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MORBIDITY AND MORTALITY WEEKLY REPORT

Multistate Outbreak of Listeriosis — United States, 2000

Since May 2000, 29 illnesses caused by a strain of *Listeria monocytogenes* (LM) have been identified in 10 states: New York (15 cases); Georgia (three); Connecticut, Ohio, and Michigan (two each); and California, Pennsylvania, Tennessee, Utah, and Wisconsin (one each). Dates of LM isolation ranged from May 17 through November 26 with 26 (90%) infections occurring since July 15. When subtyped, the LM isolates from these cases were indistinguishable by pulsed-field gel electrophoresis (PulseNet pattern numbers GX6A16.0014 by *Asc*1 and GX6A12.0017 by *Apa*1) and ribotyping (DUP-1053). This report summarizes the investigation, which linked these cases of listeriosis to eating deli turkey meat.

Eight perinatal and 21 nonperinatal cases were reported. Among the 21 nonperinatal case-patients, the median age was 65 years (range: 29–92 years); 13 (62%) were female. The 29 cases have been associated with four deaths and three miscarriages/ stillbirths.

A case-control study conducted by five state and two local health departments and CDC implicated eating deli turkey meat as the probable source of infection. Thirteen (76%) of 17 case-patients and five (21%) of 24 controls ate deli turkey meat during the 30 days before illness onset (Mantel-Haenszel weighted odds ratio=8.0; 95% confidence interval=1.2–43.3). State health and agriculture departments investigated 13 stores and delicatessens where 11 patients reported purchasing turkey; these stores and delicatessens carried turkey meat produced by at least 27 federally inspected establishments. Two establishments were linked to 10 of 11 patients; one of these establishments produced turkey meat for the second establishment.

On December 8, investigators from the Food Safety and Inspection Service, U.S. Department of Agriculture (USDA) began investigating the implicated establishments. On December 12, Cargill Turkey Products, Inc. (Waco, Texas) stopped shipping ready-to-eat foods and, on December 14, voluntarily recalled processed turkey and chicken deli meat that might have been contaminated.

Reported by: S Hurd, Q Phan, J Hadler, State Epidemiologist, Connecticut State Dept of Public Health. B Mackenzie, S Lance-Parker, P Blake, State Epidemiologist, Div of Public Health, Georgia Dept of Human Resources. M Deasy, J Rankin, State Epidemiologist, Pennsylvania Dept of Health. D Frye, I Lee, Los Angeles Dept of Health; B Werner, D Vugia, State Epidemiologist, California Dept of Health Svcs. S Bidol, G Stoltman, M Boulton, State Epidemiologist, Michigan Dept of Community Health. M Widemann, Cornell Univ, Ithaca; L Kornstein, S Reddy, B Mojica, New York City Dept of Health; F Guido, A Huang, Westchester County Dept of Health, New Rochelle; C Vincent, A Bugenhagen, J Corby, New York State Dept of Agriculture and

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Markets, Albany; E Carloni, M Holcomb, S Kondracki, R Woron, S Zansky, P Smith, State Epidemiologist, New York Dept of Health. G Dowdle, C Nichols, State Epidemiologist, Utah Dept of Health. F Smith, State Epidemiologist, Ohio Dept of Health. D Gerber, T Jones, W Moore, State Epidemiologist, Tennessee Dept of Health. S Ahrabi-Fard, J Davis, State Epidemiologist, Wisconsin Dept of Health. Human Health Sciences Div, Office of Public Health and Science, Food Safety and Inspection Svc, US Dept of Agriculture. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: LM infection causes an estimated 2500 serious illnesses and 500 deaths in the United States each year. Infected pregnant women may experience only a mild, influenza-like illness; however, infections during pregnancy can lead to premature delivery, miscarriage, stillbirth, or serious infection of the newborn. Other persons at increased risk for infection are those aged ≥65 years, persons with cancer, diabetes, kidney disease, acquired immunodeficiency syndrome, or who take immunosuppressive medications. Manifestations of illness include meningitis and sepsis. Healthy persons aged <65 years rarely are affected.

The risk for a person developing *Listeria* infection after eating a contaminated product is very small. Persons who have eaten a recalled product but do not have symptoms do not require tests or treatment even if they are in a high-risk group. However, persons in a high-risk group who have eaten contaminated product and become ill within 2 months with fever or signs of serious illness should consult a physician.

Guidelines for preventing listeriosis are similar to those for preventing other foodborne illnesses. The general recommendations are 1) cook thoroughly raw food from animal sources (e.g., beef, pork, or poultry); 2) wash raw vegetables thoroughly before eating; 3) keep uncooked meats separate from vegetables and from cooked foods and ready-to-eat foods; 4) avoid raw (unpasteurized) milk or foods made from raw milk; and 5) wash hands, knives, and cutting boards after each handling of uncooked foods. Persons at high risk for listeriosis may choose to 1) avoid soft cheeses (i.e., feta, Brie, Camembert, blue-veined, and Mexican-style cheese such as queso fresco). Hard cheeses, processed cheeses, cream cheese, cottage cheese, or yogurt need not be avoided; 2) cook leftover foods or ready-to-eat foods (e.g., hot dogs) until steaming hot; and 3) avoid foods from deli counters (e.g., prepared salads, meats, and cheeses) or thoroughly reheat cold cuts before eating.

Cases of listeriosis with onset since October 1, 2000, should be reported to state and local health departments; information about the recall is available at http://www.fsis.usda.gov/OA/recalls/rec_actv.htm*. Consumers who have recalled meat products, even if they have been stored in freezers, should discard or return them to the point of purchase. High-risk consumers who have processed turkey or chicken deli meat but are uncertain of the brand should call the place of purchase to find out if it might be a recalled product, or discard it. Answers to meat-safety questions are available at the USDA meat and poultry hotline, (800) 535-4555. Listeriosis information is available at http://www.cdc.gov/ncidod/dbmd/diseaseinfo/listeriosis_g.htm.

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Foodborne Outbreak of Group A Rotavirus Gastroenteritis Among College Students — District of Columbia, March–April 2000

On March 31, student health services at a university in the District of Columbia (DC) notified the DC health department that an increased number of students had become ill with acute gastroenteritis beginning March 29. Some ill students reported eating tuna or chicken salad sandwiches from dining hall A on campus. On March 31, the DC health department initiated an outbreak investigation. This report summarizes results of the investigation, which indicated that group A rotavirus transmitted by food was the cause of the outbreak.

Telephone interviews were conducted with students who reported illness to student health services, with additional ill students who were identified during interviews, and with healthy controls selected randomly from the university registry of students residing on campus. A case of gastroenteritis was defined as three or more episodes of diarrhea and/or two or more episodes of vomiting within a 24-hour period in a student with onset on or after March 20. Controls and case-patients whose illness onset occurred during March 27–31 were questioned about food history, residence and dining hall, source of water, use of a public access computer or sports equipment at the university gym, and attendance at social or athletic events. Electronic records of student meal attendance were available for 49 case-patients with illness onset during March 27–31 and for 55 control subjects.

Twenty-three (79%) of 29 employees of dining hall A were interviewed to identify their work duties and determine whether they were ill. Stool specimens were collected during March 29–April 10 from six ill students and 21 dining hall A employees. Samples were screened for bacterial and parasitic pathogens at a commercial laboratory and for viral pathogens at CDC.

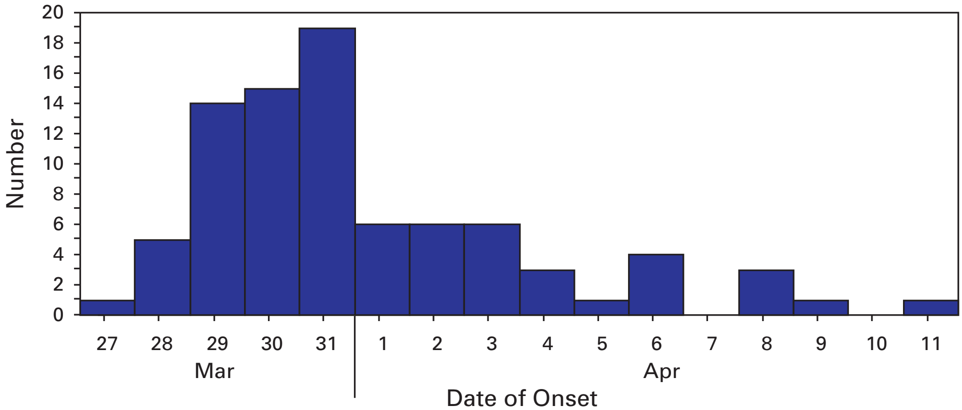
The outbreak among students began March 27 and peaked at 19 cases on March 31 (Figure 1). A total of 108 students (55 were identified by telephone interviews and 53 were self-reported) had gastrointestinal symptoms during March 26–April 11; 85 (79%) had illness that met the case definition. The attack rate among students residing on campus was 5% (77 of 1641), with no significant differences in attack rates by sex, occupancy of residence hall, or grade level. Eight case-patients resided off campus (attack rate: 0.02%). Among the 83 case-patients for whom a complete list of symptoms was reported, 77 (93%) had diarrhea, 75 (90%) abdominal pain or discomfort, 69 (83%) loss of appetite, 67 (81%) nausea, 64 (77%) fatigue, 56 (67%) vomiting, 49 (59%) headache, 48 (58%) chills, 48 (58%) subjective or low-grade fever, and 42 (51%) myalgia. Sore throat, cough, and/or congestion were reported by six case-patients with onsets on or after April 2. The median duration of illness was 4 days (range: 1–8 days). Nine (11%) case-patients received intravenous fluids to treat dehydration.

