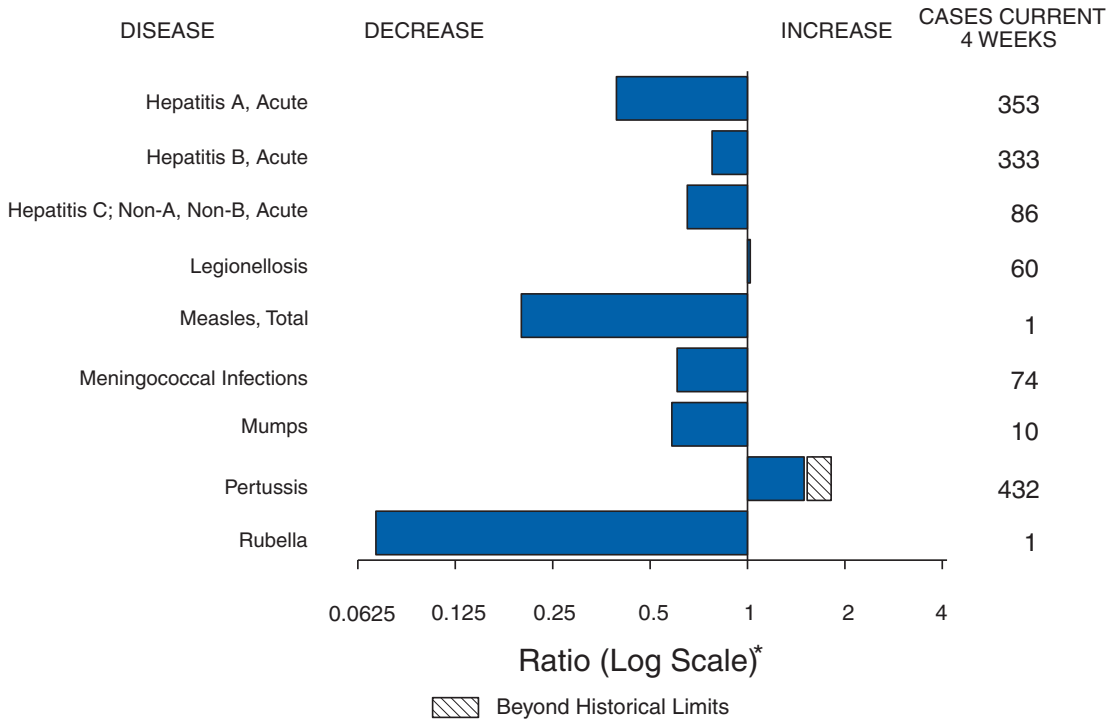
## Erratum: Vol. 51, No. 27

In the Notice to Readers, "Resumption of Routine Schedule for Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine and for Measles, Mumps, and Rubella Vaccine," on page 599 under the heading "DTaP Vaccine," an error occurred in the first sentence of the second paragraph. The sentence should read, "During the DTaP vaccine shortage beginning in 2000 (*5*), ACIP recommended that health-care providers vaccinate infants with the initial 3 DTaP doses, if they did not have *sufficient* supply of DTaP to vaccinate all children in their practice."

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending July 13, 2002, with historical data**




* 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 July 13, 2002 (28th Week)***

| | | Cum. 2002 | Cum. 2001 | | Cum. 2002 | Cum. 2001 |
|---|---|---|---|---|---|---|
| Anthrax | | 2 | 1 | Encephalitis: West Nile† | 4 | - |
| Botulism: | foodborne | 9 | 11 | Hansen disease (leprosy)† | 40 | 39 |
| | infant | 33 | 52 | Hantavirus pulmonary syndrome† | 7 | 5 |
| | other (wound & unspecified) | 10 | 6 | Hemolytic uremic syndrome, postdiarrheal† | 82 | 63 |
| Brucellosis† | | 44 | 62 | HIV infection, pediatric†§ | 98 | 88 |
| Chancroid | | 35 | 23 | Plague | - | 2 |
| Cholera | | 4 | 2 | Poliomyelitis, paralytic | - | - |
| Cyclosporiasis† | | 82 | 64 | Psittacosis† | 12 | 7 |
| Diphtheria | | 1 | 1 | Q fever† | 19 | 12 |
| Ehrlichiosis: | human granulocytic (HGE)† | 102 | 50 | Rabies, human | 1 | 1 |
| | human monocytic (HME)† | 48 | 44 | Streptococcal toxic-shock syndrome† | 42 | 52 |
| | other and unspecified | 2 | 3 | Tetanus | 9 | 22 |
| Encephalitis: | California serogroup viral† | 7 | 6 | Toxic-shock syndrome | 68 | 70 |
| | eastern equine† | 1 | - | Trichinosis | 9 | 10 |
| | Powassan† | - | - | Tularemia† | 27 | 54 |
| | St. Louis† | - | - | Yellow fever | 1 | - |
| | western equine† | - | - | | | |

-:No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ 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 June 30, 2002.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th Week)***

| Reporting Area | AIDS | | Chlamydia† | | Cryptosporidiosis | | *Escherichia coli* O157:H7 | | *Escherichia coli* Shiga Toxin Positive, Serogroup non-O157 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2002§ | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 |
| UNITED STATES | 20,967 | 20,376 | 386,540 | 401,933 | 1,045 | 1,070 | 983 | 1,046 | 38 | 45 |
| NEW ENGLAND | 802 | 731 | 13,879 | 11,565 | 63 | 51 | 78 | 111 | 8 | 20 |
| Maine | 19 | 20 | 782 | 642 | 2 | 4 | 3 | 12 | - | - |
| N.H. | 19 | 15 | 849 | 708 | 14 | 2 | 7 | 12 | - | 3 |
| Vt. | 8 | 10 | 344 | 315 | 14 | 13 | 3 | 5 | - | - |
| Mass. | 377 | 401 | 5,736 | 4,468 | 15 | 25 | 39 | 59 | 4 | 5 |
| R.I. | 62 | 51 | 1,487 | 1,495 | 13 | 3 | 5 | 6 | - | - |
| Conn. | 317 | 234 | 4,681 | 3,937 | 5 | 4 | 21 | 17 | 4 | 12 |
| MID. ATLANTIC | 4,702 | 5,358 | 39,721 | 43,383 | 117 | 146 | 74 | 82 | - | - |
| Upstate N.Y. | 359 | 782 | 8,606 | 6,943 | 35 | 42 | 61 | 48 | - | - |
| N.Y. City | 2,554 | 2,968 | 15,057 | 15,965 | 55 | 60 | 4 | 8 | - | - |
| N.J. | 812 | 919 | 3,385 | 7,074 | 7 | 7 | 9 | 26 | - | - |
| Pa. | 977 | 689 | 12,673 | 13,401 | 20 | 37 | N | N | - | - |
| E.N. CENTRAL | 2,241 | 1,404 | 66,447 | 74,241 | 267 | 358 | 252 | 241 | 1 | 3 |
| Ohio | 433 | 232 | 18,027 | 19,216 | 70 | 56 | 56 | 59 | 1 | 2 |
| Ind. | 306 | 163 | 8,711 | 8,236 | 24 | 32 | 24 | 37 | - | - |
| Ill. | 1,029 | 670 | 16,866 | 22,290 | 40 | 40 | 76 | 61 | - | - |
| Mich. | 364 | 261 | 16,590 | 15,900 | 54 | 73 | 40 | 27 | - | 1 |
| Wis. | 109 | 78 | 6,253 | 8,599 | 79 | 157 | 56 | 57 | - | - |
| W.N. CENTRAL | 330 | 449 | 20,973 | 20,752 | 115 | 98 | 154 | 125 | 4 | 2 |
| Minn. | 72 | 81 | 4,987 | 4,181 | 50 | 32 | 54 | 47 | 3 | - |
| Iowa | 47 | 47 | 2,724 | 2,540 | 13 | 25 | 40 | 20 | - | - |
| Mo. | 138 | 209 | 7,640 | 7,319 | 16 | 20 | 23 | 23 | N | N |
| N. Dak. | 1 | 1 | 469 | 559 | 6 | 4 | 3 | 1 | - | - |
| S. Dak. | 2 | 18 | 1,150 | 950 | 5 | 5 | 17 | 8 | 1 | 1 |
| Nebr. | 31 | 47 | 589 | 1,867 | 16 | 12 | 9 | 15 | - | 1 |
| Kans. | 39 | 46 | 3,414 | 3,336 | 9 | - | 8 | 11 | - | - |
| S. ATLANTIC | 6,499 | 6,108 | 75,501 | 77,235 | 167 | 170 | 100 | 90 | 15 | 13 |
| Del. | 114 | 115 | 1,426 | 1,550 | 1 | 1 | 4 | 1 | - | - |
| Md. | 961 | 753 | 7,796 | 8,141 | 9 | 27 | 5 | 6 | - | - |
| D.C. | 321 | 460 | 1,694 | 1,810 | 3 | 9 | - | - | - | - |
| Va. | 488 | 541 | 8,887 | 9,365 | 4 | 9 | 24 | 24 | 1 | 2 |
| W. Va. | 50 | 47 | 1,244 | 1,258 | 2 | 1 | 2 | 3 | - | - |
| N.C. | 456 | 376 | 12,797 | 11,286 | 23 | 17 | 17 | 26 | - | - |
| S.C. | 455 | 338 | 7,033 | 8,399 | 2 | 2 | - | 2 | - | - |
| Ga. | 1,087 | 750 | 13,981 | 16,326 | 80 | 68 | 34 | 16 | 9 | 7 |
