MMWR™
Morbidity and Mortality Weekly Report
Weekly August 8, 2003 / Vol. 52 / No. 31

Imported Plague — New York City, 2002

On November 1, 2002, a married couple traveled from Santa Fe County, New Mexico, to New York City (NYC), where they both became ill with fever and unilateral inguinal adenopathy; bubonic plague (*Yersinia pestis*) was diagnosed subsequently. This report summarizes the clinical and public health investigation of these cases and underscores the importance of rapid diagnosis and communication among health-care providers, public health agencies, and the public when patients seek medical attention for an illness that might be caused by an agent of terrorism.

Case Reports

Case 1. On November 5, a man aged 53 years sought medical care in a NYC emergency department (ED) after consulting with his physician in New Mexico and the physician at the hotel in which he was staying. He reported 2 days of fever, fatigue, and painful unilateral inguinal swelling. On clinical examination, he appeared ill with diaphoresis, rigors, and lower extremity cyanosis. His temperature was 104.4° F (40.2° C), blood pressure was 78/50 mm Hg, and oxygen saturation was 98% on room air. He had tender left inguinal adenopathy with overlying edema. White blood cell (WBC) count was 24,700/μL (normal: 4,300–10,800/μL), and platelet count was 72,000/μL (normal: 130,000–400,000/μL). A blood culture grew *Y. pestis*. Gram stain of the blood culture isolate revealed bipolar gram-negative rods with a "safety pin" appearance. On November 6, direct fluorescent antibody (DFA) to *Y. pestis* F1 antigen and polymerase chain reaction (PCR) performed on the initial blood culture conducted by the NYC Public Health Laboratory (NYCPHL) both were positive.

The patient received gentamicin, doxycycline, ciprofloxacin, vancomycin, and activated protein C. The patient's condition deteriorated, and he was admitted to the intensive care unit (ICU) in shock with a diagnosis of septicemic plague, acute renal failure, acute respiratory distress syndrome, and disseminated intravascular coagulation. He required hemodialysis and mechanical ventilation and underwent bilateral foot amputations subsequently because of ischemia. After a 6-week ICU stay, he recovered and was discharged to a long-term–care rehabilitation facility.

Case 2. On November 3, the wife, aged 47 years, of patient 1 also became ill. On November 5, she sought medical care for fever, fatigue, myalgias, and unilateral inguinal swelling. A physical examination noted tender right inguinal and femoral adenopathy with overlying erythema and induration. Her temperature was 102.2° F (39.0° C), blood pressure was 120/72 mm Hg, and oxygen saturation was 98% on room air. WBC was 9,500/μL, and platelet count was 189,000/μL. Aspiration of the inguinal lymph nodes did not yield any material. The patient received a presumptive diagnosis of bubonic plague because of her clinical signs and symptoms and the recovery of *Y. pestis* from her husband's blood culture. She was hospitalized and treated with gentamicin, doxycycline, and ticarcillin-clavulanic acid, followed by a 14-day course of oral

INSIDE

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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 2003;52:[inclusive page numbers].

doxycycline 100 mg twice daily, when initial blood cultures were found to be negative. Paired acute and convalescent serum samples collected on November 5 and December 26 demonstrated a fourfold rise in *Y. pestis* F1 antigen-specific antibodies, confirming the diagnosis of bubonic plague. She recovered without complication.

Public Health Response

During the initial consultations with medical personnel, the couple reported that routine surveillance conducted by the New Mexico Department of Health (NMDOH) had identified *Y. pestis* in a dead wood rat and fleas collected in July 2002 on their New Mexico property. The hotel physician notified the ED about the arrival of two possible plague patients and the need for respiratory isolation pending the exclusion of pulmonary infection. Hospital infection-control and administration personnel were contacted to coordinate appropriate in-hospital precautions and education. The NYC Department of Health and Mental Hygiene (NYCDOHMH), the New York State DOH, NMDOH, and CDC were contacted to facilitate diagnostic testing, coordinate public health response, and assess the possibility of terrorism. After determining that these two plague cases probably were acquired naturally, a press conference was held to reassure the public that the exposures had occurred in New Mexico, a known plague-endemic area, and not in NYC.

Environmental Investigation

One day after the patients were evaluated, NMDOH and CDC investigated the couple's New Mexico property. Rodent traps were placed in and around the couple's home and along a nearby hiking trail, where wood rat (*Neotoma* species) nests and rodent burrows were abundant. From 41 trapped rodents, five flea pools comprising 88 fleas were harvested.

Laboratory Investigations

All fleas were cultured for *Y. pestis*, and all rodents were bled for culture. *Y. pestis* isolates from patient 1 and flea samples were compared by using pulsed-field gel electrophoresis (PFGE) and multiple locus variable number tandem repeat assay (MLVA) sequences (*1*). The PFGE patterns from the isolate of patient 1 and from seven New Mexico flea pools, two obtained in July and five obtained during the November investigation, were indistinguishable. The MLVA pattern of the isolate of patient 1 was similar to the *Y. pestis* isolates obtained from the same wood rat fleas collected on the couple's property in July and November. The MLVA patterns were distinguishable from other *Y. pestis* MLVA patterns from surrounding regions.

Plague warning signs were placed at trailheads near the couple's property. Plague information pamphlets were distributed in the community, and close neighbors were contacted directly to inform them of the risk for infection in the area.

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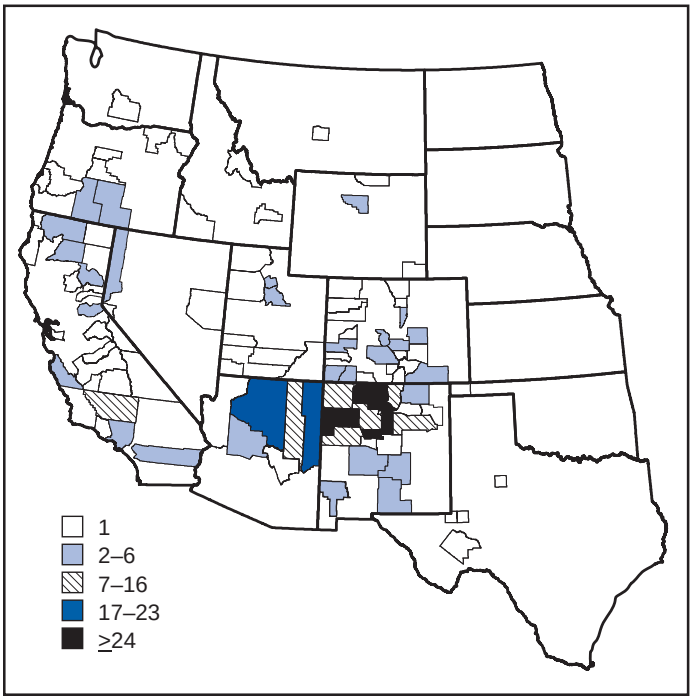
Editorial Note: Plague is a rodent-associated zoonosis caused by infection with *Y. pestis*. The disease occurs naturally in 17 western states (Figure), where *Y. pestis* is maintained through transmission between certain rodents and their fleas. Other mammals also become infected and some, including humans, suffer severe disease and high mortality rates. Human cases are acquired typically through the bites of infectious fleas; the incubation period for plague is usually 2–6 days (*2*) (Box). During 1988–2002, a total of 112 human cases of plague were reported from 11 western states. The majority (97 [87%]) were exposed in four states (New Mexico [48 cases], Colorado [22], Arizona [16], and California [11]). Approximately

FIGURE. Number of plague cases, by county — western United States, 1970–2002



BOX. Epidemiology, diagnosis, treatment, and prevention and reporting of plague (*Yersinia pestis*)

Epidemiology

- Plague is usually transmitted to humans by the bite of an infected rodent flea.
- Incubation period is 1–7 days for bubonic plague and 1–4 days for pneumonic plague.
- Case-fatality rate for untreated bubonic plague is ≥50%.
- Domestic pets (i.e., cats and dogs) can carry plague-infected fleas.
- Risks include hunting, trapping, cat ownership, and rural residence in areas where plague is endemic.
- Person-to-person transmission can occur after contact with a suppurating lesion (bubonic plague) or via respiratory droplets (pneumonic plague).
- Naturally acquired plague typically begins as bubonic plague; intentional release (i.e., terrorism) would manifest chiefly as pneumonic plague.

Clinical findings

- Signs and symptoms include fever, chills, malaise, sore throat, and headache.
- A lymphadenitis (bubo) commonly develops; inguinal lymph nodes are affected in 90% of cases.
- Infection can progress to shock (septicemic plague) and pneumonia (pneumonic plague).

Laboratory testing

- Bipolar staining, "safety pin" ovoid, gram-negative organisms are suggestive of plague infection.
- Direct fluorescent antibody testing or antigen capture enzyme-linked immunosorbent assay are specific tests.
- Confirmatory testing includes culture or a fourfold or greater change in antibody titer.

Recommended treatment

- Primary therapy: streptomycin; alternatively use gentamicin, tetracyclines, or chloramphenicol.
- Mortality from bubonic plague is reduced markedly by appropriate therapy.
- Patients with primary pneumonic plague are not likely to survive if they do not receive adequate therapy within 18 hours after onset of respiratory symptoms.

Prevention and reporting

- Educate the public about plague symptoms, mode of transmission, and prevention methods.
- Use insect repellents.
- Rodent-proof buildings.
- Avoid handling rodents or camping near rodent burrows.
- Treat dogs and cats in rural areas where plague is endemic with insecticides.
- Report plague cases and sick or dead animals to health authorities.

80% of these exposures occurred in peridomestic environments, particularly those that provided abundant food and harborage for flea-infested, plague-susceptible rodents.

Travelers can acquire plague in one area and become ill in another area where plague is not endemic (i.e., peripatetic plague) (*3*–*7*). Although rare, peripatetic plague is more likely to result in fatal outcomes because of delays in seeking treatment or misdiagnosis in areas where health-care providers might be less familiar with the disease (*3*–*7*). In the current state of heightened awareness of possible terrorism, peripatetic cases also might be confused with those arising from an intentional release of plague bacteria. The two cases described in this report did not cause such confusion because the initial history provided a plausible exposure. In addition, both patients had inguinal adenopathy, indicating that transmission was from bites of infectious fleas rather than inhalation of airborne materials, the route considered more likely for terrorism (*8*). However, intentional release should be considered as a cause of cases occurring outside an area where plague is endemic, particularly for patients with primary pneumonic or primary septicemic plague.

Plague prevention depends on the timely implementation of preventive measures, including public education, applying insecticides to kill fleas, using various personal protective measures (e.g., common insect repellents), and avoidance of sick or dead animals (*2*) (Box). A vaccine is not available in the United States. The rapid identification of peripatetic cases depends on public health surveillance systems that include the availability of laboratory expertise and facilities to provide rapid presumptive evidence and laboratory confirmation of *Y. pestis* infection. Because NMDOH had identified plague previously on the patients' property, the patients were able to alert clinicians of their potential plague exposure, which enabled early diagnosis and prompt treatment. NYCPHL, which had received training and reagents for diagnosis of *Y. pestis* as part of a nationwide effort to enhance terrorism response capabilities (*9*), also performed DFA and PCR analyses that presumptively identified *Y. pestis* as the bacterium cultured from patient 1. This was later confirmed by phage-lysis and other analyses. Genotyping at CDC indicated that the isolate was indistinguishable from (by PFGE) or highly similar to (by MLVA) an isolate obtained earlier in the year from wood rat fleas collected on the patients' property (*10*).

The findings in this report highlight how clinical, epidemiologic, and laboratory programs can act in a coordinated manner to diagnose peripatetic plague cases rapidly and identify probable exposure sites and sources of infection. Communication between public health and law enforcement agencies remains paramount in the effective diagnosis, treatment, and investigation of infections with potential terrorism agents. These capabilities have been enhanced, particularly in areas such as NYC, where plague is not endemic by a series of efforts undertaken by local, state, and federal agencies to prepare for the possibility of terrorist attacks.

Acknowledgments

This report is based on data contributed by G Beaudry, W Oleszko, AM Incalicchio, M Wong, S Clark, L Lee, T Rodriguez, New York City Public Health Laboratory, New York.

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National, State, and Urban Area Vaccination Levels Among Children Aged 19–35 Months — United States, 2002

Each annual birth cohort in the United States comprises approximately four million infants. Maintaining the gains in childhood vaccination coverage achieved during the 1990s among these children poses an ongoing challenge for public health. The National Immunization Survey (NIS) provides annual estimates of vaccination coverage among children aged 19–35 months for each of the 50 states and 28 selected urban areas*. This report presents NIS findings

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for 2002[†], which indicate a marked nationwide increase in coverage with ≥1 dose of varicella vaccine (VAR), substantial uptake for ≥3 doses of pneumococcal conjugate vaccine (PCV), generally steady coverage levels for other vaccines nationwide, and continued wide variability in coverage among the states and selected urban areas.

To collect vaccination data for all age-eligible children, NIS uses a quarterly random-digit–dialing sample of telephone numbers for each of the 78 survey areas. NIS methodology, including how the responses are weighted to represent the population of children aged 19–35 months, has been described previously (*1,2*). During 2002, health-care provider vaccination records were obtained for 21,317 children. The overall response rate for eligible households in 2002 was 62.3%.

National vaccination coverage with ≥1 dose of VAR increased from 76.3% (95% confidence interval [CI] = ±0.8%) in 2001 to 80.6% (95% CI = ±0.9%) in 2002. Coverage for ≥3 doses of PCV, reported for the first time, was 40.9% (95% CI = ±1.1%). For all other vaccines, coverage levels remained steady during 2001–2002. For all combined vaccine series reported previously, coverage remained steady (Table 1). In 2002, coverage was reported for the 4:3:1:3:3:1[§] series, which includes ≥1 dose of VAR. Coverage in 2002 for the 4:3:1:3:3:1 series was 65.5% (95% CI = ±1.1%), compared with 2000 and 2001, when coverage for this series was 54.1% (95% CI = ±1.0%) and 61.3% (95% CI = ±1.0%), respectively (Table 1).

In 2002, substantial differences remained in estimated vaccination coverage among the states. The estimated coverage with the 4:3:1:3:3[¶] series ranged from 86.2% in Massachusetts to 62.7% in Colorado (Table 2). Variability among the 28 selected urban areas was slightly less than that among the states. Among the 28 selected urban areas, the highest estimated coverage for the 4:3:1:3:3 series ranged from 81.1% in Santa Clara County, California, to 57.5% in Newark, New Jersey (Table 2).

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Editorial Note: The findings in the report indicate that among U.S. children aged 19–35 months, coverage with the recommended vaccines in 2002 remained near all-time highs. Changes in national level coverage from 2001 to 2002 with all vaccines other than VAR and PCV were so small that they are unlikely to have a major public health impact. Although coverage with recommended vaccines for each new birth cohort remains high, vigilance is needed to maintain these high levels. Eliminating the coverage disparity between states and urban areas with the highest and lowest coverage remains a priority. If vaccine-preventable disease is introduced in an area with low coverage, groups of susceptible children might serve as a reservoir to transmit disease.

Because coverage with ≥1 dose of VAR attained a level approximately equal to that of ≥4 doses of DTaP, coverage for the 4:3:1:3:3:1 series, which includes VAR, was assessed and presented for the first time in this report. From 2000 to 2002, steady increases were observed. The 2002 NIS cohort was the first entire NIS birth cohort to be eligible for PCV. Coverage with ≥3 doses of PCV (40.9%) was similar to coverage for VAR in 1998 (43.2%), the first year for which the entire NIS birth cohort was eligible for that vaccine. Uptake for ≥3 doses of PCV showed steady quarterly increases (Q1 = 24.5%; Q2 = 35.3%; Q3 = 48.8%; Q4 = 56.3%), with a similar trend for ≥4 doses.

The findings in this report are subject to at least three limitations. First, NIS is a telephone survey; although statistical weights adjust for nonresponse and households without telephones, some bias might remain. Second, although NIS relies on provider-verified vaccination histories, incomplete records and reporting could result in underestimates of coverage. The estimation procedure assumes that coverage among children whose providers do not respond is similar to that among children whose providers respond. Finally, although national level estimates are precise, estimates for states and urban areas should be interpreted with caution (*3*); CIs are wider for state and selected urban areas compared with national estimates.

During the time that children in the 2002 cohort were to be vaccinated, vaccines in short supply included DTaP; measles, mumps, and rubella (MMR); VAR; and PCV (*4–7*). When DTaP was in short supply, approximately 86% of the NIS cohort needed ≥1 dose of the vaccine to stay on schedule. For MMR, VAR, and PCV, the percentages were approximately 6%, 21%, and 37%, respectively. NIS has sufficient power to detect a moderate (e.g., 15%) decrease in coverage even among the 6% of children due to receive a dose of MMR during the period it was in short supply; no effect on coverage was noted for any vaccine or series. These shortages affected children, their parents, and health-care providers; however, many aspects of vaccine delivery are not reflected by coverage attained among children aged 19–35 months. For example, if vaccine was unavailable at a health-care provider visit, another visit could have been made at a later time when vaccine was

[†] For the January–December 2002 reporting period, NIS included children born during February 1999–June 2001.

[§] Comprises ≥4 doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine (DTP/DT/DTaP); ≥3 doses of poliovirus vaccine; ≥1 dose of measles-containing vaccine (MCV); ≥3 doses of *Haemophilus influenzae* type b vaccine (Hib); ≥3 doses of hepatitis B vaccine (hep B); and ≥1 dose of VAR vaccine.

[¶] Comprises ≥4 doses of DTP vaccine, ≥3 doses of poliovirus vaccine, ≥1 dose of MCV, ≥3 doses of Hib vaccine, and ≥3 doses of hepB vaccine.