Of those who completed the telephone interview, 40 (91%) of 44 case-patients and 27 (68%) of 40 controls ate at least one deli sandwich from campus dining hall A during March 27–30 (p=0.017; odds ratio [OR]=4.8; 95% confidence interval [CI]=1.3–22.1). During March 27–30, four (8%) of 49 case-patients ate four or more meals at dining hall B compared with 18 (33%) of 55 controls (p=0.005; OR=0.2; 95% CI=0.04–0.6). Food histories of employees were not recorded; however, six employees reported illness.

Stool specimens of students and employees were negative for bacterial and parasitic pathogens and for Norwalk-like viruses. Using electron microscopy, enzyme immunoassay, and reverse transcriptase-polymerase chain reaction (RT-PCR), nine (33%) of 27

Rotavirus Gastroenteritis — Continued

FIGURE 1. Number* of gastroenteritis† cases among college students, by date of illness onset — District of Columbia, March 27–April 11, 2000



* n=85.

† A case of gastroenteritis was defined having three or more episodes of diarrhea and/or two or more episodes of vomiting within a 24-hour period in a student with onset on or after March 20.

specimens were positive for group A rotavirus. Rotavirus positive stool specimens from four students and three employees were identified as genotype combination P[4],G2 by RT-PCR. Two of the three P[4],G2-positive employees were line cooks who reported having symptoms of gastroenteritis on March 27 and April 2, respectively, while the third positive employee, a deli server, reported no illness.

Reported by: M Fletcher, PhD, ME Levy, MD, Bur of Epidemiology and Disease Control, District of Columbia Dept of Health. DD Griffin, Oak Ridge Institute for Science and Education, Oak Ridge Associate Univs, US Dept of Energy. Viral Gastroenteritis Section, Respiratory and Enterovirus Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: Group A rotavirus is the most common cause of childhood diarrhea worldwide, infecting >90% of children by age 3 years (*1*). Because rotavirus immunity develops early in life, disease among older children and adults is uncommon (*1*). Although the role of rotavirus in diarrhea outbreaks in adults has not been well studied, it has been documented as the cause of adult diarrheal outbreaks in hospitals (*2*), nursing homes (*3*), isolated communities (*4*), and in travelers (*5*). Also, parents of children infected with rotavirus have been reported to experience acute gastroenteritis (*6*). However, the rotavirus G and P protein-type combinations, the proteins that elicit an immune response in humans, were not characterized in most of these reports.

The rapid increase and gradual decline of the campus outbreak suggest that the infection was foodborne during the first week and was spread person-to-person during the following week. During the first week, illness was associated with eating sandwiches at dining hall A and was associated inversely with eating frequently at dining hall B. The employee who prepared sandwich fillings did not report illness and tested negative for rotavirus. None of the three deli servers who assembled and served sandwiches reported illness; however, one was rotavirus P[4],G2 positive. It is unknown whether the deli server who tested positive was infected before the outbreak among students.

Rotavirus Gastroenteritis — Continued

This rotavirus serotype G2 outbreak was unusual for two reasons; food was implicated as the source of infection and the adults affected should have been immune. During April 2000, a gastroenteritis outbreak among adults in Japan also was caused by foodborne transmission of group A rotavirus serotype G2 (*7*). These adults should not have been susceptible to severe rotavirus illness. G2 strains often are found combined with serotype P[4]1B (*8*). The G and P neutralization antigens of serotype G2 strains may allow G2 strains to escape immunity induced by the more common G1, G3, and G4 strains. In addition, G2 has been associated with more severe dehydration during diarrheal episodes in children than other common strains (*9*). These outbreaks of rotavirus gastroenteritis in adults in the United States and Japan raise questions about the persistence of immunity to rotavirus and the virulence of G2 strains. Investigators and clinicians should consider rotavirus as a possible cause of acute gastroenteritis in adults.

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Blood Lead Levels in Young Children — United States and Selected States, 1996–1999

Lead exposure adversely affects the cognitive development and behavior of young children (*1*). For children aged <6 years, CDC has defined an elevated blood lead level (BLL) as ≥10 µg/dL, but evidence exists for subtle effects at lower levels (*2*). Data from CDC's Third National Health and Nutrition Examination Survey, Phase 2 (1991–1994) (NHANES) showed that average BLLs in children had decreased approximately 80% since the late 1970s but that elevated BLLs remained more common among low-income children, urban children, and those living in older housing (*3,4*). Although these data provide national estimates of the prevalence of elevated BLLs among children, they do not provide information at the state or local level. To target prevention efforts and monitor progress toward reducing BLLs at the state and local level, CDC's Childhood Blood Lead Surveillance (CBLS) program supports state blood lead surveillance programs on the basis of blood lead tests from public and private clinical laboratories. This report

Blood Lead Levels — Continued

summarizes data on BLLs in children aged 1–5 years from NHANES data collected in 1999 and children aged <6 years from state surveillance data provided to CDC by 19 state surveillance programs during 1996–1998. The findings indicate that, despite the decreases in mean BLL among children, the problem remains concentrated on a local level. Surveillance efforts should be used to target screening efforts to communities at highest risk.

NHANES is a continuous survey of the health and nutritional status of the U.S. civilian, noninstitutionalized population designed so that each year of data constitutes a nationally representative sample. Data in this report are from NHANES 1999, and NHANES III, Phase 2. A household interview and a physical examination were conducted for each survey participant. During the physical examination, blood was collected by venipuncture for all persons aged >1 year. Graphite furnace atomic absorption spectrophotometry was used to measure BLLs with detection limits of 0.3 µg/dL (NHANES 1999) and 1.0 µg/dL (NHANES III, Phase 2). Long-term quality-control data for these analyses, including similar standardized reference materials, were used in both surveys and showed that data from the two surveys can be compared. Because of limited sample size, NHANES 1999 analyses include only data on average BLLs and selected percentiles but not on the prevalence of elevated levels.

The analyses of CBLS data were based on reports from 19 of 28 states that provided blood lead data to CDC (Table 1). The 19 states were included because they received all blood lead test results of children from participating laboratories (regardless of level) and reported data from January 1, 1996 through December 31, 1998. These states accounted for 33% of all U.S. children aged <6 years.

An elevated BLL from CBLS is defined as a single blood lead test result ≥10 µg/dL. If multiple tests were reported for a child during a calendar year, the highest BLL measured for that child was used. To estimate the proportion of children with elevated BLLs among those tested, the number of children with elevated levels was divided by the number of children tested at least once during a calendar year.

From NHANES III, Phase 2 (1991–1994) to NHANES 1999, the geometric mean BLL in children aged 1–5 years decreased from 2.7 (95% confidence interval [CI]=2.6–2.9) to 2.0 µg/dL (95% CI=1.7–2.3), and the 50th percentile decreased from 2.6 (95% CI=2.4–2.8) to 1.9 µg/dL (95% CI=1.6–2.1). The continued pattern of decline in BLLs between the two surveys also is indicated at the 10th, 25th, 75th, and 90th percentiles.

The CBLS data showed that the proportion of children tested with BLLs ≥10 µg/dL decreased from 10.5% in 1996 to 7.6% in 1998 in the 19 states providing data (Table 1). The proportions of children with BLLs ≥15 µg/dL and ≥20 µg/dL also decreased.

The percentage of children aged <6 years tested with BLLs ≥10 µg/dL in each state ranged from 2.7 to 14.9 (Figure 1). Within states, the proportion of children with elevated

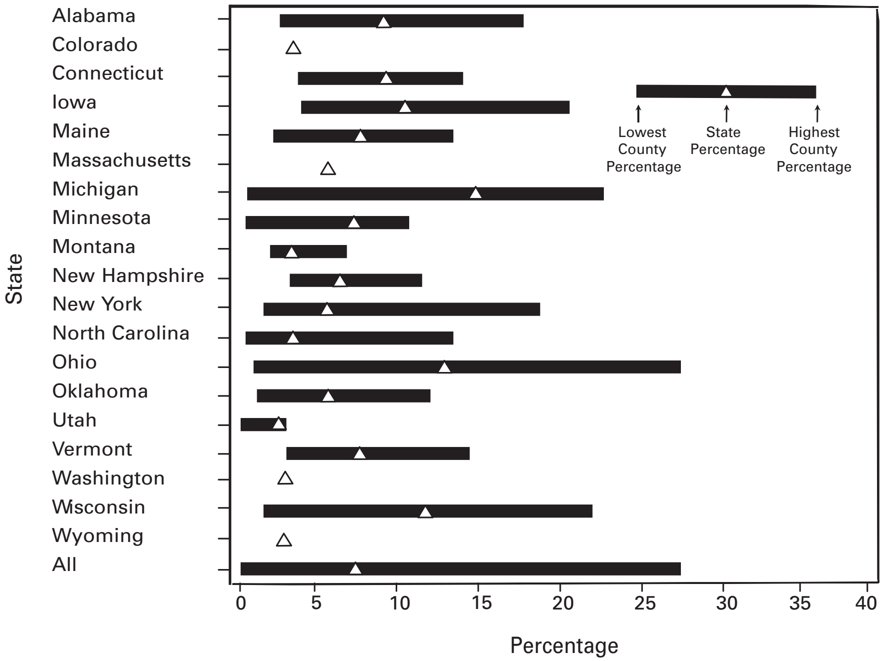
TABLE 1. Percentage of children tested aged <6 years with elevated blood lead levels (BLLs), by year — selected states*, 1996–1998

		% Children with elevated BLLs (µg/dL)		
Year	**No. tested**	**≥10**	**≥15**	**≥20**
1996	1,220,596	10.5%	3.9%	1.9%
1997	1,183,506	8.6%	3.2%	1.5%
1998	1,256,907	7.6%	2.7%	1.2%

* Alabama, Colorado, Connecticut, Iowa, Maine, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New York, North Carolina, Ohio, Oklahoma, Utah, Vermont, Washington, Wisconsin, and Wyoming.