| Fla. | 2,567 | 2,728 | 20,643 | 19,100 | 43 | 36 | 14 | 12 | 5 | 4 |
| E.S. CENTRAL | 919 | 953 | 26,438 | 26,519 | 71 | 21 | 47 | 52 | - | - |
| Ky. | 150 | 201 | 4,578 | 4,730 | 1 | 3 | 14 | 23 | - | - |
| Tenn. | 404 | 271 | 8,459 | 7,812 | 38 | 4 | 21 | 18 | - | - |
| Ala. | 173 | 224 | 8,157 | 7,509 | 28 | 7 | 7 | 8 | - | - |
| Miss. | 192 | 257 | 5,244 | 6,468 | 4 | 7 | 5 | 3 | - | - |
| W.S. CENTRAL | 2,181 | 2,021 | 55,305 | 57,264 | 15 | 35 | 13 | 112 | - | - |
| Ark. | 149 | 104 | 3,327 | 4,099 | 5 | 3 | 3 | 4 | - | - |
| La. | 508 | 458 | 9,943 | 9,438 | 4 | 7 | - | 3 | - | - |
| Okla. | 119 | 106 | 5,485 | 5,795 | 6 | 6 | 10 | 13 | - | - |
| Tex. | 1,405 | 1,353 | 36,550 | 37,932 | - | 19 | - | 92 | - | - |
| MOUNTAIN | 678 | 711 | 23,795 | 23,583 | 75 | 59 | 98 | 104 | 6 | 3 |
| Mont. | 6 | 12 | 1,143 | 1,155 | 4 | 5 | 9 | 6 | - | - |
| Idaho | 15 | 15 | 1,324 | 920 | 17 | 7 | 7 | 14 | 2 | 2 |
| Wyo. | 4 | 1 | 467 | 431 | 6 | 1 | 2 | 4 | 1 | - |
| Colo. | 133 | 153 | 7,096 | 6,512 | 20 | 18 | 34 | 44 | 1 | 1 |
| N. Mex. | 51 | 59 | 3,234 | 3,181 | 9 | 11 | 5 | 6 | 1 | - |
| Ariz. | 284 | 279 | 7,334 | 7,797 | 10 | 3 | 12 | 12 | 1 | - |
| Utah | 35 | 62 | 1,137 | 916 | 6 | 11 | 19 | 12 | - | - |
| Nev. | 150 | 130 | 2,060 | 2,671 | 3 | 3 | 10 | 6 | - | - |
| PACIFIC | 2,615 | 2,641 | 64,481 | 67,391 | 155 | 132 | 167 | 129 | 4 | 4 |
| Wash. | 264 | 284 | 7,495 | 7,251 | 24 | U | 20 | 29 | - | - |
| Oreg. | 196 | 110 | 3,604 | 3,866 | 21 | 15 | 45 | 21 | 4 | 4 |
| Calif. | 2,090 | 2,205 | 49,414 | 52,738 | 109 | 114 | 78 | 69 | - | - |
| Alaska | 12 | 14 | 1,860 | 1,443 | - | - | 4 | 2 | - | - |
| Hawaii | 53 | 28 | 2,108 | 2,093 | 1 | 3 | 20 | 8 | - | - |
| Guam | 2 | 8 | - | 221 | - | - | N | N | - | - |
| P.R. | 601 | 578 | 1,576 | 1,454 | - | - | - | - | - | - |
| V.I. | 60 | 2 | 30 | 94 | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 2 | U | 117 | 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 June 30, 2002.

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th Week)***

| Reporting Area | *Escherichia coli* Shiga Toxin Positive, Not Serogrouped | | Giardiasis | Gonorrhea | | *Haemophilus influenzae*, Invasive | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | All Ages, All Serotypes | | Age <5 Years Serotype B | |
| | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 |
| UNITED STATES | 17 | 4 | 7,198 | 163,406 | 182,299 | 881 | 878 | 12 | 15 |
| NEW ENGLAND | - | 1 | 741 | 3,987 | 3,118 | 63 | 56 | - | 1 |
| Maine | - | - | 82 | 62 | 70 | 1 | 1 | - | - |
| N.H. | - | - | 25 | 64 | 82 | 5 | - | - | - |
| Vt. | - | 1 | 57 | 45 | 39 | 5 | 2 | - | - |
| Mass. | - | - | 351 | 1,780 | 1,332 | 30 | 33 | - | 1 |
| R.I. | - | - | 68 | 474 | 378 | 9 | 2 | - | - |
| Conn. | - | - | 158 | 1,562 | 1,217 | 13 | 18 | - | - |
| MID. ATLANTIC | - | - | 1,608 | 18,235 | 20,642 | 153 | 125 | 3 | 3 |
| Upstate N.Y. | - | - | 554 | 4,409 | 4,293 | 69 | 39 | 2 | - |
| N.Y. City | - | - | 641 | 6,133 | 6,648 | 34 | 34 | - | - |
| N.J. | - | - | 144 | 2,829 | 3,232 | 31 | 28 | - | - |
| Pa. | - | - | 269 | 4,864 | 6,469 | 19 | 24 | 1 | 3 |
| E.N. CENTRAL | 8 | 2 | 1,321 | 31,686 | 38,086 | 144 | 154 | 2 | 1 |
| Ohio | 8 | 2 | 410 | 9,598 | 10,354 | 55 | 48 | - | 1 |
| Ind. | - | - | - | 3,776 | 3,418 | 31 | 28 | 1 | - |
| Ill. | - | - | 304 | 9,119 | 12,007 | 43 | 52 | - | - |
| Mich. | - | - | 398 | 7,265 | 9,274 | 9 | 8 | 1 | - |
| Wis. | - | - | 209 | 1,928 | 3,033 | 6 | 18 | - | - |
| W.N. CENTRAL | - | - | 847 | 8,157 | 8,550 | 33 | 38 | - | 1 |
| Minn. | - | - | 309 | 1,457 | 1,319 | 20 | 20 | - | - |
| Iowa | - | - | 119 | 602 | 648 | 1 | - | - | - |
| Mo. | N | N | 243 | 4,406 | 4,336 | 9 | 12 | - | - |
| N. Dak. | - | - | 11 | 27 | 19 | - | 4 | - | - |
| S. Dak. | - | - | 35 | 138 | 146 | - | - | - | - |
| Nebr. | - | - | 52 | 137 | 634 | - | 1 | - | 1 |
| Kans. | - | - | 78 | 1,390 | 1,448 | 3 | 1 | - | - |
| S. ATLANTIC | - | - | 1,275 | 43,620 | 47,054 | 220 | 221 | 1 | 1 |
| Del. | - | - | 26 | 859 | 887 | - | - | - | - |
| Md. | - | - | 50 | 4,339 | 4,625 | 52 | 56 | 1 | - |
| D.C. | - | - | 20 | 1,408 | 1,560 | - | - | - | - |
| Va. | - | - | 111 | 5,375 | 4,997 | 16 | 18 | - | - |
| W. Va. | - | - | 20 | 523 | 328 | 6 | 8 | - | 1 |
| N.C. | - | - | - | 8,535 | 8,790 | 21 | 31 | - | - |
| S.C. | - | - | 35 | 4,212 | 6,242 | 11 | 4 | - | - |
| Ga. | - | - | 497 | 7,615 | 8,801 | 67 | 59 | - | - |
| Fla. | - | - | 516 | 10,754 | 10,824 | 47 | 45 | - | - |
| E.S. CENTRAL | 1 | 1 | 172 | 15,029 | 16,969 | 37 | 56 | 1 | - |
| Ky. | 1 | 1 | - | 1,822 | 1,835 | 3 | 2 | - | - |
| Tenn. | - | - | 78 | 4,821 | 5,137 | 20 | 27 | - | - |
| Ala. | - | - | 94 | 5,250 | 5,804 | 9 | 25 | 1 | - |
| Miss. | - | - | - | 3,136 | 4,193 | 5 | 2 | - | - |
| W.S. CENTRAL | - | - | 89 | 24,322 | 27,735 | 33 | 34 | 2 | 1 |