TABLE 1. Vaccination coverage levels among children aged 19–35 months, by selected vaccines — National Immunization Survey, United States, 1998–2002

Vaccine/Dose	1998* %	1998* (95% CI†)	1999† %	1999† (95% CI)	2000§ %	2000§ (95% CI)	2001¶ %	2001¶ (95% CI)	2002** %	2002** (95% CI)
DTP/DT/DTaP§§										
≥3 doses	95.6	(±0.5)	95.9	(±0.4)	94.1	(±0.5)	94.3	(±0.5)	94.9	(±0.6)
≥4 doses	83.9	(±0.8)	83.8	(±0.8)	81.7	(±0.8)	82.1	(±0.8)	81.6	(±0.9)
Poliovirus										
≥3 doses	90.8	(±0.7)	89.6	(±0.6)	89.5	(±0.6)	89.4	(±0.7)	90.2	(±0.7)
Hib¶¶										
≥3 doses	93.4	(±0.6)	93.5	(±0.5)	93.4	(±0.5)	93.0	(±0.6)	93.1	(±0.6)
MMR* **										
≥1 dose	92.0	(±0.6)	91.5	(±0.6)	90.5	(±0.6)	91.4	(±0.6)	91.6	(±0.7)
Hepatitis B										
≥3 doses	87.0	(±0.7)	88.1	(±0.7)	90.3	(±0.6)	88.9	(±0.7)	89.9	(±0.7)
Varicella										
≥1 dose	43.2	(±1.0)	57.5	(±1.0)	67.8	(±0.9)	76.3	(±0.8)	80.6	(±0.9)
PCV†††										
≥3 doses	—		—		—		—		40.9	(±1.1)
Combined series										
4:3:1§§§	80.6	(±0.9)	79.9	(±0.8)	77.6	(±0.9)	78.6	(±0.9)	78.5	(±1.0)
4:3:1:3¶¶¶	79.2	(±0.9)	78.4	(±0.9)	76.2	(±0.9)	77.2	(±0.9)	77.5	(±1.0)
4:3:1:3:3****	—		73.2	(±0.9)	72.9	(±0.9)	73.7	(±0.9)	74.8	(±1.0)
4:3:1:3:3:1††††	—		—		54.1	(±1.0)	61.3	(±1.0)	65.5	(±1.1)

* Born during February 1995–June 1997.
† Born during February 1996–June 1998.
§ Born during February 1997–June 1999.
¶ Born during February 1998–June 2000.
** Born during February 1999–June 2001.
†† Confidence interval.
§§ Diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine.
¶¶ *Haemophilus influenzae* type b.
*** Measles, mumps, and rubella vaccine.
††† Pneumococcal conjugate vaccine.
§§§ Comprises ≥4 doses of DTP/DT/DTaP, ≥3 doses of poliovirus vaccine, and ≥1 dose of measles-containing vaccine.
¶¶¶ 4:3:1 plus ≥3 doses of Hib vaccine.
**** 4:3:1:3 plus ≥3 doses of hepatitis B vaccine.
†††† 4:3:1:3:3 plus ≥1 dose of varicella vaccine.

obtained. Such affected children, although lacking optimal protection for some period, still could show up as fully vaccinated through NIS. The impact of the shortages also might have been minimized if efforts by health-care providers, such as recalling children who missed doses and administering catch-up doses, had taken place. Further analysis of the 2002 data are ongoing to assess these potential impacts of the shortages, including changes in the percentage of children who received vaccines at recommended ages or the number of health-care provider visits required for children to be vaccinated fully. Health-care providers serving the cohort of children surveyed in 2002 also might have mitigated the effects of the shortages with vaccines already on hand that had been distributed during 1999–2001. Because many children affected by the shortages will be members of the 2003 NIS birth cohort, potential impacts on coverage and timeliness should be assessed in next year's data.

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TABLE 2. Estimated vaccination coverage levels with 4:3:1*, 4:3:1:3†, 4:3:1:3:3§, and 4:3:1:3:3:1¶ series among children aged 19–35 months, by states and selected urban areas — National Immunization Survey, United States, 2002

State/Urban area	4:3:1		4:3:1:3		4:3:1:3:3		4:3:1:3:3:1	
	%	(95% CI**)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Alabama	80.8	(±5.1)	79.5	(±5.1)	76.8	(±5.3)	73.3	(±5.5)
Jefferson County	81.7	(±5.4)	81.7	(±5.4)	77.8	(±5.9)	74.1	(±6.2)
Rest of state	80.6	(±5.9)	79.2	(±6.0)	76.6	(±6.1)	73.1	(±6.4)
Alaska	78.3	(±5.6)	78.3	(±5.6)	75.3	(±5.9)	56.2	(±6.7)
Arizona	70.0	(±4.7)	69.5	(±4.7)	67.9	(±4.7)	59.0	(±4.9)
Maricopa County	73.7	(±6.3)	73.1	(±6.3)	71.8	(±6.4)	62.2	(±6.7)
Rest of state	63.5	(±6.8)	63.3	(±6.8)	61.2	(±6.7)	53.5	(±6.8)
Arkansas	74.6	(±5.9)	74.4	(±5.9)	71.0	(±6.1)	68.3	(±6.4)
California	77.5	(±3.7)	75.8	(±3.8)	73.2	(±3.8)	67.1	(±4.0)
Los Angeles County	79.6	(±5.6)	77.1	(±5.8)	76.0	(±5.9)	72.3	(±6.1)
San Diego County	79.0	(±5.7)	77.7	(±5.8)	74.1	(±6.1)	70.7	(±6.3)
Santa Clara County	85.0	(±4.4)	83.7	(±4.5)	81.1	(±4.8)	75.2	(±5.3)
Rest of state	75.6	(±5.7)	74.0	(±5.8)	70.9	(±5.9)	63.1	(±6.2)
Colorado	64.7	(±6.6)	64.3	(±6.6)	62.7	(±6.6)	56.1	(±6.8)
Connecticut	86.1	(±4.8)	85.7	(±4.9)	81.9	(±5.2)	72.8	(±5.9)
Delaware	84.8	(±4.6)	81.1	(±5.3)	78.7	(±5.5)	69.7	(±5.9)
District of Columbia	73.8	(±7.4)	72.2	(±7.4)	69.7	(±7.5)	68.3	(±7.5)
Florida	78.0	(±4.4)	77.2	(±4.4)	74.5	(±4.7)	66.4	(±5.1)
Miami-Dade County	75.4	(±6.3)	73.3	(±6.4)	70.9	(±6.5)	60.2	(±7.0)
Duval County	78.0	(±6.9)	77.3	(±6.9)	76.1	(±7.0)	70.3	(±7.1)
Rest of state	78.6	(±5.5)	78.0	(±5.5)	75.1	(±5.8)	67.3	(±6.4)
Georgia	83.4	(±3.9)	82.0	(±4.1)	80.4	(±4.2)	76.5	(±4.5)
Fulton/DeKalb counties	79.4	(±5.6)	79.1	(±5.6)	77.5	(±5.7)	74.6	(±5.9)
Rest of state	84.4	(±4.7)	82.6	(±4.9)	81.0	(±5.0)	76.9	(±5.4)
Hawaii	81.3	(±5.4)	80.9	(±5.4)	78.7	(±5.5)	69.1	(±6.1)
Idaho	73.9	(±5.7)	73.3	(±5.8)	69.4	(±5.9)	52.6	(±6.3)
Illinois	80.4	(±4.2)	79.6	(±4.3)	78.6	(±4.3)	58.1	(±5.3)
Chicago	72.3	(±7.4)	71.5	(±7.4)	69.1	(±7.5)	58.3	(±7.9)
Rest of state	83.5	(±5.1)	82.6	(±5.1)	82.1	(±5.2)	58.1	(±6.6)
Indiana	79.2	(±4.5)	77.9	(±4.6)	76.0	(±5.0)	59.4	(±5.8)
Marion County	75.6	(±6.5)	75.3	(±6.5)	74.0	(±6.5)	62.2	(±7.0)
Rest of state	79.9	(±5.2)	78.4	(±5.4)	76.4	(±5.8)	58.9	(±6.8)
Iowa	80.7	(±5.4)	79.7	(±5.4)	78.7	(±5.5)	58.2	(±6.5)
Kansas	74.0	(±6.6)	72.9	(±6.6)	66.8	(±6.9)	55.1	(±6.9)
Kentucky	74.4	(±6.3)	74.4	(±6.3)	72.3	(±6.4)	63.6	(±6.8)
Louisiana	69.8	(±5.5)	69.3	(±5.5)	66.8	(±5.6)	61.9	(±5.8)
Orleans Parish	65.0	(±8.0)	63.4	(±8.1)	60.5	(±8.3)	53.3	(±8.6)
Rest of state	70.4	(±6.2)	70.0	(±6.2)	67.6	(±6.3)	63.0	(±6.4)
Maine	83.7	(±4.9)	82.8	(±4.9)	80.7	(±5.1)	62.1	(±6.5)
Maryland	81.8	(±5.5)	80.8	(±5.6)	78.7	(±5.6)	70.7	(±6.4)
Baltimore	76.2	(±6.3)	74.6	(±6.3)	70.8	(±6.7)	69.1	(±6.8)
Rest of state	82.7	(±6.4)	81.9	(±6.4)	80.1	(±6.5)	71.0	(±7.3)
Massachusetts	89.5	(±3.4)	89.2	(±3.4)	86.2	(±3.8)	78.0	(±4.6)
Boston	82.5	(±5.3)	79.9	(±5.6)	76.6	(±6.3)	70.7	(±6.5)
Rest of state	90.3	(±3.7)	90.3	(±3.7)	87.4	(±4.1)	78.8	(±5.0)
Michigan	84.3	(±4.1)	83.8	(±4.2)	81.6	(±4.4)	71.7	(±5.6)
Detroit	66.7	(±6.8)	65.9	(±6.8)	64.5	(±6.8)	59.5	(±6.9)
Rest of state	86.6	(±4.6)	86.1	(±4.6)	83.9	(±4.9)	73.3	(±6.3)
Minnesota	82.2	(±5.6)	78.9	(±6.5)	76.8	(±6.5)	61.5	(±6.9)
Mississippi	77.8	(±6.2)	77.8	(±6.2)	75.7	(±6.5)	63.9	(±7.3)
Missouri	77.7	(±6.3)	77.3	(±6.4)	73.0	(±6.5)	60.1	(±7.0)
Montana	71.5	(±6.6)	70.9	(±6.7)	66.6	(±6.8)	49.4	(±7.2)
Nebraska	80.6	(±5.4)	79.2	(±5.5)	78.2	(±5.6)	64.3	(±6.3)
Nevada	78.4	(±5.9)	77.8	(±6.0)	76.4	(±6.1)	65.3	(±6.5)
New Hampshire	88.1	(±4.4)	87.3	(±4.5)	83.5	(±5.0)	66.2	(±6.5)

* Comprises ≥4 doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine; ≥3 doses of poliovirus vaccine; and ≥1 dose of measles-containing vaccine.
† 4:3:1 plus ≥3 doses of *Haemophilus influenzae* type b vaccine.
§ 4:3:1:3 plus ≥3 doses of hepatitis B vaccine.
¶ 4:3:1:3:3 plus ≥1 dose of varicella vaccine.
** Confidence interval.

TABLE 2. (*Continued*) Estimated vaccination coverage levels with 4:3:1*, 4:3:1:3†, 4:3:1:3:3§, and 4:3:1:3:3:1¶ series among children aged 19–35 months, by states and selected urban areas — National Immunization Survey, United States, 2002

State/Urban area	4:3:1		4:3:1:3		4:3:1:3:3		4:3:1:3:3:1	
	%	(95% CI**)	%	(95% CI)	%	(95% CI)	%	(95% CI)
New Jersey	81.9	(±4.9)	80.4	(±5.0)	76.1	(±5.4)	65.5	(±6.0)
Newark	61.5	(±8.2)	59.9	(±8.2)	57.5	(±8.1)	50.4	(±7.9)
Rest of state	82.9	(±5.1)	81.3	(±5.2)	77.0	(±5.7)	66.2	(±6.3)
New Mexico	68.1	(±6.6)	67.4	(±6.6)	64.6	(±6.7)	59.1	(±7.0)
New York	81.8	(±4.0)	81.3	(±4.0)	77.5	(±4.3)	67.3	(±4.8)
New York City	81.8	(±5.8)	81.0	(±5.9)	78.1	(±6.2)	71.0	(±6.7)
Rest of state	81.8	(±5.5)	81.6	(±5.5)	77.0	(±6.0)	64.0	(±6.8)
North Carolina	86.9	(±4.9)	86.5	(±4.9)	82.4	(±5.5)	69.7	(±6.8)
North Dakota	78.8	(±6.7)	78.8	(±6.7)	77.7	(±6.7)	56.3	(±6.9)
Ohio	77.9	(±4.4)	77.1	(±4.4)	75.0	(±4.5)	63.5	(±4.9)
Cuyahoga County	74.6	(±7.7)	74.2	(±7.8)	72.1	(±7.8)	65.0	(±8.0)
Franklin County	84.5	(±5.2)	83.7	(±5.2)	81.0	(±5.6)	69.4	(±6.8)
Rest of state	77.5	(±5.5)	76.6	(±5.5)	74.6	(±5.7)	62.4	(±6.1)
Oklahoma	69.6	(±7.1)	66.7	(±7.4)	65.3	(±7.4)	60.3	(±7.4)
Oregon	74.8	(±5.6)	74.5	(±5.6)	70.0	(±5.9)	60.3	(±6.1)
Pennsylvania	78.7	(±5.2)	77.1	(±5.3)	74.7	(±5.5)	67.6	(±5.8)
Philadelphia County	75.0	(±6.0)	73.5	(±6.0)	72.0	(±6.1)	68.2	(±6.3)
Rest of state	79.3	(±6.0)	77.7	(±6.2)	75.2	(±6.4)	67.5	(±6.7)
Rhode Island	90.1	(±4.1)	85.8	(±5.5)	84.5	(±5.6)	80.7	(±5.9)
South Carolina	80.5	(±6.4)	80.2	(±6.4)	78.8	(±6.5)	73.8	(±6.7)
South Dakota	82.0	(±6.3)	81.2	(±6.3)	79.9	(±6.4)	62.0	(±7.0)
Tennessee	80.5	(±3.9)	79.7	(±4.0)	78.2	(±4.1)	67.3	(±4.8)
Davidson County	81.3	(±5.8)	79.8	(±6.1)	79.3	(±6.2)	66.7	(±7.3)
Shelby County	73.4	(±6.7)	72.6	(±6.7)	72.5	(±6.7)	60.6	(±7.2)
Rest of state	82.3	(±5.2)	81.5	(±5.3)	79.6	(±5.4)	69.2	(±6.5)
Texas	71.3	(±5.0)	70.9	(±5.0)	67.9	(±5.1)	65.0	(±5.1)
Bexar County	76.4	(±5.8)	75.9	(±5.8)	73.9	(±5.9)	71.8	(±6.1)
Houston	64.2	(±8.0)	63.9	(±8.1)	61.4	(±8.0)	55.6	(±8.0)
Dallas County	77.3	(±5.1)	75.9	(±5.2)	71.5	(±5.5)	68.0	(±5.8)
El Paso County	78.6	(±5.9)	77.1	(±6.0)	67.4	(±7.1)	60.6	(±7.3)
Rest of state	70.6	(±7.4)	70.4	(±7.4)	67.8	(±7.5)	65.8	(±7.5)
Utah	79.9	(±5.6)	79.1	(±5.6)	75.7	(±5.9)	61.4	(±6.5)
Vermont	87.7	(±3.9)	87.0	(±4.0)	80.9	(±4.7)	57.7	(±6.3)
Virginia	77.7	(±5.8)	76.6	(±5.9)	72.0	(±6.2)	64.8	(±6.5)
Washington	74.7	(±4.7)	73.1	(±4.9)	69.2	(±5.0)	51.9	(±5.1)
King County	78.3	(±5.3)	76.9	(±5.4)	73.1	(±5.6)	56.3	(±6.3)
Rest of state	73.3	(±6.2)	71.7	(±6.4)	67.7	(±6.5)	50.2	(±6.6)
West Virginia	79.0	(±6.1)	78.5	(±6.2)	76.9	(±6.3)	65.8	(±6.8)
Wisconsin	83.4	(±4.2)	81.8	(±4.3)	80.3	(±4.3)	67.5	(±5.0)
Milwaukee County	73.6	(±7.3)	69.8	(±7.6)	67.8	(±7.7)	59.9	(±7.7)
Rest of state	86.2	(±4.9)	85.2	(±5.0)	83.9	(±5.1)	69.6	(±6.0)
Wyoming	76.5	(±6.1)	76.5	(±6.1)	73.3	(±6.4)	54.1	(±6.8)
Total	**78.5**	**(±1.0)**	**77.5**	**(±1.0)**	**74.8**	**(±1.0)**	**65.5**	**(±1.1)**

* Comprises ≥4 doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, and diphtheria and tetanus toxoids and acellular pertussis vaccine; ≥3 doses of poliovirus vaccine; and ≥1 dose of measles-containing vaccine.
† 4:3:1 plus ≥3 doses of *Haemophilus influenzae* type b vaccine.
§ 4:3:1:3 plus ≥3 doses of hepatitis B vaccine.
¶ 4:3:1:3:3 plus ≥1 dose of varicella vaccine.
** Confidence interval.

a•ware: *adj*

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

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Vaccination Services in Postwar Iraq, May 2003

In the aftermath of the war in Iraq, widespread looting and intentional damage to government facilities resulted in the interruption of public services and utilities. Basic communications were disrupted nationally. Public health headquarters, clinics, and laboratories were damaged, records were ruined, and equipment was stolen. Because travel often was difficult and dangerous, Coalition forces received numerous requests from hospital directors for armed security, and many health-care workers reportedly feared either to commute to their worksites or to remain after dark (D. Simpson, M.D., Coalition Provisional Authority [CPA]'s Ministry of Health Team, personal correspondence, 2003). Public health employees who were able to continue their work went unpaid for several weeks. As a result, throughout Iraq, core public health services (e.g., vaccination services, vectorborne disease control, and the Tuberculosis Directly Observed Therapy program) were disrupted. In addition, severe health hazards caused by damaged water and sanitation systems were added to an already compromised and deteriorating health-care system (*1,2*). This report assesses the cumulative impact of these conditions on vaccination services in postwar Iraq, including the subsequent loss of staff, facilities, and equipment. Because vaccinations in Iraq are available only through the national system of primary health-care centers (PHCCs), this assessment can help address comparable problems experienced by other programs offered through Iraq's PHCCs, guide subsequent emergency responses to vaccine shortages, and provide a preliminary gauge of the status of preventive health-care infrastructure and services to children in Iraq.