Blood Lead Levels — Continued

FIGURE 1. State-specific percentage of children aged <6 years tested with blood lead levels (BLLs) ≥10 µg/dL and highest and lowest percentage of elevated BLLs, by county — selected states, 1998*



* Only counties with ≥200 children tested for BLL are included. Colorado, Washington, and Wyoming had <2 counties with 200 children tested, and Massachusetts did not report county of residence.

BLLs in counties with at least 200 children tested also varied considerably. For example, the proportion of children with elevated BLLs ranged from 1.3% to 27.3% in counties in Ohio. Across all 19 states, the county-specific proportions of children with elevated BLLs ranged from 0.5% to 27.3%, indicating a concentrated proportion of elevated BLLs in specific populations or geographic areas.

Reported by: JP Lofgren, MD, State Epidemiologist, Alabama Dept of Public Health. M Macias, MHS, Childhood Lead Poisoning Prevention Program, Colorado Dept of Health. S Russakow, Childhood Lead Poisoning Prevention Program, Connecticut Dept of Public Health. R Gergely, B McPartland, Childhood Lead Poisoning Prevention Program, Iowa Dept of Public Health. M Amrich, Childhood Lead Poisoning Prevention Program, Maine Dept of Human Svcs; J Krueger, Maine Health and Environmental Testing Laboratory. M Silverman, I Caceres, MS, Childhood Lead Poisoning Prevention Program, Massachusetts Dept of Health. Michigan Dept of Public Health. J Wooldridge, D Symonik, MS, M Falken, PhD, Childhood Lead Poisoning Prevention Program, Minnesota Dept of Health. M Stout, Butte Silver-Bow County Health Dept, Mt. Lead; T Krantz, Montana Dept of Public Health and Human Svcs. T Ward, E Norman, MPH, Childhood Lead Poisoning Prevention Program, Dept of Environment and Natural Resources, Div of Environmental Health, North Carolina. N Twitchell, C Eccleston, Childhood Lead Poisoning Prevention Program, New Hampshire Dept of Health and Human Svcs. J Raucci, Childhood Lead Poisoning Prevention Program, New York State Dept of Health. T Alexander, I Stevens-Dickerson, MSA, Childhood Lead Poisoning Prevention Program, Ohio

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Dept of Health. JT Braggio, PhD, A Fletcher, Childhood Lead Poisoning Prevention Program, Oklahoma Dept of Health. W Ball, PhD, Childhood Lead Poisoning Prevention Program, Utah Dept of Health. S Lynn, Childhood Lead Poisoning Prevention Program, Vermont Dept of Health. M Mueller, MES, Lead Surveillance Program, Washington State Dept of Health. MJ Coons, MS, Childhood Lead Poisoning Prevention Program, Wisconsin Div of Public Health. T Klietz, K Musgrave, State Epidemiologist, Wyoming Dept of Health. Lead Poisoning Prevention Br, Div of Environmental Hazards and Health Effects, National Center for Environmental Health; Div of Health Examination Statistics, National Center for Health Statistics, CDC.

Editorial Note: The findings in this report indicate that average BLLs of U.S. children aged 1–5 years have declined from the early 1990s to 1999. Because of the limited sample size of a single year of NHANES 1999 compared with that of the multiple years of NHANES III, additional data are necessary to confirm this trend. The dramatic decline in BLLs from the late 1970s through the early 1990s resulted primarily from the phase-out of leaded gasoline and the resulting decrease in lead emissions, although other exposures also decreased (*3*). Although air lead levels and lead emissions continued to decrease during the 1990s, most of this decline occurred before 1995 (*5*). The primary remaining sources of childhood lead exposure are deteriorated leaded paint and the soil and dust it contaminates in old housing. The construction of new housing and the demolition and rehabilitation of older housing may be contributing to a continued decline in BLLs. Data from NHANES III, Phase 2 showed that low-income children living in older housing had more than a 30-fold greater prevalence of BLLs ≥10 µg/dL than do middle-income children in newer housing (*4*). From 1993 to 1997, the number of low-income children living in pre-1940s and 1940–1974 housing declined by 31% and 14%, respectively. The number of low-income children living in post-1974 housing increased by 5% (*6*).

Despite the overall decline in average BLLs, CBLS data show that the risk for elevated BLLs in children tested remains high in some counties and varies greatly among and within states. This variation most likely reflects geographic variation in the prevalence of risk factors for elevated BLLs such as residence in older housing and poverty.

The findings in this report are subject to at least four limitations. First, the small NHANES 1999 sample does not permit observing risks in specific subgroups or geographic areas, but it provides a nationally representative estimate of BLLs in children. The CBLS data set provides local information but is limited to children who receive clinical or diagnostic blood lead testing. Second, because CDC guidelines recommend the use of blood lead data and census data to target screening efforts in populations at increased risk for lead exposure, the proportion of children with elevated BLLs is higher in CBLS data than would be expected in NHANES 1999. Third, the guidelines for testing children vary by state, and adherence to the guidelines varies by health-care provider. Finally, CBLS data include samples collected by fingerstick, which can slightly overestimate the blood lead result, and venous samples and results obtained by different laboratories. Despite these differences, the temporal trends in BLLs are similar between the CBLS and NHANES data sets.

One of the national health objectives for 2010 is the elimination of childhood lead poisoning (*7*). Data in this report document continued progress toward this goal but also show the ongoing need to target prevention efforts at communities and populations at highest risk. CDC recommends that state health agencies target screening efforts by using blood lead surveillance data, census data, Medicaid data, and other sources of information on risk factors such as housing age and poverty (*8,9*). Other federal agencies, including the U.S. Department of Housing and Urban Development and the U.S.

Blood Lead Levels — Continued

Environmental Protection Agency, also are implementing targeted strategies to prevent lead exposure. State blood lead surveillance systems play a key role in targeting and monitoring federal, state, and local prevention efforts. CDC encourages additional states to conduct surveillance for elevated BLLs in children.

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Notice to Readers

Public Health Service Recommendations for the Use of Vaccines Manufactured with Bovine-Derived Materials

The Center for Biologics Evaluation and Research (CBER), U.S. Food and Drug Administration (FDA) learned earlier this year that some vaccines were manufactured with bovine-derived materials obtained from countries in which bovine spongiform encephalopathy (BSE) or a substantial risk for BSE exists. A list of these countries is published by the U.S. Department of Agriculture (USDA).* This information was of concern because cases of variant Creutzfeldt-Jakob disease (vCJD) have been attributed to, among other possibilities, eating beef products from cattle infected with the agent of BSE. No evidence exists that cases of vCJD are related to the use of vaccines, and no cases of vCJD have been reported in the United States.

CBER assessed the risk for vCJD from vaccines manufactured with processes that use bovine materials potentially contaminated with the BSE agent. On July 27, 2000, CBER convened a joint meeting of the Transmissible Spongiform Encephalopathy Advisory Committee and the Vaccines and Related Biological Products Advisory Committee to review the results of these assessments and make recommendations about the use and manufacture of these vaccines. The committees concluded that the risk for vCJD

*9 CFR, part 94.

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posed by vaccines in the scenarios presented was theoretical and remote. This conclusion was based on the inherent low risk of the bovine materials involved (e.g., type and amount of tissue[s] used, specific time and country, or herd of origin) and/or the dilutions of materials during manufacture. The committees concluded that the benefits of vaccination outweigh any remote risks for vCJD.

As a precautionary measure, the committees recommended that vaccines manufactured with bovine-derived materials from countries on the USDA list be replaced with bovine-derived materials from other countries. This recommendation, which is consistent with existing FDA guidance first issued in 1993 on the sourcing of bovine-derived materials, is intended to reduce even the remote risk for vCJD from vaccines. The committees also recommended that FDA provide information to the public about the safety of vaccines made with materials from countries in which BSE or BSE risk exists.

FDA has requested that manufacturers replace bovine-derived materials obtained from countries on the USDA list with materials obtained from countries not on the USDA list. All of the affected manufacturers have agreed to implement these changes or have already done so. FDA anticipates that most of these changes will be completed in 2001.

The Public Health Service (PHS) recommends that all persons continue to be vaccinated according to current schedules. PHS has no preference for using one licensed vaccine product over another based on the source of bovine-derived materials used in vaccine production. Failure to obtain the recommended vaccinations with licensed vaccines poses a risk for serious disease.

Additional information about BSE or vaccines manufactured with bovine-derived materials from countries on the USDA list can be obtained from the FDA World-Wide Web site, http://www.fda.gov/cber/BSE/BSE.htm[†], or from CBER's Office of Communications, Training and Manufacturers Assistance, telephone (800) 835-4709.

[†] References to sites of non-CDC 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.

