

MMWRTM
**MORBIDITY AND MORTALITY
WEEKLY REPORT**

- 705 Carbon Monoxide Poisoning Deaths Associated with Camping
- 707 Community-Acquired Methicillin-Resistant *Staphylococcus aureus*
- 710 Gastrointestinal Basidiobolomycosis — Arizona
- 714 Iron Deficiency Anemia in Alaska Native Children — Hooper Bay
- 717 Potential Hepatitis A Exposure — North Carolina
- 717 Notices to Readers

**Carbon Monoxide Poisoning Deaths
Associated with Camping — Georgia, March 1999**

Carbon monoxide (CO) is an odorless, colorless, nonirritating gas produced by the incomplete combustion of carbon-based fuels. CO exposure is responsible for more fatal unintentional poisonings in the United States than any other agent, with the highest incidence occurring during the cold-weather months (1). Although most of these deaths occur in residences or motor vehicles (2), two incidents among campers in Georgia illustrate the danger of CO in outdoor settings. This report describes the two incidents, which resulted in six deaths, and provides recommendations for avoiding CO poisoning in outdoor settings.

Cases 1–4. On the afternoon of March 14, 1999, a 51-year-old man, his 10-year-old son, a 9-year-old boy, and a 7-year-old girl were found dead inside a zipped-up, 10-foot by 14-foot, two-room tent at their campsite in southeast Georgia (a pet dog also died). A propane gas stove, still burning, was found inside the tent; the stove apparently had been brought inside to provide warmth. The occupants had died during the night. Postmortem carboxyhemoglobin (COHb) levels measured 50%, 63%, 69%, and 63%, respectively, in the four decedents (in the general U.S. population, COHb concentrations average 1% in nonsmokers and 4% in smokers [3]).

Cases 5 and 6. On March 27, 1999, a 34-year-old man and his 7-year-old son were found dead inside their zipped-up tent at a group camping site in central Georgia. They were discovered by other campers just before 9 a.m. A charcoal grill was found inside the tent; the grill apparently had been brought inside to provide warmth after it had been used outside for cooking. Postmortem COHb levels in the two campers measured 68% and 76%, respectively.

Reported by: R Wheeler, Covington; MA Koponen, MD, Georgia Bur of Investigation; AB Johnson, MPH, PJ Meehan, MD, District 3-4, Newton County Health Dept, Covington; SE Lance-Parker, DVM, KE Powell, MD, Div of Public Health, Georgia Dept of Human Resources. Environmental Hazards Epidemiology Section, Health Studies Br, Surveillance and Programs Br, Air Pollution and Respiratory Health Br, Div of Environmental Hazards and Health Effects, National Center for Environmental Health; Div of Applied Public Health Training, Epidemiology Program Office; and EIS officers, CDC.

Editorial Note: On respiration, CO binds to hemoglobin with an affinity 200–250 times greater than that of oxygen, forming a COHb complex (4). The principal toxic effect of CO exposure is tissue hypoxia because COHb is less efficient at transporting and de-

Carbon Monoxide Poisoning — Continued

livering oxygen. Poisoning symptoms, such as headache, dizziness, and nausea, usually are seen at COHb levels of >10% in otherwise healthy persons (2).

During 1979–1988 in the United States, from 878 to 1513 deaths per year were attributed to unintentional CO poisoning (1). CO poisoning has been reported in many different settings, including homes (5), automobiles (6), and indoor arenas (7). The findings in this report demonstrate the danger of CO from portable gas stoves and charcoal grills, specifically if placed inside a tent or other confined sleeping area. In the United States during 1990–1994, portable fuel-burning camp stoves and lanterns were involved in 10–17 CO poisoning deaths each year, and charcoal grills were involved in 15–27 deaths each year (2). During this same time, an annual average of 30 fatal CO poisonings occurred inside tents or campers (2).

Evening temperatures often drop unexpectedly, even during warmer months of the year. Campers who are unprepared for colder weather may overlook the danger of operating fuel-burning camping heaters, portable gas stoves, or charcoal grills inside tents and campers. Camping stoves and heaters are not designed to be used indoors and can emit hazardous amounts of CO, and smoldering charcoal emits large amounts of CO. Inside a tent or camper, these sources produce dangerous concentrations of CO, which becomes even more dangerous to sleeping persons who are unable to recognize the early symptoms of CO poisoning.

To avoid hazardous CO exposures, fuel-burning equipment such as camping stoves, camping heaters, lanterns, and charcoal grills should never be used inside a tent, camper, or other enclosed shelter. Opening tent flaps, doors, or windows is insufficient to prevent build-up of CO concentrations from these devices. When using fuel-burning devices outdoors, the exhaust should not vent into enclosed shelters. Warnings about the potential for CO poisoning should be stated clearly in the owner's manual and on labels permanently affixed to portable stoves. In 1997, changes made in the labeling requirements for retail charcoal containers* more clearly conveyed the danger of burning charcoal inside homes, tents, or campers. Rather than relying on fuel-burning appliances to supply heat, campers should leave home with adequate bedding and clothing and should consume extra calories and fluids during the outing to prevent hypothermia. Continuing efforts to educate the public by organizations that promote outdoor activities or operate camping areas also should decrease camping-associated CO poisoning.

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*16 CFR Part 1500.

Four Pediatric Deaths from Community-Acquired Methicillin-Resistant *Staphylococcus aureus* — Minnesota and North Dakota, 1997–1999

Methicillin-resistant *Staphylococcus aureus* (MRSA) is an emerging community-acquired pathogen among patients without established risk factors for MRSA infection (e.g., recent hospitalization, recent surgery, residence in a long-term-care facility [LTCF], or injecting-drug use [IDU]) (1). Since 1996, the Minnesota Department of Health (MDH) and the Indian Health Service (IHS) have investigated cases of community-acquired MRSA infection in patients without established risk factors. This report describes four fatal cases among children with community-acquired MRSA; the MRSA strains isolated from these patients appear to be different from typical nosocomial MRSA strains in antimicrobial susceptibility patterns and pulsed-field gel electrophoresis (PFGE) characteristics.

Case Reports

Case 1. In July 1997, a 7-year-old black girl from urban Minnesota was admitted to a tertiary-care hospital with a temperature of 103 F (39.5 C) and right groin pain. An infected right hip joint was diagnosed; she underwent surgical drainage and was treated with cefazolin. On the third day of her hospital stay, antimicrobial therapy was changed to vancomycin when cultures of blood and joint fluid grew MRSA. The same day, the patient had another hip drainage procedure, but had respiratory failure and was placed on mechanical ventilation. Her course was complicated by acute respiratory distress syndrome, pneumonia, and an empyema that required chest tube drainage. She died from a pulmonary hemorrhage after 5 weeks of hospitalization.

MRSA isolated from her blood, hip joint, and sputum was susceptible to multiple antibiotic classes (Table 1). An autopsy revealed bilateral bronchopneumonia with abscesses. The patient was previously healthy with no recent hospitalizations. No family members resided in LTCFs or worked in health-care settings.

Case 2. In January 1998, a 16-month-old American Indian girl from rural North Dakota was taken to a local hospital in shock and with a temperature of 105.2 F (40.6 C), seizures, a diffuse petechial rash, and irritability. She was treated with ceftriaxone but developed respiratory failure and cardiac arrest and died within 2 hours of arriving at

TABLE 1. Cases of community-acquired methicillin-resistant *Staphylococcus aureus*, by selected characteristics — Minnesota and North Dakota, 1997–1999

| Characteristic | Case 1 | Case 2 | Case 3 | Case 4 |
|-------------------------------|---|---------------------------------------|---------------------------------------|---------------------------------------|
| Age | 7 years | 16 months | 13 years | 12 months |
| Syndrome | septic arthritis, sepsis, pneumonia/empyema | severe sepsis | necrotizing pneumonia, severe sepsis | necrotizing pneumonia, severe sepsis |
| Antimicrobial susceptibility* | t/s, tet, cip, gent, ery, clind, vanc | t/s, tet, cip, gent, ery, clind, vanc | t/s, cep, cip, gent, ery, clind, vanc | t/s, tet, cip, gent, ery, clind, vanc |
| Toxin test† | SEC positive | SEC positive | SEB positive | SEB positive |

*t/s=trimethoprim-sulfamethoxazole, tet=tetracycline, cip=ciprofloxacin, gent=gentamicin, ery=erythromycin, clind=clindamycin, and vanc=vancomycin.

†SEB=staphylococcal enterotoxin B; SEC=staphylococcal enterotoxin C.

Methicillin-Resistant Staphylococcus aureus — Continued

the hospital. Blood and cerebrospinal fluid cultures drawn immediately postmortem grew MRSA that was susceptible to multiple antibiotic classes (Table 1). An autopsy revealed multiple small abscesses of the brain, heart, liver, and kidneys; autopsy cultures of meninges, blood, and lung tissue grew MRSA. One month earlier, the patient had been treated with amoxicillin for otitis media. Neither the patient nor family members had been hospitalized during the previous year; no family members resided in LTCFs or worked in health-care settings.

Case 3. In January 1999, a 13-year-old white girl from rural Minnesota was brought to a local hospital with fever, hemoptysis, and respiratory distress. The day before admission she had a productive cough and a 2-cm papule on her lower lip. A chest radiograph revealed a left lower lobe infiltrate and a pleural effusion. She was treated with ceftriaxone and nafcillin. Within 5 hours of arriving at the hospital, she became hypotensive and was transferred to a pediatric hospital, intubated, and treated with vancomycin and cefotaxime. Despite pulmonary and hemodynamic support, the patient's respiratory status deteriorated, and she died on the seventh hospital day from progressive cerebral edema and multiorgan failure.

The patient's blood, sputum, and pleural fluid grew MRSA that was multidrug susceptible (Table 1). An autopsy revealed consolidated hemorrhagic necrosis of the left lung. The patient had no chronic medical conditions and no recent hospitalizations; no family members were health-care workers or employees of an LTCF or had a history of IDU.

Case 4. In February 1999, a 12-month-old white boy from rural North Dakota was admitted to a tertiary-care hospital with bronchiolitis, vomiting, and dehydration. He had a temperature of 105.2 F (40.6 C) and a petechial rash. Chest radiograph revealed an infiltrate in the right lung consistent with pneumonitis. On the second hospital day, the patient was diagnosed with a large right pleural effusion. He was transferred to the intensive-care unit, a chest tube was inserted, and treatment with vancomycin and cefuroxime was initiated. The patient developed severe respiratory distress and hypotension the following day and died.

The patient's admission blood culture was negative, but his pleural fluid and a post-mortem blood culture grew multidrug-susceptible MRSA (Table 1). An autopsy revealed acute necrotizing pneumonia with extensive hemorrhage and numerous gram-positive cocci in the right lung. The patient had not been hospitalized since birth and had no known medical problems; no family members were health-care workers or employees of an LTCF or known to be IDUs. His 2-year-old sister had been treated for a culture-confirmed MRSA buttock infection 3 weeks earlier. MRSA isolates from the sister and the patient had identical antibiotic susceptibility profiles.

Laboratory Summary

MRSA isolates from these four cases were susceptible to all antimicrobial agents tested except beta-lactams (Table 1). All vancomycin minimum inhibitory concentrations were ≤ 2 $\mu\text{g/L}$. Isolates from all four cases had the *mecA* gene by PCR assay at MDH. Isolates from cases 1 and 4 shared an indistinguishable PFGE pattern; isolates from cases 2 and 3 differed by two and three bands, respectively, suggesting clonal relatedness among these cases (2). In comparison, these PFGE patterns differed by an average of >10 bands compared with PFGE patterns among nosocomial MRSA iso-

Methicillin-Resistant Staphylococcus aureus — Continued

lates from several Minnesota hospitals. *Sma* I was the restriction enzyme used for PFGE. No isolate produced toxic shock syndrome toxin-1.