By late March 2003, public health officials thought that routine childhood vaccinations were unavailable at the majority of public health clinics. In mid-May, with assistance from CPA and the United Nations Children's Fund (UNICEF), the Iraqi Ministry of Health (IMoH) sent teams to assess the damage that hampered the efforts of the Expanded Program on Immunization (EPI). During May 17–22, six teams traveled to all of Iraq's 18 governorates and visited major vaccine-storage sites and some primary health-care centers. Each team visited three to four governorates and used a standard form to collect information on clinic staff availability, remaining vaccine supplies at the major storage sites, and the status of cold-chain equipment. Karkh and Rusafa, the two districts comprising the governorate of Baghdad, were assessed separately because of the size of their populations and the number of public health facilities (Table).

At the time of the survey, 893 (61%) PHCCs in Iraq had equipment and staff sufficient to provide vaccinations daily. On the basis of the amount of equipment known to have existed immediately before the war, the assessment found that 532 (33%) of the 1,628 refrigerators, 18 (46%) of the 39 cold rooms, and 81 (13%) of the 642 generators needed to provide electricity to some equipment were damaged. Four of the 18 governorates maintained >80% of their prewar cold-

TABLE. Number and percentage of damaged cold-chain equipment, by governorate — Iraq, May 2003

	Refrigerators			Cold rooms			Generators			
	No.	Damaged		No.	Damaged		No.	Damaged		Total
Governorate	prewar	No.	(%)	prewar	No.	(%)	prewar	No.	(%)	(%)
Baghdad (Karkh)*	142	21	(15)	1	0	—	63	3	(5)	**(12)**
Baghdad (Rusafa)*	115	62	(54)	5	2	(40)	40	0	—	**(40)**
Basra	173	94	(54)	2	2	(100)	78	8	(10)	**(41)**
Ninevah	170	32	(19)	2	0	—	61	4	(7)	**(15)**
Missan	33	23	(70)	2	2	100	20	10	(50)	**(64)**
Qadisyah	40	22	(55)	3	2	(67)	24	4	(17)	**(42)**
Diala	53	16	(30)	1	0	—	38	3	(8)	**(21)**
Anbar	88	48	(55)	1	1	100	28	14	(50)	**(54)**
Babil	149	37	(25)	3	2	(67)	43	0	—	**(20)**
Kerbala	48	4	(8)	2	1	(50)	15	3	(20)	**(12)**
Wasit	73	21	(29)	1	1	(100)	19	0	—	**(24)**
Thi-Qar	45	16	(36)	2	1	(50)	28	3	(11)	**(27)**
Muthana	27	15	(56)	1	0	—	26	4	(15)	**(35)**
Taameem	59	17	(29)	2	0	—	18	7	(39)	**(30)**
Salah-el-Din	73	30	(41)	2	1	(50)	22	3	(14)	**(35)**
Najaf	43	13	(30)	3	2	(67)	19	5	(26)	**(31)**
Erbil	125	30	(24)	3	1	(33)	0	0	—	**(24)**
Duhuk	92	19	(21)	1	0	—	50	0	—	**(13)**
Sulaimaniyah	80	12	(15)	2	0	—	50	10	(20)	**(17)**
Total	**1,628**	**532**	**(33)**	**39**	**18**	**(46)**	**642**	**81**	**(13)**	**(27)**

* The two districts comprising the governorate of Baghdad were assessed separately because of the size of their populations and the number of public health facilities.

chain equipment. The overall loss for the entire Baghdad governorate was 24%, with the Karkh district losing substantially less equipment (12%) than Rusafa (40%). Total vaccine stocks* were assessed at the major storage sites but not at the clinic level. Only Sulaimaniyah had BCG vaccine, and stocks of HBV were low in all governorates except Najaf. However, tens of thousands of doses of both OPV and DTP vaccine were counted in all but five governorates. Although rabies is endemic in Iraq, stocks of rabies immunoglobulin were reported in only three governorates. Nine (50%) of the governorates had stocks of hepatitis B immunoglobulin. The presence of working cold-chain equipment was recorded, but levels of vaccine maintained constantly under proper environmental conditions at the surveyed sites were not determined.

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Editorial Note: This assessment found that the Iraqi vaccination program had lost necessary cold-chain equipment throughout the country and that the supply of properly maintained vaccine and immunoglobulin had been disrupted. Despite the brief duration of the war in Iraq and the intent to spare hospitals and clinics from direct attack, resulting disruptions in civil order and public services affected public health programs severely. Of urgent concern to public health officials were the temporary disruption of routine childhood vaccination activities and the lack of potable water. Vaccination services were especially susceptible to disruption because the effectiveness of the vaccination program depended on continuous provision of services in all parts of the country, easy accessibility by vulnerable women and children, and working cold-chain equipment. Before the war, EPI typically provided approximately 750,000 doses of routine vaccines† monthly to children aged <12 months and 123,000 doses monthly to children aged >12 months (IMoH, unpublished data, 2003).

Results of this survey are being used to revise distribution methods until damaged or looted cold-chain equipment can be replaced. Vaccines at central sites are being packaged into cold boxes and transported to clinics without refrigerators so vaccines will be available at least a few times each week in each PHCC. However, the provision of vaccines, medicines, supplies, and equipment is not alone sufficient to restore public health services interrupted in the aftermath of the war. A safe and secure work environment, a fair and reliable salary for public health staff, and accessible transportation also should be re-established.

CPA and IMoH, with the assistance of the Coalition forces, UNICEF, the World Health Organization, and many nongovernment organizations, are working to ensure security, rehabilitate clinics and laboratories, and restore public health programs. Early results of these combined efforts include 1) an increasing number of adequately chlorinated public water supplies, 2) a rapid assessment of the nutritional status of young children in Baghdad, and 3) the distribution of routine childhood vaccines throughout Iraq by the third week of June.

Despite these gains and the re-establishment of many services, substantial work remains for the Iraqi public health system to prevent resurgence of endemic diseases (e.g., visceral leishmaniasis, typhoid fever, and cholera) and the emergence of drug-resistant TB and malaria. The efforts of public health workers and the continued support of partner organizations will be critical to meeting these concerns in the coming months.

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* Vaccine stocks assessed included Bacillus Calmette-Guérin (BCG) (tuberculosis [TB] vaccine); diphtheria and tetanus toxoids and pertussis (DTP) vaccine; oral polio vaccine (OPV); hepatitis B (HepB) vaccine (pediatric and adult); measles-containing vaccine; measles, mumps, and rubella (MMR) vaccine; diphtheria and tetanus toxoid vaccine; tetanus toxoid vaccine; and rabies vaccine. Antisera stocks also were assessed.

† Routine vaccination schedules in Iraq include BCG (TB vaccine) at birth; DTP vaccine at age 2, 4, 6, and 18 months, and 4–6 years; OPV at birth, age 2, 4, 6, and 18 months, and 4–6 years; HepB vaccine at birth and age 2 and 6 months; measles-containing vaccine at age 9 months; and MMR vaccine at age 15 months and at school entry.

Update: Adverse Event Data and Revised American Thoracic Society/CDC Recommendations Against the Use of Rifampin and Pyrazinamide for Treatment of Latent Tuberculosis Infection—United States, 2003

CDC has reported previously surveillance data of severe liver injury in patients treated for latent tuberculosis infection (LTBI) with a daily and twice-weekly 2-month* regimen of rifampin with pyrazinamide (RZ). On the basis of these initial reports, CDC cautioned clinicians in the use of this therapy with advised additional monitoring (*1–4*). To estimate the incidence of RZ-associated severe liver injury and provide more

* The twice-weekly rifampin and pyrazinamide regimen for treatment of LTBI was specified to be completed within 2–3 months.

precise data to guide treatment for LTBI, CDC collected data from cohorts of patients in the United States who received RZ for the treatment of LTBI during January 2000–June 2002 and for whom data were reported to CDC through June 6, 2003. This report summarizes the analysis, which found high rates of hospitalization and death from liver injury associated with the use of RZ. On the basis of these findings, the American Thoracic Society (ATS) and CDC now recommend that this regimen should generally not be offered to persons with LTBI. The revised ATS/CDC recommendations described in this report have been endorsed by the Infectious Diseases Society of America (IDSA). Clinicians are advised to use the recommended alternative regimens for the treatment of LTBI (Table). Rifampin and pyrazinamide (PZA) should continue to be administered in multidrug regimens for the treatment of persons with active tuberculosis (TB) disease (*5*).

For surveillance purposes, a case of severe liver injury was defined as one leading to the hospitalization or death of a patient being treated for LTBI with RZ (*2*). During October 2000–June 2003, CDC received reports of 48 patients who had confirmed cases; 33 (69%) cases occurred in the second month of treatment. A total of 11 (23%) patients died[†], including two persons known to be infected with human immunodeficiency virus (HIV).

[†] Of the 11 deaths, eight were reported previously (*1–3*).

TABLE. Revised drug regimens for treatment of latent tuberculosis infection (LTBI) in adults*

Drug	Interval and duration	Comments[†]	Rating[§] (Evidence)[¶] HIV-negative	HIV-infected
Isoniazid	Daily for 9 months**[††]	In HIV-infected persons, isoniazid may be administered concurrently with nucleoside reverse transcriptase inhibitors (NRTIs), protease inhibitors, or non-nucleoside reverse transcriptase inhibitors (NNRTIs).	A (II)	A (II)
	Twice weekly for 9 months**[††]	Directly observed therapy (DOT) must be used with twice-weekly dosing.	B (II)	B (II)
Isoniazid	Daily for 6 months[††]	Not indicated for HIV-infected persons, those with fibrotic lesions on chest radiographs, or children.	B (I)	C (I)
	Twice weekly for 6 months[††]	DOT must be used with twice-weekly dosing.	B (II)	C (I)
Rifampin[§§]	Daily for 4 months	Used for persons who are contacts of patients with isoniazid-resistant, rifampin-susceptible TB. In HIV-infected persons, most protease inhibitors or delavirdine should not be administered concurrently with rifampin. Rifabutin with appropriate dose adjustments can be used with protease inhibitors (saquinavir should be augmented with ritonavir) and NNRTIs (except delavirdine). Clinicians should consult web-based updates for the latest specific recommendations.	B (II)	B (III)
Rifampin plus pyrazinamide (RZ)	Daily for 2 months	RZ generally should not be offered for treatment of LTBI for HIV-infected or HIV-negative persons.	D (II)	D (II)
	Twice weekly for 2–3 months		D (III)	D (III)

* Adapted from CDC. Targeted tuberculin testing and treatment of latent tuberculosis infection. MMWR 2000;49(No. RR-6).
† Interactions with human immunodeficiency virus (HIV)–related drugs are updated frequently and are available at http://www.aidsinfo.nih.gov/guidelines.
§ Strength of the recommendation:
A. Both strong evidence of efficacy and substantial clinical benefit support recommendation for use. Should always be offered.
B. Moderate evidence for efficacy or strong evidence for efficacy but only limited clinical benefit supports recommendation for use. Should generally be offered.
C. Evidence for efficacy is insufficient to support a recommendation for or against use, or evidence for efficacy might not outweigh adverse consequences (e.g., drug toxicity, drug interactions) or cost of the treatment or alternative approaches. Optional.
D. Moderate evidence for lack of efficacy or for adverse outcome supports a recommendation against use. Should generally not be offered.
E. Good evidence for lack of efficacy or for adverse outcome support a recommendation against use. Should never be offered.
¶ Quality of evidence supporting the recommendation:
I. Evidence from at least one properly randomized controlled trial.
II. Evidence from at least one well-designed clinical trial without randomization from cohort or case-controlled analytic studies (preferably from more than one center), from multiple time-series studies, or from dramatic results from uncontrolled experiments.
III. Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees.
** Recommended regimen for persons aged <18 years.
†† Recommended regimens for pregnant women.
§§ The substitution of rifapentine for rifampin is not recommended because rifapentine's safety and effectiveness have not been established for patients with LTBI.

A two-phase retrospective survey was conducted to estimate the incidence of severe liver injury among persons receiving RZ for treatment of LTBI. In December 2001 (phase I), CDC sent a questionnaire by e-mail to TB-control programs in 12 large cities and all 50 states, asking them to identify programs and health-care providers prescribing RZ for treatment of LTBI. All controllers responded, and in February 2002, CDC staff called the programs and health-care providers identified as prescribing RZ for LTBI to confirm its use. In September 2002 (phase II), CDC mailed a second questionnaire to the 150 health-care providers identified during the first phase, requesting aggregate cohort data for January 2000–June 2002; 109 (78%) health-care providers responded by June 6, 2003.

Of 7,737 patients who were reported to have started RZ for treatment of LTBI during the survey period, 5,980 (77%) received daily doses, and 1,757 (23%) received twice-weekly doses. A total of 204 patients discontinued using RZ because of aspartate aminotransferase (AST) concentrations greater than five times the upper limit of normal (rate: 26.4 per 1,000 treatment initiations; 95% confidence interval (CI) = 22.8–30.0). An additional 146 patients discontinued using RZ because of symptoms of hepatitis (rate: 18.9 per 1,000 treatment initiations; 95% CI = 17.4–20.4).

Of the 48 cases of severe liver injury reported to CDC through passive surveillance, 30 also were detected in the second phase of the survey. Of the 18 patients whose cases were not detected, six patients had liver injuries outside the survey period, five patients' health-care providers did not respond to the questionnaire, and seven (six of whom were in private practice) were not identified in the first phase of the survey. Of the 30 patients whose cases were detected, 23 (77%) recovered, and seven (23%) died. On the basis of these 30 cases, the estimated rates of hospitalization and death during the survey period were 3.0 (95% CI = 1.8–4.2) and 0.9 (95% CI = 0.2–1.6) per 1,000 treatment initiations, respectively.

Reported by: *State and territorial health depts. Div of Tuberculosis Elimination, National Center for HIV, STD, and TB Prevention, CDC.*

Editorial Note: The CDC cohort analysis found that the rates of severe liver injury and death related to the use of RZ are higher than the rates for isoniazid (INH)-associated liver injury in the treatment of LTBI. Although initial studies attributed hospitalization rates as high as 5.0 per 1,000 treatment initiations and mortality rates as high as 1.0 per 1,000 to INH (*6,7*), studies conducted since 1991 involving more than one million persons treated with INH have reported hospitalization rates of 0.1–0.2 (median: 0.15) and mortality rates of 0–0.3 per 1,000 (median: 0.04) (*4,8,9*). This decrease from earlier studies might reflect careful selection of patients and active monitoring for early signs of adverse events. In addition to the survey on the use of RZ described in this report, recent studies have reported episodes of liver injury and hospitalization associated with RZ for treatment of LTBI (*10,11*), including the need for transplantation in one patient (*12*). Among first-line agents in the treatment of active TB disease, pyrazinamide (PZA) might be the most hepatotoxic (*13*).

These data and other recent studies (*4,10,11,14–16*) were reviewed by TB experts[§] at a meeting held during the 99th International ATS Conference in Seattle, Washington, on May 12, 2003, to discuss proposed revisions to guidelines for the treatment of LTBI. ATS and CDC now recommend that this regimen should generally not be offered to persons with LTBI for either HIV-negative or HIV-infected persons. On the basis of the investigation of potential cofactors in the 48 patients with serious liver injury, this regimen should never be offered to patients who 1) are concurrently taking other medications associated with liver injury; 2) drink excessive amounts of alcohol, even if alcohol use is discontinued during treatment; 3) have underlying liver disease; or 4) have a history of INH-associated liver injury.

If the potential benefits of this regimen outweigh the risk for severe liver injury and death associated with it, use of RZ might be considered in carefully selected patients, but only if 1) the preferred or alternative regimens (i.e., 9 months of daily or biweekly INH, 6 months of daily or biweekly INH, or 4 months of daily rifampin) are judged not likely to be completed and 2) oversight by a clinician with expertise in the treatment of LTBI can be provided. A TB/LTBI expert should be consulted before RZ is offered. In addition, patients should be asked whether they have had liver disease or adverse effects from taking INH or other drugs, informed of potential hepatotoxicity of the RZ regimen, and advised against the concurrent use of potentially hepatotoxic drugs, including over-the-counter drugs such as acetaminophen.

To facilitate periodic clinical assessments of persons taking an RZ regimen (*2*), clinicians should dispense no more than a 2-week supply (with a daily PZA dose of <20.0 mg/kg/d [maximum daily PZA dose: 2.0 g], and a twice-weekly dose of <50.0 mg/kg/d [maximum twice-weekly PZA dose: 4.0 g]). Patients should be reassessed in person by a health-care provider at 2, 4, 6, and 8 weeks of treatment for adherence, tolerance, and adverse effects. The 8-week assessment also should be used to document treatment completion. At each visit, health-care providers who speak the patient's own language should

[§] Representatives from state and local TB-control programs and health departments and hospitals, National TB Centers, ATS, the National Coalition to Eliminate Tuberculosis, the National Tuberculosis Controllers Association, Infectious Diseases Society of America, the American College of Chest Physicians, and CDC. CDC met separately with the Food and Drug Administration.

instruct the patient to stop taking RZ immediately and seek medical consultation if abdominal pain, emesis, jaundice, or other symptoms of hepatitis develop. Provider continuity is recommended for optimal monitoring.