Notice to Readers

Availability and Use of Parenteral Quinidine Gluconate for Severe or Complicated Malaria

Since 1991, quinidine gluconate, a class 1a anti-arrhythmic agent, has been the only parenteral antimalarial available for use in the United States (*1*). It is indicated for the treatment of patients with life-threatening *Plasmodium falciparum* malaria (*2*), including those who cannot tolerate oral therapy, have high-grade parasitemia, or have complications (e.g., cerebral malaria or acute renal failure) (*3,4*).

The limited availability of and delays in obtaining quinidine gluconate have contributed to adverse patient outcomes (*5–7*). As newer anti-arrhythmics have replaced quinidine for many cardiac indications, some hospitals and other health-care facilities have dropped quinidine gluconate from their formularies and, as a result, fewer clinicians have had experience using the drug. Discussions among quinidine gluconate manufacturer Eli Lilly Company (Indianapolis, Indiana), CDC, the U.S. Department of Defense, and the U.S. Food and Drug Administration have resulted in the following recommendations

Notices to Readers — Continued

to improve quinidine gluconate availability for acutely ill malaria patients in U.S. health-care facilities:

1. Before an acute need arises, hospital drug services should consider maintaining or adding quinidine gluconate to formularies or should be able to immediately locate a nearby source.
2. Pharmacists and clinicians requiring quinidine gluconate in hospitals in which an immediate source cannot be located should contact their local or regional distributor to request quinidine gluconate.
3. In clinical settings in which the need for the drug is more acute than can be met by the local or regional distributor, pharmacists and clinicians should contact Eli Lilly Company, telephone, (800) 821-0538 to arrange a rapid shipment of the drug. This telephone number, or an alternate number given to callers, is staffed 24 hours a day, 7 days a week.
4. If further assistance is needed in obtaining quinidine gluconate or in managing patients with malaria, contact CDC's malaria hotline, (770) 488-7788 (Monday–Friday, 8 a.m. to 4:30 p.m. eastern standard time). After business hours, weekends, and holidays, contact CDC's security station, telephone, (404) 639-2888 and ask to have the on-call person for malaria questions paged.

The following dosing recommendations for quinidine gluconate administration are provided for pharmacists and clinicians treating patients with severe or complicated malaria:

- Quinidine gluconate intravenous should be administered in a monitored setting. Prolongation of the QT interval as indicated by an electrocardiogram, ventricular arrhythmia, hypotension, and hypoglycemia can result from the use of this drug at treatment doses.
- Quinidine gluconate for malaria is administered as an initial intravenous loading dose of 10 mg/kg salt (equivalent to 6.25 mg/kg quinidine base) infused over 1–2 hours. Quinidine gluconate is administered subsequently as a continuous infusion of 20 µg/kg/min quinidine gluconate salt (equivalent to 12.5 µg/kg/min quinidine base) (*2*).
- An alternative regimen is an intravenous loading dose of 24 mg/kg quinidine salt (equivalent to 15 mg/kg quinidine base) infused over 4 hours, followed by a maintenance infusion of 12 mg/kg of quinidine gluconate salt (equivalent to 7.5 mg/kg quinidine base) infused over 4 hours every 8 hours, starting 8 hours after the loading dose (*2*). These regimens have been shown to be effective with or without concomitant exchange transfusion (*2*).
- The risk for serious ventricular arrhythmia associated with quinidine is increased by bradycardia, hypokalemia, and hypomagnesemia (*2*). When determining whether a patient should receive a bolus dose, previous administration of other drugs that can prolong the QT interval (e.g., quinine, halofantrine, and mefloquine) should be considered.
- No alternatives to quinidine exist for patients in the United States who require intravenous therapy for malaria. Acute cardiac events can be minimized by careful calculation of the loading dose and infusion rate. Consulting a cardiologist may be helpful when attempting to resume infusion in the patient who has experienced QT prolongation or hypotension associated with intravenous quinidine infusion.
- Consulting a physician with experience in treating malaria is advised.

Notices to Readers — Continued

References

1. CDC. Treatment with quinidine gluconate of persons with severe *Plasmodium falciparum* infection: discontinuation of parenteral quinine from CDC drug service. MMWR 1991;40(no. RR-4):21–3.
2. Quinidine gluconate injection [package insert]. Indianapolis, Indiana: Eli Lilly Company, February 2000.
3. Zucker JR, Campbell CC. Malaria: principles of prevention and treatment. Infect Dis Clin No Am 1993;7:547–67.
4. Miller KD, Greenberg AE, Campbell CC. Treatment of severe malaria in the United States with a continuous infusion of quinidine gluconate and exchange transfusion. N Engl J Med 1989;321:65–70.
5. Rosenthal PJ, Petersen C, Geertsma FR, et al. Availability of intravenous quinidine for falciparum malaria [Letter]. N Engl J Med 1996;335:138.
6. Humar A, Sharma S, Zoutman D, et al. Fatal falciparum malaria in Canadian travelers. Can Med Assoc J 1997;156:1165–7.
7. CDC. Availability of parenteral quinidine gluconate for treatment of severe or complicated malaria. MMWR 1996;45:494–5.

Notice to Readers

Availability of *MMWR* Mirror Website in Spain

CDC, in collaboration with the Toxic Oil Syndrome Research Centre (CISAT) of the Institute of Health Carlos III, Madrid, Spain, has established a *MMWR* mirror website in Spain. The website was developed to reduce the delay caused by transoceanic electronic transfers of large documents and to increase access to information published in *MMWR* for European public health practitioners. The mirror website is updated simultaneously with the posting of new reports on the *MMWR* website (http://www.cdc.gov/mmwr). The address for the CISAT *MMWR* mirror website is http://cisat.isciii.es/mmwr. The website also hosts a mirror site from the Agency for Toxic Substances and Disease Registry (ATSDR). This mirror site can be found at http://cisat1.isciii.es/atsdr. Other features of the website include information on environmental health problems and rare diseases in Spanish.

CISAT is a part of the WHO Collaborating Centre for the Clinical Epidemiology of Environmental Diseases and has established agreements with CDC/ATSDR and the University of Pittsburgh. Support of the *MMWR* mirror website is part of a larger effort undertaken by CISAT to create a comprehensive environmental health information site.

Notice to Readers

Epidemiology in Action: Intermediate Methods

CDC and Emory University's Rollins School of Public Health will co-sponsor a course, "Epidemiology in Action: Intermediate Methods" during February 26–March 2, 2001, at Emory University. The course is designed for state and local public health professionals.

Notices to Readers — Continued

The course will review the fundamentals of descriptive epidemiology and biostatistics, analytic epidemiology and computers as used in epidemiology but will focus on mid-level epidemiologic methods directed at strengthening participants' quantitative skills, with an emphasis on up-to-date data analysis. Topics include field investigations, advanced measures of association, normal and binomial distributions, logistic regression, and additional statistical methods. Prerequisite is an introductory course in epidemiology, such as Epidemiology in Action, International Course in Applied Epidemiology or any other introductory class. There is a tuition charge.

Deadline for applications is January 15. Additional information and applications are available from Emory University, Rollins School of Public Health, International Health Dept. (PIA), 1518 Clifton Road, N.E., Room 746, Atlanta, GA 30322; telephone (404) 727-3485; fax (404) 727-4590; or email pvaleri@sph.emory.edu.

Notice to Readers

Epi Info 2000: A Course for Teachers of Epidemiologic Computing

CDC and Emory University's Rollins School of Public Health will co-sponsor a course, "Epi Info 2000: A Course for Teachers of Epidemiologic Computing" during March 12–15, 2001, at Emory University. The course is designed for teachers of epidemiologic computing with intermediate to advanced skills in computing.

The 4-day course covers hands-on experience with the new Windows® version of Epi Info, programming Epi Info software at the intermediate to advanced level, methods of teaching epidemiologic computing, computerized interactive exercises for teaching epidemiology, and computing. There is a tuition charge.

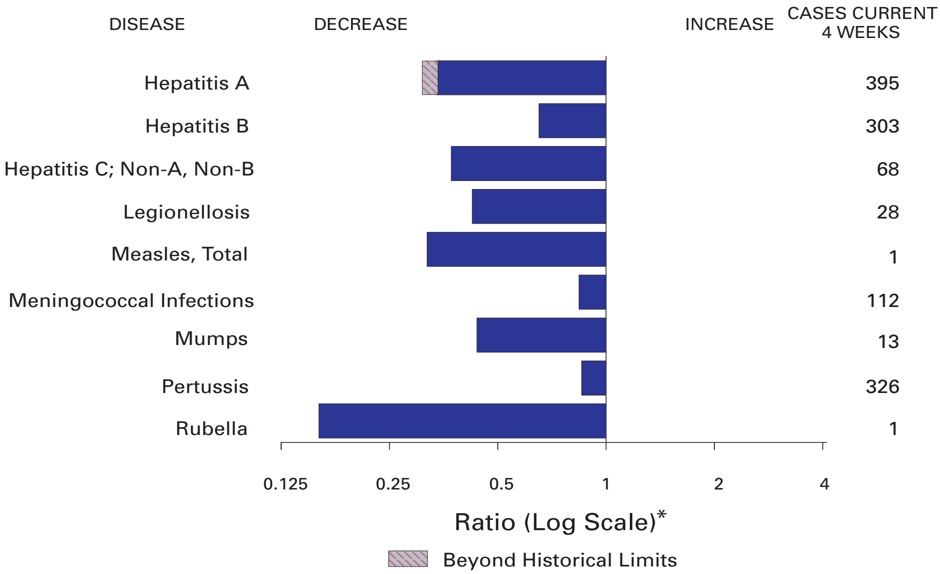
Deadline for applications is February 1. Additional information and applications are available from Emory University, Rollins School of Public Health, International Health Dept. (PIA), 1518 Clifton Road, N.E., Room 746, Atlanta, GA 30322; telephone (404) 727-3485; fax (404) 727-4590; or email pvaleri@sph.emory.edu.