Reported by: C Hunt, M Dionne, M Delorme, D Murdock, A Erdrich, MD, Indian Health Svc; D Wolsey, MPH, A Groom, MPH, J Cheek, MD, Indian Health Svc Epidemiology Program; J Jacobson, B Cunningham, MS, L Shireley, MPH, State Epidemiologist, North Dakota Dept of Health. K Belani, MD, S Kurachek, MD, P Ackerman, Children's Hospital and Clinics—Minneapolis; S Cameron, P Schlievert, PhD, Fairview Univ Medical Center; J Pfeiffer, MPH, Hennepin County Medical Center, Minneapolis; S Johnson, D Boxrud, J Bartkus, PhD, J Besser, MS, Minnesota Dept of Health Laboratory; K Smith, DVM, K LeDell, MPH, C O'Boyle, PhD, R Lynfield, MD, K White, MPH, M Osterholm, PhD, K Moore, MD, Acute Disease Epidemiology Section; R Danila, PhD, Acting State Epidemiologist, Minnesota Dept of Health. Div of Applied Public Health Training, Epidemiology Program Office; and EIS officers, CDC.

Editorial Note: Since the first case reports of MRSA infections in the United States in 1968 (3), MRSA has become an increasing problem. The percentage of nosocomial *S. aureus* isolates that were methicillin resistant increased from 2% in 1974 to approximately 50% in 1997 (4,5). Methicillin resistance is usually conferred by the chromosomal *mecA* gene, which encodes an altered penicillin-binding protein (PBP-2A) that causes resistance to all beta-lactam antibiotics, including cephalosporins. However, many nosocomial MRSA strains have acquired resistance to numerous other antibiotic classes through a variety of mechanisms. Approximately 50% of MRSA isolates identified at National Nosocomial Infection Surveillance (NNIS) system hospitals are susceptible only to vancomycin (5).

Most documented MRSA infections are acquired nosocomially; previously, community-acquired cases were restricted to patients residing in LTCFs and among IDUs (6). However, both of these groups have extensive exposure to hospitals, and their infections are generally caused by nosocomial MRSA strains. More recently, however, community-acquired MRSA infections have been identified at a Chicago pediatric hospital, in day care centers, and among minority communities in other countries (1,7-9). Unlike nosocomial MRSA isolates, community-acquired isolates from patients without known MRSA risk factors are generally multidrug susceptible (except to beta-lactams) and have distinctive molecular characteristics, as did the four isolates from the fatal cases presented in this report.

These four cases demonstrate the potential severity of community-acquired MRSA infections. Beta-lactam antibiotics (including cephalosporins) are used as empiric therapy for various adult and pediatric infections, but these agents are uniformly ineffective in treating MRSA infections. All patients in this report were initially treated with a cephalosporin antibiotic; the delayed use of antibiotics to which MRSA were susceptible may have contributed to the fatal outcomes. As a result, where such infections exist, obtaining appropriate cultures of infected sites is important. Clinicians should consider MRSA as a potential pathogen in severe pediatric pneumonia or sepsis syndromes in areas where community MRSA infections have been reported. In critically ill patients with invasive infections, empiric treatment with vancomycin (in addition to a third-generation cephalosporin) pending culture results may be necessary to treat cephalosporin-resistant *S. pneumoniae* (10) or MRSA.

The rural/urban and racial diversity among these cases suggest that MRSA colonization may be widespread, especially in this region of the United States. The extent of community-acquired MRSA infection in the United States is unknown. Few data are available to define the molecular characteristics of these strains. It is also unclear how to limit the spread of MRSA within the community and whether it is feasible to de-

Methicillin-Resistant Staphylococcus aureus — Continued

colonize selected high-risk persons. The role that increased antibiotic use in children—particularly beta-lactams and cephalosporins—has played in selecting for MRSA strains in the community also is unknown. Local or state-based surveillance is needed to characterize and monitor community-acquired MRSA infections and to develop strategies that will improve MRSA treatment and control.

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Gastrointestinal Basidiobolomycosis — Arizona, 1994–1999

In March 1999, the Arizona Department of Health Services (ADHS) notified CDC about six cases of gastrointestinal basidiobolomycosis (GIB), an invasive fungal infection. Three cases were reported during January–March 1999, compared with three cases reported during the previous 5 years. This report describes two persons who had representative clinical presentations and summarizes the findings of the investigation of these cases, which indicate that this unusual fungal infection causes severe illness and may be misdiagnosed initially.

Case Reports

Case 1. In November 1998, a 37-year-old woman sought medical care at an emergency department for abdominal pain of 1 weeks' duration. She had no physical signs of abdominal disease, but her medical history was notable for 1 year of pica. She was treated empirically with an H₂-antagonist agent and subsequently with omeprazole for presumed peptic ulcer disease (PUD), but she continued to have intermittent abdominal pain. In January 1999, a computerized tomography scan of her abdomen showed thickened gastric walls and enlarged intra-abdominal lymph nodes. She was hospitalized with a presumptive diagnosis of gastric cancer and underwent partial gastrectomy. Her preoperative white blood cell count (WBC) was 26.4×10⁶ cells/mL (normal: 4–10×10⁶ cells/mL), and absolute eosinophil count was 2.6×10⁶ cells/mL (normal: 0.4–

Basidiobolomycosis — Continued

0.5x10⁶ cells/mL). Pathologic examination revealed an inflammatory mass involving the stomach and extending to the pancreas. Microscopic examination of mass tissue showed a chronic inflammatory infiltrate with abundant eosinophils and broad, thin-walled, pleomorphic hyphae consistent with zygomycosis. On the basis of histologic examination, basidiobolomycosis was diagnosed and she received antifungal therapy with itraconazole. She is continuing her therapy and is recovering.

Case 2. In December 1998, a 59-year-old man sought medical care at an emergency department for abdominal pain and mucus in his stool for 3 weeks. He underwent colonoscopy and inflammatory bowel disease was diagnosed based on biopsies showing acute and chronic inflammation. He subsequently developed colonic obstruction; probable colon cancer was diagnosed using barium enema and he underwent resectosigmoid resection in February 1999. His WBC was 12.1x10⁶ cells/mL, and absolute eosinophil count was 0.7x10⁶ cells/mL. Pathologic examination of the colon mass showed a chronic inflammatory infiltrate with abundant eosinophils and occasional granulomas. Hyphae consistent with zygomycosis were observed in the tissues. Culture of surgical specimens grew *Basidiobolus ranarum*, and he was started on itraconazole. He is continuing his therapy and is recovering.

Epidemiologic Investigation

Because of the increased number of cases reported in 1999, ADHS and CDC conducted a case-control study to identify potential risk factors and to determine modes of acquisition. A case of GIB was defined as *B. ranarum* cultured from any surgical specimen from the GI tract, or if culture was not performed, pathologic examination revealing histology consistent with basidiobolomycosis. Investigators reviewed hospital records of all case-patients. To identify additional cases, a letter was sent to all pathologists in Arizona describing the typical pathologic findings of basidiobolomycosis and asking them to notify ADHS of any potential cases. Local dermatologists were asked about cases consistent with subcutaneous basidiobolomycosis. No additional cases were found. Four age-matched controls per case were selected—two clinic-based controls and two neighborhood controls. All case-patients and controls were interviewed using a standardized questionnaire about past medical history, daily activities, environmental exposures, and diet. Informed consent was obtained from all participants.

During April 1994–March 1999, six cases were identified. All case-patients underwent surgery with partial resection of the GI tract, and all received postsurgical treatment with itraconazole for a median of 7.5 months (range: 3–19 months); five had elevated eosinophil counts before surgery. Four case-patients had *B. ranarum* cultured from surgical specimens, and four had a positive serologic result using an immunodiffusion test at CDC (1). Four case-patients were men, and five were white; median age was 50 years (range: 37–59 years). The median length of time from onset of symptoms to diagnosis was 113 days (range: 15–243 days), and the median number of physicians consulted before diagnosis was six (range: three to eight). No patients died.

Because demographic, socioeconomic, or underlying illness data were similar for the two control groups, the control groups were combined for the analysis of the case-control study. Case-patients had lived in Arizona significantly longer than controls (odds ratio [OR]=1.1 per additional year of residence, p=0.03). Smoking more years

Basidiobolomycosis — Continued

(OR=1.2 per additional year of smoking, $p=0.10$) and using H₂-antagonists (OR=9.5, $p=0.06$) before onset of symptoms were of borderline significance. Case-patients were more likely than controls to have amphibians or reptiles outside their homes (five [83%] versus 16 [67%]), camped near a lake or river during the previous year (three [50%] versus eight [33%]), had previous steroid use (two [33%] versus two [8%]), and owned a dog (four [67%] versus eight [33%]); fewer case-patients washed vegetables before eating them (four [67%] versus 21 [88%]). However, these differences were not statistically significant.

Reported by: T Pasha, J Leighton, J Smilack, MD, Mayo Clinic, Scottsdale; K Komatsu, C Kioski, Arizona Dept of Health Svcs. Infectious Disease Pathology Activity, Div of Viral and Rickettsial Diseases, and Mycotic Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; and an EIS Officer, CDC.

Editorial Note: *B. ranarum* rarely causes human disease in the United States. Basidiobolomycosis is a form of zygomycosis caused by the fungus *B. ranarum* (from the order Entomophthorales), which has been isolated throughout the world from decaying vegetation and soil and from the GI tracts of reptiles, amphibians, fish, and insectivorous bats (1). Basidiobolomycosis is most common in the tropical regions of eastern and western Africa, but cases also have occurred in southeast Asia and South America. The disease most commonly affects males aged <20 years and usually manifests as painless, subcutaneous nodules on the lower extremities and buttocks (1). Infection is secondary to traumatic inoculation. GIB is rare, with only six cases previously reported (three cases from Brazil, one from Kuwait, and two from the United States, including one case from the Arizona cluster described in this report) (2–6).

A definitive diagnosis of basidiobolomycosis requires culture of *B. ranarum* from clinical or surgical specimens, but a probable diagnosis can be made based on histopathologic appearance. The microscopic appearance of *B. ranarum* in tissues is characterized by scarce, broad, thin-walled, pleomorphic hyphae surrounded by a collar of eosinophilic material (known as the Splendore-Hoeppli phenomenon) (7). The host inflammatory reaction is composed mostly of mononuclear cells with abundant eosinophils and occasional granulomas (7). Typically, the muscular layer of the GI tract is thickened greatly and eosinophilic inflammation is present extending through the serosa into the perigastric or mesenteric fat; the GI mucosa is typically spared (2,3,5,6). The histopathologic appearance of GIB may be confused with *Conidiobolus coronatus*, another Entomophthorales, or mucormycosis (7). GIB has a nonspecific clinical presentation and may be diagnosed initially as cancer, PUD, gastroenteritis, diverticulitis, or inflammatory bowel disease (1). A specific serologic immunodiffusion test is available through CDC, but its sensitivity is unknown, and antibodies against *B. ranarum* appear to wane following effective treatment (6,8). The patients described in this report had peripheral eosinophilia, but this laboratory finding has not been reported previously as a feature of basidiobolomycosis.

Successful response to therapy has been reported with ketoconazole, itraconazole, and potassium iodide; however, response to amphotericin B is poor (2–6,9). In the six cases described in this report, the three case-patients in whom GIB was diagnosed before 1999 apparently have been cured following surgery and treatment with itraconazole. The other three patients remained clinically well while taking itraconazole postoperatively. Because all of the Arizona patients underwent surgical excision of the

Basidiobolomycosis — Continued

affected parts of their GI tracts, it is difficult to evaluate whether itraconazole therapy alone could have resulted in adequate clinical response.

Ecologic studies in the United States have identified *B. ranarum* in reptiles and amphibians (10). GIB presumably is acquired through ingestion. However, except for the patient with a history of pica, it is unclear how the other patients acquired the infection. Possible exposures include unintentional ingestion of contaminated soil, especially near rivers or lakes, or eating fruits or vegetables contaminated with soil or feces from reptiles or amphibians. The findings in this report indicate that decreased acidity and other host factors (e.g., underlying disease and use of medication) may increase the risk for acquiring GIB.

The findings in this report are subject to at least two limitations. First, despite active case finding, a small number of cases were available for analysis. Second, because of the extended time between exposure and initial interviews of patients, the findings are subject to recall bias. To minimize this problem, the questionnaire focused on daily activities and usual food preparation methods.

Increased awareness by clinicians and public health surveillance may help identify additional cases, determine the burden of disease, and lead to a better understanding of risk factors for GIB and possible prevention measures. Physicians caring for patients with suspected basidiobolomycosis should contact their state health departments or CDC's Mycotic Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, telephone (404) 639-2499.