| Ark. | - | - | 66 | 1,862 | 2,590 | 1 | - | - | - |
| La. | - | - | 1 | 6,158 | 6,570 | 2 | 6 | - | - |
| Okla. | - | - | 22 | 2,344 | 2,607 | 28 | 27 | - | - |
| Tex. | - | - | - | 13,958 | 15,968 | 2 | 1 | 2 | 1 |
| MOUNTAIN | 8 | - | 665 | 4,964 | 5,505 | 116 | 96 | 2 | 3 |
| Mont. | - | - | 35 | 55 | 69 | - | - | - | - |
| Idaho | - | - | 46 | 40 | 42 | 2 | 1 | - | - |
| Wyo. | - | - | 12 | 32 | 32 | 1 | - | - | - |
| Colo. | 8 | - | 219 | 1,704 | 1,657 | 21 | 26 | - | - |
| N. Mex. | - | - | 77 | 623 | 519 | 18 | 14 | - | - |
| Ariz. | - | - | 85 | 1,785 | 2,153 | 55 | 40 | 1 | 1 |
| Utah | - | - | 123 | 107 | 80 | 14 | 5 | - | - |
| Nev. | - | - | 68 | 618 | 953 | 5 | 10 | 1 | 2 |
| PACIFIC | - | - | 480 | 13,406 | 14,640 | 82 | 98 | 1 | 4 |
| Wash. | - | - | 185 | 1,485 | 1,574 | 2 | 1 | 1 | - |
| Oreg. | - | - | 198 | 434 | 615 | 42 | 30 | - | - |
| Calif. | - | - | - | 10,859 | 11,910 | 12 | 44 | - | 4 |
| Alaska | - | - | 48 | 327 | 202 | 1 | 3 | - | - |
| Hawaii | - | - | 49 | 301 | 339 | 25 | 20 | - | - |
| Guam | - | - | - | - | 24 | - | - | - | - |
| P.R. | - | - | 11 | 237 | 336 | 1 | 1 | - | - |
| V.I. | - | - | - | 17 | 14 | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | 11 | 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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th Week)***

| Reporting Area | *Haemophilus influenzae*, Invasive, Age <5 Years, Non-Serotype B, Cum. 2002 | *Haemophilus influenzae*, Invasive, Age <5 Years, Non-Serotype B, Cum. 2001 | *Haemophilus influenzae*, Invasive, Age <5 Years, Unknown Serotype, Cum. 2002 | *Haemophilus influenzae*, Invasive, Age <5 Years, Unknown Serotype, Cum. 2001 | Hepatitis (Viral, Acute), By Type, A, Cum. 2002 | Hepatitis (Viral, Acute), By Type, A, Cum. 2001 | Hepatitis (Viral, Acute), By Type, B, Cum. 2002 | Hepatitis (Viral, Acute), By Type, B, Cum. 2001 | Hepatitis (Viral, Acute), By Type, C; Non-A, Non-B, Cum. 2002 | Hepatitis (Viral, Acute), By Type, C; Non-A, Non-B, Cum. 2001 |
|---|---|---|---|---|---|---|---|---|---|---|
| UNITED STATES | 138 | 148 | 12 | 17 | 4,420 | 4,766 | 3,367 | 3,648 | 1,704 | 2,215 |
| NEW ENGLAND | 7 | 10 | - | - | 181 | 269 | 113 | 70 | 18 | 27 |
| Maine | - | - | - | - | 6 | 5 | 4 | 5 | - | - |
| N.H. | - | - | - | - | 10 | 7 | 12 | 10 | - | - |
| Vt. | - | - | - | - | 1 | 6 | 3 | 5 | 11 | 6 |
| Mass. | 4 | 7 | - | - | 82 | 108 | 59 | 13 | 7 | 21 |
| R.I. | - | - | - | - | 27 | 12 | 17 | 12 | - | - |
| Conn. | 3 | 3 | - | - | 55 | 131 | 18 | 25 | - | - |
| MID. ATLANTIC | 21 | 20 | - | 3 | 549 | 625 | 750 | 719 | 806 | 643 |
| Upstate N.Y. | 8 | 6 | - | 1 | 108 | 145 | 79 | 68 | 31 | 18 |
| N.Y. City | 6 | 5 | - | - | 228 | 227 | 415 | 346 | - | - |
| N.J. | 4 | 3 | - | - | 64 | 150 | 146 | 147 | 759 | 587 |
| Pa. | 3 | 6 | - | 2 | 149 | 103 | 110 | 158 | 16 | 38 |
| E.N. CENTRAL | 20 | 28 | - | 1 | 615 | 574 | 424 | 431 | 58 | 109 |
| Ohio | 5 | 8 | - | - | 196 | 131 | 58 | 62 | 6 | 7 |
| Ind. | 7 | 4 | - | 1 | 32 | 45 | 18 | 24 | - | 1 |
| Ill. | 7 | 11 | - | - | 168 | 178 | 40 | 54 | 8 | 9 |
| Mich. | - | - | - | - | 125 | 178 | 308 | 268 | 44 | 92 |
| Wis. | 1 | 5 | - | - | 94 | 42 | - | 23 | - | - |
| W.N. CENTRAL | 2 | 2 | 3 | 2 | 186 | 204 | 114 | 114 | 476 | 680 |
| Minn. | 2 | 1 | 1 | - | 26 | 16 | 8 | 11 | - | 2 |
| Iowa | - | - | - | - | 46 | 19 | 11 | 12 | 1 | - |
| Mo. | - | - | 2 | 2 | 51 | 45 | 65 | 66 | 467 | 672 |
| N. Dak. | - | 1 | - | - | 1 | 2 | 4 | - | - | - |
| S. Dak. | - | - | - | - | 3 | 1 | - | 1 | - | - |
| Nebr. | - | - | - | - | 5 | 27 | 14 | 14 | 6 | 3 |
| Kans. | - | - | - | - | 54 | 94 | 12 | 10 | 2 | 3 |
| S. ATLANTIC | 33 | 30 | 2 | 5 | 1,328 | 887 | 873 | 665 | 89 | 36 |
| Del. | - | - | - | - | 9 | 4 | 7 | 13 | 5 | 2 |
| Md. | 1 | 4 | - | 1 | 163 | 129 | 67 | 72 | 6 | 4 |
| D.C. | - | - | - | - | 49 | 22 | 10 | 9 | - | - |
| Va. | 2 | 4 | - | - | 51 | 68 | 114 | 80 | 2 | - |
| W. Va. | - | 1 | 1 | - | 10 | 7 | 13 | 16 | 1 | 6 |
| N.C. | 3 | 1 | - | 4 | 131 | 77 | 134 | 110 | 14 | 10 |
| S.C. | 4 | 1 | - | - | 42 | 34 | 56 | 15 | 4 | 4 |
| Ga. | 16 | 14 | - | - | 312 | 484 | 282 | 203 | 23 | - |
| Fla. | 7 | 5 | 1 | - | 561 | 62 | 190 | 147 | 34 | 10 |
| E.S. CENTRAL | 8 | 11 | 1 | 2 | 156 | 195 | 185 | 248 | 106 | 140 |
| Ky. | - | - | - | 1 | 35 | 48 | 28 | 27 | 2 | 5 |
| Tenn. | 5 | 5 | - | - | 60 | 74 | 75 | 125 | 20 | 40 |
| Ala. | 3 | 5 | 1 | 1 | 23 | 58 | 40 | 51 | 3 | 2 |
| Miss. | - | 1 | - | - | 38 | 15 | 42 | 45 | 81 | 93 |
| W.S. CENTRAL | 6 | 4 | - | - | 67 | 542 | 214 | 430 | 22 | 457 |
| Ark. | - | - | - | - | 25 | 38 | 61 | 56 | 4 | 5 |
| La. | 1 | - | - | - | 16 | 58 | 28 | 66 | 14 | 103 |
| Okla. | 5 | 4 | - | - | 25 | 82 | 15 | 66 | 4 | 4 |
| Tex. | - | - | - | - | 1 | 364 | 110 | 242 | - | 345 |
| MOUNTAIN | 24 | 12 | 5 | 1 | 334 | 408 | 259 | 268 | 52 | 38 |