Notice to Readers

Combined Issues of *MMWR*

A December 29, 2000, issue of *MMWR* will not be published. The next issue will be Volume 49, Numbers 51 and 52, dated January 5, 2001. It will include the figures and tables of notifiable diseases and deaths for the weeks ending December 23, 2000, and December 30, 2000.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending December 16, 2000, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending December 16, 2000 (50th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	Poliomyelitis, paralytic	-
Brucellosis*	61	Psittacosis*	10
Cholera	2	Q fever*	21
Cyclosporiasis*	38	Rabies, human	2
Diphtheria	2	Rocky Mountain spotted fever (RMSF)	416
Ehrlichiosis: human granulocytic (HGE)*	178	Rubella, congenital syndrome	6
human monocytic (HME)*	98	Streptococcal disease, invasive, group A	2,619
Encephalitis: California serogroup viral*	109	Streptococcal toxic-shock syndrome*	70
eastern equine*	2	Syphilis, congenital¶	257
St. Louis*	3	Tetanus	26
western equine*	-	Toxic-shock syndrome	122
Hansen disease (leprosy)*	63	Trichinosis	15
Hantavirus pulmonary syndrome*†	30	Tularemia*	110
Hemolytic uremic syndrome, postdiarrheal*	185	Typhoid fever	311
HIV infection, pediatric*§	203	Yellow fever	-
Plague	6		

-: 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).
§ 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 November 26, 2000.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 16, 2000, and December 18, 1999 (50th Week)

							Escherichia coli O157:H7*			
	AIDS		Chlamydia†		Cryptosporidiosis		NETSS		PHLIS	
Reporting Area	Cum. 2000§	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	36,091	40,781	623,458	629,947	2,491	2,580	4,311	3,865	3,206	2,690
NEW ENGLAND	1,884	2,070	20,396	20,437	104	185	383	401	367	363
Maine	38	75	1,368	1,009	20	31	31	39	28	-
N.H.	31	46	1,004	944	23	19	39	35	35	34
Vt.	37	16	507	469	27	36	36	32	34	21
Mass.	1,137	1,319	8,586	8,588	30	71	163	176	168	187
R.I.	95	96	2,409	2,251	4	6	19	27	18	26
Conn.	546	518	6,522	7,176	-	22	95	92	84	95
MID. ATLANTIC	7,705	10,462	54,597	63,488	182	597	405	598	281	161
Upstate N.Y.	705	1,196	N	N	128	174	296	516	72	14
N.Y. City	3,929	5,574	23,185	25,903	11	256	12	17	13	18
N.J.	1,592	1,922	8,093	11,967	12	52	97	65	109	71
Pa.	1,479	1,770	23,319	25,618	31	115	N	N	87	58
E.N. CENTRAL	3,442	2,810	102,284	106,620	795	627	986	975	589	527
Ohio	546	462	23,724	28,285	260	66	272	250	220	219
Ind.	352	317	12,648	11,595	58	41	133	104	83	67
Ill.	1,693	1,345	27,498	31,316	7	87	188	497	21	89
Mich.	652	552	25,179	21,439	96	52	137	124	104	83
Wis.	199	134	13,235	13,985	374	381	256	N	161	69
W.N. CENTRAL	813	934	34,314	36,573	356	198	687	523	595	543
Minn.	160	177	7,129	7,238	131	75	236	167	211	186
Iowa	86	75	4,579	4,784	75	55	180	112	147	80
Mo.	368	449	10,975	12,913	33	26	103	46	97	68
N. Dak.	3	6	750	909	16	18	21	17	20	18
S. Dak.	7	15	1,776	1,509	15	7	56	47	58	62
Nebr.	68	62	3,343	3,410	77	15	63	102	45	113
Kans.	121	150	5,762	5,810	9	2	28	32	17	16
S. ATLANTIC	10,157	11,255	122,481	131,464	467	373	369	332	270	188
Del.	199	158	2,760	2,674	6	-	1	6	1	3
Md.	1,197	1,339	12,946	12,533	13	17	32	42	1	4
D.C.	785	636	3,067	N	20	7	1	1	U	U
Va.	764	777	15,053	13,392	18	27	77	75	61	62
W. Va.	60	64	1,534	1,736	3	3	15	16	13	11
N.C.	667	741	20,654	21,234	28	34	90	74	68	52
S.C.	755	917	9,032	17,998	-	-	21	20	14	14
Ga.	1,117	1,585	25,728	31,300	170	136	42	35	36	3
Fla.	4,613	5,038	31,707	30,597	209	149	90	63	76	39
E.S. CENTRAL	1,809	1,788	47,219	44,413	49	46	147	141	112	104
Ky.	186	256	7,802	7,145	7	7	40	49	32	35
Tenn.	771	704	14,457	13,878	11	13	61	55	52	44
Ala.	457	444	13,946	12,276	16	15	11	28	9	21
Miss.	395	384	11,014	11,114	15	11	35	9	19	4
W.S. CENTRAL	3,708	4,159	96,162	90,166	123	90	182	140	233	164
Ark.	172	186	5,355	5,764	14	2	57	15	38	14
La.	649	814	17,285	15,863	10	24	9	14	53	14
Okla.	320	125	8,776	7,973	17	13	19	38	17	30
Tex.	2,567	3,034	64,746	60,566	82	51	97	73	125	106
MOUNTAIN	1,322	1,605	34,774	31,714	174	100	431	328	283	242
Mont.	14	13	1,385	1,496	10	13	31	25	-	-
Idaho	20	22	1,816	1,713	23	8	74	68	35	43
Wyo.	9	11	769	757	5	1	21	16	10	17
Colo.	300	290	8,490	5,998	72	14	162	112	111	88
N. Mex.	140	82	4,279	4,843	21	42	23	13	16	7
Ariz.	427	816	12,190	11,799	11	13	54	36	41	24
Utah	137	141	2,150	2,085	28	N	52	35	70	48
Nev.	275	230	3,695	3,023	4	9	14	23	-	15
PACIFIC	5,251	5,698	111,231	105,072	241	364	721	427	476	398
Wash.	480	336	12,606	11,612	N	N	222	164	200	180
Oreg.	171	208	5,140	5,857	21	98	156	68	114	69
Calif.	4,479	5,047	88,299	82,700	220	266	298	180	150	136
Alaska	22	14	2,343	1,817	-	-	30	1	1	1
Hawaii	99	93	2,843	3,086	-	-	15	14	11	12
Guam	15	18	-	468	-	-	N	N	U	U
P.R.	1,245	1,180	3,122	U	-	-	7	9	U	U
V.I.	32	35	U	U	U	U	U	U	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	U	U	U	U	U	U	U

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

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

† Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 26, 2000.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending December 16, 2000, and December 18, 1999 (50th Week)