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Iron Deficiency Anemia in Alaska Native Children — Hooper Bay, Alaska, 1999

During fall 1998, health-care providers in Hooper Bay, Alaska, reported that hemoglobin data from a local Head Start program indicated that 14 (31%) of the 45 children aged 2–4 years had anemia (hemoglobin <11.0 g/dL), with an overall mean hemoglobin of 11.2 g/dL (standard deviation [SD] ± 1.3 g/dL) (CDC, unpublished data, 1996–1997). This proportion was substantially higher than the estimated prevalence in the United States of 8% among children aged 1–5 years (1). Because the region's economy is heavily dependent on fishing and the region experienced a poor salmon run in 1998, the Alaska State Health Department was concerned that economic hardships could exacerbate the anemia problem. In January 1999, CDC and the Yukon-Kuskokwim Health Corporation assessed the prevalence of anemia among Hooper Bay children aged 1–5.9 years to determine factors contributing to anemia in this population, and to identify recommendations for potential interventions. The findings indicated that the estimated prevalence of anemia among these children was more than twice the U.S. average.

Of the 128 children aged 1–5.9 years living in Hooper Bay, 86 (67%) participated in a cross-sectional survey. All the children were Alaska Natives, 44 (51%) were girls, and 73 (85%) were aged 2–5.9 years. Height, weight, general health, and nutrition variables were assessed, including parent reports of food frequency data for the previous month, household information (e.g., family composition and number of rooms in the house), and medical record review of infection (e.g., otitis media and pneumonia). Venous blood samples were collected to assess hemoglobin, blood lead, iron status (serum ferritin and transferrin receptor), C-reactive protein (CRP) (a nonspecific marker of inflammation or infection), and *Helicobacter pylori* infection (serum IgG antibody testing by enzyme-linked immunosorbent assay, which indicates current or past infection). Stool samples were collected from 53 children for fecal blood analysis. Informed consent for the children's participation was obtained from parents or guardians.

Using age-appropriate hemoglobin cutoffs (2), the prevalence of anemia was 17% (n=15), and the mean hemoglobin value was 11.9 g/dL (SD ± 0.94 g/dL). None of the children had elevated blood lead levels (>10.0 $\mu\text{g/dL}$). Iron deficiency was associated strongly with anemia; 67% of the anemic children had low ferritin concentrations compared with 32% of the nonanemic children (p=0.01), and 60% of the anemic children had high transferrin receptor concentrations compared with 6% of the nonanemic children (p=0.001). After adjusting for age, sex, and inflammation using logistic regression, associations between iron deficiency and anemia became stronger.

Evaluation of a 1-month food history indicated that 54 children (63%) were not consuming the recommended dietary allowance of 10 mg of iron per day, but the mean amount of iron consumed each day (9.7 mg [SD ± 6.7 mg]) was close to this allowance. Dietary iron intake was not significantly associated with anemia or iron deficiency in either crude or adjusted analyses. However, anemia was associated with lower intake of foods that enhance iron absorption such as citrus juices (p=0.04); these results were confirmed after adjusting for age, sex, dietary iron intake, and iron inhibitors.

Overall, 11 (14%)* of the children had elevated CRP levels; four (27%) of the anemic children had elevated CRP levels compared with seven (11%) of the nonanemic chil-

*Denominators may vary because of missing data on some of the variables.

Iron Deficiency Anemia — Continued

dren, but this difference was not statistically significant ($p=0.10$). Analyses with medical records of infections, such as otitis media and pneumonia, during the month preceding the investigation and during the previous 2 years did not show any association with anemia.

H. pylori-specific IgG antibodies were present in 34 (41%) of the children (optical density values: ≥ 1.30), absent in 30 (36%) (optical density values: < 0.80), and indeterminate in 19 (23%) (optical density values: $0.80-1.29$). Twelve (80%) of the anemic children and 22 (32%) of the nonanemic children were seropositive for *H. pylori* infection. *H. pylori* seropositivity was significantly associated with anemia ($p=0.02$) and with low ferritin ($p=0.04$) in this population. Children with indeterminate values were eliminated from these analyses. Of the 53 children for whom stool samples were available, three (6%) had an elevated stool heme content; testing positive for fecal heme was not associated with anemia.

Reported by: BD Gold, MD, M Owens, Dept of Pediatrics, Emory Univ School of Medicine, Atlanta, Georgia. DA Ahlquist, MD, J McConnell, MD, Mayo Clinic, Rochester, Minnesota. E Probst, DO, D Kruse, MD, J Klejka, MD, Yukon-Kuskokwim Health Corporation, Bethel; B Olson, Hooper Bay Traditional Council, Hooper Bay; E Jarin, Special Supplemental Nutrition Program for Women, Infants, and Children Office, Providence Alaska Medical Center, Anchorage; J Midgough, MD, State Epidemiologist, Alaska State Health Dept; V Johnson, J Jordon, Alaska Native Medical Center Laboratory, Anchorage. P Klein, PhD, K Bush, MBA, Meretek Diagnostics, Inc., Houston, Texas, and Nashville, Tennessee. S Hooper, Summers & Hooper, Inc., Cincinnati, Ohio. Maternal and Child Nutrition Br, Div of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion; Arctic Investigations Program, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; Nutritional Biochemistry Br, Clinical Biochemistry Br, Div of Environmental Health and Laboratory Sciences, and Health Studies Br, Div of Environmental Hazards and Health Effects, National Center for Environmental Health; and an EIS Officer, CDC.

Editorial Note: The estimated prevalence of anemia among Alaska Native children in this study was more than twice the average in the United States (1). Results supported data from previous studies in this region, which indicated that anemia primarily was related to iron deficiency (3). Iron deficiency anemia in early childhood is associated with potentially permanent cognitive and developmental deficits (2).

Children with anemia in this population had a significantly lower intake of foods that enhance iron absorption than nonanemic children, which indicates that dietary iron absorption may be a problem. In addition, *H. pylori* seropositivity emerged as a risk factor for anemia. Studies of the association between *H. pylori* infection and anemia in children have produced conflicting results (4,5); in a study in Bangladesh of children aged 0.5–2 years, a positive association was found between *H. pylori* infection and anemia (6). Studies have suggested several possible mechanisms for the association between anemia and *H. pylori* infection, including *H. pylori*-induced gastric hypoacidity, or achlorhydria, which may contribute to poor iron absorption, and an increase in iron demand because of bacterial competition for iron (7). Gastrointestinal loss of blood and iron, as estimated by fecal heme, did not explain the association between *H. pylori* and anemia in this group of children, as has been suggested in earlier studies with adults (8); however, results were based on one stool sample, and the normal levels for fecal heme have not been validated in young children.

The prevalence of anemia found in this investigation was lower than previously reported by health-care providers in the region (CDC, unpublished data, 1996–1997). Lower prevalence may be related to the different methods used to determine hemo-

Iron Deficiency Anemia — Continued

globin levels. Venous blood, a more reliable specimen for hemoglobin analysis (9), was used in this investigation, whereas most anemia screening programs collect capillary blood by finger stick, often the most feasible method for small clinics. Capillary sampling generally results in higher hemoglobin values (9), but if performed improperly, this technique might lower the hemoglobin estimates (10). In areas where capillary sampling is relied on to assess hemoglobin levels, appropriate training and periodic follow-up may increase data reliability.

The findings in this report are subject to at least three limitations. First, small sample size may make it difficult to detect differences, and reliance on a cross-sectional design limits inferences about the directionality of associations and causality. Second, children who participated may not be representative of all of the children in the village. Third, although the food frequency questionnaire was piloted in Alaska, it was not specifically validated against 24-hour recalls with children in this village.

Given the potential association between *H. pylori* and anemia, and the role of *H. pylori* in the development of peptic ulcer disease, chronic gastritis, and gastric cancer, more research is needed to identify modes of transmission and appropriate interventions for *H. pylori* infection. Efforts are under way to ensure that anemic children are followed closely and to address issues related to anemia screening and surveillance. Prevention and control strategies for iron deficiency anemia should be implemented in this population of children in accordance with CDC recommendations (2).

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Public Health Dispatch

**Potential Hepatitis A Exposure Among Interstate 95 Travelers —
North Carolina, 1999**

North Carolina health officials are advising persons who dined at the Texas Steakhouse in Smithfield (Johnston County), North Carolina, near Interstate 95 (exit 95) on July 24, July 25, July 26, July 31, August 1, August 2, August 7, or August 8 after 3 p.m. that they may have been exposed to hepatitis A. A worker at the restaurant during those times has had hepatitis A infection diagnosed. Potentially 3000 diners could have been exposed when the infected person was working.

Although local health officials think that many diners were from the Smithfield/Johnston County area, many of the exposed persons may be from other areas, particularly along the eastern seaboard. Additional information is available from the Johnston County Health Department, telephone (919) 989-5200.

Reported by: LS Woodall, MD, Johnston County Health Dept, Smithfield; JS Cline, DDS, Chief, Epidemiology and Communicable Diseases Section, Div of Public Health, North Carolina Dept of Health and Human Svcs.

Notice to Readers

Satellite Broadcast on Biological Warfare and Terrorism

CDC and the U.S. Army Medical Research Institute of Infectious Diseases will co-sponsor a satellite broadcast on September 21, 22, and 23, 1999, from 12:30 p.m. to 4:30 p.m. eastern daylight time (EDT) and taped rebroadcast on October 2 and 3, from 11:30 a.m. to 5:30 p.m. EDT. The broadcast describing the military and public health response is intended for military, medical, and public health professionals, who will learn how to recognize a biological attack, investigate the event, treat casualties, prevent the spread of the agent, and manage the proper medical response.

Additional information about this broadcast, including registration, is available from the World-Wide Web, <http://www.biomedtraining.org>, or from Rick Stevens, telephone (301) 619-4880. Continuing education credit is available for a variety of professions.

Notice to Readers

**Satellite Broadcast on Diagnostic and Therapeutic Dilemmas
for Gonococcal and Chlamydial Infections**

The CDC-sponsored National Network of STD/HIV Prevention Training Centers (PTC) will broadcast *STD Diagnostic and Therapeutic Dilemmas: Gonococcal and Chlamydial Infections*, an interactive satellite broadcast, in English and Spanish on October 14, 1999, from 1 p.m. to 2:30 p.m. eastern daylight time. The broadcast is intended for primary-care and managed-care providers and health-care clinicians caring for patients exposed to or infected with gonococcal and chlamydial infections. The

Notices to Readers — Continued

broadcast will cover state-of-the-art screening and diagnostic interpretations of chlamydial and gonococcal technologies. Continuing medical education credit is available.

Additional information is available from the STD/HIV PTC, Dallas County Health and Human Services, 2377 N. Stemmons Fwy., #430, Dallas, TX 75207-2710; telephone (214) 819-1947; or from the World-Wide Web, <http://www.stdptc.uc.edu>*

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

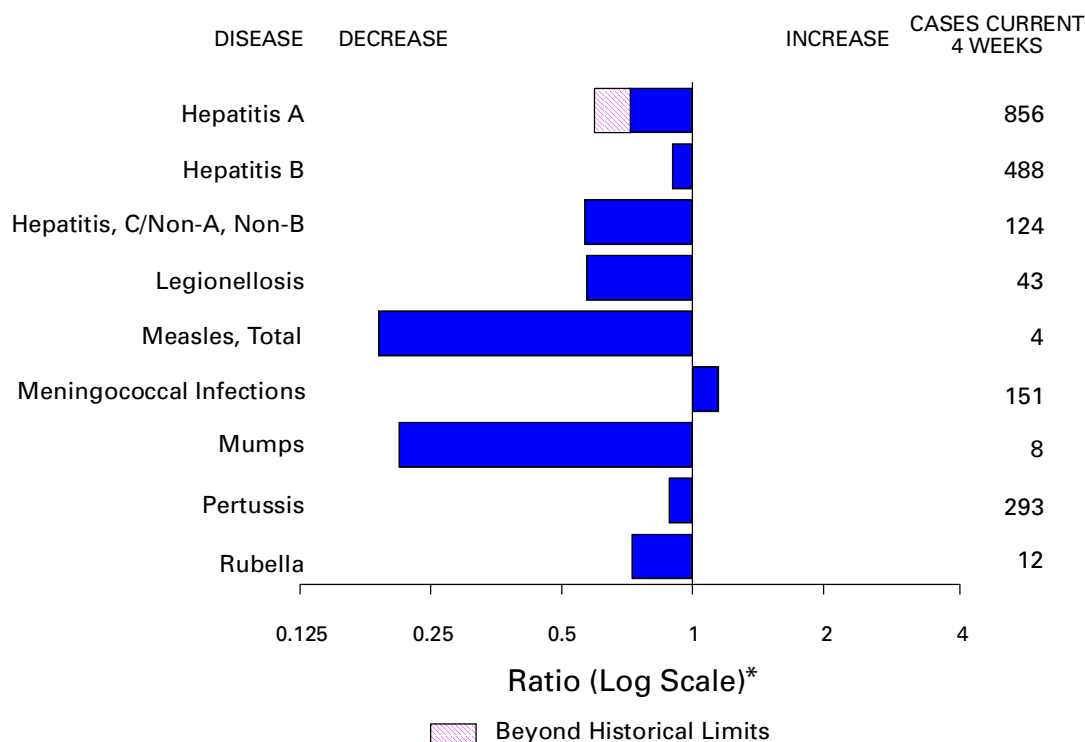
Erratum: Vol. 48, No. 31

In the report entitled "Radon Testing in Households with a Residential Smoker—United States, 1993–1994," the last sentence on page 685 should have read: "Finally, studies addressing the link between smoking and radon were limited to cigarette smokers (5), but the NHIS included smokers of all types of tobacco."