| Mont. | - | - | - | - | 9 | 6 | 3 | 2 | - | 1 |
| Idaho | 1 | - | - | - | 20 | 46 | 5 | 8 | - | 1 |
| Wyo. | - | - | - | - | 2 | 2 | 9 | 1 | 7 | 4 |
| Colo. | 2 | - | - | - | 55 | 40 | 49 | 60 | 23 | 5 |
| N. Mex. | 4 | 6 | 1 | 1 | 9 | 18 | 44 | 71 | - | 11 |
| Ariz. | 12 | 4 | 3 | - | 175 | 210 | 94 | 87 | 3 | 9 |
| Utah | 4 | 2 | - | - | 35 | 38 | 23 | 15 | 2 | 1 |
| Nev. | 1 | - | 1 | - | 29 | 48 | 32 | 24 | 17 | 6 |
| PACIFIC | 17 | 31 | 1 | 3 | 1,004 | 1,062 | 435 | 703 | 77 | 85 |
| Wash. | 1 | - | - | 1 | 97 | 55 | 33 | 67 | 13 | 16 |
| Oreg. | 4 | 5 | - | - | 49 | 69 | 78 | 88 | 13 | 10 |
| Calif. | 9 | 24 | 1 | 1 | 850 | 916 | 318 | 530 | 51 | 59 |
| Alaska | 1 | 1 | - | - | 7 | 12 | 3 | 4 | - | - |
| Hawaii | 2 | 1 | - | 1 | 1 | 10 | 3 | 14 | - | - |
| Guam | - | - | - | - | - | 1 | - | - | - | - |
| P.R. | - | 1 | - | - | 58 | 95 | 47 | 147 | - | 1 |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | 31 | 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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th 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 | 383 | 473 | 217 | 276 | 3,399 | 5,005 | 564 | 704 | 10† | 84§ |
| NEW ENGLAND | 22 | 19 | 25 | 28 | 369 | 1,222 | 34 | 45 | - | 5 |
| Maine | 2 | 1 | 2 | - | - | - | 1 | 3 | - | - |
| N.H. | 4 | 4 | 2 | 1 | 52 | 26 | 5 | 2 | - | - |
| Vt. | 3 | 4 | 1 | - | 4 | 4 | 1 | - | - | 1 |
| Mass. | 9 | 5 | 15 | 15 | 244 | 578 | 13 | 21 | - | 3 |
| R.I. | - | 1 | 1 | 1 | 46 | 123 | 3 | 3 | - | - |
| Conn. | 4 | 4 | 4 | 11 | 23 | 491 | 11 | 16 | - | 1 |
| MID. ATLANTIC | 91 | 102 | 39 | 47 | 2,407 | 2,731 | 121 | 185 | 5 | 12 |
| Upstate N.Y. | 30 | 28 | 18 | 13 | 1,488 | 802 | 21 | 24 | - | 4 |
| N.Y. City | 18 | 11 | 11 | 13 | 77 | 43 | 76 | 114 | 5 | 2 |
| N.J. | 10 | 7 | 3 | 8 | 162 | 1,007 | 13 | 26 | - | 1 |
| Pa. | 33 | 56 | 7 | 13 | 680 | 879 | 11 | 21 | - | 5 |
| E.N. CENTRAL | 89 | 131 | 26 | 41 | 29 | 409 | 66 | 94 | 1 | 10 |
| Ohio | 39 | 56 | 9 | 8 | 24 | 10 | 12 | 13 | 1 | 3 |
| Ind. | 8 | 10 | 4 | 4 | 5 | 6 | 3 | 12 | - | 4 |
| Ill. | - | 17 | 1 | 13 | - | 23 | 17 | 39 | - | 3 |
| Mich. | 30 | 27 | 9 | 13 | - | 2 | 27 | 19 | - | - |
| Wis. | 12 | 21 | 3 | 3 | U | 368 | 7 | 11 | - | - |
| W.N. CENTRAL | 24 | 29 | 8 | 6 | 84 | 89 | 41 | 21 | - | 4 |
| Minn. | 2 | 7 | - | - | 48 | 49 | 14 | 6 | - | 2 |
| Iowa | 6 | 6 | 1 | - | 14 | 16 | 2 | 3 | - | - |
| Mo. | 10 | 9 | 5 | 3 | 18 | 20 | 11 | 7 | - | 2 |
| N. Dak. | - | 1 | 1 | - | - | - | 1 | - | - | - |
| S. Dak. | 2 | 2 | - | - | - | - | - | - | - | - |
| Nebr. | 4 | 3 | - | 1 | - | 2 | 5 | 2 | - | - |
| Kans. | - | 1 | 1 | 2 | 4 | 2 | 8 | 3 | - | - |
| S. ATLANTIC | 91 | 74 | 38 | 32 | 413 | 423 | 158 | 149 | 1 | 4 |
| Del. | 5 | 2 | - | 1 | 54 | 59 | 1 | 1 | - | - |
| Md. | 15 | 21 | 5 | 4 | 229 | 266 | 44 | 64 | - | 3 |
| D.C. | 5 | 2 | - | - | 12 | 7 | 7 | 9 | - | - |
| Va. | 8 | 11 | 3 | 5 | 25 | 66 | 12 | 30 | - | - |
| W. Va. | N | N | - | 4 | 5 | 8 | 2 | 1 | - | - |
| N.C. | 5 | 5 | 3 | 2 | 52 | 10 | 9 | 6 | - | - |
| S.C. | 5 | 3 | 5 | 3 | 5 | 2 | 5 | 4 | - | - |
| Ga. | 10 | 8 | 10 | 7 | 1 | - | 55 | 21 | - | 1 |
| Fla. | 38 | 22 | 12 | 6 | 30 | 5 | 23 | 13 | 1 | - |
| E.S. CENTRAL | 12 | 37 | 8 | 10 | 25 | 21 | 9 | 15 | - | 2 |
| Ky. | 7 | 9 | 2 | 4 | 12 | 7 | 2 | 4 | - | 2 |
| Tenn. | 1 | 16 | 3 | 3 | 7 | 7 | 2 | 6 | - | - |
| Ala. | 4 | 8 | 3 | 3 | 6 | 4 | 3 | 3 | - | - |
| Miss. | - | 4 | - | - | - | 3 | 2 | 2 | - | - |
| W.S. CENTRAL | 3 | 16 | 4 | 23 | 2 | 57 | 3 | 49 | - | 1 |
| Ark. | - | - | - | 1 | - | - | 1 | 3 | - | - |
| La. | 1 | 6 | - | - | 1 | 4 | 2 | 4 | - | - |
| Okla. | 2 | 3 | 4 | 1 | - | - | - | 2 | - | - |
| Tex. | - | 7 | - | 21 | 1 | 53 | - | 40 | - | 1 |
| MOUNTAIN | 17 | 28 | 18 | 25 | 12 | 6 | 27 | 29 | - | 1 |
| Mont. | 1 | - | - | - | - | - | - | 2 | - | - |
| Idaho | - | 1 | 2 | 1 | 2 | 3 | - | 3 | - | 1 |
| Wyo. | 1 | 2 | - | 1 | - | 1 | - | - | - | - |
| Colo. | 4 | 11 | 2 | 5 | 3 | - | 14 | 15 | - | - |
| N. Mex. | 1 | 2 | 2 | 6 | 1 | - | 1 | 2 | - | - |
| Ariz. | 3 | 8 | 9 | 6 | 2 | - | 5 | 3 | - | - |
| Utah | 6 | 2 | 3 | 1 | 3 | - | 4 | 2 | - | - |
| Nev. | 1 | 2 | - | 5 | 1 | 2 | 3 | 2 | - | - |
| PACIFIC | 34 | 37 | 51 | 64 | 58 | 47 | 105 | 117 | 3 | 45 |
| Wash. | 3 | 6 | 4 | 3 | - | 1 | 11 | 4 | - | 15 |
| Oreg. | N | N | 3 | 4 | 8 | 6 | 5 | 8 | - | 2 |
| Calif. | 31 | 26 | 39 | 56 | 49 | 38 | 81 | 97 | 3 | 22 |
| Alaska | - | 1 | - | - | 1 | 2 | 2 | 1 | - | - |
| Hawaii | - | 4 | 5 | 1 | N | N | 6 | 7 | - | 6 |
| Guam | - | - | - | - | - | - | - | - | - | - |
| P.R. | - | 2 | 1 | - | N | N | - | 3 | - | - |
| 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 10 cases reported, three were indigenous and seven were imported from another country.
§ Of 84 cases reported, 41 were indigenous and 43 were imported from another country.