Reporting Area	Gonorrhea Cum. 2000§	Gonorrhea Cum. 1999	Hepatitis C; Non-A, Non-B Cum. 2000	Hepatitis C; Non-A, Non-B Cum. 1999	Legionellosis Cum. 2000	Legionellosis Cum. 1999	Listeriosis Cum. 2000	Lyme Disease Cum. 2000	Lyme Disease Cum. 1999
UNITED STATES	325,596	347,165	2,838	2,839	913	1,004	647	12,874	15,127
NEW ENGLAND	5,722	6,414	16	16	51	78	56	4,313	4,465
Maine	84	78	2	2	2	3	2	-	41
N.H.	103	111	-	-	3	8	4	62	22
Vt.	63	50	4	7	5	14	3	38	23
Mass.	2,346	2,381	4	4	16	27	27	1,098	780
R.I.	611	572	6	3	8	12	1	590	499
Conn.	2,515	3,222	-	-	17	14	19	2,525	3,100
MID. ATLANTIC	34,181	38,472	611	123	201	242	151	6,592	8,138
Upstate N.Y.	6,862	6,558	65	59	90	62	82	3,766	3,913
N.Y. City	10,140	11,827	-	-	-	43	29	105	134
N.J.	5,443	7,565	510	-	15	21	21	1,448	1,693
Pa.	11,736	12,522	36	64	96	116	19	1,273	2,398
E.N. CENTRAL	61,766	67,164	214	888	238	265	113	325	579
Ohio	14,321	17,443	12	4	111	81	58	88	44
Ind.	5,991	6,072	1	1	39	46	8	32	19
Ill.	18,467	22,323	19	47	9	31	11	11	17
Mich.	17,347	14,873	182	820	50	64	31	-	11
Wis.	5,640	6,453	-	16	29	43	5	194	488
W.N. CENTRAL	15,724	16,087	432	301	57	56	14	421	340
Minn.	2,784	2,741	7	10	7	13	5	322	219
Iowa	1,086	1,208	2	-	14	14	2	32	22
Mo.	7,584	7,937	406	287	25	18	5	44	71
N. Dak.	53	79	1	1	-	2	2	2	1
S. Dak.	270	191	-	-	2	3	-	-	-
Nebr.	1,320	1,419	6	3	4	6	-	4	11
Kans.	2,627	2,512	10	-	5	-	-	17	16
S. ATLANTIC	90,154	101,279	124	156	189	148	104	974	1,288
Del.	1,671	1,615	-	-	10	19	2	140	159
Md.	9,003	9,635	18	21	64	35	22	530	874
D.C.	2,666	3,462	3	1	6	4	-	11	6
Va.	9,891	9,153	3	11	33	40	8	146	118
W. Va.	494	548	16	17	N	N	5	34	18
N.C.	16,844	18,893	20	33	16	15	-	46	74
S.C.	11,071	14,479	3	22	6	11	9	17	6
Ga.	16,814	21,560	3	1	7	3	21	-	-
Fla.	21,700	21,934	58	50	47	21	37	50	33
E.S. CENTRAL	33,995	35,316	427	331	37	50	20	47	99
Ky.	3,411	3,250	35	25	20	22	3	12	18
Tenn.	11,469	11,120	99	117	12	22	13	28	57
Ala.	10,959	10,857	8	1	4	4	4	6	20
Miss.	8,156	10,089	285	188	1	2	-	1	4
W.S. CENTRAL	50,947	51,408	442	572	18	34	16	45	58
Ark.	2,920	3,159	9	28	-	1	1	4	5
La.	12,870	12,672	308	299	6	11	-	4	9
Okla.	3,968	3,905	10	16	5	4	7	1	8
Tex.	31,189	31,672	115	229	7	18	8	36	36
MOUNTAIN	9,568	9,258	396	220	47	48	38	30	16
Mont.	53	53	5	5	2	-	-	-	-
Idaho	89	82	3	8	5	3	-	3	3
Wyo.	52	35	303	76	2	-	1	9	3
Colo.	2,688	2,469	30	37	16	13	9	11	3
N. Mex.	958	943	16	34	1	1	2	-	1
Ariz.	4,050	4,185	21	46	8	7	17	-	2
Utah	230	230	2	6	12	18	4	3	2
Nev.	1,448	1,261	16	8	1	6	5	4	2
PACIFIC	23,539	21,767	176	232	75	83	135	127	144
Wash.	2,290	2,047	32	21	19	21	7	9	10
Oreg.	766	857	27	21	N	N	6	15	15
Calif.	19,772	18,129	115	190	56	60	119	101	119
Alaska	335	292	-	-	-	1	-	2	-
Hawaii	376	442	2	-	-	1	3	N	N
Guam	-	55	-	2	-	-	-	-	-
P.R.	577	313	1	-	1	-	-	N	N
V.I.	U	U	U	U	U	U	-	U	U
Amer. Samoa	U	U	U	U	U	U	-	U	U
C.N.M.I.	U	U	U	U	U	U	-	U	U

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

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending December 16, 2000, and December 18, 1999 (50th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis* NETSS		Salmonellosis* PHLIS	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	1,220	1,458	5,736	6,396	35,788	37,641	29,879	32,019
NEW ENGLAND	65	64	801	867	2,132	2,176	2,124	2,195
Maine	6	3	130	171	123	131	91	104
N.H.	1	2	21	45	140	137	135	135
Vt.	3	4	57	88	108	92	114	82
Mass.	27	22	268	221	1,203	1,180	1,189	1,196
R.I.	8	5	61	95	137	129	156	160
Conn.	20	28	264	247	421	507	439	518
MID. ATLANTIC	262	415	1,112	1,267	3,938	5,261	4,356	5,137
Upstate N.Y.	81	71	799	896	1,190	1,367	1,246	1,332
N.Y. City	114	246	U	U	946	1,418	866	1,469
N.J.	36	56	193	179	820	1,188	821	1,093
Pa.	31	42	120	192	982	1,288	1,423	1,243
E.N. CENTRAL	120	167	162	167	5,036	5,274	3,375	4,590
Ohio	22	18	52	36	1,530	1,267	1,350	1,066
Ind.	6	22	15	13	623	526	567	472
Ill.	46	76	22	10	1,383	1,566	176	1,531
Mich.	32	41	67	87	869	967	898	948
Wis.	14	10	6	21	631	948	384	573
W.N. CENTRAL	61	74	525	711	2,324	2,201	2,388	2,347
Minn.	27	41	90	110	554	555	638	691
Iowa	2	13	78	149	351	248	312	224
Mo.	15	14	50	31	682	735	877	855
N. Dak.	2	-	115	141	61	51	74	62
S. Dak.	1	-	90	176	99	93	105	118
Nebr.	7	1	2	4	215	189	94	172
Kans.	7	5	100	100	362	330	288	225
S. ATLANTIC	327	342	2,325	2,078	7,989	8,542	5,265	6,340
Del.	5	1	49	56	110	163	137	154
Md.	117	97	401	389	803	831	729	871
D.C.	16	18	-	-	63	72	U	U
Va.	50	71	554	561	983	1,226	839	1,019
W. Va.	4	4	112	108	171	168	148	150
N.C.	36	33	551	430	1,120	1,295	1,072	1,282
S.C.	2	15	155	133	740	650	540	505
Ga.	30	29	344	231	1,477	1,508	1,549	1,663
Fla.	67	74	159	170	2,522	2,629	251	696
E.S. CENTRAL	47	27	199	252	2,356	2,188	1,656	1,448
Ky.	18	7	21	35	376	405	259	291
Tenn.	12	9	102	93	656	571	755	581
Ala.	16	7	76	122	664	595	521	479
Miss.	1	4	-	2	660	617	121	97
W.S. CENTRAL	20	61	77	482	3,962	3,674	4,024	2,748
Ark.	3	3	20	14	704	651	587	254
La.	8	10	-	-	262	714	753	603
Okla.	9	2	57	91	390	446	279	346
Tex.	-	46	-	377	2,606	1,863	2,405	1,545
MOUNTAIN	52	44	247	215	2,797	2,941	2,154	2,555
Mont.	1	4	65	59	95	82	-	1
Idaho	4	3	9	5	128	127	97	97
Wyo.	-	1	55	44	68	69	51	59
Colo.	25	18	-	1	692	710	654	693
N. Mex.	-	3	21	9	235	361	182	287
Ariz.	9	7	78	81	841	874	719	804
Utah	6	4	10	8	489	527	451	565
Nev.	7	4	9	8	249	191	-	49
PACIFIC	266	264	288	357	5,254	5,384	4,537	4,659
Wash.	33	27	-	-	576	651	670	821
Oreg.	41	21	7	4	300	409	348	461
Calif.	181	203	258	345	4,085	3,942	3,270	3,070
Alaska	-	1	23	8	61	53	23	32
Hawaii	11	12	-	-	232	329	226	275
Guam	-	1	-	-	-	37	U	U
P.R.	5	1	80	70	620	630	U	U
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

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

* Individual cases can 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 December 16, 2000, and December 18, 1999 (50th Week)

Reporting Area	Shigellosis* NETSS Cum. 2000	Shigellosis* NETSS Cum. 1999	Shigellosis* PHLIS Cum. 2000	Shigellosis* PHLIS Cum. 1999	Syphilis (Primary & Secondary) Cum. 2000	Syphilis (Primary & Secondary) Cum. 1999	Tuberculosis Cum. 2000	Tuberculosis Cum. 1999
UNITED STATES	20,051	16,099	10,291	9,725	5,733	6,433	12,302	14,967
NEW ENGLAND	383	863	369	833	72	58	409	420
Maine	10	5	12	-	1	-	12	20
N.H.	6	18	8	17	2	1	17	16
Vt.	4	6	-	4	-	3	4	3
Mass.	267	736	247	715	47	35	256	231
R.I.	29	31	36	28	4	3	31	42
Conn.	67	67	66	69	18	16	89	108
MID. ATLANTIC	2,006	1,092	1,325	722	259	290	2,220	2,479
Upstate N.Y.	760	281	211	74	15	19	284	307
N.Y. City	716	346	470	233	118	128	1,195	1,273
N.J.	337	270	384	234	48	67	535	520
Pa.	193	195	260	181	78	76	206	379
E.N. CENTRAL	3,750	3,169	1,197	1,754	1,123	1,200	1,294	1,588
Ohio	409	410	309	141	69	90	263	265
Ind.	1,506	334	147	113	345	427	109	132
Ill.	963	1,295	103	973	350	412	628	782
Mich.	642	507	579	453	315	230	214	310
Wis.	230	623	59	74	44	41	80	99
W.N. CENTRAL	2,369	1,184	1,884	793	59	129	473	515
Minn.	774	233	837	251	13	9	165	190
Iowa	522	68	316	58	11	9	35	54
Mo.	633	697	462	349	27	93	192	178
N. Dak.	51	3	49	2	-	-	5	6
S. Dak.	7	18	4	10	-	-	16	17
Nebr.	142	85	84	68	2	6	23	16
Kans.	240	80	132	55	6	12	37	54
S. ATLANTIC	2,925	2,363	1,110	525	1,918	2,040	2,598	3,070
Del.	23	15	23	10	8	8	14	26
Md.	204	160	115	58	289	337	239	258
D.C.	80	51	U	U	48	45	36	52
Va.	445	130	331	64	126	150	258	268
W. Va.	22	8	17	5	2	5	31	37
N.C.	385	206	265	92	469	449	390	482
S.C.	136	119	87	63	212	248	128	222
Ga.	257	230	167	83	370	435	555	568
Fla.	1,373	1,444	105	150	394	363	947	1,157
E.S. CENTRAL	1,134	1,182	525	677	851	1,114	852	999
Ky.	495	232	112	147	82	101	114	176
Tenn.	340	659	357	457	513	631	305	346
Ala.	98	117	49	62	122	202	296	295
Miss.	201	174	7	11	134	180	137	182
W.S. CENTRAL	2,893	2,602	2,606	1,162	802	1,022	1,022	1,766
Ark.	203	74	52	26	94	85	159	166
La.	138	217	191	134	204	300	74	245
Okla.	125	514	43	160	126	182	130	176
Tex.	2,427	1,797	2,320	842	378	455	659	1,179
MOUNTAIN	1,286	1,118	732	756	225	230	471	516
Mont.	8	10	-	-	-	1	17	13
Idaho	45	27	25	12	1	1	13	15
Wyo.	5	3	3	1	1	-	4	3
Colo.	266	198	196	156	11	4	70	75
N. Mex.	168	145	99	105	21	11	36	61
Ariz.	594	573	329	410	185	206	214	219
Utah	80	64	80	66	1	2	46	39
Nev.	120	98	-	6	5	5	71	91
PACIFIC	3,305	2,526	543	2,503	424	350	2,963	3,614
Wash.	447	121	405	111	67	65	236	239
Oreg.	163	94	105	86	6	7	25	104
Calif.	2,648	2,274	-	2,268	349	274	2,481	3,034
Alaska	8	4	3	4	-	1	96	59
Hawaii	39	33	30	34	2	3	125	178
Guam	-	19	U	U	-	-	-	70
P.R.	32	138	U	U	159	144	119	178
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