For persons taking this regimen, serum aminotransaminases (AT) and bilirubin should be measured at baseline and at 2, 4, 6, and 8[¶] weeks of treatment. Because the majority of these patients had onset of symptoms of liver injury after the fourth week of therapy (Figure), patients should be monitored throughout the entire course of treatment. Use of RZ should be discontinued immediately and not resumed for any of the following findings: 1) AT greater than five times the upper limit of normal range in an asymptomatic person, 2) AT greater than normal range when accompanied by symptoms of hepatitis, or 3) a serum bilirubin concentration greater than the normal range, whether or not symptoms are present.

The risk for progression from LTBI to active TB is increased substantially in persons with HIV infection (*4*). Therefore, as recommended previously for the treatment of all persons in whom LTBI is diagnosed, voluntary HIV counseling and testing should be offered routinely.

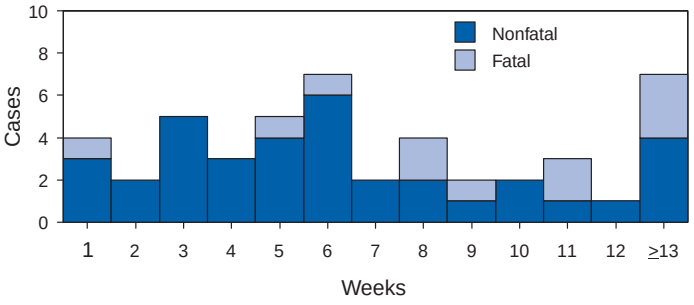
For progression to TB disease to be prevented, persons with LTBI should be identified in contact investigations and targeted screening programs and should complete treatment with safe and effective regimens. The successful treatment of LTBI is an essential component of the TB elimination strategy in the United States (*4*). In addition to this report, CDC and its partners are sending a letter to TB-control programs in 12 large cities and all 50 states and organizations active in TB control (e.g., the National Coalition to Eliminate Tuberculosis). To reach clinicians who are treating patients with LTBI, primary care medical associations (e.g., the American Medical Association and the American College of Physicians) are distributing this report to their members. This report and the letter are available at http://www.cdc.gov/tb. The letter is being added to the April 2000 CDC Targeted Tuberculin Testing and Treatment of Latent TB Infection Guidelines, and existing provider educational materials are being revised.

The recommendations against the use of RZ for treatment of LTBI described in this report do not apply to the appropriate use of rifampin and PZA in multidrug regimens for the treatment of persons with active TB disease. In these circumstances, the risk for morbidity and mortality from TB disease is substantially greater than with LTBI. Rifampin and PZA are essential components of recommended ATS/CDC/IDSA regimens that render patients noninfectious rapidly and are effective in curing patients with drug-susceptible *M. tuberculosis* strains within 6 months (*5*).

CDC continues to collect reports of severe liver injury leading to hospital admission or death in persons receiving any treatment for LTBI. Health-care providers are encouraged to report such events to CDC's Division of Tuberculosis Elimination, telephone 404-639-8442. Details of the RZ survey analysis and the case series will be described in a separate publication.

[¶] In the interim revised recommendations, biochemical monitoring at 2, 4, and 6 weeks was recommended (*2*); however, because of the occurrence of serious adverse events late in the course of RZ treatment, monitoring at 8 weeks has been added.

FIGURE. Number* of cases of liver injury among persons starting refampin and pyrazinamide, by outcome and week of symptom onset after initiation of therapy — United States, October 2000–June 2003



* N = 47. One other patient reported no symptoms but was hospitalized for increased aminotransaminases.

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Pneumococcal Vaccination for Cochlear Implant Candidates and Recipients: Updated Recommendations of the Advisory Committee on Immunization Practices

On July 31, this report was posted on the MMWR *website* (http://www.cdc.gov/mmwr).

In October 2002, CDC recommended that all persons with cochlear implants receive age-appropriate pneumococcal vaccination with 7-valent pneumococcal conjugate vaccine (PCV7) (Prevnar®), 23-valent pneumococcal polysaccharide vaccine (PPV23) (Pneumovax®), or both according to the Advisory Committee on Immunization Practices (ACIP) schedules for persons at high risk (*1*). CDC issued these recommendations on the basis of preliminary data suggesting an increased risk for pneumococcal meningitis in persons with cochlear implants. Findings of a recent investigation by CDC, the Food and Drug Administration (FDA), and state health departments support this recommendation. Children aged <6 years with a cochlear implant had a substantially greater risk for having pneumococcal meningitis, compared with children in the general U.S. population of the same age (*2*). Some children who are candidates for cochlear implants have preexisting anatomic factors that might contribute to an increased risk for meningitis; however, the recent study was not designed to assess this association (*2*).

Because the rate for pneumococcal meningitis is higher in children with cochlear implants and *Streptococcus pneumoniae* is the most common pathogen causing bacterial meningitis in cochlear implant recipients of all ages with meningitis of known etiology (*2,3*), ACIP recommends the following for persons who have or are scheduled to receive a cochlear implant (Table):

- Children aged <24 months with cochlear implants should receive PCV7, as is universally recommended; children with a lapse in vaccination should be vaccinated according to the catch-up schedule issued after the PCV7 shortage resolved (*4,5*).
- Children aged 24–59 months with cochlear implants who have not received PCV7 should be vaccinated according to the high-risk schedule; children with a lapse in vaccination should be vaccinated according to the catch-up schedule for persons at high risk issued after the PCV7 shortage resolved (*3,4*). Children who have completed the PCV7 series should receive PPV23 ≥2 months after vaccination with PCV7 (*3*).
- Persons aged 5–64 years with cochlear implants should receive PPV23 according to the schedule used for persons with chronic illnesses; a single dose is indicated (*6*).
- Persons planning to receive a cochlear implant should be up-to-date on age-appropriate pneumococcal vaccination ≥2 weeks before surgery, if possible.

Health-care providers should review vaccination records of their patients who are cochlear implant recipients or candidates to ensure that they have received pneumococcal vaccinations based on the age-appropriate schedules for persons at high risk. In addition, all cases of meningitis should be reported to state health departments according to state requirements. Because information about *Streptococcus pneumoniae* serotypes causing pneumococcal meningitis in persons with cochlear implants is limited, providers are encouraged to send isolates to their state health department, which can forward isolates to CDC, where serotyping can be performed to determine whether the type is included in the vaccines.

To send an isolate, contact CDC's National Center for Infectious Diseases, telephone 404-639-2215. Providers also are encouraged to report cases of meningitis in cochlear implant recipients to FDA's MedWatch. Reports can be submitted online at http://www.accessdata.fda.gov/scripts/medwatch; by telephone, 800-332-1088; by fax, 800-332-0178; or by mail, MedWatch, Food and Drug Administration, HF-2, 5600 Fishers Lane, Rockville, Maryland 20857. Cases also can be reported directly to the device manufacturer.

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TABLE. Recommended pneumoccocal vaccination schedule for persons with cochlear implants, Advisory Committee on Immunization Practices, 2003

Age at first PCV7 dose (mos)*	PCV7 primary series	PCV7 additional dose	PPV23 dose
2–6	3 doses, 2 months apart†	1 dose at 12–15 months of age§	Indicated at ≥24 months of age¶
7–11	2 doses, 2 months apart†	1 dose at 12–15 months of age§	Indicated at ≥24 months of age¶
12–23	2 doses, 2 months apart**	Not indicated	Indicated at ≥24 months of age¶
24–59	2 doses, 2 months apart**	Not indicated	Indicated¶
≥60	Not indicated††	Not indicated††	Indicated

* A schedule with a reduced number of total 7-valent pneumococcal conjugate vaccine (PCV7) doses is indicated if children start late or are incompletely vaccinated. Children with a lapse in vaccination should be vaccinated according to the catch-up schedule (CDC. Pneumococcal conjugate vaccine shortage resolved. MMWR 2003;52:446–7).

† For children vaccinated at age <1 year, minimum interval between doses is 4 weeks.

§ The additional dose should be administered ≥8 weeks after the primary series has been completed.

¶ Children aged <5 years should complete the PCV7 series first; 23-valent pneumococcal polysaccharide vaccine (PPV23) should be administered to children aged ≥24 months ≥8 weeks after the last dose of PCV7 (CDC. Preventing pneumococcal disease among infants and young children: recommendations of the Advisory Committee on Immunization Practices. MMWR 2000;49(No. RR-9).

** Minimum interval between doses is 8 weeks.

†† PCV7 is not recommended generally for children aged ≥5 years.

West Nile Virus Activity — United States, July 31–August 6, 2003

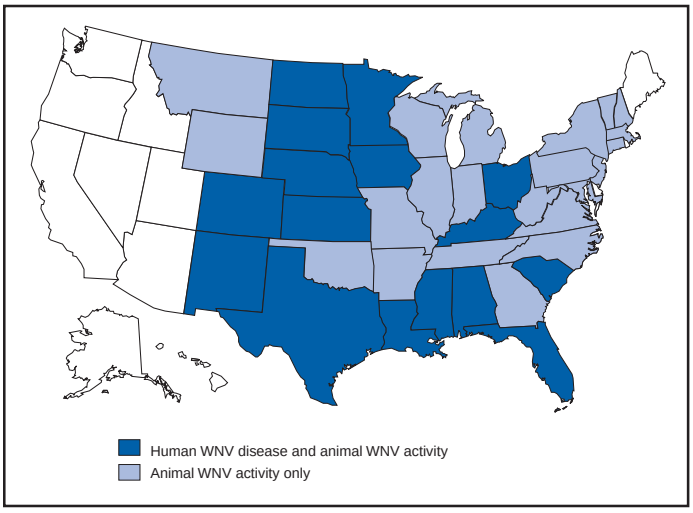
This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET as of 3 a.m., Mountain Daylight Time, August 6, 2003.

During the reporting week of July 31–August 6, a total of 109 human cases of WNV infection were reported from 13 states (Colorado, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Nebraska, New Mexico, North Dakota, Ohio, South Dakota, and Texas), including four fatal cases from three states (Alabama, Colorado, and Texas). During the same period, WNV infections were reported in 622 dead birds, 191 horses, one dog, four unidentified animal species, and 359 mosquito pools.

During 2003, a total of 153 human cases of WNV infection have been reported from Colorado (n = 72), Texas (n = 19), Louisiana (n = 15), South Dakota (n = eight), Ohio (n = seven), Alabama (n = six), Nebraska (n= six), Florida (n = four), Minnesota (n = four), Mississippi (n = four), Iowa (n = two), New Mexico (n = two), Kansas (n = one), Kentucky (n = one), North Dakota (n = one), and South Carolina (n = one) (Figure). Among 150 (98%) cases for which demographic data were available, 81 (54%) occurred among men; the median age was 45 years (range: 17 months–87 years). Of the 153 cases, four fatal cases were reported from Alabama (n = one), Colorado (n = one), and Texas (n = two). In addition, 1,770 dead birds with WNV infection were reported from 36 states and New York City; 282 WNV infections in horses have been reported from 22 states (Alabama, Arkansas, Colorado, Florida, Georgia, Kansas, Kentucky, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Virginia, Wisconsin, and Wyoming), three WNV infections were reported in dogs, and five infections were reported in unidentified animal species. During 2003, WNV seroconversions have been reported in 185 sentinel chicken flocks from eight states (Colorado, Florida, Georgia, Iowa, Louisiana, Nebraska, North Carolina, and Virginia). Louisiana and South Dekota each reported three seropositive sentinel horses. A total of 1038 WNV-positive mosquito pools have been reported from 20 states (Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nebraska, New Jersey, North Dakota, South Dakota, Tennessee, Texas, Virginia, and Wisconsin) and New York City.

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

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2003*



* As of 3 a.m., Mountain Daylight Time, August 6, 2003.

Notice to Readers

Final 2002 Reports of Notifiable Diseases

The notifiable diseases tables on pages 742–750 summarize final National Notifiable Diseases Surveillance System data for 2002. Final as of June 30, 2003, these data will be published in more detail in the *Summary of Notifiable Diseases, United States, 2002* (*1*). Because no cases of western equine encephalitis or paralytic poliomyelitis were reported in the United States during 2002, these nationally notifiable diseases do not appear in these tables. Policies for reporting notifiable disease cases can vary by disease or reporting jurisdiction depending on case status classification (i.e., confirmed, probable, or suspected). Population estimates for the states are from the U.S. Census Bureau, Population Division, annual population estimates by state, 2000 (*2*). Population numbers for territories are 2000 estimates from the U.S. Census Bureau IDB Data Access Display Mode (*3*).

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TABLE 2. Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Total resident population (in thousands)	AIDS*	Anthrax	Botulism			Brucellosis	Chancroid§
				Foodborne	Infant	Other†		
UNITED STATES	281,418	42,745¶	2	28	69	21	125	67
NEW ENGLAND	13,923	1,616	-	2	1	-	1	3
Maine	1,275	28	-	2	1	-	-	-
N.H.	1,236	41	-	-	-	-	-	-
Vt.	609	12	-	-	-	-	-	-
Mass.	6,349	810	-	-	-	-	1	3
R.I.	1,048	107	-	-	-	-	-	-
Conn.	3,406	618	-	-	-	-	-	-
MID. ATLANTIC	39,671	9,911	-	1	22	-	4	2
Upstate N.Y.	11,291	1,342	-	-	-	-	1	-
N.Y. City	7,685	5,322	-	-	4	-	2	2
N.J.	8,414	1,436	-	-	3	-	-	-
Pa.	12,281	1,811	-	1	15	-	1	-
E.N. CENTRAL	45,154	4,355	-	-	5	-	18	1
Ohio	11,353	780	-	-	2	-	3	-
Ind.	6,080	491	-	-	1	-	-	-
Ill.	12,419	2,108	-	-	1	-	7	-
Mich.	9,938	789	-	-	1	-	7	-
Wis.	5,364	187	-	-	-	-	1	1
W.N. CENTRAL	19,236	800	1	-	-	-	2	-
Minn.	4,919	161	-	-	-	-	1	-
Iowa	2,926	94	-	-	-	-	-	-
Mo.	5,595	391	-	-	-	-	1	-
N. Dak.	642	3	-	-	-	-	-	-
S. Dak.	755	11	1	-	-	-	-	-
Nebr.	1,711	70	-	-	-	-	-	-
Kans.	2,688	70	-	-	-	-	-	-
S. ATLANTIC	51,768	12,435	-	1	3	-	12	51
Del.	784	193	-	-	-	-	-	-
Md.	5,296	1,854	-	-	-	-	1	-
D.C.	572	927	-	-	-	-	-	-
Va.	7,079	955	-	1	3	-	-	1
W. Va.	1,808	83	-	-	-	-	-	-
N.C.	8,049	1,061	-	-	-	N	2	-
S.C.	4,012	833	-	-	-	-	1	43
Ga.	8,186	1,471	-	-	-	-	2	-
Fla.	15,982	5,058	-	-	-	-	6	7
E.S. CENTRAL	17,023	1,962	-	-	3	-	1	-
Ky.	4,042	305	-	-	-	-	1	-
Tenn.	5,689	792	-	-	3	-	-	-
Ala.	4,447	432	-	-	-	-	-	-
Miss.	2,845	433	-	-	-	-	-	-
W.S. CENTRAL	31,445	4,751	1	1	1	1	38	7
Ark.	2,673	240	-	-	-	-	-	-
La.	4,469	1,167	-	-	-	-	-	2
Okla.	3,451	204	-	-	-	-	1	-
Tex.	20,852	3,140	1	1	1	1	37	5
MOUNTAIN	18,172	1,518	-	-	9	-	14	-
Mont.	902	17	-	-	-	-	-	-
Idaho	1,294	31	-	-	-	-	2	-
Wyo.	494	12	-	-	-	-	1	-
Colo.	4,301	332	-	-	2	-	2	-
N. Mex.	1,819	88	-	-	1	-	2	-
Ariz.	5,131	630	-	-	3	-	6	-
Utah	2,233	94	-	-	3	-	1	-
Nev.	1,998	314	-	-	-	-	-	-
PACIFIC	45,026	5,303	-	23	25	20	35	3
Wash.	5,894	477	-	6	-	-	2	1
Oreg.	3,421	301	-	1	2	-	-	-
Calif.	33,872	4,364	-	1	22	20	32	2
Alaska	627	33	-	15	-	-	-	-
Hawaii	1,212	128	-	-	1	-	1	-
Guam	149	3	-	-	-	-	-	-
P.R.	3,937	1,139	-	-	-	-	-	2
V.I.	118	58	U	U	U	U	U	U
Amer. Somoa	62	1	-	-	-	-	-	-
C.N.M.I.	67	3	-	5	-	-	-	-

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

* Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), through December 31, 2002.

† Includes cases reported as wound and unspecified botulism.

§ Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 2, 2003.