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th 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 | 942 | 1,501 | 153 | 122 | 3,325 | 2,692 | 2,818 | 3,670 |
| NEW ENGLAND | 63 | 72 | 7 | - | 325 | 254 | 409 | 332 |
| Maine | 4 | 1 | - | - | 5 | - | 23 | 36 |
| N.H. | 8 | 9 | 4 | - | 6 | 14 | 11 | 6 |
| Vt. | 4 | 4 | - | - | 56 | 24 | 60 | 37 |
| Mass. | 30 | 43 | 2 | - | 248 | 200 | 140 | 118 |
| R.I. | 4 | 2 | - | - | 4 | 2 | 31 | 30 |
| Conn. | 13 | 13 | 1 | - | 6 | 14 | 144 | 105 |
| MID. ATLANTIC | 94 | 158 | 14 | 14 | 158 | 200 | 521 | 603 |
| Upstate N.Y. | 32 | 45 | 2 | 2 | 112 | 103 | 316 | 368 |
| N.Y. City | 13 | 25 | 1 | 8 | 7 | 33 | 10 | 14 |
| N.J. | 12 | 27 | 1 | - | 3 | 8 | 75 | 98 |
| Pa. | 37 | 61 | 10 | 4 | 36 | 56 | 120 | 123 |
| E.N. CENTRAL | 143 | 210 | 17 | 17 | 411 | 318 | 38 | 44 |
| Ohio | 54 | 57 | 3 | 1 | 224 | 166 | 10 | 14 |
| Ind. | 23 | 23 | 1 | 1 | 22 | 24 | 8 | 1 |
| Ill. | 27 | 51 | 6 | 12 | 65 | 36 | 8 | 5 |
| Mich. | 27 | 48 | 6 | 2 | 32 | 28 | 12 | 17 |
| Wis. | 12 | 31 | 1 | 1 | 68 | 64 | - | 7 |
| W.N. CENTRAL | 85 | 99 | 11 | 5 | 314 | 121 | 213 | 200 |
| Minn. | 22 | 15 | 3 | 2 | 109 | 31 | 16 | 19 |
| Iowa | 12 | 21 | - | - | 107 | 15 | 33 | 43 |
| Mo. | 34 | 35 | 3 | - | 61 | 55 | 21 | 18 |
| N. Dak. | - | 5 | 1 | - | - | - | 11 | 24 |
| S. Dak. | 2 | 4 | - | - | 5 | 3 | 32 | 29 |
| Nebr. | 10 | 10 | - | 1 | 4 | 3 | - | 4 |
| Kans. | 5 | 9 | 4 | 2 | 28 | 14 | 100 | 63 |
| S. ATLANTIC | 164 | 229 | 17 | 17 | 209 | 121 | 1,211 | 1,276 |
| Del. | 6 | 3 | - | - | 2 | - | 24 | 22 |
| Md. | 4 | 32 | 3 | 4 | 21 | 18 | 165 | 262 |
| D.C. | - | - | - | - | 1 | 1 | - | - |
| Va. | 28 | 28 | 3 | 2 | 88 | 12 | 262 | 228 |
| W. Va. | - | 8 | - | - | 12 | 1 | 95 | 67 |
| N.C. | 19 | 55 | 1 | 1 | 20 | 40 | 360 | 318 |
| S.C. | 15 | 22 | 2 | 1 | 28 | 21 | 43 | 71 |
| Ga. | 24 | 34 | 4 | 7 | 16 | 16 | 132 | 202 |
| Fla. | 68 | 47 | 4 | 2 | 21 | 12 | 130 | 106 |
| E.S. CENTRAL | 60 | 97 | 11 | 3 | 102 | 57 | 89 | 145 |
| Ky. | 10 | 17 | 4 | 1 | 39 | 13 | 16 | 12 |
| Tenn. | 24 | 41 | 2 | - | 36 | 25 | 49 | 106 |
| Ala. | 16 | 29 | 2 | - | 20 | 16 | 24 | 27 |
| Miss. | 10 | 10 | 3 | 2 | 7 | 3 | - | - |
| W.S. CENTRAL | 54 | 235 | 11 | 9 | 764 | 252 | 64 | 727 |
| Ark. | 20 | 13 | - | - | 339 | 11 | - | - |
| La. | 17 | 57 | 1 | 2 | 4 | 4 | - | 5 |
| Okla. | 16 | 21 | - | - | 41 | 9 | 64 | 43 |
| Tex. | 1 | 144 | 10 | 7 | 380 | 228 | - | 679 |
| MOUNTAIN | 62 | 71 | 12 | 8 | 452 | 907 | 132 | 137 |
| Mont. | 2 | 3 | - | - | 2 | 10 | 7 | 20 |
| Idaho | 3 | 7 | 1 | - | 46 | 165 | 8 | 2 |
| Wyo. | - | 4 | - | 1 | 7 | - | 13 | 20 |
| Colo. | 20 | 27 | 2 | 2 | 181 | 171 | 20 | - |
| N. Mex. | 3 | 8 | 1 | 2 | 82 | 50 | 4 | 5 |
| Ariz. | 19 | 11 | 1 | 1 | 89 | 461 | 76 | 87 |
| Utah | 4 | 7 | 4 | 1 | 27 | 39 | 2 | 2 |
| Nev. | 11 | 4 | 3 | 1 | 18 | 11 | 2 | 1 |
| PACIFIC | 217 | 330 | 53 | 49 | 590 | 462 | 141 | 206 |
| Wash. | 42 | 43 | - | 1 | 264 | 76 | - | - |
| Oreg. | 34 | 39 | N | N | 102 | 30 | 2 | - |
| Calif. | 134 | 238 | 43 | 26 | 213 | 331 | 115 | 168 |
| Alaska | 1 | 2 | - | 1 | 4 | 2 | 24 | 38 |
| Hawaii | 6 | 8 | 10 | 21 | 7 | 23 | - | - |
| Guam | - | - | - | - | - | - | - | - |
| P.R. | 3 | 4 | - | - | 1 | - | 43 | 62 |
| V.I. | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | 1 | 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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th Week)***

| Reporting Area | Rocky Mountain Spotted Fever | | Rubella | | | | Salmonellosis | |
|---|---|---|---|---|---|---|---|---|
| | | | Rubella | | Congenital Rubella | | | |
| | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 |
| UNITED STATES | 339 | 215 | 5 | 15 | 2 | - | 15,304 | 16,861 |
| NEW ENGLAND | - | 2 | - | - | - | - | 926 | 1,228 |
| Maine | - | - | - | - | - | - | 72 | 110 |
| N.H. | - | - | - | - | - | - | 61 | 95 |
| Vt. | - | - | - | - | - | - | 34 | 35 |
| Mass. | - | 2 | - | - | - | - | 513 | 715 |
| R.I. | - | - | - | - | - | - | 59 | 64 |
| Conn. | - | - | - | - | - | - | 187 | 209 |
| MID. ATLANTIC | 19 | 11 | 3 | 6 | - | - | 1,934 | 2,291 |
| Upstate N.Y. | 5 | - | 2 | 1 | - | - | 693 | 516 |
| N.Y. City | 2 | 1 | - | 4 | - | - | 621 | 627 |
| N.J. | 3 | 2 | 1 | 1 | - | - | 192 | 539 |
| Pa. | 9 | 8 | - | - | - | - | 428 | 609 |
| E.N. CENTRAL | 6 | 13 | - | 2 | - | - | 2,474 | 2,326 |
| Ohio | 4 | 1 | - | - | - | - | 682 | 680 |
| Ind. | 1 | 1 | - | - | - | - | 211 | 230 |
| Ill. | - | 11 | - | 2 | - | - | 770 | 649 |
| Mich. | 1 | - | - | - | - | - | 440 | 402 |
| Wis. | - | - | - | - | - | - | 371 | 365 |
| W.N. CENTRAL | 47 | 30 | - | 3 | - | - | 1,142 | 980 |
| Minn. | - | - | - | - | - | - | 264 | 304 |
| Iowa | 1 | 1 | - | 1 | - | - | 195 | 152 |
| Mo. | 46 | 27 | - | 1 | - | - | 423 | 237 |
| N. Dak. | - | - | - | - | - | - | 25 | 15 |
| S. Dak. | - | 2 | - | - | - | - | 44 | 70 |
| Nebr. | - | - | - | - | - | - | 51 | 68 |
| Kans. | - | - | - | 1 | - | - | 140 | 134 |
| S. ATLANTIC | 195 | 89 | - | 3 | - | - | 3,721 | 3,645 |
| Del. | 2 | - | - | - | - | - | 31 | 42 |
| Md. | 25 | 15 | - | - | - | - | 382 | 374 |
| D.C. | - | - | - | - | - | - | 40 | 39 |
| Va. | 12 | 8 | - | - | - | - | 401 | 582 |
| W. Va. | 1 | - | - | - | - | - | 46 | 53 |