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

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending December 16, 2000, and December 18, 1999 (50th Week)

Reporting Area	*H. influenzae*, Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 2000[†]	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	1,168	1,170	11,963	15,786	6,417	6,662	-	61	-	18	79	94
NEW ENGLAND	102	97	352	340	97	139	-	3	-	4	7	11
Maine	2	8	21	14	5	1	-	-	-	-	-	-
N.H.	12	18	18	17	18	16	-	2	-	1	3	1
Vt.	10	5	10	19	6	4	-	-	-	3	3	-
Mass.	40	39	122	138	18	44	-	1	-	-	1	8
R.I.	4	6	25	26	22	33	-	-	-	-	-	-
Conn.	34	21	156	126	28	41	U	-	U	-	-	2
MID. ATLANTIC	183	198	1,071	1,140	836	865	-	14	-	5	19	5
Upstate N.Y.	98	81	220	264	137	176	-	9	-	-	9	2
N.Y. City	42	57	375	385	428	275	-	5	-	4	9	3
N.J.	33	53	100	145	57	135	-	-	-	-	-	-
Pa.	10	7	376	346	214	279	-	-	-	1	1	-
E.N. CENTRAL	150	194	1,497	2,867	693	687	-	9	-	-	9	4
Ohio	53	59	264	640	101	90	-	2	-	-	2	-
Ind.	30	25	119	102	46	42	-	-	-	-	-	2
Ill.	54	83	623	816	110	52	-	4	-	-	4	1
Mich.	10	20	478	1,235	435	473	-	3	-	-	3	1
Wis.	3	7	13	74	1	30	-	-	-	-	-	-
W.N. CENTRAL	74	75	699	1,025	526	347	-	3	-	2	5	1
Minn.	43	47	184	95	41	52	-	-	-	1	1	1
Iowa	1	2	65	141	32	41	-	2	-	-	2	-
Mo.	18	11	301	667	381	215	-	-	-	-	-	-
N. Dak.	4	1	4	3	2	2	-	-	-	-	-	-
S. Dak.	1	2	3	9	2	1	-	-	-	-	-	-
Nebr.	3	4	34	49	44	20	-	-	-	-	-	-
Kans.	4	8	108	61	24	16	-	1	-	1	2	-
S. ATLANTIC	292	251	1,505	1,815	1,299	1,097	-	4	-	-	4	20
Del.	-	-	-	2	-	1	-	-	-	-	-	-
Md.	75	68	221	299	120	145	-	-	-	-	-	-
D.C.	-	5	35	59	34	25	-	-	-	-	-	-
Va.	39	22	154	175	162	97	-	2	-	-	2	18
W. Va.	9	7	55	40	21	23	-	-	-	-	-	-
N.C.	23	36	149	160	246	212	-	-	-	-	-	-
S.C.	15	6	86	46	23	63	-	-	-	-	-	-
Ga.	70	68	289	452	222	166	-	-	-	-	-	-
Fla.	61	39	516	582	471	365	-	2	-	-	2	2
E.S. CENTRAL	51	67	383	394	456	465	-	-	-	-	-	2
Ky.	12	8	48	66	75	46	-	-	-	-	-	2
Tenn.	26	38	140	147	218	207	-	-	-	-	-	-
Ala.	12	18	57	60	56	86	-	-	-	-	-	-
Miss.	1	3	138	121	107	126	-	-	-	-	-	-
W.S. CENTRAL	58	61	2,224	2,962	706	1,104	-	-	-	-	-	12
Ark.	2	2	112	74	78	84	-	-	-	-	-	5
La.	11	15	60	212	93	171	-	-	-	-	-	-
Okla.	43	40	256	489	154	145	-	-	-	-	-	-
Tex.	2	4	1,796	2,187	381	704	-	-	-	-	-	7
MOUNTAIN	117	105	987	1,213	561	551	-	12	-	1	13	2
Mont.	1	3	7	17	7	17	-	-	-	-	-	-
Idaho	4	1	42	45	8	29	-	-	-	-	-	-
Wyo.	1	1	45	9	38	14	-	-	-	-	-	-
Colo.	21	14	207	215	110	98	-	2	-	1	3	-
N. Mex.	24	19	70	51	113	174	-	-	-	-	-	-
Ariz.	49	54	474	670	210	131	-	-	-	-	-	1
Utah	11	9	64	63	27	34	-	3	-	-	3	-
Nev.	6	4	78	143	48	54	-	7	-	-	7	1
PACIFIC	141	122	3,245	4,030	1,243	1,407	-	16	-	6	22	37
Wash.	8	8	279	387	113	76	-	2	-	1	3	5
Oreg.	29	41	177	244	120	114	-	-	-	-	-	12
Calif.	33	53	2,765	3,362	989	1,186	-	13	-	2	15	17
Alaska	45	9	11	13	10	16	-	1	-	-	1	-
Hawaii	26	11	13	24	11	15	-	-	-	3	3	3
Guam	-	-	-	1	-	4	U	-	U	-	-	1
P.R.	4	2	230	348	259	248	-	-	-	-	-	-
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.	U	U	U	U	U	U	U	U	U	U	U	U

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

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

[†]Of 242 cases among children aged <5 years, serotype was reported for 105 and of those, 23 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending December 16, 2000, and December 18, 1999 (50th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	1,966	2,243	4	308	364	68	6,368	6,400	-	151	249
NEW ENGLAND	122	108	-	4	9	6	1,566	861	-	13	7
Maine	8	5	-	-	-	-	45	-	-	-	-
N.H.	12	12	-	-	2	-	125	96	-	2	-
Vt.	3	5	-	-	1	4	244	86	-	-	-
Mass.	72	63	-	1	4	-	1,085	609	-	9	7
R.I.	9	7	-	1	2	2	22	38	-	1	-
Conn.	18	16	U	2	-	U	45	32	U	1	-
MID. ATLANTIC	189	222	-	24	44	2	616	1,020	-	9	35
Upstate N.Y.	65	71	-	11	12	2	313	764	-	2	21
N.Y. City	37	56	-	4	12	-	51	60	-	7	7
N.J.	44	50	-	3	2	-	42	27	-	-	4
Pa.	43	45	-	6	18	-	210	169	-	-	3
E.N. CENTRAL	350	396	-	30	51	4	725	654	-	1	2
Ohio	94	131	-	7	20	-	321	291	-	-	-
Ind.	48	64	-	1	5	3	119	82	-	-	1
Ill.	78	104	-	6	13	1	79	97	-	1	1
Mich.	104	61	-	16	9	-	124	70	-	-	-
Wis.	26	36	-	-	4	-	82	114	-	-	-
W.N. CENTRAL	149	222	1	19	14	16	585	484	-	3	130
Minn.	21	48	-	-	1	14	365	226	-	1	5
Iowa	34	38	-	7	8	-	55	95	-	-	30
Mo.	68	89	-	4	1	-	79	73	-	1	2
N. Dak.	2	4	-	-	1	-	7	18	-	-	-
S. Dak.	6	11	-	-	-	-	7	7	-	-	-
Nebr.	8	11	-	4	-	-	32	9	-	1	92
Kans.	10	21	1	4	3	2	40	56	-	-	1
S. ATLANTIC	308	380	2	48	49	11	503	430	-	95	37
Del.	1	10	-	-	-	-	9	6	-	1	-
Md.	26	53	-	10	6	7	122	119	-	-	1
D.C.	-	4	-	-	2	-	3	1	-	-	-
Va.	42	55	1	11	10	1	112	51	-	-	-
W. Va.	12	8	-	-	-	-	1	4	-	-	-
N.C.	36	47	-	7	8	-	110	101	-	82	36
S.C.	26	44	-	11	5	2	41	18	-	10	-
Ga.	47	61	-	2	4	-	40	40	-	-	-
Fla.	118	98	1	7	14	1	65	90	-	2	-
E.S. CENTRAL	130	156	1	8	15	1	106	111	-	5	2
Ky.	26	33	-	1	-	-	54	42	-	1	-
Tenn.	55	64	-	2	-	1	32	45	-	1	-
Ala.	36	36	1	3	11	-	19	21	-	3	2
Miss.	13	23	-	2	4	-	1	3	-	-	-
W.S. CENTRAL	131	207	-	31	46	1	338	215	-	6	15
Ark.	14	35	-	5	-	-	36	25	-	-	5
La.	35	66	-	4	11	-	12	9	-	1	-
Okla.	28	35	-	-	3	1	41	41	-	-	1
Tex.	54	71	-	22	32	-	249	140	-	5	9
MOUNTAIN	165	137	-	26	26	13	796	774	-	2	16
Mont.	6	4	-	1	-	-	35	2	-	-	-
Idaho	7	12	-	1	3	-	64	145	-	-	-
Wyo.	3	5	-	4	-	-	6	2	-	-	-
Colo.	34	36	-	2	6	-	457	287	-	1	1
N. Mex.	12	15	-	1	N	1	89	149	-	-	-
Ariz.	91	41	-	4	8	12	99	118	-	1	13
Utah	8	16	-	7	4	-	31	58	-	-	1
Nev.	4	8	-	6	5	-	15	13	-	-	1
PACIFIC	422	415	-	118	110	14	1,133	1,851	-	17	5
Wash.	64	65	-	11	2	12	416	645	-	7	-
Oreg.	75	76	N	N	N	-	113	60	-	-	-
Calif.	266	259	-	86	89	2	550	1,091	-	10	5
Alaska	9	7	-	7	3	-	22	5	-	-	-
Hawaii	8	8	-	14	16	-	32	50	-	-	-
Guam	-	1	U	-	3	U	-	2	U	-	-
P.R.	9	13	-	-	-	-	7	31	-	-	-
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	U	U	U	U	U	U	U	U	U	U