The accompanying reference 5, which was correct as published, is:

5. National Academy of Sciences. Biological effects of ionizing radiation (BEIR) VI report: the health effects of exposure to indoor radon. Executive summary. Available at <http://www.epa.gov/iaq/radon/beiriv1.html>. Accessed February 19, 1998.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending August 14, 1999, with historical data — United States



*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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending August 14, 1999 (32nd Week)

| | Cum. 1999 | | Cum. 1999 |
|---|-----------|---|-----------|
| Anthrax | - | HIV infection, pediatric* ⁵ | 86 |
| Brucellosis* | 26 | Plague | 2 |
| Cholera | 4 | Poliomyelitis, paralytic | - |
| Congenital rubella syndrome | 3 | Psittacosis* | 15 |
| Cyclosporiasis* | 25 | Rabies, human | - |
| Diphtheria | 2 | Rocky Mountain spotted fever (RMSF) | 300 |
| Encephalitis: California* | 9 | Streptococcal disease, invasive Group A | 1,400 |
| eastern equine* | 2 | Streptococcal toxic-shock syndrome* | 27 |
| St. Louis* | - | Syphilis, congenital [¶] | 109 |
| western equine* | - | Tetanus | 17 |
| Ehrlichiosis | 83 | Toxic-shock syndrome | 73 |
| human granulocytic (HGE)* | 20 | Trichinosis | 6 |
| human monocytic (HME)* | 53 | Typhoid fever | 181 |
| Hansen Disease* | 11 | Yellow fever | - |
| Hantavirus pulmonary syndrome* [†] | 44 | | |
| Hemolytic uremic syndrome, post-diarrheal* | | | |

-:no reported cases

*Not notifiable in all states.

[†] Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

⁵ 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 25, 1999.

[¶] Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending August 14, 1999, and August 15, 1998 (32nd Week)

| Reporting Area | AIDS | | Chlamydia | | Cryptosporidiosis | | <i>Escherichia coli</i> O157:H7* | | | |
|----------------|------------|-----------|-----------|-----------|-------------------|-----------|----------------------------------|-----------|-----------|-----------|
| | Cum. 1999† | Cum. 1998 | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 | NETSS | | PHLIS | |
| | | | | | | | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 |
| UNITED STATES | 26,427 | 27,571 | 361,764 | 355,683 | 945 | 1,556 | 1,378 | 1,478 | 761 | 1,271 |
| NEW ENGLAND | 1,298 | 1,007 | 11,964 | 12,488 | 55 | 99 | 163 | 193 | 119 | 180 |
| Maine | 43 | 21 | 193 | 620 | 16 | 21 | 17 | 21 | - | - |
| N.H. | 31 | 23 | 572 | 591 | 7 | 11 | 20 | 29 | 21 | 33 |
| Vt. | 6 | 14 | 292 | 258 | 14 | 15 | 18 | 10 | 7 | 7 |
| Mass. | 842 | 506 | 5,706 | 5,122 | 18 | 47 | 91 | 101 | 52 | 103 |
| R.I. | 70 | 81 | 1,421 | 1,447 | - | 5 | 17 | 5 | 6 | 1 |
| Conn. | 306 | 362 | 3,780 | 4,450 | - | - | U | 27 | 33 | 36 |
| MID. ATLANTIC | 6,746 | 7,661 | 44,376 | 37,170 | 204 | 346 | 93 | 162 | 31 | 56 |
| Upstate N.Y. | 846 | 984 | N | N | 78 | 202 | 82 | 108 | - | - |
| N.Y. City | 3,592 | 4,054 | 21,963 | 16,304 | 107 | 130 | 5 | 9 | 8 | 10 |
| N.J. | 1,278 | 1,556 | 6,300 | 7,165 | 9 | 14 | 6 | 45 | 23 | 34 |
| Pa. | 1,030 | 1,067 | 16,113 | 13,701 | 10 | - | N | N | - | 12 |
| E.N. CENTRAL | 1,719 | 2,157 | 51,101 | 60,509 | 89 | 415 | 282 | 250 | 152 | 218 |
| Ohio | 262 | 459 | 14,667 | 16,438 | 26 | 48 | 106 | 60 | 53 | 42 |
| Ind. | 224 | 376 | 6,667 | 6,468 | 17 | 30 | 41 | 59 | 22 | 33 |
| Ill. | 783 | 818 | 17,308 | 16,099 | 16 | 46 | 80 | 71 | 33 | 49 |
| Mich. | 360 | 389 | 12,459 | 13,174 | 30 | 22 | 55 | 60 | 17 | 38 |
| Wis. | 90 | 115 | U | 8,330 | - | 269 | N | N | 27 | 56 |
| W.N. CENTRAL | 611 | 528 | 19,388 | 20,987 | 80 | 173 | 275 | 224 | 141 | 208 |
| Minn. | 105 | 102 | 3,264 | 4,272 | 14 | 58 | 81 | 89 | 80 | 99 |
| Iowa | 55 | 49 | 1,448 | 2,410 | 24 | 41 | 60 | 57 | 26 | 36 |
| Mo. | 295 | 243 | 8,424 | 7,643 | 16 | 15 | 27 | 21 | 26 | 38 |
| N. Dak. | 4 | 4 | 325 | 597 | 12 | 18 | 8 | 6 | 1 | 12 |
| S. Dak. | 13 | 11 | 832 | 976 | 4 | 19 | 29 | 15 | 4 | 16 |
| Nebr. | 45 | 48 | 2,023 | 1,757 | 9 | 18 | 56 | 20 | - | - |
| Kans. | 94 | 71 | 3,072 | 3,332 | 1 | 4 | 14 | 16 | 4 | 7 |
| S. ATLANTIC | 7,281 | 6,838 | 85,736 | 67,484 | 196 | 146 | 173 | 104 | 91 | 105 |
| Del. | 95 | 90 | 1,667 | 1,512 | - | 1 | 3 | - | 1 | 1 |
| Md. | 793 | 824 | 6,679 | 4,880 | 10 | 12 | 11 | 19 | - | 10 |
| D.C. | 274 | 567 | N | N | 7 | 4 | - | 1 | - | - |
| Va. | 372 | 526 | 8,910 | 7,542 | 10 | 2 | 42 | - | 29 | 39 |
| W. Va. | 40 | 59 | 1,148 | 1,486 | - | 1 | 7 | - | 1 | 3 |
| N.C. | 482 | 459 | 14,053 | 13,025 | 5 | - | 32 | 23 | 27 | 34 |
| S.C. | 683 | 449 | 15,603 | 11,396 | - | - | 17 | 5 | 13 | 3 |
| Ga. | 1,091 | 727 | 19,150 | 13,969 | 94 | 56 | 18 | 44 | - | - |
| Fla. | 3,451 | 3,137 | 18,526 | 13,674 | 70 | 70 | 43 | 12 | 20 | 15 |
| E.S. CENTRAL | 1,145 | 1,152 | 25,411 | 24,753 | 15 | 18 | 72 | 78 | 34 | 45 |
| Ky. | 176 | 155 | 4,628 | 3,822 | 5 | 7 | 19 | 25 | - | - |
| Tenn. | 442 | 397 | 8,282 | 8,058 | 4 | 6 | 34 | 32 | 18 | 27 |
| Ala. | 287 | 329 | 7,290 | 6,346 | 4 | - | 15 | 18 | 13 | 17 |
| Miss. | 240 | 271 | 5,211 | 6,527 | 2 | 5 | 4 | 3 | 3 | 1 |
| W.S. CENTRAL | 2,858 | 3,331 | 50,499 | 53,417 | 35 | 49 | 44 | 59 | 47 | 67 |
| Ark. | 107 | 136 | 3,597 | 2,226 | - | 6 | 8 | 7 | 5 | 8 |
| La. | 541 | 581 | 7,726 | 8,556 | 21 | 10 | 3 | 3 | 6 | 2 |
| Okla. | 74 | 184 | 5,109 | 6,119 | 4 | - | 15 | 11 | 9 | 5 |
| Tex. | 2,136 | 2,430 | 34,067 | 36,516 | 10 | 33 | 18 | 38 | 27 | 52 |
| MOUNTAIN | 1,021 | 990 | 20,000 | 19,883 | 52 | 68 | 126 | 200 | 63 | 164 |
| Mont. | 5 | 18 | 887 | 739 | 8 | 6 | 8 | 10 | - | 2 |
| Idaho | 16 | 19 | 1,020 | 1,219 | 3 | - | 15 | 24 | 6 | 16 |
| Wyo. | 4 | 1 | 445 | 397 | - | - | 3 | 49 | 5 | 53 |
| Colo. | 197 | 186 | 4,295 | 4,963 | 5 | 8 | 47 | 38 | 28 | 33 |
| N. Mex. | 65 | 153 | 2,711 | 2,235 | 22 | 33 | 5 | 16 | 2 | 13 |
| Ariz. | 518 | 384 | 7,829 | 6,846 | 9 | 14 | 19 | 21 | 12 | 21 |
| Utah | 84 | 70 | 1,188 | 1,415 | - | - | 22 | 34 | 8 | 16 |
| Nev. | 132 | 159 | 1,625 | 2,069 | 5 | 7 | 7 | 8 | 2 | 10 |
| PACIFIC | 3,748 | 3,907 | 53,289 | 58,992 | 219 | 242 | 150 | 208 | 83 | 228 |
| Wash. | 218 | 266 | 7,179 | 6,823 | - | - | 41 | 32 | 26 | 66 |
| Oreg. | 118 | 117 | 3,632 | 3,201 | 79 | 25 | 36 | 63 | 23 | 64 |
| Calif. | 3,348 | 3,411 | 39,614 | 46,364 | 140 | 217 | 72 | 110 | 28 | 88 |
| Alaska | 13 | 17 | 1,131 | 1,160 | - | - | - | 3 | - | - |
| Hawaii | 51 | 96 | 1,733 | 1,444 | - | - | 1 | - | 6 | 10 |
| Guam | 5 | - | 226 | 242 | - | - | N | N | - | - |
| P.R. | 821 | 1,191 | U | U | - | - | 5 | 3 | U | U |
| V.I. | 19 | 18 | N | N | - | - | N | N | U | U |
| Amer. Samoa | - | - | U | U | - | - | N | N | U | U |
| C.N.M.I. | - | - | N | N | - | - | N | N | U | U |