| N.C. | 102 | 44 | - | - | - | - | 528 | 517 |
| S.C. | 32 | 13 | - | 2 | - | - | 210 | 360 |
| Ga. | 18 | 6 | - | - | - | - | 813 | 672 |
| Fla. | 3 | 3 | - | 1 | - | - | 1,270 | 1,006 |
| E.S. CENTRAL | 34 | 44 | - | - | 1 | - | 1,061 | 955 |
| Ky. | 2 | 1 | - | - | - | - | 164 | 166 |
| Tenn. | 24 | 35 | - | - | 1 | - | 263 | 249 |
| Ala. | 8 | 4 | - | - | - | - | 305 | 276 |
| Miss. | - | 4 | - | - | - | - | 329 | 264 |
| W.S. CENTRAL | 28 | 19 | 1 | - | - | - | 614 | 2,003 |
| Ark. | - | 4 | - | - | - | - | 315 | 259 |
| La. | - | 1 | - | - | - | - | 118 | 347 |
| Okla. | 28 | 14 | - | - | - | - | 179 | 147 |
| Tex. | - | - | 1 | - | - | - | 2 | 1,250 |
| MOUNTAIN | 8 | 7 | - | - | - | - | 1,031 | 1,014 |
| Mont. | 1 | 1 | - | - | - | - | 48 | 39 |
| Idaho | - | 1 | - | - | - | - | 60 | 70 |
| Wyo. | 2 | 2 | - | - | - | - | 29 | 31 |
| Colo. | 1 | - | - | - | - | - | 261 | 279 |
| N. Mex. | - | 1 | - | - | - | - | 143 | 125 |
| Ariz. | - | - | - | - | - | - | 290 | 270 |
| Utah | - | 2 | - | - | - | - | 92 | 113 |
| Nev. | 4 | - | - | - | - | - | 108 | 87 |
| PACIFIC | 2 | - | 1 | 1 | 1 | - | 2,401 | 2,419 |
| Wash. | - | - | - | - | - | - | 225 | 226 |
| Oreg. | 1 | - | - | - | - | - | 201 | 145 |
| Calif. | 1 | - | 1 | - | - | - | 1,809 | 1,835 |
| Alaska | - | - | - | - | - | - | 35 | 25 |
| Hawaii | - | - | - | 1 | 1 | - | 131 | 188 |
| Guam | - | - | - | - | - | - | - | 10 |
| P.R. | - | - | - | 3 | - | - | 101 | 484 |
| V.I. | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | 21 | 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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th Week)***

| Reporting Area | Shigellosis | | Streptococcal Disease, Invasive, Group A | | *Streptococcus pneumoniae*, Drug Resistant, Invasive | | *Streptococcus pneumoniae*, Invasive (<5 Years) | |
|---|---|---|---|---|---|---|---|---|
| | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 | Cum. 2002 | Cum. 2001 |
| UNITED STATES | 6,978 | 8,130 | 2,443 | 2,286 | 1,313 | 1,827 | 136 | 265 |
| NEW ENGLAND | 127 | 132 | 119 | 159 | 8 | 85 | 1 | 30 |
| Maine | 3 | 5 | 14 | 10 | - | - | - | - |
| N.H. | 5 | 2 | 25 | N | - | - | N | N |
| Vt. | - | 3 | 9 | 9 | 3 | 7 | 1 | - |
| Mass. | 88 | 92 | 58 | 51 | N | N | N | N |
| R.I. | 7 | 8 | 13 | 8 | 5 | - | - | 2 |
| Conn. | 24 | 22 | - | 81 | - | 78 | - | 28 |
| MID. ATLANTIC | 399 | 839 | 414 | 411 | 76 | 115 | 43 | 73 |
| Upstate N.Y. | 97 | 316 | 209 | 179 | 68 | 113 | 43 | 73 |
| N.Y. City | 189 | 226 | 103 | 121 | U | U | U | U |
| N.J. | 48 | 152 | 71 | 73 | N | N | N | N |
| Pa. | 65 | 145 | 31 | 38 | 8 | 2 | - | - |
| E.N. CENTRAL | 720 | 1,372 | 393 | 547 | 124 | 126 | 53 | 68 |
| Ohio | 356 | 693 | 145 | 138 | N | N | N | N |
| Ind. | 39 | 125 | 29 | 43 | 119 | 126 | 28 | 38 |
| Ill. | 194 | 268 | 30 | 178 | 2 | - | - | 30 |
| Mich. | 76 | 152 | 189 | 140 | 3 | - | N | N |
| Wis. | 55 | 134 | - | 48 | N | N | 25 | - |
| W.N. CENTRAL | 595 | 812 | 169 | 222 | 146 | 85 | 33 | 31 |
| Minn. | 130 | 251 | 87 | 80 | 48 | 40 | 33 | 24 |
| Iowa | 62 | 238 | - | - | N | N | N | N |
| Mo. | 81 | 139 | 37 | 55 | 6 | 9 | - | - |
| N. Dak. | 15 | 13 | - | 7 | 1 | 4 | - | 7 |
| S. Dak. | 149 | 84 | 9 | 7 | 1 | 3 | - | - |
| Nebr. | 104 | 41 | 13 | 28 | 23 | 9 | N | N |
| Kans. | 54 | 46 | 23 | 45 | 67 | 20 | N | N |
| S. ATLANTIC | 2,756 | 1,122 | 496 | 393 | 806 | 973 | 1 | 4 |
| Del. | 11 | 5 | 1 | 2 | 3 | 2 | N | N |
| Md. | 482 | 58 | 83 | N | N | N | N | N |
| D.C. | 34 | 30 | 5 | 3 | 42 | 3 | 1 | 3 |
| Va. | 493 | 106 | 50 | 60 | N | N | N | N |
| W. Va. | 4 | 5 | 12 | 16 | 34 | 36 | - | 1 |
| N.C. | 155 | 203 | 93 | 107 | N | N | U | U |
| S.C. | 46 | 144 | 28 | 7 | 128 | 199 | N | N |
| Ga. | 894 | 146 | 129 | 131 | 249 | 278 | U | U |
| Fla. | 637 | 425 | 95 | 67 | 350 | 455 | N | N |
| E.S. CENTRAL | 681 | 808 | 68 | 50 | 91 | 174 | - | - |
| Ky. | 75 | 295 | 12 | 18 | 10 | 18 | N | N |
| Tenn. | 33 | 50 | 56 | 32 | 81 | 155 | N | N |
| Ala. | 348 | 146 | - | - | - | 1 | N | N |
| Miss. | 225 | 317 | - | - | - | - | - | - |
| W.S. CENTRAL | 408 | 1,502 | 39 | 218 | 34 | 239 | 2 | 59 |
| Ark. | 110 | 374 | 5 | - | 5 | 13 | - | - |
| La. | 63 | 144 | - | - | 29 | 196 | 1 | 59 |
| Okla. | 234 | 20 | 33 | 31 | N | N | 1 | - |
| Tex. | 1 | 964 | 1 | 187 | N | N | - | - |
| MOUNTAIN | 301 | 423 | 413 | 248 | 28 | 29 | 3 | - |
| Mont. | 2 | - | - | - | - | - | - | - |
| Idaho | 2 | 19 | 5 | 4 | N | N | N | N |
| Wyo. | 3 | 2 | 7 | 7 | 9 | 5 | - | - |
| Colo. | 59 | 86 | 147 | 99 | - | - | - | - |
| N. Mex. | 57 | 64 | 68 | 53 | 19 | 22 | - | - |
| Ariz. | 139 | 193 | 177 | 82 | - | - | N | N |
| Utah | 23 | 27 | 9 | 3 | - | - | 3 | - |
| Nev. | 16 | 32 | - | - | - | 2 | - | - |
| PACIFIC | 991 | 1,120 | 332 | 38 | - | 1 | - | - |
| Wash. | 70 | 97 | 36 | - | - | - | N | N |
| Oreg. | 48 | 59 | N | N | N | N | N | N |
| Calif. | 844 | 933 | 260 | - | N | N | N | N |
| Alaska | 2 | 4 | - | - | - | - | N | N |
| Hawaii | 27 | 27 | 36 | 38 | - | 1 | - | - |
| Guam | - | 31 | - | 1 | - | - | - | - |
| P.R. | 5 | 12 | N | N | - | - | N | N |
| V.I. | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | - | - | U | U |