¶ Total includes 94 cases in persons with unknown state of residence.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Chlamydia*	Cholera	Coccidioidomycosis	Cryptosporidiosis	Cyclosporiasis	Diphtheria
UNITED STATES	834,555	2	4,968	3,016	156	1
NEW ENGLAND	27,870	-	-	193	22	-
Maine	1,805	-	N	12	-	-
N.H.	1,557	-	-	31	1	-
Vt.	954	-	N	33	N	-
Mass.	10,914	-	-	77	14	-
R.I.	2,832	-	-	21	-	-
Conn.	9,808	-	N	19	7	-
MID. ATLANTIC	97,078	-	-	428	59	-
Upstate N.Y.	18,060	-	N	153	13	-
N.Y. City	33,063	-	-	147	36	-
N.J.	14,164	-	-	17	7	-
Pa.	31,791	-	N	111	3	-
E.N. CENTRAL	152,505	-	23	960	6	-
Ohio	38,032	-	N	119	-	-
Ind.	17,100	-	N	70	-	-
Ill.	48,101	-	3	121	3	-
Mich.	32,272	-	20	135	3	-
Wis.	17,000	-	N	515	-	-
W.N. CENTRAL	47,517	-	2	447	-	-
Minn.	10,107	-	-	206	-	-
Iowa	6,195	-	N	49	-	-
Mo.	16,181	-	-	41	-	-
N. Dak.	1,256	-	N	41	N	-
S. Dak.	2,215	-	-	42	-	-
Nebr.	4,779	-	2	52	-	-
Kans.	6,784	-	N	16	-	-
S. ATLANTIC	158,923	1	4	343	61	-
Del.	2,649	-	N	4	-	-
Md.	16,891	1	4	19	-	-
D.C.	3,305	-	-	5	3	-
Va.	18,518	-	-	35	1	-
W. Va.	2,464	-	N	3	-	-
N.C.	24,726	-	N	40	-	-
S.C.	14,314	-	-	8	3	-
Ga.	33,998	-	N	123	22	-
Fla.	42,058	-	N	106	32	-
E.S. CENTRAL	52,209	-	-	128	1	-
Ky.	8,756	-	N	10	N	-
Tenn.	16,042	-	-	61	1	-
Ala.	15,611	-	-	47	-	-
Miss.	11,800	-	N	10	-	-
W.S. CENTRAL	106,079	-	14	68	1	-
Ark.	7,312	-	-	8	-	-
La.	18,442	-	N	10	-	-
Okla.	10,804	-	N	16	-	-
Tex.	69,521	-	14	34	1	-
MOUNTAIN	51,816	-	3,198	160	1	-
Mont.	2,475	-	-	6	-	-
Idaho	2,503	-	-	29	1	-
Wyo.	944	-	1	9	-	-
Colo.	14,028	-	N	57	-	-
N. Mex.	7,417	-	9	20	-	-
Ariz.	14,973	-	3,133	19	N	-
Utah	3,540	-	11	16	-	-
Nev.	5,936	-	44	4	-	-
PACIFIC	140,558	1	1,727	289	5	1
Wash.	14,934	1	N	46	5	-
Oreg.	7,009	-	-	40	-	-
Calif.	110,288	-	1,727	200	-	1
Alaska	3,806	-	-	1	-	-
Hawaii	4,521	-	-	2	-	-
Guam	550	1	-	-	-	-
P.R.	2,999	-	N	N	N	-
V.I.	207	U	U	U	U	U
Amer. Somoa	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases.
* Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 2, 2003. Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Ehrlichiosis		Encephalitis/meningitis, arboviral*				
	Human granulocytic	Human monocytic	California serogroup	Eastern equine	Powassan	St. Louis	West Nile
UNITED STATES	511	216	164	10	1	28	2,840
NEW ENGLAND	145	9	-	-	-	-	29
Maine	1	-	-	-	-	-	-
N.H.	1	3	-	-	-	-	-
Vt.	-	-	-	-	-	-	-
Mass.	29	1	-	-	-	-	18
R.I.	65	5	-	-	-	-	1
Conn.	49	-	-	-	-	-	10
MID. ATLANTIC	181	28	-	-	-	-	138
Upstate N.Y.	159	19	-	-	-	-	51
N.Y. City	17	2	-	-	-	-	28
N.J.	5	6	-	-	-	-	23
Pa.	-	1	-	-	-	-	36
E.N. CENTRAL	5	4	71	6	1	5	1,629
Ohio	-	3	26	-	-	-	439
Ind.	1	-	4	-	-	-	19
Ill.	-	1	8	-	-	2	554
Mich.	-	-	11	6	1	3	566
Wis.	4	-	22	-	-	-	51
W.N. CENTRAL	170	55	16	-	-	-	200
Minn.	149	4	13	-	-	-	17
Iowa	-	-	3	-	-	-	-
Mo.	19	50	-	-	-	-	113
N. Dak.	N	N	-	-	-	-	2
S. Dak.	-	-	-	-	-	-	14
Nebr.	-	-	-	-	-	-	35
Kans.	2	1	-	-	-	-	19
S. ATLANTIC	7	52	56	2	-	2	104
Del.	2	3	-	-	-	-	-
Md.	3	27	-	-	-	-	21
D.C.	-	-	-	-	-	-	-
Va.	-	1	2	-	-	1	29
W. Va.	-	-	40	-	-	-	3
N.C.	1	13	13	-	-	-	-
S.C.	-	-	-	1	-	-	1
Ga.	-	3	1	-	-	-	21
Fla.	1	5	-	1	-	1	29
E.S. CENTRAL	1	30	18	2	-	-	279
Ky.	-	2	2	-	-	-	42
Tenn.	-	26	15	-	-	-	11
Ala.	1	2	-	-	-	-	34
Miss.	-	-	1	2	-	-	192
W.S. CENTRAL	1	38	3	-	-	19	455
Ark.	-	18	-	-	-	-	33
La.	-	-	1	-	-	-	204
Okla.	-	13	-	-	-	-	14
Tex.	1	7	2	-	-	19	204
MOUNTAIN	-	-	-	-	-	2	6
Mont.	-	-	-	-	-	-	1
Idaho	-	-	-	-	-	-	1
Wyo.	-	-	-	-	-	-	-
Colo.	N	N	-	-	-	-	-
N. Mex.	-	-	-	-	-	-	-
Ariz.	-	-	-	-	-	2	4
Utah	-	-	-	-	-	-	-
Nev.	-	-	-	-	-	-	-
PACIFIC	1	-	-	-	-	-	-
Wash.	-	-	-	-	-	-	-
Oreg.	-	-	-	-	-	-	-
Calif.	1	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-
P.R.	N	N	-	-	-	-	-
V.I.	-	-	-	-	-	-	-
Amer. Somoa	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases.
* No cases of western equine encephalitis were reported in 2002.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	*Escherichia coli*, enterohemorrhagic (EHEC)			Giardiasis	Gonorrhea*	*Haemophilus influenzae*, invasive disease			
		Shiga toxin positive				All ages	Age <5 years		
	O157:H7	Non-O157	Not serogrouped			All serotypes	Serotype B	Non-serotype B	Unknown serotype
UNITED STATES	3,840	194	60	21,206	351,852	1,743	34	144	153
NEW ENGLAND	265	51	7	1,769	7,743	135	-	12	2
Maine	39	10	-	213	142	2	-	-	-
N.H.	35	-	-	46	120	14	-	-	-
Vt.	14	1	1	145	98	7	-	-	-
Mass.	120	21	6	935	3,242	46	-	5	2
R.I.	12	1	-	170	900	16	-	-	-
Conn.	45	18	-	260	3,241	50	-	7	-
MID. ATLANTIC	426	1	8	4,304	43,029	326	4	17	26
Upstate N.Y.	183	N	N	1,347	9,114	134	2	4	9
N.Y. City	19	-	-	1,417	12,727	70	-	-	10
N.J.	63	-	1	474	7,894	58	-	-	7
Pa.	161	1	7	1,066	13,294	64	2	13	-
E.N. CENTRAL	855	31	6	3,597	74,540	319	4	15	44
Ohio	154	11	5	972	22,008	82	-	1	10
Ind.	87	1	-	N	7,395	44	2	9	-
Ill.	191	6	-	1,011	24,026	120	-	-	21
Mich.	134	3	1	923	14,770	18	2	5	-
Wis.	289	10	-	691	6,341	55	-	-	13
W.N. CENTRAL	521	34	12	2,321	18,124	81	1	3	7
Minn.	163	29	-	982	3,049	52	1	3	4
Iowa	121	-	-	314	1,480	1	-	-	-
Mo.	70	-	-	512	8,952	13	-	-	2
N. Dak.	20	-	4	47	72	7	-	-	1
S. Dak.	41	2	-	83	263	1	-	-	-
Nebr.	74	3	-	191	1,564	2	-	-	-
Kans.	32	-	8	192	2,744	5	-	-	-
S. ATLANTIC	488	39	3	3,076	89,450	385	5	17	29
Del.	10	N	N	54	1,576	-	-	-	-
Md.	29	-	-	118	9,355	98	2	4	1
D.C.	3	-	-	47	2,669	-	-	-	-
Va.	70	11	-	386	10,462	41	-	-	5
W. Va.	9	-	3	78	974	20	-	1	1
N.C.	244	N	N	N	15,531	33	-	3	-
S.C.	7	-	-	149	9,152	15	-	-	2
Ga.	47	8	-	926	18,383	84	-	-	13
Fla.	69	20	-	1,318	21,348	94	3	9	7
E.S. CENTRAL	113	-	10	396	30,113	74	1	5	13
Ky.	30	-	10	N	3,772	10	-	1	2
Tenn.	52	-	-	191	9,348	38	-	1	7
Ala.	20	-	-	205	10,118	16	1	3	1
Miss.	11	N	N	-	6,875	10	-	-	3
W.S. CENTRAL	115	2	9	269	47,620	76	4	12	3
Ark.	12	-	-	175	4,584	5	-	-	-
La.	4	-	-	6	11,387	11	-	-	3
Okla.	25	-	-	85	4,661	53	-	12	-
Tex.	74	2	9	3	26,988	7	4	-	-
MOUNTAIN	347	29	5	1,750	11,412	199	7	42	17
Mont.	31	-	-	94	123	-	-	-	-
Idaho	45	18	-	137	94	2	-	-	1
Wyo.	15	2	-	29	65	2	-	-	-
Colo.	98	6	5	571	3,511	35	-	-	4
N. Mex.	14	3	-	153	1,462	27	-	6	1
Ariz.	39	N	N	269	3,795	101	5	30	7
Utah	77	-	-	335	374	20	1	4	1
Nev.	28	-	-	162	1,988	12	1	2	3
PACIFIC	710	7	-	3,724	29,821	148	8	21	12
Wash.	166	-	-	510	2,925	5	2	3	-
Oreg.	206	7	-	447	909	57	-	-	3
Calif.	293	-	-	2,561	24,606	44	6	17	4
Alaska	8	-	-	115	641	2	-	-	2
Hawaii	37	-	-	91	740	40	-	1	3
Guam	-	-	-	7	49	-	-	-	-
P.R.	1	-	N	86	411	2	-	-	1
V.I.	-	-	-	-	49	-	-	-	-
Amer. Somoa	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	1	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases.
* Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 2, 2003.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Hansen disease (leprosy)	Hantavirus pulmonary syndrome	Hemolytic uremic syndrome, postdiarrheal	Hepatitis, acute viral A	Hepatitis, acute viral B	Hepatitis, acute viral C; non-A non-B	Legionellosis	Listeriosis
UNITED STATES	96	19	216	8,795	7,996	1,835	1,321	665
NEW ENGLAND	4	-	31	295	251	22	123	64
Maine	-	-	3	8	14	-	6	5
N.H.	-	-	2	12	25	-	7	4
Vt.	N	-	1	4	7	15	35	3
Mass.	-	-	16	144	169	6	45	34
R.I.	2	-	1	34	36	1	11	2
Conn.	2	N	8	93	U	-	19	16
MID. ATLANTIC	15	-	23	1,121	1,559	119	377	194
Upstate N.Y.	-	N	18	189	140	56	118	59
N.Y. City	10	-	3	445	733	-	66	39
N.J.	4	-	2	188	344	5	35	37
Pa.	1	-	-	299	342	58	158	59
E.N. CENTRAL	1	-	16	1,030	756	118	296	91
Ohio	-	-	11	301	110	2	123	26
Ind.	-	-	-	51	85	1	22	12
Ill.	-	-	-	262	185	24	28	23
Mich.	-	-	-	220	327	87	85	22
Wis.	1	-	5	196	49	4	38	8
W.N. CENTRAL	1	2	19	299	257	643	71	22
Minn.	1	-	11	53	52	14	18	4
Iowa	-	-	3	66	20	1	13	3
Mo.	-	-	2	84	119	612	19	10
N. Dak.	N	-	-	4	8	-	1	1
S. Dak.	-	-	-	3	3	1	4	1
Nebr.	-	1	2	19	31	15	16	2
Kans.	-	1	1	70	24	-	-	1
S. ATLANTIC	4	1	24	2,422	1,811	215	234	90
Del.	-	-	-	15	14	-	10	N
Md.	-	1	N	300	131	14	56	21
D.C.	-	-	-	81	22	-	6	-
Va.	-	-	8	163	224	15	35	10
W. Va..	N	-	-	24	25	4	-	1
N.C.	N	-	2	209	233	29	13	8
S.C.	-	-	-	65	135	5	10	8
Ga.	N	-	9	509	484	64	19	14
Fla.	4	-	5	1,056	543	84	85	28
E.S. CENTRAL	2	-	7	273	405	140	50	21
Ky.	2	-	N	47	67	5	22	4
Tenn.	-	-	7	124	145	31	20	12
Ala.	-	-	-	39	101	11	8	4
Miss.	-	-	-	63	92	93	-	1
W.S. CENTRAL	21	3	7	1,070	1,473	405	37	38
Ark.	-	-	-	74	118	12	-	-
La.	-	-	1	89	135	99	4	5
Okla.	-	-	3	52	110	21	5	9
Tex.	21	3	3	855	1,110	273	28	24
MOUNTAIN	4	10	22	569	635	58	57	34
Mont.	-	-	-	13	10	1	4	-
Idaho	2	1	1	31	7	1	3	2
Wyo.	-	-	1	3	17	5	2	-
Colo.	-	1	14	74	79	6	9	7
N. Mex.	-	-	1	32	146	3	2	3
Ariz.	-	3	N	306	252	7	15	18
Utah	2	4	4	56	53	4	16	3
Nev.	-	1	1	54	71	31	6	1
PACIFIC	44	3	67	1,716	849	115	76	111
Wash.	-	-	1	162	83	27	8	11
Oreg.	1	-	22	65	128	13	5	9
Calif.	32	3	43	1,452	614	74	60	83
Alaska	-	-	-	12	12	-	2	-
Hawaii	11	-	1	25	12	1	1	8
Guam	-	-	-	1	1	-	-	-
P.R.	1	N	N	239	211	-	1	2
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	21	12	-	-	-
C.N.M.I.	1	-	-	-	37	-	-	-

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

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Lyme disease	Malaria	Measles		Meningococcal disease	Mumps	Pertussis	Plague
			Indigenous	Imported*				
UNITED STATES	23,763	1,430	26	18	1,814	270	9,771	2
NEW ENGLAND	7,807	85	-	-	95	8	925	-
Maine	219	6	-	-	7	-	21	-
N.H.	261	8	-	-	14	5	78	-
Vt.	37	4	-	-	4	-	172	-
Mass.	1,807	33	-	-	48	2	602	-
R.I.	852	12	-	-	6	-	22	-
Conn.	4,631	22	-	-	16	1	30	-
MID. ATLANTIC	11,873	375	4	5	222	34	694	-
Upstate N.Y.	5,476	52	-	1	60	5	442	-
N.Y. City	59	230	3	3	37	4	24	-
N.J.	2,349	43	-	1	29	3	34	-
Pa.	3,989	50	1	-	96	22	194	-
E.N. CENTRAL	1,266	163	2	3	265	39	1,097	-
Ohio	82	24	-	1	74	11	441	-
Ind.	21	15	1	1	37	2	183	-
Ill.	47	62	1	-	57	18	231	-
Mich.	26	46	-	-	45	7	62	-
Wis.	1,090	16	-	1	52	1	180	-
W.N. CENTRAL	966	73	1	3	154	20	822	-
Minn.	867	31	-	2	36	5	429	-
Iowa	42	4	-	-	29	1	157	-
Mo.	41	16	1	1	52	4	147	-
N. Dak.	1	1	-	-	4	2	9	-
S. Dak.	2	2	-	-	2	-	8	-
Nebr.	6	6	-	-	23	2	9	-
Kans.	7	13	-	-	8	6	63	-
S. ATLANTIC	1,486	334	2	3	297	28	453	-
Del.	194	5	-	-	7	-	4	-
Md.	738	109	-	-	9	9	68	-
D.C.	25	22	-	-	-	-	2	-
Va.	259	36	-	-	46	5	168	-
W. Va..	26	3	-	-	5	-	35	-
N.C.	137	22	-	-	35	2	46	-
S.C.	26	9	-	-	34	3	48	-
Ga.	2	52	1	2	32	2	29	-
Fla.	79	76	1	1	129	7	53	-
E.S. CENTRAL	76	22	11	1	98	13	273	-
Ky.	25	8	-	-	18	3	103	-
Tenn.	28	4	-	-	38	2	124	-
Ala.	11	5	11	1	22	3	37	-
Miss.	12	5	-	-	20	5	9	-
W.S. CENTRAL	147	87	-	1	229	18	1,870	-
Ark.	3	3	-	-	26	-	488	-
La.	5	4	-	-	48	1	7	-
Okla.	-	11	-	-	25	2	135	-
Tex.	139	69	-	1	130	15	1,240	-
MOUNTAIN	19	57	1	-	95	18	1,717	2
Mont.	-	2	-	-	3	-	10	-
Idaho	4	-	-	-	5	1	151	-
Wyo.	2	-	-	-	-	-	11	-
Colo.	1	25	-	-	26	2	465	-
N. Mex.	1	3	-	-	4	1	200	2
Ariz.	4	17	-	-	32	1	717	-
Utah	5	6	-	-	5	7	115	-
Nev.	2	4	1	-	20	6	48	-
PACIFIC	123	234	5	2	359	92	1,920	-
Wash.	11	26	-	1	76	-	575	-
Oreg.	12	12	-	-	46	-	188	-
Calif.	97	185	5	-	224	70	1,120	-
Alaska	3	2	-	-	4	-	7	-
Hawaii	-	9	-	1	9	22	30	-
Guam	-	-	9	-	1	-	2	-
P.R.N	1	2	-	7	6	3	-	
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	2	4	-	-
C.N.M.I.	-	-	-	-	-	-	1	-

N: Not notifiable. U: Unavailable. -: No reported cases.
* Imported cases include only those resulting from importation from other countries.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2002