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

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†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 25, 1999.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending August 14, 1999, and August 15, 1998 (32nd Week)

| Reporting Area | Gonorrhea | | Hepatitis C/NA,NB | | Legionellosis | | Lyme Disease | |
|----------------|-----------|-----------|-------------------|-----------|---------------|-----------|--------------|-----------|
| | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 |
| UNITED STATES | 194,687 | 209,377 | 2,173 | 2,014 | 488 | 774 | 5,376 | 8,156 |
| NEW ENGLAND | 3,684 | 3,570 | 59 | 46 | 37 | 46 | 1,567 | 2,780 |
| Maine | 15 | 38 | 2 | - | 4 | 1 | 22 | 46 |
| N.H. | 62 | 55 | - | - | 3 | 3 | 3 | 25 |
| Vt. | 33 | 22 | 4 | 2 | 8 | 4 | 6 | 8 |
| Mass. | 1,592 | 1,269 | 50 | 41 | 13 | 22 | 509 | 576 |
| R.I. | 369 | 218 | 3 | 3 | 3 | 8 | 236 | 263 |
| Conn. | 1,613 | 1,968 | - | - | 6 | 8 | 791 | 1,862 |
| MID. ATLANTIC | 24,333 | 22,420 | 97 | 137 | 105 | 186 | 2,907 | 4,067 |
| Upstate N.Y. | 3,778 | 4,108 | 62 | 70 | 33 | 54 | 2,044 | 2,004 |
| N.Y. City | 9,463 | 7,305 | - | - | 9 | 28 | 25 | 138 |
| N.J. | 3,465 | 4,643 | - | - | 5 | 11 | 124 | 769 |
| Pa. | 7,627 | 6,364 | 35 | 67 | 58 | 93 | 714 | 1,156 |
| E.N. CENTRAL | 33,651 | 41,197 | 1,129 | 453 | 123 | 266 | 70 | 517 |
| Ohio | 8,947 | 10,466 | 1 | 7 | 52 | 93 | 50 | 24 |
| Ind. | 3,676 | 3,769 | 1 | 5 | 21 | 45 | 14 | 23 |
| Ill. | 12,302 | 13,243 | 22 | 30 | 10 | 33 | 5 | 11 |
| Mich. | 8,726 | 10,051 | 523 | 301 | 37 | 51 | 1 | 11 |
| Wis. | U | 3,668 | 582 | 110 | 3 | 44 | U | 448 |
| W.N. CENTRAL | 8,359 | 10,147 | 84 | 25 | 28 | 40 | 81 | 87 |
| Minn. | 1,208 | 1,569 | 4 | 7 | 1 | 3 | 37 | 52 |
| Iowa | 417 | 770 | - | 7 | 11 | 5 | 10 | 19 |
| Mo. | 4,377 | 5,436 | 71 | 8 | 11 | 10 | 16 | 9 |
| N. Dak. | 31 | 49 | - | - | - | - | 1 | - |
| S. Dak. | 83 | 152 | - | - | 2 | 3 | - | - |
| Nebr. | 928 | 707 | 3 | 2 | 3 | 15 | 6 | 3 |
| Kans. | 1,315 | 1,464 | 6 | 1 | - | 4 | 11 | 4 |
| S. ATLANTIC | 61,195 | 56,074 | 142 | 67 | 77 | 87 | 550 | 541 |
| Del. | 1,037 | 829 | 1 | - | 8 | 8 | 19 | 45 |
| Md. | 5,751 | 5,572 | 32 | 8 | 13 | 27 | 384 | 387 |
| D.C. | 1,642 | 2,763 | - | - | 1 | 6 | 3 | 4 |
| Va. | 6,013 | 4,577 | 10 | 9 | 17 | 10 | 58 | 38 |
| W. Va. | 311 | 505 | 13 | 4 | N | N | 14 | 8 |
| N.C. | 12,253 | 11,253 | 29 | 15 | 13 | 6 | 44 | 37 |
| S.C. | 8,345 | 7,369 | 15 | 3 | 7 | 7 | 5 | 3 |
| Ga. | 12,666 | 12,242 | 1 | 9 | - | 4 | - | 5 |
| Fla. | 13,177 | 10,964 | 41 | 19 | 18 | 19 | 23 | 14 |
| E.S. CENTRAL | 20,268 | 23,515 | 193 | 162 | 31 | 45 | 61 | 59 |
| Ky. | 2,028 | 2,189 | 10 | 16 | 14 | 22 | 4 | 13 |
| Tenn. | 6,649 | 6,935 | 84 | 87 | 14 | 11 | 30 | 25 |
| Ala. | 6,562 | 8,041 | 1 | 4 | 3 | 5 | 16 | 12 |
| Miss. | 5,029 | 6,350 | 98 | 55 | - | 7 | 11 | 9 |
| W.S. CENTRAL | 27,789 | 32,829 | 145 | 323 | 3 | 13 | 17 | 17 |
| Ark. | 1,808 | 2,493 | 11 | 12 | - | 1 | 2 | 6 |
| La. | 6,054 | 7,443 | 100 | 21 | 1 | 2 | - | 3 |
| Okla. | 2,508 | 3,338 | 12 | 8 | 2 | 8 | 4 | 2 |
| Tex. | 17,419 | 19,555 | 22 | 282 | - | 2 | 11 | 6 |
| MOUNTAIN | 5,509 | 5,437 | 91 | 281 | 32 | 45 | 10 | 8 |
| Mont. | 26 | 26 | 4 | 7 | - | 2 | - | - |
| Idaho | 49 | 117 | 4 | 85 | - | 2 | 1 | 3 |
| Wyo. | 14 | 18 | 30 | 64 | - | 1 | 3 | 1 |
| Colo. | 1,344 | 1,237 | 15 | 18 | 9 | 10 | - | - |
| N. Mex. | 553 | 550 | 7 | 66 | 1 | 2 | 1 | 2 |
| Ariz. | 2,758 | 2,460 | 21 | 4 | 5 | 9 | - | - |
| Utah | 109 | 153 | 5 | 19 | 11 | 16 | 3 | - |
| Nev. | 656 | 876 | 5 | 18 | 6 | 3 | 2 | 2 |
| PACIFIC | 9,899 | 14,188 | 233 | 520 | 52 | 46 | 113 | 80 |
| Wash. | 1,242 | 1,169 | 11 | 12 | 9 | 8 | 4 | 5 |
| Oreg. | 497 | 466 | 15 | 10 | N | N | 8 | 11 |
| Calif. | 7,737 | 12,061 | 207 | 444 | 42 | 36 | 101 | 63 |
| Alaska | 186 | 195 | - | - | 1 | 1 | - | 1 |
| Hawaii | 237 | 297 | - | 54 | - | 1 | - | - |
| Guam | 32 | 30 | - | - | - | 2 | - | - |
| P.R. | 176 | 241 | - | - | - | - | - | - |
| V.I. | U | U | U | U | U | U | U | U |
| Amer. Samoa | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | 25 | - | - | - | - | - | - |

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending August 14, 1999, and August 15, 1998 (32nd Week)

| Reporting Area | Malaria | | Rabies, Animal | | Salmonellosis* | | | |
|----------------|--------------|--------------|----------------|--------------|----------------|--------------|--------------|--------------|
| | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 | NETSS | | PHLIS | |
| | | | | | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 |
| UNITED STATES | 722 | 799 | 3,428 | 4,533 | 18,708 | 22,126 | 13,933 | 19,646 |
| NEW ENGLAND | 28 | 42 | 514 | 865 | 962 | 1,425 | 951 | 1,373 |
| Maine | 2 | 3 | 96 | 142 | 85 | 104 | 53 | 42 |
| N.H. | 2 | 3 | 31 | 49 | 82 | 111 | 86 | 151 |
| Vt. | 3 | - | 66 | 38 | 50 | 80 | 37 | 58 |
| Mass. | 10 | 16 | 112 | 285 | 681 | 806 | 498 | 812 |
| R.I. | 3 | 2 | 62 | 52 | 64 | 83 | 48 | 31 |
| Conn. | 8 | 18 | 147 | 299 | U | 241 | 229 | 279 |
| MID. ATLANTIC | 166 | 227 | 657 | 988 | 2,274 | 3,834 | 1,601 | 3,663 |
| Upstate N.Y. | 46 | 51 | 471 | 693 | 705 | 893 | 580 | 871 |
| N.Y. City | 70 | 125 | U | U | 710 | 1,227 | 579 | 1,046 |
| N.J. | 29 | 29 | 113 | 121 | 332 | 799 | 442 | 752 |
| Pa. | 21 | 22 | 73 | 174 | 527 | 915 | - | 994 |
| E.N. CENTRAL | 70 | 87 | 70 | 69 | 2,529 | 3,743 | 1,853 | 2,789 |
| Ohio | 16 | 5 | 23 | 43 | 688 | 894 | 448 | 758 |
| Ind. | 10 | 7 | - | 5 | 286 | 411 | 201 | 354 |
| Ill. | 19 | 39 | 4 | - | 936 | 1,158 | 399 | 743 |
| Mich. | 23 | 31 | 40 | 19 | 581 | 725 | 534 | 623 |
| Wis. | 2 | 5 | 3 | 2 | 38 | 555 | 271 | 311 |
| W.N. CENTRAL | 33 | 53 | 405 | 506 | 1,268 | 1,352 | 1,062 | 1,414 |
| Minn. | 6 | 26 | 64 | 83 | 303 | 320 | 371 | 377 |
| Iowa | 11 | 5 | 84 | 109 | 157 | 232 | 71 | 188 |
| Mo. | 12 | 12 | 9 | 26 | 409 | 391 | 477 | 522 |
| N. Dak. | - | 2 | 88 | 98 | 32 | 36 | 4 | 51 |
| S. Dak. | - | - | 88 | 115 | 64 | 61 | 26 | 75 |
| Nebr. | - | 1 | 2 | 5 | 119 | 107 | - | 26 |
| Kans. | 4 | 7 | 70 | 70 | 184 | 205 | 113 | 175 |
| S. ATLANTIC | 217 | 161 | 1,278 | 1,524 | 4,302 | 3,944 | 2,876 | 3,225 |
| Del. | 1 | 1 | 29 | 26 | 58 | 42 | 91 | 81 |
| Md. | 64 | 51 | 249 | 314 | 480 | 520 | 421 | 514 |
| D.C. | 13 | 12 | - | - | 51 | 45 | - | - |
| Va. | 48 | 32 | 325 | 376 | 760 | 582 | 570 | 520 |
| W. Va. | 1 | 1 | 74 | 57 | 93 | 96 | 81 | 94 |
| N.C. | 12 | 12 | 260 | 398 | 615 | 552 | 589 | 726 |
| S.C. | 5 | 4 | 102 | 98 | 261 | 258 | 217 | 267 |
| Ga. | 19 | 20 | 122 | 136 | 632 | 685 | 651 | 727 |
| Fla. | 54 | 28 | 117 | 119 | 1,352 | 1,164 | 256 | 296 |
| E.S. CENTRAL | 15 | 18 | 179 | 189 | 1,042 | 1,120 | 508 | 969 |
| Ky. | 5 | 3 | 25 | 26 | 237 | 236 | - | 116 |
| Tenn. | 6 | 9 | 63 | 102 | 269 | 322 | 258 | 448 |
| Ala. | 3 | 4 | 91 | 59 | 322 | 318 | 217 | 335 |
| Miss. | 1 | 2 | - | 2 | 214 | 244 | 33 | 70 |
| W.S. CENTRAL | 10 | 15 | 75 | 25 | 1,241 | 1,979 | 1,353 | 1,650 |
| Ark. | 1 | 1 | 14 | 25 | 247 | 237 | 76 | 188 |
| La. | 6 | 6 | - | - | 159 | 245 | 220 | 412 |
| Okla. | 2 | 1 | 61 | - | 218 | 241 | 130 | 84 |
| Tex. | 1 | 7 | - | - | 617 | 1,256 | 927 | 966 |
| MOUNTAIN | 28 | 40 | 119 | 121 | 1,799 | 1,428 | 1,146 | 1,306 |
| Mont. | 4 | - | 41 | 35 | 38 | 55 | 1 | 35 |
| Idaho | 3 | 7 | - | - | 60 | 68 | 45 | 61 |
| Wyo. | 1 | - | 32 | 46 | 27 | 41 | 22 | 36 |
| Colo. | 10 | 10 | 1 | 4 | 468 | 345 | 454 | 332 |
| N. Mex. | 2 | 11 | 6 | 3 | 222 | 174 | 151 | 155 |
| Ariz. | 5 | 6 | 34 | 26 | 560 | 430 | 420 | 448 |
| Utah | 2 | 1 | 4 | 7 | 318 | 194 | - | 119 |
| Nev. | 1 | 5 | 1 | - | 106 | 121 | 53 | 120 |
| PACIFIC | 155 | 156 | 131 | 246 | 3,291 | 3,301 | 2,583 | 3,257 |
| Wash. | 13 | 14 | - | - | 384 | 267 | 279 | 407 |
| Oreg. | 15 | 13 | 1 | 1 | 297 | 183 | 327 | 219 |
| Calif. | 119 | 124 | 123 | 223 | 2,344 | 2,686 | 1,781 | 2,463 |
| Alaska | 1 | 1 | 7 | 22 | 26 | 25 | 6 | 18 |
| Hawaii | 7 | 4 | - | - | 240 | 140 | 190 | 150 |
| Guam | - | 2 | - | - | 20 | 15 | - | - |
| P.R. | - | - | 43 | 34 | 230 | 426 | - | - |
| V.I. | U | U | U | U | - | - | - | - |
| Amer. Samoa | U | U | U | U | - | - | - | - |
| C.N.M.I. | - | - | - | - | - | 18 | - | - |