| C.N.M.I. | 14 | 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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 13, 2002, and July 14, 2001 (28th 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 | 3,234 | 3,009 | 160 | 279 | 5,846 | 6,926 | 129 | 166 |
| NEW ENGLAND | 65 | 27 | - | 3 | 207 | 245 | 10 | 8 |
| Maine | - | - | - | - | 5 | 10 | - | 1 |
| N.H. | 1 | 1 | - | - | 7 | 11 | - | 1 |
| Vt. | 1 | 2 | - | - | - | 4 | - | - |
| Mass. | 47 | 15 | - | 2 | 104 | 117 | 8 | 5 |
| R.I. | 2 | 3 | - | - | 27 | 38 | - | - |
| Conn. | 14 | 6 | - | 1 | 64 | 65 | 2 | 1 |
| MID. ATLANTIC | 364 | 260 | 25 | 40 | 1,092 | 1,173 | 36 | 57 |
| Upstate N.Y. | 19 | 10 | 3 | 2 | 158 | 165 | 5 | 13 |
| N.Y. City | 204 | 149 | 11 | 20 | 577 | 601 | 19 | 21 |
| N.J. | 68 | 49 | 10 | 18 | 247 | 269 | 9 | 20 |
| Pa. | 73 | 52 | 1 | - | 110 | 138 | 3 | 3 |
| E.N. CENTRAL | 562 | 522 | 24 | 41 | 548 | 694 | 13 | 20 |
| Ohio | 75 | 49 | - | 2 | 95 | 134 | 4 | 2 |
| Ind. | 42 | 95 | - | 5 | 58 | 48 | 2 | 2 |
| Ill. | 150 | 159 | 18 | 27 | 270 | 349 | 1 | 9 |
| Mich. | 287 | 202 | 6 | 4 | 119 | 126 | 3 | 4 |
| Wis. | 8 | 17 | - | 3 | 6 | 37 | 3 | 3 |
| W.N. CENTRAL | 52 | 43 | - | 5 | 282 | 266 | 4 | 6 |
| Minn. | 18 | 20 | - | 1 | 122 | 116 | 3 | 2 |
| Iowa | 2 | 3 | - | - | 17 | 18 | - | - |
| Mo. | 16 | 9 | - | 3 | 81 | 59 | 1 | 4 |
| N. Dak. | - | - | - | - | 1 | 3 | - | - |
| S. Dak. | - | - | - | - | 9 | 8 | - | - |
| Nebr. | 4 | 1 | - | - | 9 | 21 | - | - |
| Kans. | 12 | 10 | - | 1 | 43 | 41 | - | - |
| S. ATLANTIC | 860 | 1,067 | 38 | 72 | 1,227 | 1,338 | 16 | 21 |
| Del. | 8 | 9 | - | - | 7 | 9 | - | - |
| Md. | 103 | 138 | 5 | 2 | 140 | 114 | 3 | 6 |
| D.C. | 48 | 15 | 1 | 2 | - | 37 | - | - |
| Va. | 41 | 61 | 1 | 4 | 93 | 127 | - | 6 |
| W. Va. | - | - | - | - | 12 | 16 | - | - |
| N.C. | 158 | 249 | 14 | 8 | 167 | 180 | - | 1 |
| S.C. | 67 | 145 | 3 | 18 | 102 | 115 | - | - |
| Ga. | 152 | 178 | 1 | 14 | 201 | 261 | 7 | 6 |
| Fla. | 283 | 272 | 13 | 24 | 505 | 479 | 6 | 2 |
| E.S. CENTRAL | 287 | 322 | 10 | 21 | 385 | 440 | 4 | - |
| Ky. | 52 | 25 | 2 | - | 71 | 70 | 4 | - |
| Tenn. | 110 | 179 | 3 | 13 | 147 | 157 | - | - |
| Ala. | 97 | 58 | 4 | 4 | 120 | 145 | - | - |
| Miss. | 28 | 60 | 1 | 4 | 47 | 68 | - | - |
| W.S. CENTRAL | 433 | 369 | 39 | 47 | 713 | 1,109 | - | 11 |
| Ark. | 12 | 22 | 1 | 5 | 71 | 73 | - | - |
| La. | 66 | 70 | - | - | - | 65 | - | - |
| Okla. | 36 | 37 | 2 | 3 | 69 | 74 | - | - |
| Tex. | 319 | 240 | 36 | 39 | 573 | 897 | - | 11 |
| MOUNTAIN | 145 | 111 | 9 | 16 | 191 | 259 | 9 | 6 |
| Mont. | - | - | - | - | 6 | - | - | 1 |
| Idaho | 2 | - | 1 | - | 8 | 3 | - | - |
| Wyo. | - | - | - | - | 2 | 1 | - | - |
| Colo. | 11 | 15 | 1 | 1 | 25 | 66 | 5 | - |
| N. Mex. | 25 | 10 | - | 1 | 21 | 34 | - | - |
| Ariz. | 100 | 76 | 7 | 14 | 101 | 99 | - | 1 |
| Utah | 3 | 7 | - | - | 16 | 14 | 3 | - |
| Nev. | 4 | 3 | - | - | 12 | 42 | 1 | 4 |
| PACIFIC | 466 | 288 | 15 | 34 | 1,201 | 1,402 | 37 | 37 |
| Wash. | 26 | 32 | 1 | - | 124 | 124 | 4 | 3 |
| Oreg. | 7 | 7 | 1 | - | 50 | 52 | 2 | 3 |
| Calif. | 428 | 243 | 13 | 34 | 925 | 1,119 | 31 | 29 |
| Alaska | - | - | - | - | 32 | 24 | - | - |
| Hawaii | 5 | 6 | - | - | 70 | 83 | - | 2 |
| Guam | - | 2 | - | - | - | 37 | - | 2 |
| P.R. | 126 | 134 | 10 | 2 | 33 | 53 | - | - |
| V.I. | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U |
| C.N.M.I. | 13 | U | - | U | 27 | 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 III. Deaths in 122 U.S. cities,* week ending July 13, 2002 (28th Week)**

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I† Total |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 511 | 350 | 101 | 35 | 13 | 12 | 32 |
| Boston, Mass. | 192 | 116 | 47 | 12 | 9 | 8 | 8 |
| Bridgeport, Conn. | 31 | 24 | 5 | 2 | - | - | - |
| Cambridge, Mass. | 20 | 13 | 5 | 2 | - | - | 1 |
| Fall River, Mass. | 42 | 36 | 6 | - | - | - | 4 |
| Hartford, Conn. | U | U | U | U | U | U | U |
| Lowell, Mass. | 28 | 22 | 4 | 2 | - | - | 5 |
| Lynn, Mass. | 17 | 13 | 3 | 1 | - | - | 1 |
| New Bedford, Mass. | 24 | 21 | 2 | 1 | - | - | - |
| New Haven, Conn. | 31 | 23 | 6 | 1 | - | 1 | 2 |
| Providence, R.I. | U | U | U | U | U | U | U |
| Somerville, Mass. | 6 | 3 | 2 | 1 | - | - | - |
| Springfield, Mass. | 40 | 30 | 5 | 4 | 1 | - | 6 |
| Waterbury, Conn. | 32 | 20 | 7 | 3 | 1 | 1 | 1 |
| Worcester, Mass. | 48 | 29 | 9 | 6 | 2 | 2 | 4 |
| MID. ATLANTIC | 2,118 | 1,478 | 437 | 132 | 39 | 32 | 103 |
| Albany, N.Y. | 53 | 35 | 12 | 5 | - | 1 | 5 |
| Allentown, Pa. | 19 | 15 | 3 | 1 | - | - | 1 |
| Buffalo, N.Y. | 111 | 82 | 21 | 5 | - | 3 | 15 |
| Camden, N.J. | 21 | 14 | - | 3 | - | 4 | - |
| Elizabeth, N.J. | 28 | 19 | 9 | - | - | - | - |
| Erie, Pa. | 26 | 19 | 7 | - | - | - | 1 |
| Jersey City, N.J. | 53 | 39 | 11 | 1 | 1 | 1 | - |
| New York City, N.Y. | 1,264 | 876 | 264 | 86 | 25 | 13 | 48 |
| Newark, N.J. | 64 | 32 | 21 | 4 | 6 | 1 | 1 |
| Paterson, N.J. | 28 | 15 | 6 | 3 | 1 | 3 | 1 |
| Philadelphia, Pa. | U | U | U | U | U | U | U |
| Pittsburgh, Pa.§ | 51 | 30 | 16 | 1 | 3 | 1 | 4 |
| Reading, Pa. | 22 | 17 | 3 | 1 | - | 1 | 3 |
| Rochester, N.Y. | 147 | 112 | 27 | 6 | - | 2 | 13 |
| Schenectady, N.Y. | 21 | 19 | 1 | 1 | - | - | 4 |
| Scranton, Pa. | 37 | 31 | 6 | - | - | - | - |
| Syracuse, N.Y. | 97 | 72 | 13 | 8 | 3 | 1 | 3 |