Area	Psittacosis	Q Fever	Rabies		RMSF†	Rubella		Salmonellosis
			Animal	Human		Rubella	Congenital syndrome	
UNITED STATES	18	61	7,609	3	1,104	18	1	44,264
NEW ENGLAND	-	-	837	-	10	-	-	2,234
Maine	-	-	64	-	-	-	-	147
N.H.	-	-	50	-	-	-	-	142
Vt.	-	N	89	-	-	-	-	77
Mass.	-	-	303	-	3	-	-	1,222
R.I.	-	-	N	-	4	-	-	189
Conn.	N	-	331	-	3	-	-	457
MID. ATLANTIC	3	2	1,348	-	59	2	-	5,884
Upstate N.Y.	2	-	701	-	-	1	-	1,614
N.Y. City	1	1	21	-	10	-	-	1,396
N.J.	-	-	188	-	16	-	-	1,044
Pa.	-	1	438	-	33	1	-	1,830
E.N. CENTRAL	-	6	163	-	33	3	-	5,568
Ohio	-	1	39	-	13	-	-	1,425
Ind.	-	-	31	-	5	-	-	599
Ill.	-	3	31	-	12	2	-	1,770
Mich.	-	1	46	-	3	1	-	875
Wis.	-	1	16	-	-	-	-	899
W.N. CENTRAL	-	9	485	1	105	-	-	2,659
Minn.	-	1	47	-	1	-	-	591
Iowa	-	N	79	1	3	-	-	507
Mo.	-	1	50	-	96	-	-	830
N. Dak.	N	-	59	-	-	-	-	55
S. Dak.	-	1	96	-	1	-	-	121
Nebr.	-	4	-	-	4	-	-	203
Kans.	-	2	154	-	-	-	-	352
S. ATLANTIC	5	7	2,660	-	494	5	-	11,725
Del.	-	N	55	-	1	-	-	103
Md.	-	1	396	-	43	-	-	938
D.C.	-	1	-	-	2	-	-	82
Va.	-	-	592	-	43	-	-	1,277
W. Va..	-	N	172	-	2	-	-	173
N.C.	-	2	702	-	294	-	-	1,655
S.C.	2	-	151	-	75	-	-	895
Ga.	-	1	411	-	19	-	-	1,952
Fla.	3	2	181	-	15	5	-	4,650
E.S. CENTRAL	-	14	216	1	134	-	1	3,331
Ky.	-	9	28	-	5	-	-	415
Tenn.	-	3	108	1	85	-	1	886
Ala.	-	-	76	-	16	-	-	864
Miss.	-	2	4	-	28	-	-	1,166
W.S. CENTRAL	-	6	1,295	-	249	3	-	4,718
Ark.	-	-	131	-	125	-	-	1,074
La.	-	-	-	-	-	1	-	792
Okla.	-	N	126	-	111	-	-	527
Tex.	N	6	1,038	-	13	2	-	2,325
MOUNTAIN	1	5	311	-	15	-	-	2,558
Mont.	-	-	19	-	1	-	-	91
Idaho	-	2	38	-	-	-	-	184
Wyo.	-	-	18	-	5	-	-	107
Colo.	-	1	59	-	2	-	-	607
N. Mex.	-	-	10	-	1	-	-	338
Ariz.	-	-	143	-	1	-	-	829
Utah	1	-	13	-	-	-	-	185
Nev.	-	2	11	-	5	-	-	217
PACIFIC	9	12	294	1	5	5	-	5,587
Wash.	-	-	-	-	-	2	-	656
Oreg.	-	-	14	-	3	-	-	342
Calif.	9	12	253	1	2	3	-	4,235
Alaska	-	-	27	-	-	-	-	86
Hawaii	-	-	-	-	-	-	-	268
Guam	-	-	-	-	-	-	-	46
P.R.	-	-	87	-	N	-	-	616
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	1
C.N.M.I.	-	-	-	-	-	-	-	25

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

* No cases of paralytic poliomyelitis were reported in 2002.

† Rocky Mountain spotted fever.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Shigellosis	Streptococcal disease, invasive, group A	Streptococcal toxic-shock syndrome	*Streptococcus pneumoniae,* invasive, drug-resistant	*Streptococcus pneumoniae,* invasive, (<5 years)	Syphilis* All stages†	Syphilis* Congenital (age <1 yr)	Syphilis* Primary & secondary
UNITED STATES	23,541	4,720	118	2,546	513	32,871	412	6,862
NEW ENGLAND	353	334	6	136	81	831	1	152
Maine	10	20	-	-	-	9	-	2
N.H.	15	36	-	-	-	24	-	8
Vt.	1	10	5	5	2	2	-	2
Mass.	203	112	-	N	74	541	1	99
R.I.	20	23	1	27	5	67	-	13
Conn.	104	133	N	104	U	188	-	28
MID. ATLANTIC	1,908	745	5	139	95	5,630	66	752
Upstate N.Y.	405	313	N	106	80	396	3	43
N.Y. City	506	157	-	-	-	3,483	22	435
N.J.	617	146	1	N	N	1,062	36	169
Pa.	380	129	4	33	15	689	5	105
E.N. CENTRAL	2,294	998	80	301	172	3,576	81	1,216
Ohio	661	212	15	107	31	351	3	159
Ind.	138	68	18	192	79	318	7	62
Ill.	1,105	279	47	2	-	1,592	39	479
Mich.	200	312	N	N	N	1,181	32	486
Wis.	190	127	-	-	62	134	-	30
W.N. CENTRAL	1,111	282	6	407	77	508	2	127
Minn.	222	147	-	373	70	148	1	59
Iowa	122	N	-	N	N	54	-	8
Mo.	217	47	3	5	1	204	1	34
N. Dak.	22	5	-	2	4	-	-	-
S. Dak.	157	14	-	1	-	-	-	-
Nebr.	279	28	2	26	2	25	-	6
Kans.	92	41	1	N	N	77	-	20
S. ATLANTIC	8,380	741	4	1,161	49	8,706	82	1,839
Del.	418	3	-	N	N	62	-	11
Md.	1,233	125	N	2	26	839	15	228
D.C.	68	10	-	-	4	431	1	58
Va.	1,061	82	2	-	-	528	1	71
W. Va..	13	22	2	60	9	5	-	2
N.C.	1,074	122	-	N	N	1,049	13	279
S.C.	148	42	-	201	10	619	14	134
Ga.	1,826	133	N	289	N	1,893	10	439
Fla.	2,539	202	N	609	N	3,280	28	617
E.S. CENTRAL	1,573	119	5	151	-	2,437	17	454
Ky.	210	24	5	19	N	212	3	88
Tenn.	180	95	-	132	-	1,074	2	168
Ala.	836	-	-	-	-	700	6	149
Miss.	347	-	-	-	-	451	6	49
W.S. CENTRAL	3,494	322	-	200	34	5,389	84	847
Ark.	199	12	-	15	-	217	8	34
La.	508	1	-	182	11	775	1	152
Okla.	718	56	N	N	11	287	2	72
Tex.	2,069	253	-	3	12	4,110	73	589
MOUNTAIN	1,270	603	12	51	5	1,581	21	333
Mont.	4	-	-	N	-	4	-	-
Idaho	22	11	-	-	-	23	-	8
Wyo.	8	7	1	14	-	1	-	-
Colo.	213	125	7	N	-	174	2	64
N. Mex.	250	114	-	36	-	110	-	39
Ariz.	685	314	-	N	N	1,085	19	200
Utah	35	32	3	-	5	71	-	7
Nev.	53	-	1	1	-	113	-	15
PACIFIC	3,158	576	-	-	-	4,213	58	1,142
Wash.	230	60	-	N	N	158	2	70
Oreg.	109	-	-	-	-	75	-	28
Calif.	2,742	406	-	-	-	3,912	56	1,033
Alaska	5	-	-	-	-	9	-	-
Hawaii	72	110	-	-	-	59	-	11
Guam	37	-	-	4	-	18	-	6
P.R.	31	N	N	N	N	1,390	20	270
V.I.	-	-	-	-	-	4	-	1
Amer. Samoa	33	-	-	-	-	-	-	-
C.N.M.I.	18	-	-	-	-	-	-	-

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

* Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 2, 2003.

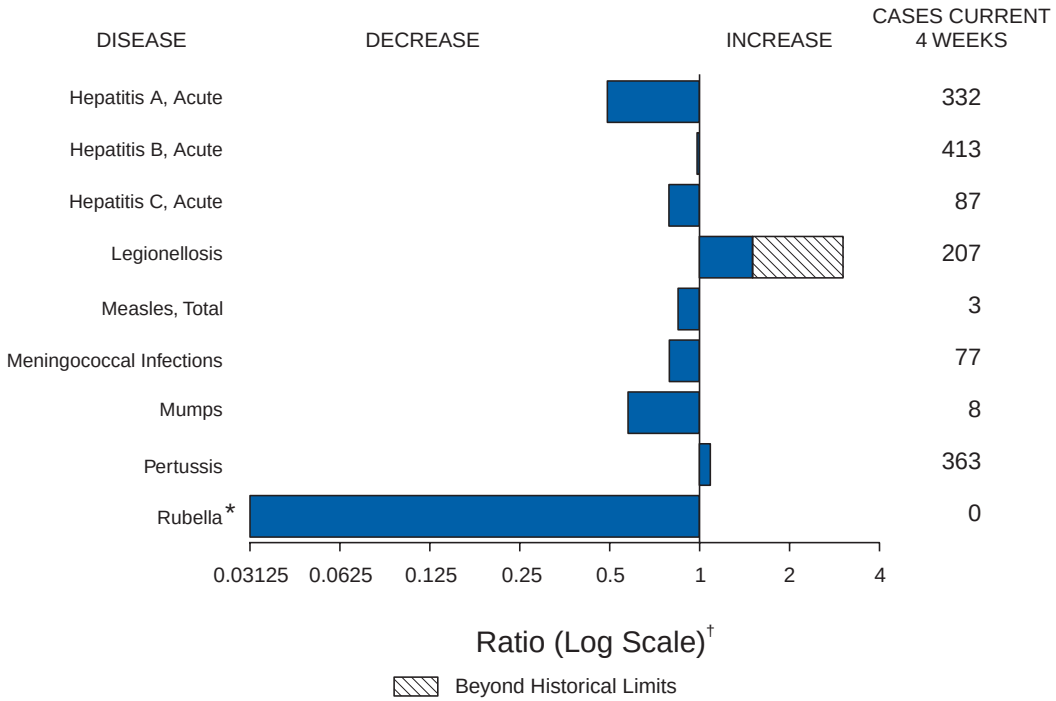
† Includes the following categories: primary, secondary, early, late (including neurosyphilis, late latent, late with clinical manifestations, and unknown latent), and congenital syphilis.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2002

Area	Tetanus	Toxic-shock syndrome	Trichinosis	Tuberculosis*	Tularemia	Typhoid fever	Varicella† (chickenpox)	Varicella§ deaths	Yellow fever
UNITED STATES	25	109	14	15,075	90	321	22,841	9	1
NEW ENGLAND	2	5	1	474	5	13	5,714	-	-
Maine	1	1	-	23	-	-	792	-	-
N.H.	-	-	-	19	-	-	-	-	-
Vt.	-	2	1	8	-	-	799	-	-
Mass.	-	2	-	271	5	7	2,290	-	-
R.I.	1	-	-	49	-	-	12	-	-
Conn.	-	N	-	104	-	6	1,821	-	-
MID. ATLANTIC	4	20	1	2,317	1	80	-	1	-
Upstate N.Y.	1	7	-	350	-	10	N	-	-
N.Y. City	1	1	-	1,084	1	42	-	-	-
N.J.	1	1	-	530	-	19	-	-	-
Pa.	1	11	1	353	-	9	-	1	-
E.N. CENTRAL	3	24	1	1,458	7	34	8,325	3	-
Ohio	1	4	-	257	1	7	1,748	-	-
Ind.	-	-	-	128	1	2	N	1	-
Ill.	1	5	1	680	5	17	-	2	-
Mich.	1	11	-	315	-	4	5,352	-	-
Wis.	-	4	-	78	-	4	1,225	-	-
W.N. CENTRAL	1	21	-	543	23	10	20	1	-
Minn.	-	10	-	237	1	4	-	-	-
Iowa	1	1	-	34	N	-	N	-	-
Mo.	-	6	-	136	16	2	1	-	-
N. Dak.	-	-	-	6	-	-	19	-	-
S. Dak.	-	1	-	13	3	-	-	-	-
Nebr.	-	3	-	28	1	4	-	-	-
Kans.	-	-	-	89	2	-	N	1	-
S. ATLANTIC	3	14	1	3,058	6	45	2,489	1	-
Del.	-	2	-	25	1	-	56	-	-
Md.	-	N	-	306	2	11	-	-	-
D.C.	-	1	-	82	-	-	43	-	-
Va.	-	3	-	315	1	8	605	-	-
W. Va..	-	-	-	30	1	-	1,586	-	-
N.C.	-	5	1	434	1	2	-	-	-
S.C.	-	2	-	256	-	-	199	-	-
Ga.	-	1	N	524	-	5	N	-	-
Fla.	3	N	-	1,086	-	19	N	1	-
E.S. CENTRAL	2	2	1	821	8	4	-	1	-
Ky.	-	-	N	146	2	4	N	-	-
Tenn.	-	2	1	308	4	-	-	-	-
Ala.	1	-	-	233	1	-	-	-	-
Miss.	1	-	-	134	1	-	-	1	-
W.S. CENTRAL	2	-	-	2,106	27	30	6,076	-	1
Ark.	-	-	-	136	14	-	-	-	-
La.	-	-	-	230	-	-	29	-	-
Okla.	-	-	-	190	10	2	N	-	-
Tex.	2	N	-	1,550	3	28	6,047	-	1
MOUNTAIN	-	10	-	569	6	11	217	-	-
Mont.	-	-	-	12	-	-	-	-	-
Idaho	-	1	-	14	-	-	-	-	-
Wyo.	-	-	-	3	2	-	68	-	-
Colo.	-	5	-	104	1	5	N	-	-
N. Mex.	-	-	-	57	2	2	-	-	-
Ariz.	-	-	-	263	-	-	2	-	-
Utah	-	3	-	31	1	2	147	-	-
Nev.	-	1	-	85	-	2	-	-	-
PACIFIC	8	13	9	3,729	7	94	-	2	-
Wash.	-	-	-	252	3	7	-	-	-
Oreg.	-	-	-	111	2	2	-	-	-
Calif.	8	13	2	3,169	1	80	-	1	-
Alaska	-	-	7	49	1	-	-	-	-
Hawaii	-	-	-	148	-	5	-	1	-
Guam	-	-	-	65	-	-	68	-	-
P.R.	3	N	-	129	-	-	1,137	-	-
V.I.	U	U	U	U	U	U	U	U	U
Amer. Samoa	2	-	-	-	-	3	211	-	-
C.N.M.I.	-	-	-	53	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases.
* Totals reported to the Division of Tuberculosis Elimination, NCHSTP, as of March 28, 2003.
† Although not nationally notifiable, reporting is recommended by the Council of State and Territorial Epidemiologists.
§ Death counts provided by the Epidemiology and Surveillance Division, National Immunization Program.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals August 2, 2003, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 31 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 August 2, 2003 (31st Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	2	Hansen disease (leprosy)†	29	60
Botulism:	-	-	Hantavirus pulmonary syndrome†	12	13
foodborne	7	18	Hemolytic uremic syndrome, postdiarrheal†	64	104
infant	32	43	HIV infection, pediatric†§	144	104
other (wound & unspecified)	18	8	Measles, total	29¶	20**
Brucellosis†	41	68	Mumps	127	175
Chancroid	27	42	Plague	1	-
Cholera	1	1	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	41	117	Psittacosis†	10	12
Diphtheria	-	1	Q fever†	42	32
Ehrlichiosis:	-	-	Rabies, human	-	1
human granulocytic (HGE)†	114	153	Rubella	6	9
human monocytic (HME)†	56	92	Rubella, congenital	-	1
other and unspecified	15	12	Streptococcal toxic-shock syndrome†	117	79
Encephalitis/Meningitis:	-	-	Tetanus	7	16
California serogroup viral†	3	22	Toxic-shock syndrome	79	70
eastern equine†	4	1	Trichinosis	1	11
Powassan†	-	1	Tularemia†	38	45
St. Louis†	-	6	Yellow fever	-	-
western equine†	3	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 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 July 27, 2003.
¶ Of 29 cases reported, 24 were indigenous and five were imported from another country.
** Of 20 cases reported, 11 were indigenous and nine were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	26,605	24,521	469,287	480,429	2,079	2,651	1,174	1,357	49	219
NEW ENGLAND	905	1,003	16,123	15,741	-	-	77	82	-	-
Maine	49	23	1,173	865	N	N	8	3	-	-
N.H.	22	20	895	928	-	-	8	14	-	-
Vt.	11	8	598	486	-	-	18	15	-	-
Mass.	371	514	6,326	6,239	-	-	29	31	-	-
R.I.	69	70	1,638	1,630	-	-	9	13	-	-
Conn.	383	368	5,493	5,593	N	N	5	6	-	-
MID. ATLANTIC	6,223	5,658	52,894	52,904	-	-	157	187	4	-
Upstate N.Y.	665	466	11,329	9,683	N	N	44	47	1	-
N.Y. City	3,189	3,202	19,313	17,858	-	-	46	76	-	-
N.J.	1,044	922	7,774	7,139	-	-	4	12	-	-
Pa.	1,325	1,068	14,478	18,224	N	N	63	52	3	-
E.N. CENTRAL	2,625	2,488	78,871	88,512	4	18	274	421	7	18
Ohio	466	447	20,372	22,707	-	-	53	78	7	-
Ind.	345	345	9,607	9,618	N	N	33	26	-	-
Ill.	1,238	1,170	21,896	27,988	-	2	29	68	-	14
Mich.	451	401	18,068	18,264	4	16	55	64	-	-
Wis.	125	125	8,928	9,935	-	-	104	185	-	4
W.N. CENTRAL	486	419	26,166	26,678	1	1	146	134	15	1
Minn.	95	91	5,786	6,225	N	N	54	52	2	-
Iowa	55	50	2,676	2,955	N	N	28	13	-	-
Mo.	230	187	9,402	8,888	-	-	13	17	-	-
N. Dak.	2	1	700	737	N	N	11	10	-	-
S. Dak.	8	3	1,518	1,225	-	-	22	5	9	1
Nebr.¶	35	43	2,076	2,471	1	1	6	27	3	-
Kans.	61	44	4,008	4,177	N	N	12	10	1	-
S. ATLANTIC	7,717	7,404	91,780	90,535	3	3	173	170	5	2
Del.	149	130	1,799	1,557	N	N	3	2	-	-
Md.	882	1,062	9,777	9,019	3	3	10	10	-	-
D.C.	725	371	1,712	1,930	-	-	8	4	-	-
Va.	627	535	10,632	10,151	-	-	18	5	-	-
W. Va.	54	57	1,461	1,439	N	N	3	2	-	-
N.C.	799	536	15,105	14,614	N	N	19	23	-	-
S.C.	504	533	8,019	8,342	-	-	2	2	1	-
Ga.	1,202	1,161	19,760	18,709	-	-	60	67	-	2
Fla.	2,775	3,019	23,515	24,774	N	N	50	55	4	-
E.S. CENTRAL	1,144	1,105	31,427	31,075	N	N	59	82	-	72
Ky.	98	172	4,633	5,060	N	N	14	3	-	-
Tenn.	517	467	11,403	9,549	N	N	20	43	-	-
Ala.	271	194	8,245	9,682	-	-	22	32	-	-
Miss.	258	272	7,146	6,784	N	N	3	4	-	72
W.S. CENTRAL	2,737	2,677	61,234	64,044	-	6	16	38	18	126
Ark.	107	164	4,533	4,449	-	-	4	6	-	-
La.	402	685	10,879	11,101	N	N	2	8	-	93
Okla.	139	130	6,264	6,580	N	N	7	8	-	-
Tex.	2,089	1,698	39,558	41,914	-	6	3	16	18	33
MOUNTAIN	967	777	27,276	29,891	1,472	1,792	66	86	-	-
Mont.	10	8	1,235	1,320	N	N	13	4	-	-
Idaho	15	18	1,479	1,469	N	N	15	18	-	-
Wyo.	6	6	544	527	1	-	2	6	-	-
Colo.	215	156	6,326	8,306	N	N	13	25	-	-
N. Mex.	75	53	3,691	4,458	4	6	3	14	-	-
Ariz.	432	315	8,258	8,844	1,438	1,761	3	11	-	-
Utah	40	43	2,512	1,432	6	8	11	5	-	-
Nev.	174	178	3,231	3,535	23	17	6	3	-	-
PACIFIC	3,801	2,990	83,516	81,049	598	830	206	157	-	-
Wash.	290	299	9,417	8,590	N	N	25	9	-	-
Oreg.	165	213	4,378	4,053	-	-	28	25	-	-
Calif.	3,271	2,394	65,973	63,637	598	830	153	122	-	-
Alaska	13	17	2,205	2,143	-	-	-	-	-	-
Hawaii	62	67	1,543	2,626	-	-	-	1	-	-
Guam	6	1	-	362	-	-	-	-	-	-
P.R.	724	667	1,059	1,558	N	N	N	N	-	-
V.I.	22	62	142	111	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2002 and 2003 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 July 27, 2003.