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending August 14, 1999, and August 15, 1998 (32nd Week)

| Reporting Area | Shigellosis* | | | | Syphilis (Primary & Secondary) | | Tuberculosis | |
|----------------|--------------|--------------|--------------|--------------|-----------------------------------|--------------|---------------|---------------|
| | NETSS | | PHLIS | | Cum. 1999 | Cum. 1998 | Cum. 1999† | Cum. 1998† |
| | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 | | | | |
| UNITED STATES | 7,619 | 11,451 | 3,209 | 6,381 | 3,928 | 4,301 | 8,259 | 9,807 |
| NEW ENGLAND | 257 | 269 | 145 | 240 | 33 | 45 | 250 | 263 |
| Maine | 4 | 8 | - | - | - | 1 | 12 | 6 |
| N.H. | 8 | 10 | 6 | 12 | - | 1 | 6 | 6 |
| Vt. | 4 | 4 | 3 | - | 3 | 4 | 1 | 3 |
| Mass. | 227 | 178 | 93 | 166 | 21 | 27 | 149 | 141 |
| R.I. | 14 | 21 | 9 | 12 | 1 | 1 | 26 | 34 |
| Conn. | U | 48 | 34 | 50 | 8 | 11 | 56 | 73 |
| MID. ATLANTIC | 492 | 1,574 | 213 | 1,265 | 136 | 182 | 1,487 | 1,795 |
| Upstate N.Y. | 159 | 320 | 34 | 105 | 21 | 23 | 173 | 224 |
| N.Y. City | 158 | 498 | 81 | 494 | 67 | 36 | 815 | 862 |
| N.J. | 103 | 484 | 98 | 460 | 27 | 66 | 320 | 381 |
| Pa. | 72 | 272 | - | 206 | 21 | 57 | 179 | 328 |
| E.N. CENTRAL | 1,239 | 1,697 | 612 | 872 | 734 | 623 | 696 | 998 |
| Ohio | 300 | 339 | 60 | 80 | 65 | 88 | 147 | 151 |
| Ind. | 125 | 112 | 28 | 31 | 247 | 119 | U | 100 |
| Ill. | 534 | 910 | 354 | 725 | 293 | 265 | 330 | 465 |
| Mich. | 232 | 161 | 120 | 4 | 129 | 104 | 180 | 213 |
| Wis. | 48 | 175 | 50 | 32 | U | 47 | 39 | 69 |
| W.N. CENTRAL | 653 | 564 | 445 | 306 | 85 | 89 | 276 | 271 |
| Minn. | 115 | 106 | 159 | 166 | 5 | 6 | 95 | 93 |
| Iowa | 15 | 44 | 15 | 33 | 7 | - | 29 | 20 |
| Mo. | 447 | 73 | 245 | 55 | 57 | 70 | 110 | 96 |
| N. Dak. | 2 | 4 | - | 3 | - | - | 2 | 3 |
| S. Dak. | 10 | 28 | 4 | 20 | - | 1 | 9 | 14 |
| Nebr. | 37 | 289 | - | 16 | 6 | 4 | 12 | 10 |
| Kans. | 27 | 20 | 22 | 13 | 10 | 8 | 19 | 35 |
| S. ATLANTIC | 1,437 | 2,453 | 312 | 795 | 1,385 | 1,588 | 1,841 | 1,655 |
| Del. | 8 | 14 | 4 | 10 | 6 | 16 | 12 | 24 |
| Md. | 86 | 123 | 23 | 41 | 237 | 443 | 165 | 181 |
| D.C. | 34 | 13 | - | - | 36 | 48 | 32 | 71 |
| Va. | 65 | 104 | 32 | 52 | 103 | 99 | 131 | 174 |
| W. Va. | 7 | 11 | 3 | 7 | 2 | 2 | 30 | 27 |
| N.C. | 133 | 189 | 60 | 95 | 316 | 460 | 236 | 263 |
| S.C. | 81 | 100 | 38 | 36 | 284 | 179 | 194 | 191 |
| Ga. | 131 | 677 | 37 | 179 | 206 | 177 | 395 | 308 |
| Fla. | 892 | 1,222 | 115 | 375 | 195 | 164 | 646 | 416 |
| E.S. CENTRAL | 765 | 531 | 374 | 335 | 683 | 750 | 360 | 724 |
| Ky. | 169 | 81 | - | 38 | 63 | 72 | 108 | 111 |
| Tenn. | 473 | 94 | 333 | 135 | 384 | 359 | 12 | 239 |
| Ala. | 68 | 320 | 37 | 160 | 143 | 169 | 184 | 236 |
| Miss. | 55 | 36 | 4 | 2 | 93 | 150 | 56 | 138 |
| W.S. CENTRAL | 1,029 | 2,226 | 754 | 696 | 545 | 623 | 965 | 1,402 |
| Ark. | 56 | 122 | 21 | 30 | 40 | 75 | 96 | 73 |
| La. | 76 | 147 | 53 | 184 | 121 | 255 | U | 75 |
| Okla. | 350 | 185 | 102 | 48 | 129 | 27 | 84 | 107 |
| Tex. | 547 | 1,772 | 578 | 434 | 255 | 266 | 785 | 1,147 |
| MOUNTAIN | 491 | 695 | 241 | 427 | 153 | 153 | 249 | 322 |
| Mont. | 7 | 7 | - | 3 | - | - | 10 | 12 |
| Idaho | 10 | 12 | 5 | 9 | 1 | 1 | 14 | 7 |
| Wyo. | 2 | 1 | 1 | - | - | 1 | 1 | 3 |
| Colo. | 82 | 102 | 60 | 85 | 1 | 8 | U | 38 |
| N. Mex. | 62 | 176 | 23 | 83 | 10 | 19 | 37 | 37 |
| Ariz. | 262 | 352 | 146 | 220 | 133 | 109 | 141 | 123 |
| Utah | 36 | 25 | - | 19 | 2 | 3 | 27 | 36 |
| Nev. | 30 | 20 | 6 | 8 | 6 | 12 | 19 | 66 |
| PACIFIC | 1,256 | 1,442 | 113 | 1,445 | 174 | 248 | 2,135 | 2,377 |
| Wash. | 58 | 79 | 51 | 85 | 46 | 23 | 113 | 158 |
| Oreg. | 45 | 86 | 40 | 82 | 5 | 2 | 64 | 71 |
| Calif. | 1,129 | 1,246 | - | 1,246 | 120 | 222 | 1,822 | 2,006 |
| Alaska | - | 4 | - | 2 | 1 | - | 35 | 33 |
| Hawaii | 24 | 27 | 22 | 30 | 2 | 1 | 101 | 109 |
| Guam | 7 | 26 | - | - | 1 | 1 | - | 56 |
| P.R. | 40 | 35 | - | - | 101 | 122 | 41 | 88 |
| V.I. | - | - | - | - | U | U | U | U |
| Amer. Samoa | - | - | - | - | U | U | U | U |
| C.N.M.I. | - | 15 | - | - | - | 156 | - | 71 |

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 14, 1999, and August 15, 1998 (32nd Week)

| Reporting Area | <i>H. influenzae</i> , invasive | | Hepatitis (Viral), by type | | | | Measles (Rubeola) | | | | | |
|----------------|---------------------------------|-----------|----------------------------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|
| | Cum. 1999† | Cum. 1998 | A | | B | | Indigenous | | Imported* | | Total | |
| | | | Cum. 1999 | Cum. 1998 | Cum. 1999 | Cum. 1998 | 1999 | Cum. 1999 | 1999 | Cum. 1999 | Cum. 1999 | Cum. 1998 |
| UNITED STATES | 764 | 729 | 9,273 | 13,939 | 3,861 | 6,008 | 1 | 36 | - | 17 | 53 | 47 |
| NEW ENGLAND | 56 | 49 | 123 | 180 | 64 | 124 | - | 6 | - | 4 | 10 | 3 |
| Maine | 5 | 2 | 5 | 13 | 1 | 2 | - | - | - | - | - | - |
| N.H. | 12 | 8 | 9 | 8 | 10 | 11 | - | - | - | 1 | 1 | - |
| Vt. | 5 | 5 | 3 | 13 | 1 | 4 | - | - | - | - | - | 1 |
| Mass. | 21 | 31 | 39 | 69 | 29 | 48 | - | 5 | - | 2 | 7 | 2 |
| R.I. | 1 | 2 | 13 | 11 | 23 | 40 | - | - | - | - | - | - |
| Conn. | 12 | 1 | 54 | 66 | - | 19 | - | 1 | - | 1 | 2 | - |
| MID. ATLANTIC | 121 | 113 | 621 | 1,079 | 460 | 803 | - | - | - | 2 | 2 | 13 |
| Upstate N.Y. | 60 | 36 | 160 | 215 | 126 | 149 | - | - | - | 2 | 2 | 2 |
| N.Y. City | 28 | 35 | 155 | 375 | 132 | 278 | - | - | - | - | - | - |
| N.J. | 32 | 35 | 57 | 219 | 40 | 141 | U | - | U | - | - | 8 |
| Pa. | 1 | 7 | 249 | 270 | 162 | 235 | - | - | - | - | - | 3 |
| E.N. CENTRAL | 118 | 124 | 1,767 | 2,076 | 390 | 905 | - | 1 | - | 1 | 2 | 15 |
| Ohio | 41 | 42 | 434 | 213 | 61 | 50 | - | - | - | - | - | 1 |
| Ind. | 20 | 27 | 74 | 99 | 32 | 70 | - | 1 | - | - | 1 | 3 |
| Ill. | 48 | 46 | 308 | 494 | - | 158 | - | - | - | - | - | - |
| Mich. | 9 | 4 | 925 | 1,124 | 296 | 277 | - | - | - | 1 | 1 | 10 |
| Wis. | - | 5 | 26 | 146 | 1 | 350 | U | - | U | - | - | 1 |
| W.N. CENTRAL | 53 | 63 | 484 | 1,028 | 202 | 249 | - | - | - | - | - | - |
| Minn. | 19 | 48 | 45 | 83 | 30 | 24 | U | - | U | - | - | - |
| Iowa | 6 | 2 | 89 | 364 | 25 | 42 | - | - | - | - | - | - |
| Mo. | 20 | 8 | 268 | 461 | 111 | 149 | - | - | - | - | - | - |
| N. Dak. | - | - | 1 | 3 | - | 4 | - | - | - | - | - | - |
| S. Dak. | 1 | - | 8 | 21 | 1 | 1 | - | - | - | - | - | - |
| Nebr. | 3 | - | 40 | 20 | 11 | 11 | - | - | - | - | - | - |
| Kans. | 4 | 5 | 33 | 76 | 24 | 18 | - | - | - | - | - | - |
| S. ATLANTIC | 183 | 133 | 1,228 | 1,133 | 734 | 626 | - | 1 | - | 4 | 5 | 7 |
| Del. | - | - | 2 | 3 | - | - | - | - | - | - | - | 1 |
| Md. | 48 | 43 | 231 | 250 | 109 | 90 | - | - | - | - | - | 1 |
| D.C. | 4 | - | 37 | 37 | 14 | 8 | - | - | - | - | - | - |
| Va. | 13 | 13 | 100 | 146 | 59 | 66 | - | 1 | - | 2 | 3 | 2 |
| W. Va. | 6 | 5 | 26 | 1 | 16 | 4 | - | - | - | - | - | - |
| N.C. | 26 | 21 | 94 | 67 | 142 | 139 | - | - | - | - | - | - |
| S.C. | 3 | 3 | 26 | 18 | 40 | 23 | - | - | - | - | - | - |
| Ga. | 48 | 28 | 312 | 336 | 96 | 118 | - | - | - | - | - | 2 |
| Fla. | 35 | 20 | 400 | 275 | 258 | 178 | - | - | - | 2 | 2 | 1 |
| E.S. CENTRAL | 51 | 42 | 271 | 266 | 289 | 308 | - | - | - | - | - | 2 |
| Ky. | 5 | 7 | 50 | 21 | 23 | 30 | - | - | - | - | - | - |
| Tenn. | 30 | 23 | 133 | 153 | 154 | 171 | U | - | U | - | - | 1 |
| Ala. | 14 | 10 | 39 | 48 | 54 | 45 | - | - | - | - | - | 1 |
| Miss. | 2 | 2 | 49 | 44 | 58 | 62 | - | - | - | - | - | - |
| W.S. CENTRAL | 40 | 36 | 1,573 | 2,466 | 398 | 1,318 | 1 | 5 | - | 3 | 8 | - |
| Ark. | 2 | - | 34 | 63 | 33 | 60 | - | - | - | - | - | - |
| La. | 7 | 16 | 59 | 45 | 72 | 63 | U | - | U | - | - | - |
| Okla. | 27 | 18 | 325 | 367 | 91 | 58 | - | - | - | - | - | - |
| Tex. | 4 | 2 | 1,155 | 1,991 | 202 | 1,137 | 1 | 5 | - | 3 | 8 | - |
| MOUNTAIN | 67 | 85 | 870 | 2,120 | 399 | 541 | - | 2 | - | - | 2 | - |
| Mont. | 1 | - | 16 | 67 | 16 | 5 | - | - | - | - | - | - |
| Idaho | 1 | - | 27 | 173 | 16 | 21 | - | - | - | - | - | - |
| Wyo. | 1 | 1 | 4 | 26 | 9 | 3 | U | - | U | - | - | - |
| Colo. | 10 | 17 | 152 | 169 | 55 | 66 | - | - | - | - | - | - |
| N. Mex. | 17 | 4 | 32 | 100 | 138 | 208 | - | - | - | - | - | - |
| Ariz. | 30 | 42 | 523 | 1,310 | 108 | 130 | - | 1 | - | - | 1 | - |
| Utah | 5 | 3 | 33 | 131 | 22 | 50 | - | 1 | - | - | 1 | - |
| Nev. | 2 | 18 | 83 | 144 | 35 | 58 | U | - | U | - | - | - |
| PACIFIC | 75 | 84 | 2,336 | 3,591 | 925 | 1,134 | - | 21 | - | 3 | 24 | 7 |
| Wash. | 3 | 6 | 202 | 722 | 41 | 63 | - | - | - | - | - | 1 |
| Oreg. | 30 | 34 | 163 | 276 | 57 | 117 | - | 9 | - | - | 9 | - |
| Calif. | 33 | 36 | 1,958 | 2,544 | 808 | 937 | - | 11 | - | 3 | 14 | 6 |
| Alaska | 5 | 1 | 4 | 14 | 12 | 9 | - | - | - | - | - | - |
| Hawaii | 4 | 7 | 9 | 35 | 7 | 8 | - | 1 | - | - | 1 | - |
| Guam | - | - | 2 | 1 | 2 | 2 | U | 1 | U | - | 1 | - |
| P.R. | 1 | 2 | 107 | 37 | 97 | 165 | U | - | U | - | - | - |
| V.I. | U | U | U | U | U | U | U | U | U | U | U | U |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | - | - | 1 | - | 43 | U | - | U | - | - | - |