| Trenton, N.J. | 34 | 22 | 7 | 4 | - | 1 | - |
| Utica, N.Y. | 18 | 12 | 6 | - | - | - | 1 |
| Yonkers, N.Y. | 24 | 17 | 4 | 3 | - | - | 3 |
| E.N. CENTRAL | 1,405 | 946 | 265 | 90 | 40 | 28 | 82 |
| Akron, Ohio | U | U | U | U | U | U | U |
| Canton, Ohio | 40 | 27 | 12 | 1 | - | - | 4 |
| Chicago, Ill. | U | U | U | U | U | U | U |
| Cincinnati, Ohio | U | U | U | U | U | U | U |
| Cleveland, Ohio | 121 | 77 | 24 | 14 | 4 | 2 | 7 |
| Columbus, Ohio | 176 | 122 | 32 | 11 | 4 | 7 | 13 |
| Dayton, Ohio | 114 | 78 | 26 | 6 | 3 | 1 | 5 |
| Detroit, Mich. | 128 | 78 | 29 | 10 | 7 | 4 | 7 |
| Evansville, Ind. | 60 | 47 | 8 | 4 | 1 | - | 3 |
| Fort Wayne, Ind. | 83 | 60 | 16 | 6 | 1 | - | 6 |
| Gary, Ind. | 17 | 13 | 1 | 1 | 1 | - | - |
| Grand Rapids, Mich. | 33 | 20 | 9 | 1 | 1 | 2 | 3 |
| Indianapolis, Ind. | 175 | 110 | 18 | 4 | 4 | 4 | 11 |
| Lansing, Mich. | 48 | 35 | 10 | 1 | 1 | 1 | 3 |
| Milwaukee, Wis. | 119 | 80 | 28 | 5 | 4 | 2 | 7 |
| Peoria, Ill. | 73 | 35 | 15 | 16 | 6 | 1 | 5 |
| Rockford, Ill. | U | U | U | U | U | U | U |
| South Bend, Ind. | 46 | 32 | 9 | 4 | 1 | - | - |
| Toledo, Ohio | 102 | 76 | 18 | 5 | 1 | 2 | 5 |
| Youngstown, Ohio | 70 | 56 | 10 | 1 | 1 | 2 | 3 |
| W.N. CENTRAL | 432 | 292 | 98 | 30 | 8 | 4 | 39 |
| Des Moines, Iowa | 81 | 60 | 18 | 2 | 1 | - | 12 |
| Duluth, Minn. | 26 | 18 | 5 | 3 | - | - | 2 |
| Kansas City, Kans. | U | U | U | U | U | U | U |
| Kansas City, Mo. | 75 | 42 | 21 | 9 | 3 | - | 6 |
| Lincoln, Nebr. | 29 | 23 | 3 | 2 | 1 | - | - |
| Minneapolis, Minn. | 60 | 42 | 12 | 4 | 1 | 1 | 6 |
| Omaha, Nebr. | 100 | 65 | 22 | 9 | 2 | 2 | 6 |
| St. Louis, Mo. | U | U | U | U | U | U | U |
| St. Paul, Minn. | 61 | 42 | 17 | 1 | - | 1 | 7 |
| Wichita, Kans. | U | U | U | U | U | U | U |
| S. ATLANTIC | 1,120 | 687 | 266 | 108 | 32 | 26 | 79 |
| Atlanta, Ga. | 74 | 37 | 23 | 10 | 4 | - | 2 |
| Baltimore, Md. | 167 | 97 | 45 | 14 | 8 | 3 | 11 |
| Charlotte, N.C. | 103 | 60 | 23 | 11 | 4 | 4 | 5 |
| Jacksonville, Fla. | 167 | 111 | 32 | 20 | 2 | 2 | 21 |
| Miami, Fla. | 80 | 45 | 16 | 12 | 4 | 3 | 5 |
| Norfolk, Va. | 70 | 40 | 18 | 8 | 2 | 2 | 5 |
| Richmond, Va. | 63 | 41 | 14 | 5 | 2 | 1 | 8 |
| Savannah, Ga. | 55 | 33 | 12 | 5 | - | 5 | 2 |
| St. Petersburg, Fla. | 53 | 39 | 11 | 1 | 1 | 1 | 6 |
| Tampa, Fla. | 169 | 119 | 35 | 12 | 1 | 2 | 11 |
| Washington, D.C. | 102 | 60 | 25 | 10 | 4 | 3 | 3 |
| Wilmington, Del. | 17 | 5 | 12 | - | - | - | - |
| E.S. CENTRAL | 673 | 452 | 138 | 55 | 15 | 10 | 57 |
| Birmingham, Ala. | 153 | 111 | 28 | 10 | 1 | - | 18 |
| Chattanooga, Tenn. | 91 | 61 | 22 | 6 | 2 | - | 4 |
| Knoxville, Tenn. | 84 | 51 | 17 | 13 | 2 | 1 | 2 |
| Lexington, Ky. | 88 | 58 | 21 | 7 | 2 | - | 6 |
| Memphis, Tenn. | U | U | U | U | U | U | U |
| Mobile, Ala. | 48 | 31 | 10 | 3 | 3 | 1 | 1 |
| Montgomery, Ala. | 49 | 36 | 10 | 2 | 1 | - | 7 |
| Nashville, Tenn. | 160 | 104 | 30 | 14 | 4 | 8 | 19 |
| W.S. CENTRAL | 1,406 | 911 | 280 | 121 | 62 | 31 | 105 |
| Austin, Tex. | 83 | 52 | 23 | 6 | 1 | 1 | 2 |
| Baton Rouge, La. | 48 | 29 | 6 | 5 | 5 | 3 | 2 |
| Corpus Christi, Tex. | 55 | 35 | 12 | 4 | 3 | 1 | 5 |
| Dallas, Tex. | 181 | 106 | 45 | 20 | 7 | 3 | 8 |
| El Paso, Tex. | 89 | 60 | 19 | 8 | 1 | 1 | 6 |
| Ft. Worth, Tex. | 116 | 76 | 18 | 9 | 5 | 8 | 12 |
| Houston, Tex. | 360 | 223 | 71 | 33 | 24 | 8 | 34 |
| Little Rock, Ark. | U | U | U | U | U | U | U |
| New Orleans, La. | 44 | 24 | 11 | 5 | 3 | 1 | - |
| San Antonio, Tex. | 216 | 147 | 38 | 19 | 10 | 2 | 13 |
| Shreveport, La. | 74 | 54 | 13 | 5 | - | 2 | 8 |
| Tulsa, Okla. | 140 | 105 | 24 | 7 | 3 | 1 | 15 |
| MOUNTAIN | 832 | 538 | 178 | 68 | 28 | 20 | 50 |
| Albuquerque, N.M. | 90 | 41 | 19 | 21 | 5 | 4 | 8 |
| Boise, Idaho | 60 | 38 | 14 | 5 | 2 | 1 | 1 |
| Colo. Springs, Colo. | 58 | 44 | 13 | 1 | - | - | 3 |
| Denver, Colo. | 118 | 68 | 29 | 13 | 5 | 3 | 6 |
| Las Vegas, Nev. | 189 | 118 | 50 | 11 | 6 | 4 | 8 |
| Ogden, Utah | U | U | U | U | U | U | U |
| Phoenix, Ariz. | U | U | U | U | U | U | U |
| Pueblo, Colo. | 19 | 15 | 3 | 1 | - | - | 3 |
| Salt Lake City, Utah | 144 | 99 | 26 | 9 | 3 | 7 | 9 |
| Tucson, Ariz. | 154 | 115 | 24 | 7 | 7 | 1 | 12 |
| PACIFIC | 1,671 | 1,148 | 338 | 112 | 43 | 30 | 95 |
| Berkeley, Calif. | 20 | 11 | 7 | 1 | - | 1 | 4 |
| Fresno, Calif. | 113 | 80 | 19 | 10 | 4 | - | 8 |
| Glendale, Calif. | 23 | 20 | 2 | 1 | - | - | - |
| Honolulu, Hawaii | 78 | 61 | 14 | 2 | - | 1 | 3 |
| Long Beach, Calif. | 91 | 60 | 20 | 6 | 3 | 2 | 7 |
| Los Angeles, Calif. | 365 | 248 | 73 | 27 | 11 | 6 | - |
| Pasadena, Calif. | 24 | 15 | 3 | 4 | 1 | 1 | 1 |
| Portland, Oreg. | 112 | 75 | 28 | 4 | 2 | 3 | 4 |
| Sacramento, Calif. | 207 | 145 | 41 | 9 | 5 | 7 | 18 |
| San Diego, Calif. | 174 | 107 | 40 | 17 | 6 | 4 | 21 |
| San Francisco, Calif. | U | U | U | U | U | U | U |
| San Jose, Calif. | 126 | 87 | 29 | 10 | - | - | 8 |
| Santa Cruz, Calif. | 31 | 22 | 6 | 3 | - | - | 2 |
| Seattle, Wash. | 147 | 96 | 31 | 8 | 8 | 4 | 6 |
| Spokane, Wash. | 52 | 43 | 6 | 2 | 1 | - | 4 |
| Tacoma, Wash. | 108 | 78 | 19 | 8 | 2 | 1 | 9 |
| TOTAL | 10,168¶ | 6,802 | 2,101 | 751 | 280 | 193 | 642 |

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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