¶ For Nebraska, data for hepatitis A, B, and C; meningococcal disease; pertussis; streptococcal disease (invasive, group A); and *Streptococcus pneumoniae* (invasive) were collected by using the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	953	1,466	109	82	65	22	8,815	10,493	177,719	204,260
NEW ENGLAND	63	124	19	20	7	2	602	942	4,053	4,452
Maine	7	17	1	1	-	-	84	96	126	70
N.H.	9	11	1	-	-	-	18	28	66	68
Vt.	6	5	-	-	-	-	52	71	48	58
Mass.	23	60	3	13	7	2	259	512	1,573	1,910
R.I.	1	5	-	-	-	-	55	77	520	507
Conn.	17	26	14	6	-	-	134	158	1,720	1,839
MID. ATLANTIC	110	174	6	1	19	2	1,736	2,215	21,416	24,250
Upstate N.Y.	43	78	2	-	9	-	491	622	4,396	4,916
N.Y. City	3	9	-	-	-	-	600	833	7,489	7,303
N.J.	5	32	-	-	-	-	157	260	4,923	4,269
Pa.	59	55	4	1	10	2	488	500	4,608	7,762
E.N. CENTRAL	215	358	13	19	11	3	1,430	1,764	35,363	42,782
Ohio	49	66	10	6	10	2	491	468	11,322	12,529
Ind.	43	35	-	-	-	-	-	-	3,698	4,190
Ill.	34	104	-	6	-	-	347	529	9,722	14,184
Mich.	35	55	-	2	-	1	363	447	7,546	8,361
Wis.	54	98	3	5	1	-	229	320	3,075	3,518
W.N. CENTRAL	174	209	15	10	14	2	943	987	8,858	10,364
Minn.	53	66	9	7	-	-	374	355	1,529	1,806
Iowa	35	53	-	-	-	-	124	143	607	694
Mo.	47	33	2	-	1	-	254	266	4,419	5,084
N. Dak.	6	4	-	-	7	-	22	13	30	39
S. Dak.	13	20	3	1	-	-	25	40	123	149
Nebr.	6	17	1	2	-	-	61	79	678	885
Kans.	14	16	-	-	6	2	83	91	1,472	1,707
S. ATLANTIC	78	123	40	16	2	-	1,468	1,567	45,229	52,419
Del.	1	5	N	N	N	N	18	30	703	939
Md.	2	11	-	-	-	-	64	60	4,631	5,162
D.C.	1	-	-	-	-	-	23	28	1,337	1,576
Va.	21	29	5	2	-	-	205	120	4,926	6,021
W. Va.	3	2	-	-	-	-	24	27	507	595
N.C.	5	19	12	-	-	-	N	N	8,760	9,799
S.C.	-	2	-	-	-	-	60	48	4,325	5,192
Ga.	16	33	3	7	-	-	503	505	9,711	10,199
Fla.	29	22	20	7	2	-	571	749	10,329	12,936
E.S. CENTRAL	43	55	-	-	5	7	182	194	15,267	17,874
Ky.	13	13	-	-	5	7	N	N	1,984	2,052
Tenn.	17	24	-	-	-	-	82	90	4,595	5,458
Ala.	10	12	-	-	-	-	100	104	5,086	6,328
Miss.	3	6	-	-	-	-	-	-	3,602	4,036
W.S. CENTRAL	27	63	1	-	3	2	160	103	25,244	28,587
Ark.	4	5	-	-	-	-	88	74	2,427	2,736
La.	1	2	-	-	-	-	5	2	6,522	6,885
Okla.	12	13	-	-	-	-	67	26	2,444	2,828
Tex.	10	43	1	-	3	2	-	1	13,851	16,138
MOUNTAIN	122	146	12	12	4	4	779	793	5,722	6,439
Mont.	4	9	-	-	-	-	42	40	64	55
Idaho	26	11	6	5	-	-	90	60	43	47
Wyo.	2	5	-	1	-	-	11	15	26	36
Colo.	33	55	2	4	4	4	213	267	1,465	2,017
N. Mex.	4	4	3	2	-	-	23	90	615	882
Ariz.	19	16	N	N	N	N	148	107	2,201	2,127
Utah	26	32	1	-	-	-	178	138	231	137
Nev.	8	14	-	-	-	-	74	76	1,077	1,138
PACIFIC	121	214	3	4	-	-	1,515	1,928	16,567	17,093
Wash.	30	31	1	-	-	-	129	216	1,630	1,677
Oreg.	23	51	1	4	-	-	198	230	581	484
Calif.	65	104	-	-	-	-	1,107	1,371	13,713	14,180
Alaska	1	5	-	-	-	-	45	53	309	368
Hawaii	2	23	1	-	-	-	36	58	334	384
Guam	N	N	-	-	-	-	-	6	-	32
P.R.	-	1	-	-	-	-	30	37	113	232
V.I.	-	-	-	-	-	-	-	-	36	29
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	*Haemophilus influenzae*, invasive†								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,041	1,081	8	20	59	85	113	100	3,351	5,543
NEW ENGLAND	84	71	1	-	6	7	5	1	165	199
Maine	2	1	-	-	-	-	1	-	9	6
N.H.	11	6	1	-	-	-	-	-	8	11
Vt.	6	5	-	-	-	-	-	-	5	1
Mass.	40	31	-	-	6	3	3	1	89	87
R.I.	4	10	-	-	-	-	1	-	11	28
Conn.	21	18	-	-	-	4	-	-	43	66
MID. ATLANTIC	231	196	-	2	1	10	32	19	659	705
Upstate N.Y.	85	74	-	2	1	3	9	6	75	118
N.Y. City	40	46	-	-	-	-	8	8	205	251
N.J.	40	42	-	-	-	-	6	5	85	113
Pa.	66	34	-	-	-	7	9	-	294	223
E.N. CENTRAL	138	219	1	2	5	9	21	29	378	684
Ohio	49	61	-	-	-	1	8	7	80	200
Ind.	32	32	-	1	3	7	-	-	40	33
Ill.	36	79	-	-	-	-	9	14	109	181
Mich.	15	9	1	1	2	1	2	-	118	141
Wis.	6	38	-	-	-	-	2	8	31	129
W.N. CENTRAL	78	46	-	1	6	2	8	3	120	195
Minn.	29	27	-	1	6	2	1	1	33	27
Iowa	-	1	-	-	-	-	-	-	19	44
Mo.	32	10	-	-	-	-	7	2	42	56
N. Dak.	1	4	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	2	-	-	-	-	-	-	-	6	11
Kans.	13	3	-	-	-	-	-	-	20	53
S. ATLANTIC	245	241	-	4	9	12	14	19	832	1,540
Del.	-	-	-	-	-	-	-	-	4	10
Md.	56	62	-	1	5	2	-	1	88	178
D.C.	-	-	-	-	-	-	-	-	26	55
Va.	33	21	-	-	-	-	5	3	47	55
W. Va.	11	9	-	-	-	-	-	1	13	12
N.C.	22	23	-	-	1	3	1	-	46	141
S.C.	3	9	-	-	-	-	-	2	18	45
Ga.	50	54	-	-	-	-	5	9	329	315
Fla.	70	63	-	3	3	7	3	3	261	729
E.S. CENTRAL	48	44	1	1	-	4	6	7	95	175
Ky.	2	4	-	-	-	1	-	-	18	39
Tenn.	28	21	-	-	-	-	4	5	53	69
Ala.	16	12	1	1	-	3	1	1	11	24
Miss.	2	7	-	-	-	-	1	1	13	43
W.S. CENTRAL	43	38	-	2	5	6	3	2	89	586
Ark.	6	1	-	-	1	-	-	-	15	32
La.	7	4	-	-	-	-	2	2	35	53
Okla.	28	31	-	-	4	6	1	-	9	29
Tex.	2	2	-	2	-	-	-	-	30	472
MOUNTAIN	119	126	4	4	17	19	18	11	287	341
Mont.	-	-	-	-	-	-	-	-	4	9
Idaho	3	2	-	-	-	-	1	1	-	22
Wyo.	1	2	-	-	-	-	-	-	1	2
Colo.	22	25	-	-	-	-	5	2	38	52
N. Mex.	15	20	-	-	4	4	2	1	10	9
Ariz.	61	56	4	2	6	12	7	5	176	191
Utah	11	14	-	1	4	3	3	-	22	25
Nev.	6	7	-	1	3	-	-	2	36	31
PACIFIC	55	100	1	4	10	16	6	9	726	1,118
Wash.	6	2	-	1	4	1	1	-	36	110
Oreg.	32	38	-	-	-	-	3	3	40	44
Calif.	11	32	1	3	6	15	2	2	639	941
Alaska	-	1	-	-	-	-	-	1	7	7
Hawaii	6	27	-	-	-	-	-	3	4	16
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	-	-	-	23	135
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Non-serotype b: nontypeable and type other than b; Unknown serotype: type unknown or not reported. Previously, cases reported without type information were counted as non-serotype b.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	3,633	4,355	829	1,078	886	568	297	300	6,588	9,364
NEW ENGLAND	135	156	2	18	29	37	21	34	975	1,832
Maine	1	5	-	-	1	2	5	2	86	49
N.H.	11	12	-	-	4	4	2	2	41	93
Vt.	2	3	2	12	1	4	-	2	13	17
Mass.	109	87	-	6	9	19	8	19	126	1,334
R.I.	4	17	-	-	2	1	-	1	121	113
Conn.	8	32	U	U	12	7	6	8	588	226
MID. ATLANTIC	573	930	104	57	198	150	54	64	4,525	5,622
Upstate N.Y.	63	71	32	27	57	40	15	21	2,028	2,263
N.Y. City	246	477	-	-	13	27	10	16	2	48
N.J.	109	174	-	4	4	20	7	10	544	1,635
Pa.	155	208	72	26	124	63	22	17	1,951	1,676
E.N. CENTRAL	241	383	129	63	187	154	37	44	250	851
Ohio	86	57	10	-	116	64	14	11	32	36
Ind.	20	28	1	-	10	11	2	6	9	10
Ill.	1	79	8	12	3	17	5	12	-	38
Mich.	111	183	110	48	47	37	13	11	1	14
Wis.	23	36	-	3	11	25	3	4	208	753
W.N. CENTRAL	186	127	138	488	39	28	7	9	146	147
Minn.	23	12	7	1	3	2	3	-	105	89
Iowa	4	11	1	1	7	7	-	1	13	22
Mo.	128	68	129	478	19	9	1	6	22	29
N. Dak.	-	4	-	-	1	-	-	1	-	-
S. Dak.	2	-	-	-	1	2	-	-	-	-
Nebr.	14	18	1	8	2	8	3	-	2	3
Kans.	15	14	-	-	6	-	-	1	4	4
S. ATLANTIC	1,150	1,042	109	118	282	107	67	44	570	723
Del.	5	11	-	-	12	6	N	N	85	102
Md.	77	85	9	7	63	19	11	9	341	444
D.C.	5	13	-	-	8	5	-	-	5	15
Va.	102	124	4	2	57	10	7	3	40	49
W. Va.	12	13	1	1	10	-	3	-	6	8
N.C.	100	144	7	16	16	7	10	3	54	59
S.C.	83	69	23	4	4	6	1	6	1	8
Ga.	363	281	3	52	18	7	20	8	12	1
Fla.	403	302	62	36	94	47	15	15	26	37
E.S. CENTRAL	247	225	82	73	52	17	13	8	25	35
Ky.	41	35	8	2	20	7	2	2	7	13
Tenn.	113	89	41	17	20	4	3	3	9	8
Ala.	41	47	6	4	11	6	6	3	1	7
Miss.	52	54	27	50	1	-	2	-	8	7
W.S. CENTRAL	182	620	167	151	11	16	14	18	33	90
Ark.	32	78	3	10	1	-	1	-	-	2
La.	37	74	35	57	-	4	-	1	3	3
Okla.	31	29	2	4	4	3	1	5	-	-
Tex.	82	439	127	80	6	9	12	12	30	85
MOUNTAIN	380	363	41	39	43	21	18	20	10	8
Mont.	8	3	1	-	2	3	1	-	-	-
Idaho	-	6	-	-	3	-	1	2	2	2
Wyo.	22	12	-	5	2	1	-	-	-	-
Colo.	49	47	22	4	8	3	7	3	3	-
N. Mex.	19	102	-	2	2	1	2	2	-	1
Ariz.	195	130	6	4	9	6	5	9	-	2
Utah	39	24	-	4	13	6	-	3	2	2
Nev.	48	39	12	20	4	1	2	1	3	1
PACIFIC	539	509	57	71	45	38	66	59	54	56
Wash.	36	38	8	15	5	1	2	5	-	3
Oreg.	75	91	8	10	N	N	2	5	13	9
Calif.	411	368	39	46	40	37	59	44	40	43
Alaska	8	6	1	-	-	-	-	-	1	1
Hawaii	9	6	1	-	-	-	3	5	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	38	112	-	-	-	-	-	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 years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	505	773	1,006	1,196	3,474	4,432	2,933	4,313	314	512
NEW ENGLAND	22	44	50	70	312	398	283	488	-	2
Maine	2	2	5	4	11	5	27	28	-	-
N.H.	2	5	3	8	25	9	11	21	-	-
Vt.	-	1	-	4	39	76	18	70	-	-
Mass.	9	21	32	36	229	282	104	161	-	2
R.I.	-	3	2	5	7	4	28	37	-	-
Conn.	9	12	8	13	1	22	95	171	-	-
MID. ATLANTIC	113	191	132	154	324	180	265	664	15	40
Upstate N.Y.	32	26	32	35	176	121	202	369	1	-
N.Y. City	51	118	25	25	-	10	1	10	6	9
N.J.	10	26	19	23	22	-	62	95	5	14
Pa.	20	21	56	71	126	49	-	190	3	17
E.N. CENTRAL	49	109	156	178	255	531	56	64	6	19
Ohio	11	13	46	56	141	256	21	16	4	8
Ind.	1	8	31	22	32	36	7	13	-	1
Ill.	18	46	34	41	-	93	7	10	-	8
Mich.	16	33	31	28	31	36	19	16	2	2
Wis.	3	9	14	31	51	110	2	9	-	-
W.N. CENTRAL	28	46	91	91	185	338	376	292	25	69
Minn.	15	16	20	22	59	118	21	18	1	-
Iowa	3	2	16	13	44	102	52	42	2	1
Mo.	2	12	40	36	46	70	10	21	18	64
N. Dak.	1	1	1	-	3	5	39	29	-	-
S. Dak.	2	1	1	2	3	5	67	59	2	-
Nebr.	-	5	6	13	4	3	60	-	1	4
Kans.	5	9	7	5	26	35	127	123	1	-
S. ATLANTIC	152	170	189	185	297	237	1,465	1,555	205	225
Del.	1	1	7	6	1	2	26	24	-	-
Md.	39	57	21	4	41	32	147	249	54	27
D.C.	7	15	-	-	-	1	-	-	-	-
Va.	19	16	20	28	64	95	330	337	14	16
W. Va.	4	3	4	2	6	17	52	109	4	1
N.C.	13	11	25	19	79	20	467	403	92	125
S.C.	3	5	10	18	39	28	120	69	11	34
Ga.	24	25	21	22	23	18	227	252	23	18
Fla.	42	37	81	86	44	24	96	112	7	4
E.S. CENTRAL	7	10	50	70	83	146	122	156	38	70
Ky.	1	3	10	12	28	57	25	17	-	3
Tenn.	4	2	13	28	37	56	82	108	30	35
Ala.	2	3	13	16	14	25	15	31	3	11
Miss.	-	2	14	14	4	8	-	-	5	21
W.S. CENTRAL	14	38	69	144	262	1,101	162	761	19	76
Ark.	4	1	10	20	8	440	25	-	-	21
La.	3	3	24	30	6	5	-	-	-	-
Okla.	3	4	12	16	12	34	137	75	18	47
Tex.	4	30	23	78	236	622	-	686	1	8
MOUNTAIN	21	34	51	68	592	533	83	160	6	10
Mont.	-	1	3	2	1	3	13	8	1	1
Idaho	1	-	6	3	46	46	3	12	1	-
Wyo.	1	-	2	-	119	9	1	14	2	3
Colo.	11	19	13	21	203	202	13	26	1	1
N. Mex.	-	2	6	3	35	110	5	5	-	-
Ariz.	5	5	14	21	106	98	39	91	1	-
Utah	2	4	1	1	62	39	6	2	-	-
Nev.	1	3	6	17	20	26	3	2	-	5
PACIFIC	99	131	218	236	1,164	968	121	173	-	1
Wash.	14	12	17	44	311	291	-	-	-	-
Oreg.	7	7	37	34	289	122	5	6	-	1
Calif.	73	104	156	151	555	531	113	141	-	-
Alaska	-	2	1	1	-	4	3	26	-	-