N: Not notifiable U: Unavailable -: no reported cases

*For imported measles, cases include only those resulting from importation from other countries.

†Of 152 cases among children aged <5 years, serotype was reported for 70 and of those, 16 were type b.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 14, 1999, and August 15, 1998 (32nd Week)

| Reporting Area | Meningococcal Disease | | Mumps | | | Pertussis | | | Rubella | | |
|----------------|-----------------------|-----------|-------|-----------|-----------|-----------|-----------|-----------|---------|-----------|-----------|
| | Cum. 1999 | Cum. 1998 | 1999 | Cum. 1999 | Cum. 1998 | 1999 | Cum. 1999 | Cum. 1998 | 1999 | Cum. 1999 | Cum. 1998 |
| UNITED STATES | 1,586 | 1,787 | 2 | 211 | 455 | 86 | 3,146 | 3,352 | 7 | 164 | 316 |
| NEW ENGLAND | 84 | 78 | - | 4 | 3 | 2 | 352 | 614 | - | 7 | 38 |
| Maine | 5 | 5 | - | - | - | - | - | 5 | - | - | - |
| N.H. | 12 | 9 | - | 1 | - | - | 54 | 48 | - | - | - |
| Vt. | 4 | 1 | - | 1 | - | 1 | 33 | 59 | - | - | - |
| Mass. | 47 | 35 | - | 2 | 2 | - | 235 | 468 | - | 7 | 8 |
| R.I. | 4 | 3 | - | - | - | 1 | 19 | 7 | - | - | 1 |
| Conn. | 12 | 25 | - | - | 1 | - | 11 | 27 | - | - | 29 |
| MID. ATLANTIC | 149 | 191 | - | 25 | 170 | 1 | 611 | 343 | - | 21 | 142 |
| Upstate N.Y. | 39 | 50 | - | 6 | 2 | 1 | 525 | 172 | - | 17 | 113 |
| N.Y. City | 40 | 23 | - | 3 | 153 | - | 10 | 22 | - | - | 15 |
| N.J. | 37 | 44 | U | - | 6 | U | 12 | 11 | U | 1 | 13 |
| Pa. | 33 | 74 | - | 16 | 9 | - | 64 | 138 | - | 3 | 1 |
| E.N. CENTRAL | 247 | 279 | - | 26 | 59 | 15 | 284 | 398 | - | 2 | - |
| Ohio | 107 | 98 | - | 10 | 21 | 7 | 143 | 127 | - | - | - |
| Ind. | 36 | 51 | - | 3 | 5 | 5 | 37 | 69 | - | 1 | - |
| Ill. | 70 | 75 | - | 6 | 9 | - | 46 | 41 | - | 1 | - |
| Mich. | 33 | 32 | - | 7 | 22 | 3 | 31 | 41 | - | - | - |
| Wis. | 1 | 23 | U | - | 2 | U | 27 | 120 | U | - | - |
| W.N. CENTRAL | 173 | 154 | - | 10 | 21 | 8 | 127 | 265 | - | 78 | 32 |
| Minn. | 34 | 25 | U | 1 | 10 | U | 38 | 159 | U | - | - |
| Iowa | 32 | 25 | - | 4 | 7 | 2 | 24 | 54 | - | 28 | - |
| Mo. | 67 | 59 | - | 2 | 3 | 2 | 36 | 17 | - | 2 | 2 |
| N. Dak. | 3 | 2 | - | - | 1 | 4 | 4 | 3 | - | - | - |
| S. Dak. | 10 | 6 | - | - | - | - | 5 | 7 | - | - | - |
| Nebr. | 9 | 11 | - | - | - | - | 1 | 8 | - | 48 | - |
| Kans. | 18 | 26 | - | 3 | - | - | 19 | 17 | - | - | 30 |
| S. ATLANTIC | 279 | 295 | 2 | 37 | 32 | 22 | 235 | 172 | 7 | 29 | 9 |
| Del. | 6 | 1 | - | - | - | 3 | 4 | 2 | - | - | - |
| Md. | 41 | 24 | - | 3 | - | - | 58 | 29 | - | 1 | - |
| D.C. | 1 | - | - | 2 | - | - | - | 1 | - | - | - |
| Va. | 33 | 24 | - | 8 | 5 | - | 13 | 8 | - | - | - |
| W. Va. | 4 | 12 | - | - | - | - | 1 | 1 | - | - | - |
| N.C. | 30 | 45 | - | 8 | 9 | 3 | 61 | 68 | 7 | 28 | 6 |
| S.C. | 33 | 44 | - | 3 | 5 | 3 | 11 | 22 | - | - | - |
| Ga. | 49 | 66 | 2 | 3 | 1 | 2 | 22 | 10 | - | - | - |
| Fla. | 82 | 79 | - | 10 | 12 | 11 | 65 | 31 | - | - | 3 |
| E.S. CENTRAL | 112 | 126 | - | 8 | 11 | 3 | 61 | 79 | - | 1 | - |
| Ky. | 21 | 20 | - | - | - | 1 | 16 | 33 | - | - | - |
| Tenn. | 45 | 46 | U | - | 1 | U | 27 | 23 | U | - | - |
| Ala. | 27 | 38 | - | 7 | 6 | 2 | 14 | 20 | - | 1 | - |
| Miss. | 19 | 22 | - | 1 | 4 | - | 4 | 3 | - | - | - |
| W.S. CENTRAL | 138 | 201 | - | 28 | 37 | 9 | 104 | 210 | - | 7 | 80 |
| Ark. | 29 | 26 | - | - | - | 1 | 12 | 26 | - | - | - |
| La. | 34 | 40 | U | 3 | 5 | U | 3 | 2 | U | - | - |
| Okla. | 25 | 29 | - | 1 | - | - | 12 | 20 | - | - | - |
| Tex. | 50 | 106 | - | 24 | 32 | 8 | 77 | 162 | - | 7 | 80 |
| MOUNTAIN | 100 | 102 | - | 12 | 27 | 14 | 327 | 613 | - | 15 | 5 |
| Mont. | 2 | 3 | - | - | - | - | 2 | 3 | - | - | - |
| Idaho | 8 | 7 | - | 1 | 3 | - | 93 | 168 | - | - | - |
| Wyo. | 3 | 5 | U | - | 1 | U | 2 | 8 | U | - | - |
| Colo. | 26 | 20 | - | 3 | 5 | 9 | 94 | 159 | - | - | - |
| N. Mex. | 13 | 17 | N | N | N | 3 | 59 | 74 | - | - | 1 |
| Ariz. | 29 | 35 | - | - | 5 | - | 29 | 137 | - | 13 | 1 |
| Utah | 13 | 10 | - | 5 | 3 | 2 | 45 | 35 | - | 1 | 2 |
| Nev. | 6 | 5 | U | 3 | 10 | U | 3 | 29 | U | 1 | 1 |
| PACIFIC | 304 | 361 | - | 61 | 95 | 12 | 1,045 | 658 | - | 4 | 10 |
| Wash. | 47 | 51 | - | 2 | 7 | 9 | 536 | 193 | - | - | 5 |
| Oreg. | 54 | 61 | N | N | N | 3 | 27 | 45 | - | - | - |
| Calif. | 193 | 243 | - | 51 | 68 | - | 468 | 401 | - | 4 | 3 |
| Alaska | 5 | 2 | - | 1 | 2 | - | 4 | 7 | - | - | - |
| Hawaii | 5 | 4 | - | 7 | 18 | - | 10 | 12 | - | - | 2 |
| Guam | 1 | 2 | U | 1 | 2 | U | 1 | - | U | - | - |
| P.R. | 5 | 8 | U | - | 2 | U | 15 | 3 | U | - | - |
| V.I. | U | U | U | U | U | U | U | U | U | U | U |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | - | U | - | 2 | U | - | 1 | U | - | - |

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending August 14, 1999 (32nd Week)

| Reporting Area | All Causes, By Age (Years) | | | | | | P&J† | Total | Reporting Area | All Causes, By Age (Years) | | | | | | P&J† | Total |
|---------------------|----------------------------|-------|-------|-------|------|----|------|-----------------------|--------------------|----------------------------|-------|-------|-------|------|-----|------|-------|
| | All Ages | >65 | 45-64 | 25-44 | 1-24 | <1 | | | | All Ages | >65 | 45-64 | 25-44 | 1-24 | <1 | | |
| NEW ENGLAND | 437 | 321 | 76 | 20 | 11 | 9 | 42 | S. ATLANTIC | 1,156 | 740 | 255 | 92 | 41 | 26 | 52 | | |
| Boston, Mass. | U | U | U | U | U | U | U | Atlanta, Ga. | U | U | U | U | U | U | U | | |
| Bridgeport, Conn. | 34 | 24 | 9 | - | 1 | - | 6 | Baltimore, Md. | 226 | 147 | 41 | 23 | 11 | 3 | 17 | | |
| Cambridge, Mass. | 11 | 7 | 1 | 2 | 1 | - | - | Charlotte, N.C. | 104 | 65 | 25 | 5 | 6 | 3 | 11 | | |
| Fall River, Mass. | 32 | 26 | 4 | 2 | - | - | 3 | Jacksonville, Fla. | 146 | 90 | 37 | 10 | 5 | 4 | 1 | | |
| Hartford, Conn. | 50 | 34 | 10 | 2 | 2 | 2 | 5 | Miami, Fla. | 96 | 57 | 23 | 11 | 3 | 2 | - | | |
| Lowell, Mass. | 33 | 29 | 4 | - | - | - | - | Norfolk, Va. | 50 | 31 | 10 | 3 | 3 | 3 | 1 | | |
| Lynn, Mass. | 12 | 9 | 3 | - | - | - | - | Richmond, Va. | 70 | 50 | 11 | 5 | 1 | 3 | 2 | | |
| New Bedford, Mass. | 19 | 17 | 2 | - | - | - | - | Savannah, Ga. | 50 | 35 | 11 | 3 | - | 1 | 8 | | |
| New Haven, Conn. | 37 | 26 | 4 | 3 | 3 | 1 | 3 | St. Petersburg, Fla. | 74 | 55 | 14 | 3 | 1 | 1 | 6 | | |
| Providence, R.I. | 78 | 58 | 13 | 3 | 1 | 3 | 4 | Tampa, Fla. | 171 | 107 | 39 | 14 | 7 | 3 | 3 | | |
| Somerville, Mass. | 7 | 6 | - | 1 | - | - | - | Washington, D.C. | 148 | 94 | 32 | 15 | 4 | 3 | 3 | | |
| Springfield, Mass. | 30 | 21 | 8 | - | 1 | - | 6 | Wilmington, Del. | 21 | 9 | 12 | - | - | - | - | | |
| Waterbury, Conn. | 36 | 23 | 5 | 4 | 1 | 3 | 8 | E.S. CENTRAL | 612 | 428 | 115 | 41 | 13 | 15 | 32 | | |
| Worcester, Mass. | 58 | 41 | 13 | 3 | 1 | - | 7 | Birmingham, Ala. | 150 | 104 | 30 | 10 | 4 | 2 | 13 | | |
| MID. ATLANTIC | 2,034 | 1,414 | 400 | 147 | 46 | 27 | 59 | Chattanooga, Tenn. | 60 | 48 | 6 | 4 | 2 | - | 4 | | |
| Albany, N.Y. | 53 | 40 | 9 | 3 | 1 | - | 3 | Knoxville, Tenn. | 98 | 71 | 18 | 6 | 2 | 1 | 1 | | |
| Allentown, Pa. | U | U | U | U | U | U | U | Lexington, Ky. | 91 | 58 | 18 | 6 | 1 | 8 | 3 | | |
| Buffalo, N.Y. | 76 | 60 | 10 | 6 | - | - | 5 | Memphis, Tenn. | U | U | U | U | U | U | U | | |
| Camden, N.J. | 24 | 14 | 4 | 4 | 1 | 1 | 3 | Mobile, Ala. | 53 | 38 | 11 | 1 | 2 | 1 | - | | |
| Elizabeth, N.J. | U | U | U | U | U | U | U | Montgomery, Ala. | 36 | 28 | 5 | 1 | 1 | 1 | 4 | | |
| Erie, Pa. | 41 | 31 | 4 | 4 | 2 | - | 2 | Nashville, Tenn. | 124 | 81 | 27 | 13 | 1 | 2 | 7 | | |
| Jersey City, N.J. | 30 | 21 | 6 | 2 | - | 1 | - | W.S. CENTRAL | 1,154 | 765 | 223 | 108 | 29 | 29 | 66 | | |
| New York City, N.Y. | 1,104 | 746 | 235 | 79 | 27 | 17 | 17 | Austin, Tex. | 61 | 42 | 11 | 5 | 2 | 1 | 1 | | |
| Newark, N.J. | 54 | 22 | 14 | 9 | 5 | 4 | 2 | Baton Rouge, La. | U | U | U | U | U | U | U | | |
| Paterson, N.J. | 20 | 13 | 6 | 1 | - | - | - | Corpus Christi, Tex. | 56 | 41 | 11 | 2 | - | 2 | 1 | | |
| Philadelphia, Pa. | 300 | 206 | 55 | 30 | 6 | 3 | 12 | Dallas, Tex. | 173 | 104 | 37 | 25 | 1 | 6 | 6 | | |
| Pittsburgh, Pa.‡ | 35 | 25 | 7 | 2 | - | 1 | 2 | El Paso, Tex. | 64 | 49 | 11 | 3 | - | 1 | 5 | | |
| Reading, Pa. | 27 | 19 | 5 | 2 | 1 | - | - | Ft. Worth, Tex. | 88 | 61 | 14 | 5 | 3 | 5 | 3 | | |
| Rochester, N.Y. | 128 | 106 | 18 | 2 | 2 | - | 7 | Houston, Tex. | 342 | 212 | 66 | 43 | 14 | 7 | 28 | | |
| Schenectady, N.Y. | 17 | 12 | 5 | - | - | - | - | Little Rock, Ark. | 54 | 34 | 14 | 4 | 2 | - | 2 | | |
| Scranton, Pa. | 28 | 21 | 5 | 2 | - | - | 2 | New Orleans, La. | U | U | U | U | U | U | U | | |
| Syracuse, N.Y. | 42 | 33 | 9 | - | - | - | 1 | San Antonio, Tex. | 212 | 159 | 36 | 11 | 5 | 1 | 17 | | |
| Trenton, N.J. | 42 | 34 | 6 | 1 | 1 | - | 3 | Shreveport, La. | U | U | U | U | U | U | U | | |
| Utica, N.Y. | 13 | 11 | 2 | - | - | - | - | Tulsa, Okla. | 104 | 63 | 23 | 10 | 2 | 6 | 3 | | |
| Yonkers, N.Y. | U | U | U | U | U | U | U | MOUNTAIN | 749 | 484 | 158 | 66 | 25 | 14 | 50 | | |
| E.N. CENTRAL | 1,729 | 1,119 | 361 | 136 | 53 | 59 | 99 | Albuquerque, N.M. | 87 | 64 | 17 | 2 | 3 | 1 | 3 | | |
| Akron, Ohio | 42 | 22 | 13 | 5 | 1 | 1 | - | Boise, Idaho | 35 | 31 | 3 | - | 1 | - | 3 | | |
| Canton, Ohio | 35 | 29 | 5 | - | - | 1 | 2 | Colo. Springs, Colo. | 45 | 30 | 6 | 7 | - | 2 | 1 | | |
| Chicago, Ill. | 359 | 201 | 87 | 43 | 18 | 9 | 22 | Denver, Colo. | 105 | 60 | 28 | 5 | 6 | 6 | 6 | | |
| Cincinnati, Ohio | 108 | 62 | 26 | 9 | 4 | 7 | 11 | Las Vegas, Nev. | 159 | 93 | 45 | 12 | 6 | 1 | 8 | | |
| Cleveland, Ohio | 127 | 88 | 26 | 6 | 1 | 6 | 2 | Ogden, Utah | 18 | 15 | 3 | - | - | - | 1 | | |
| Columbus, Ohio | 162 | 103 | 33 | 17 | 4 | 5 | 10 | Phoenix, Ariz. | 69 | 42 | 15 | 10 | 1 | 1 | 7 | | |
| Dayton, Ohio | 102 | 70 | 20 | 9 | 1 | 2 | 5 | Pueblo, Colo. | 16 | 11 | 4 | 1 | - | - | 2 | | |
| Detroit, Mich. | U | U | U | U | U | U | U | Salt Lake City, Utah | 102 | 62 | 15 | 15 | 7 | 3 | 9 | | |
| Evansville, Ind. | 45 | 31 | 7 | 1 | 2 | 4 | 3 | Tucson, Ariz. | 113 | 76 | 22 | 14 | 1 | - | 10 | | |
| Fort Wayne, Ind. | 72 | 47 | 18 | 4 | 1 | 2 | 3 | PACIFIC | 1,438 | 975 | 287 | 115 | 36 | 21 | 97 | | |
| Gary, Ind. | 19 | 11 | 2 | 3 | 3 | - | 2 | Berkeley, Calif. | 20 | 15 | 4 | 1 | - | - | 1 | | |
| Grand Rapids, Mich. | 38 | 24 | 8 | 4 | - | 2 | 4 | Fresno, Calif. | 111 | 71 | 21 | 15 | 4 | - | 6 | | |
| Indianapolis, Ind. | 170 | 101 | 40 | 14 | 8 | 7 | 2 | Glendale, Calif. | 19 | 11 | 3 | 2 | 2 | 1 | 2 | | |
| Lansing, Mich. | 41 | 27 | 9 | 4 | - | 1 | 3 | Honolulu, Hawaii | 81 | 59 | 17 | 4 | - | - | 9 | | |
| Milwaukee, Wis. | 137 | 99 | 28 | 4 | 3 | 3 | 9 | Long Beach, Calif. | 60 | 47 | 8 | 3 | 1 | 1 | 7 | | |
| Peoria, Ill. | 55 | 37 | 9 | 3 | 4 | 2 | 4 | Los Angeles, Calif. | 286 | 196 | 63 | 22 | 3 | 2 | 12 | | |
| Rockford, Ill. | 48 | 39 | 5 | 2 | - | 2 | 4 | Pasadena, Calif. | 17 | 13 | 4 | - | - | - | 6 | | |
| South Bend, Ind. | 46 | 30 | 11 | 1 | 3 | 1 | 2 | Portland, Oreg. | 141 | 93 | 28 | 12 | 6 | 2 | 6 | | |
| Toledo, Ohio | 67 | 54 | 9 | 4 | - | - | 9 | Sacramento, Calif. | 149 | 100 | 30 | 10 | 6 | 3 | 18 | | |
| Youngstown, Ohio | 56 | 44 | 5 | 3 | - | 4 | 2 | San Diego, Calif. | 121 | 86 | 21 | 8 | 3 | 3 | 11 | | |
| W.N. CENTRAL | 624 | 441 | 115 | 38 | 14 | 16 | 44 | San Francisco, Calif. | U | U | U | U | U | U | U | | |
| Des Moines, Iowa | 55 | 36 | 16 | 3 | - | - | 7 | San Jose, Calif. | 138 | 95 | 23 | 14 | 2 | 4 | 14 | | |
| Duluth, Minn. | 39 | 32 | 7 | - | - | - | 2 | Santa Cruz, Calif. | 33 | 25 | 4 | 4 | - | - | 2 | | |
| Kansas City, Kans. | U | U | U | U | U | U | U | Seattle, Wash. | 130 | 73 | 33 | 14 | 7 | 3 | 2 | | |
| Kansas City, Mo. | 78 | 55 | 11 | 5 | 3 | 4 | 9 | Spokane, Wash. | 57 | 45 | 10 | 1 | 1 | - | 3 | | |
| Lincoln, Nebr. | 44 | 37 | 6 | 1 | - | - | 4 | Tacoma, Wash. | 75 | 46 | 18 | 5 | 1 | 2 | 4 | | |
| Minneapolis, Minn. | 164 | 116 | 29 | 10 | 3 | 6 | 18 | TOTAL | 9,933 [§] | 6,687 | 1,990 | 763 | 268 | 216 | 541 | | |
| Omaha, Nebr. | 79 | 49 | 16 | 10 | 3 | 1 | 1 | | | | | | | | | | |
| St. Louis, Mo. | 96 | 65 | 18 | 6 | 3 | 4 | 1 | | | | | | | | | | |
| St. Paul, Minn. | 69 | 51 | 12 | 3 | 2 | 1 | 2 | | | | | | | | | | |
| Wichita, Kans. | U | U | U | U | U | U | U | | | | | | | | | | |

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 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

‡Because of changes in reporting methods in 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.

**Contributors to the Production of the *MMWR* (Weekly)
Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data**

Samuel L. Groseclose, D.V.M., M.P.H.

State Support Team

Robert Fagan
Jose Aponte
Gerald Jones
David Nitschke
Carol A. Worsham

CDC Operations Team

Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Patsy A. Hall
Kathryn Snaveley

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Director, Centers for Disease Control
and Prevention
Jeffrey P. Koplan, M.D., M.P.H.
Acting Deputy Director, Centers for
Disease Control and Prevention
Stephen M. Ostroff, M.D.

Director, Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.
Editor, *MMWR* Series
John W. Ward, M.D.
Managing Editor,
MMWR (weekly)
Karen L. Foster, M.A.

Writers-Editors,
MMWR (weekly)
Jill Crane
David C. Johnson
Teresa F. Rutledge
Caran R. Wilbanks
Desktop Publishing
Morie M. Higgins
Peter M. Jenkins