Hawaii	5	6	7	6	9	20	-	-	-	-
Guam	-	-	-	1	-	2	-	-	-	-
P.R.	-	1	2	5	-	2	45	51	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	18,608	21,438	11,246	9,847	3,620	3,160	1,442	1,691	289	217
NEW ENGLAND	1,081	1,141	167	169	300	247	40	75	6	1
Maine	75	78	6	3	21	20	-	-	-	-
N.H.	81	69	5	5	19	27	-	-	N	N
Vt.	37	42	5	-	16	9	6	4	3	1
Mass.	635	657	110	114	137	82	N	N	N	N
R.I.	43	72	5	6	5	13	10	6	3	-
Conn.	210	223	36	41	102	96	24	65	U	U
MID. ATLANTIC	2,181	2,971	1,245	867	602	535	91	80	67	57
Upstate N.Y.	542	787	194	134	273	215	49	71	51	47
N.Y. City	586	760	206	265	88	124	U	U	U	U
N.J.	211	627	161	328	42	112	N	N	N	N
Pa.	842	797	684	140	199	84	42	9	16	10
E.N. CENTRAL	2,798	3,257	1,046	1,063	828	680	317	150	129	80
Ohio	838	776	236	381	244	154	208	26	77	-
Ind.	318	263	79	54	81	39	109	122	32	40
Ill.	888	1,149	499	434	178	199	-	2	-	-
Mich.	433	545	161	93	279	208	N	N	N	N
Wis.	321	524	71	101	46	80	N	N	20	40
W.N. CENTRAL	1,334	1,311	449	671	238	181	123	323	41	40
Minn.	315	302	55	133	119	95	-	220	35	36
Iowa	195	223	28	71	N	N	N	N	N	N
Mo.	498	445	224	96	48	37	9	5	2	1
N. Dak.	25	24	3	16	10	-	3	1	4	3
S. Dak.	60	52	9	150	18	10	1	1	-	-
Nebr.	78	79	86	145	21	14	-	25	N	N
Kans.	163	186	44	60	22	25	110	71	N	N
S. ATLANTIC	4,894	4,991	4,649	3,153	663	510	723	785	8	19
Del.	48	40	142	22	6	1	1	3	N	N
Md.	448	477	370	601	204	80	-	-	-	14
D.C.	21	48	34	39	10	6	2	-	4	3
Va.	529	509	253	560	83	52	N	N	N	N
W. Va.	68	68	-	4	30	13	51	34	4	2
N.C.	602	634	590	179	79	96	N	N	U	U
S.C.	220	309	254	69	27	29	74	136	N	N
Ga.	923	912	1,235	742	79	99	187	195	N	N
Fla.	2,035	1,994	1,771	937	145	134	408	417	N	N
E.S. CENTRAL	1,236	1,474	550	791	136	73	95	102	-	-
Ky.	228	177	67	81	32	12	12	12	N	N
Tenn.	408	387	186	40	104	61	83	90	N	N
Ala.	296	380	177	415	-	-	-	-	N	N
Miss.	304	530	120	255	-	-	-	-	-	-
W.S. CENTRAL	1,174	2,192	1,335	1,518	118	206	31	144	34	17
Ark.	344	435	59	119	5	5	8	5	-	-
La.	173	429	129	293	1	1	23	139	10	4
Okla.	232	225	508	282	60	35	N	N	24	2
Tex.	425	1,103	639	824	52	165	N	N	-	11
MOUNTAIN	1,180	1,201	559	359	339	396	19	32	4	3
Mont.	56	59	2	3	2	-	-	-	-	-
Idaho	103	72	14	2	14	5	N	N	N	N
Wyo.	55	35	1	4	1	7	4	10	-	-
Colo.	267	347	87	75	92	79	-	-	-	-
N. Mex.	110	151	108	64	85	73	15	22	-	-
Ariz.	379	313	288	173	135	205	-	-	N	N
Utah	117	94	29	18	9	27	-	-	4	3
Nev.	93	130	30	20	1	-	-	-	-	-
PACIFIC	2,730	2,900	1,246	1,256	396	332	3	-	-	-
Wash.	295	269	96	75	38	18	-	-	N	N
Oreg.	232	210	68	55	N	N	N	N	N	N
Calif.	2,053	2,222	1,061	1,090	302	276	N	N	N	N
Alaska	50	40	4	2	-	-	-	-	N	N
Hawaii	100	159	17	34	56	38	3	-	-	-
Guam	-	29	-	19	-	-	-	3	-	-
P.R.	135	254	1	20	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 2, 2003, and August 3, 2002 (31st Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Primary & secondary		Congenital						
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	3,920	3,834	204	243	6,030	7,410	148	178	8,025
NEW ENGLAND	127	78	1	-	166	245	13	8	1,235
Maine	6	1	1	-	5	10	-	-	632
N.H.	13	2	-	-	7	8	1	-	-
Vt.	-	1	-	-	3	4	-	-	489
Mass.	83	58	-	-	108	121	5	6	111
R.I.	12	1	-	-	19	34	2	-	3
Conn.	13	15	-	-	24	68	5	2	-
MID. ATLANTIC	453	421	41	36	1,182	1,261	18	48	16
Upstate N.Y.	22	20	12	1	141	184	3	3	N
N.Y. City	273	251	22	16	685	619	9	25	-
N.J.	82	80	7	18	215	280	5	13	-
Pa.	76	70	-	1	141	178	1	7	16
E.N. CENTRAL	533	725	39	35	634	749	11	19	3,733
Ohio	130	85	2	1	114	120	1	5	923
Ind.	31	38	7	2	82	66	4	2	-
Ill.	187	279	13	26	289	370	-	6	-
Mich.	175	308	17	6	119	151	6	3	2,259
Wis.	10	15	-	-	30	42	-	3	551
W.N. CENTRAL	88	74	2	-	272	317	2	6	37
Minn.	30	35	-	-	101	135	-	3	N
Iowa	4	2	-	-	16	17	1	-	N
Mo.	32	16	2	-	72	91	1	1	-
N. Dak.	-	-	-	-	-	4	-	-	37
S. Dak.	1	-	-	-	16	10	-	-	-
Nebr.	1	5	-	-	9	9	-	2	-
Kans.	20	16	-	-	58	51	-	-	-
S. ATLANTIC	1,049	943	37	57	1,140	1,521	33	23	1,520
Del.	4	9	-	-	-	13	-	-	18
Md.	178	109	7	10	129	160	7	5	-
D.C.	35	30	-	1	-	-	-	-	22
Va.	55	45	1	1	115	151	10	2	419
W. Va.	1	-	-	-	11	18	-	-	902
N.C.	93	175	10	15	178	179	6	1	N
S.C.	62	77	4	7	86	115	-	-	159
Ga.	243	195	3	9	157	307	6	4	-
Fla.	378	303	12	14	464	578	4	11	N
E.S. CENTRAL	189	318	12	18	389	448	5	4	-
Ky.	24	61	1	3	69	74	-	4	N
Tenn.	80	117	6	5	127	175	2	-	N
Ala.	71	106	4	7	139	127	3	-	-
Miss.	14	34	1	3	54	72	-	-	-
W.S. CENTRAL	510	484	38	51	831	1,147	4	19	1,115
Ark.	32	20	-	3	60	73	-	-	-
La.	72	81	-	-	-	-	-	-	3
Okla.	31	37	1	1	85	97	-	-	N
Tex.	375	346	37	47	686	977	4	19	1,112
MOUNTAIN	176	178	19	9	189	228	3	7	369
Mont.	-	-	-	-	5	6	-	-	N
Idaho	6	1	-	-	5	10	-	-	N
Wyo.	-	-	-	-	2	2	-	-	42
Colo.	12	36	3	1	42	47	3	3	-
N. Mex.	28	20	-	-	6	22	-	-	-
Ariz.	118	112	16	8	90	111	-	-	4
Utah	5	2	-	-	18	17	-	2	323
Nev.	7	7	-	-	21	13	-	2	-
PACIFIC	795	613	15	37	1,227	1,494	59	44	-
Wash.	44	29	-	1	144	140	2	4	-
Oreg.	27	10	-	-	70	60	3	2	-
Calif.	723	567	15	35	954	1,179	54	37	-
Alaska	-	-	-	-	32	32	-	-	-
Hawaii	1	7	-	1	27	83	-	1	-
Guam	-	6	-	-	-	41	-	-	-
P.R.	114	152	1	19	33	67	-	-	271
V.I.	1	1	-	-	-	-	-	-	-
Amer. Samoa	U	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 years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending August 2, 2003 (31st Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	469	326	92	35	8	8	63
Boston, Mass.	144	93	33	14	1	3	16
Bridgeport, Conn.	52	35	10	4	1	2	7
Cambridge, Mass.	18	17	1	-	-	-	3
Fall River, Mass.	19	14	5	-	-	-	2
Hartford, Conn.	35	25	8	1	-	1	4
Lowell, Mass.	23	20	1	1	1	-	3
Lynn, Mass.	7	6	-	1	-	-	2
New Bedford, Mass.	17	10	4	2	1	-	1
New Haven, Conn.	26	18	5	2	-	1	5
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	5	3	1	1	-	-	-
Springfield, Mass.	38	22	8	6	1	1	4
Waterbury, Conn.	26	20	5	1	-	-	6
Worcester, Mass.	59	43	11	2	3	-	10
MID. ATLANTIC	2,031	1,340	427	154	61	48	97
Albany, N.Y.	47	30	10	1	4	2	3
Allentown, Pa.	13	11	1	-	1	-	1
Buffalo, N.Y.	101	73	16	5	5	2	4
Camden, N.J.	28	12	10	1	2	3	3
Elizabeth, N.J.	14	10	-	1	3	-	1
Erie, Pa.	48	35	9	3	1	-	4
Jersey City, N.J.	42	25	13	3	1	-	-
New York City, N.Y.	1,064	687	250	80	24	22	54
Newark, N.J.	37	17	6	12	-	2	1
Paterson, N.J.	36	19	10	5	-	2	-
Philadelphia, Pa.	217	130	46	24	9	8	4
Pittsburgh, Pa.§	21	17	3	1	-	-	-
Reading, Pa.	25	22	2	1	-	-	2
Rochester, N.Y.	112	76	23	9	4	-	7
Schenectady, N.Y.	30	26	2	-	2	-	3
Scranton, Pa.	24	20	2	2	-	-	1
Syracuse, N.Y.	77	59	10	2	2	4	7
Trenton, N.J.	54	40	10	1	1	2	1
Utica, N.Y.	28	23	2	2	1	-	-
Yonkers, N.Y.	13	8	2	1	1	1	1
E.N. CENTRAL	1,909	1,252	398	154	48	54	119
Akron, Ohio	55	38	10	1	2	4	3
Canton, Ohio	40	33	7	-	-	-	2
Chicago, Ill.	297	170	62	40	11	12	17
Cincinnati, Ohio	78	55	11	5	3	4	12
Cleveland, Ohio	132	84	31	11	4	2	8
Columbus, Ohio	185	124	31	20	5	5	14
Dayton, Ohio	141	106	23	8	1	3	11
Detroit, Mich.	206	100	59	29	7	10	10
Evansville, Ind.	54	43	7	3	-	1	3
Fort Wayne, Ind.	52	36	14	2	-	-	6
Gary, Ind.	18	9	6	1	1	1	-
Grand Rapids, Mich.	56	38	7	4	2	5	7
Indianapolis, Ind.	166	114	35	8	6	3	5
Lansing, Mich.	35	23	12	-	-	-	2
Milwaukee, Wis.	98	64	27	4	3	-	7
Peoria, Ill.	39	29	10	-	-	-	1
Rockford, Ill.	57	37	13	3	2	2	3
South Bend, Ind.	63	51	7	5	-	-	4
Toledo, Ohio	94	67	17	7	1	2	2
Youngstown, Ohio	43	31	9	3	-	-	2
W.N. CENTRAL	458	306	91	39	12	10	31
Des Moines, Iowa	23	19	4	-	-	-	1
Duluth, Minn.	27	19	5	3	-	-	2
Kansas City, Kans.	21	11	7	2	1	-	-
Kansas City, Mo.	76	45	19	8	2	2	3
Lincoln, Nebr.	29	26	2	1	-	-	-
Minneapolis, Minn.	65	43	13	4	2	3	6
Omaha, Nebr.	95	66	17	6	4	2	11
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	55	36	11	3	2	3	2
Wichita, Kans.	67	41	13	12	1	-	6
S. ATLANTIC	1,098	690	243	100	33	32	74
Atlanta, Ga.	112	61	32	14	3	2	2
Baltimore, Md.	189	108	48	24	4	5	19
Charlotte, N.C.	95	63	18	5	7	2	14
Jacksonville, Fla.	136	91	25	12	5	3	4
Miami, Fla.	72	47	12	8	3	2	5
Norfolk, Va.	34	21	7	3	-	3	2
Richmond, Va.	61	33	15	9	1	3	4
Savannah, Ga.	44	30	8	2	1	3	4
St. Petersburg, Fla.	54	34	13	3	1	3	5
Tampa, Fla.	183	122	39	13	3	6	8
Washington, D.C.	100	64	24	7	5	-	6
Wilmington, Del.	18	16	2	-	-	-	1
E.S. CENTRAL	607	381	141	50	20	13	40
Birmingham, Ala.	145	94	31	8	4	6	10
Chattanooga, Tenn.	74	52	14	7	-	1	6
Knoxville, Tenn.	U	U	U	U	U	U	U
Lexington, Ky.	78	42	19	11	5	1	5
Memphis, Tenn.	90	55	21	8	4	2	7
Mobile, Ala.	69	44	16	7	1	1	1
Montgomery, Ala.	21	17	4	-	-	-	1
Nashville, Tenn.	130	77	36	9	6	2	10
W.S. CENTRAL	1,084	677	223	98	57	29	64
Austin, Tex.	78	50	13	9	1	5	2
Baton Rouge, La.	31	24	2	3	2	-	-
Corpus Christi, Tex.	51	36	9	2	1	3	2
Dallas, Tex.	181	97	49	19	9	7	9
El Paso, Tex.	74	56	13	3	1	1	6
Ft. Worth, Tex.	106	75	20	7	2	2	9
Houston, Tex.	401	229	85	45	36	6	27
Little Rock, Ark.	70	51	11	3	2	3	3
New Orleans, La.	29	19	8	2	-	-	-
San Antonio, Tex.	U	U	U	U	U	U	U
Shreveport, La.	63	40	13	5	3	2	6
Tulsa, Okla.	U	U	U	U	U	U	U
MOUNTAIN	825	516	198	72	25	14	40
Albuquerque, N.M.	67	43	16	4	3	1	5
Boise, Idaho	36	22	7	5	1	1	1
Colo. Springs, Colo.	69	42	17	5	4	1	-
Denver, Colo.	95	59	20	10	4	2	5
Las Vegas, Nev.	236	142	65	21	6	2	10
Ogden, Utah	31	22	9	-	-	-	1
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	29	21	6	2	-	-	3
Salt Lake City, Utah	136	78	36	14	4	4	10
Tucson, Ariz.	126	87	22	11	3	3	5
PACIFIC	1,409	983	276	85	39	26	90
Berkeley, Calif.	18	7	6	4	-	1	3
Fresno, Calif.	80	53	18	6	3	-	3
Glendale, Calif.	9	5	2	-	1	1	-
Honolulu, Hawaii	88	69	11	3	3	2	6
Long Beach, Calif.	U	U	U	U	U	U	U
Los Angeles, Calif.	405	286	78	25	7	9	18
Pasadena, Calif.	U	U	U	U	U	U	U
Portland, Oreg.	144	98	30	6	5	5	9
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	173	125	29	11	6	2	21
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	175	116	42	9	5	3	17
Santa Cruz, Calif.	35	26	7	1	1	-	1
Seattle, Wash.	130	83	29	14	4	-	2
Spokane, Wash.	50	40	6	2	-	2	3
Tacoma, Wash.	102	75	18	4	4	1	7
TOTAL	9,890	¶6,471	2,089	787	303	234	618

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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