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

TABLE IV. Deaths in 122 U.S. cities,* week ending December 16, 2000 (50th Week)

Reporting Area	All Causes, By Age (Years)						P&I[†]
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	542	367	91	53	16	15	60
Boston, Mass.	150	69	28	32	11	10	18
Bridgeport, Conn.	45	38	4	2	-	1	3
Cambridge, Mass.	14	10	2	2	-	-	3
Fall River, Mass.	30	21	5	4	-	-	-
Hartford, Conn.	50	32	10	5	2	1	2
Lowell, Mass.	25	20	4	1	-	-	7
Lynn, Mass.	13	10	2	-	1	-	3
New Bedford, Mass.	26	24	2	-	-	-	3
New Haven, Conn.	45	31	11	-	1	2	5
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	2	2	-	-	-	-	-
Springfield, Mass.	55	42	8	3	1	1	3
Waterbury, Conn.	26	23	2	1	-	-	2
Worcester, Mass.	61	45	13	3	-	-	11
MID. ATLANTIC	2,250	1,589	462	136	36	24	134
Albany, N.Y.	37	30	5	1	1	-	3
Allentown, Pa.	15	13	2	-	-	-	1
Buffalo, N.Y.	99	76	16	5	2	-	12
Camden, N.J.	29	22	4	2	1	-	4
Elizabeth, N.J.	23	16	5	1	1	-	-
Erie, Pa.§	50	40	7	2	-	1	3
Jersey City, N.J.	52	30	17	3	1	1	-
New York City, N.Y.	1,191	833	259	74	13	10	55
Newark, N.J.	66	27	18	13	4	4	5
Paterson, N.J.	32	19	9	3	1	-	3
Philadelphia, Pa.	282	198	63	13	4	3	20
Pittsburgh, Pa.§	46	36	5	3	2	-	1
Reading, Pa.	34	26	4	2	-	2	5
Rochester, N.Y.	117	92	14	9	1	1	7
Schenectady, N.Y.	28	19	7	1	1	-	3
Scranton, Pa.§	29	26	2	1	-	-	2
Syracuse, N.Y.	92	61	22	3	4	2	4
Trenton, N.J.	3	3	-	-	-	-	3
Utica, N.Y.	25	22	3	-	-	-	3
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,113	1,483	399	136	51	44	143
Akron, Ohio	49	38	6	4	1	-	3
Canton, Ohio	42	32	7	2	1	-	6
Chicago, Ill.	354	241	65	28	11	9	25
Cincinnati, Ohio	170	118	44	6	1	1	12
Cleveland, Ohio	137	104	20	7	1	5	5
Columbus, Ohio	163	117	23	11	5	7	9
Dayton, Ohio	144	112	23	6	2	1	12
Detroit, Mich.	236	131	63	23	14	5	9
Evansville, Ind.	29	25	4	-	-	-	7
Fort Wayne, Ind.	63	42	19	1	1	-	6
Gary, Ind.	16	10	2	3	1	-	2
Grand Rapids, Mich.	71	54	6	6	2	3	5
Indianapolis, Ind.	205	138	43	15	5	4	18
Lansing, Mich.	28	21	3	3	-	1	1
Milwaukee, Wis.	115	81	21	8	1	4	12
Peoria, Ill.	50	35	10	4	-	1	2
Rockford, Ill.	62	49	9	2	1	1	2
South Bend, Ind.	U	U	U	U	U	U	U
Toledo, Ohio	100	78	13	6	2	1	5
Youngstown, Ohio	79	57	18	1	2	1	2
W.N. CENTRAL	838	611	135	55	19	18	59
Des Moines, Iowa	96	73	16	4	2	1	10
Duluth, Minn.	50	41	6	3	-	-	3
Kansas City, Kans.	25	16	7	2	-	-	2
Kansas City, Mo.	103	64	26	5	4	4	13
Lincoln, Nebr.	38	32	3	2	-	1	2
Minneapolis, Minn.	127	93	21	7	5	1	6
Omaha, Nebr.	97	77	13	4	2	1	10
St. Louis, Mo.	92	46	17	22	1	6	-
St. Paul, Minn.	112	95	11	2	2	2	6
Wichita, Kans.	98	74	15	4	3	2	7
S. ATLANTIC	1,289	868	266	102	35	17	79
Atlanta, Ga.	173	117	34	18	4	-	4
Baltimore, Md.	205	116	60	22	6	1	17
Charlotte, N.C.	102	77	14	7	4	-	9
Jacksonville, Fla.	171	111	37	15	3	4	7
Miami, Fla.	92	58	21	7	3	3	12
Norfolk, Va.	54	37	10	5	1	1	1
Richmond, Va.	56	39	13	3	-	1	5
Savannah, Ga.	40	31	6	1	-	2	4
St. Petersburg, Fla.	82	64	8	9	1	-	4
Tampa, Fla.	189	143	30	6	8	2	15
Washington, D.C.	100	57	26	9	5	3	1
Wilmington, Del.	25	18	7	-	-	-	-
E.S. CENTRAL	930	652	152	64	32	27	68
Birmingham, Ala.	167	118	31	11	2	2	16
Chattanooga, Tenn.	82	64	12	3	2	1	4
Knoxville, Tenn.	114	85	20	9	-	-	10
Lexington, Ky.	69	46	11	8	2	2	4
Memphis, Tenn.	185	134	16	7	12	16	11
Mobile, Ala.	98	72	12	8	5	1	5
Montgomery, Ala.	60	36	11	5	7	1	5
Nashville, Tenn.	155	97	39	13	2	4	13
W.S. CENTRAL	1,064	708	206	89	31	28	71
Austin, Tex.	98	68	16	11	3	-	10
Baton Rouge, La.	41	25	7	4	1	4	-
Corpus Christi, Tex.	54	42	7	1	2	2	4
Dallas, Tex.	183	122	28	25	3	5	14
El Paso, Tex.	67	45	11	7	1	3	3
Ft. Worth, Tex.	103	70	23	5	1	4	2
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	49	25	17	2	3	2	2
New Orleans, La.	71	42	9	11	4	3	14
San Antonio, Tex.	257	174	55	15	9	4	10
Shreveport, La.	15	12	2	-	-	1	4
Tulsa, Okla.	126	83	31	8	4	-	8
MOUNTAIN	956	646	183	66	32	28	65
Albuquerque, N.M.	U	U	U	U	U	U	U
Boise, Idaho	31	26	4	-	-	1	3
Colo. Springs, Colo.	81	46	17	13	3	2	6
Denver, Colo.	110	73	23	5	2	7	8
Las Vegas, Nev.	243	154	65	16	7	1	19
Ogden, Utah	26	20	4	2	-	-	1
Phoenix, Ariz.	200	133	33	13	9	11	10
Pueblo, Colo.	U	U	U	U	U	U	U
Salt Lake City, Utah	111	77	14	9	5	6	10
Tucson, Ariz.	154	117	23	8	6	-	8
PACIFIC	861	632	152	41	17	16	91
Berkeley, Calif.	U	U	U	U	U	U	U
Fresno, Calif.	U	U	U	U	U	U	U
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	59	49	7	2	-	1	2
Long Beach, Calif.	80	57	16	4	2	1	11
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	18	13	3	1	-	-	3
Portland, Oreg.	148	112	28	3	4	1	10
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	182	135	31	12	2	1	27
San Francisco, Calif.	144	97	28	9	4	5	18
San Jose, Calif.	U	U	U	U	U	U	U
Santa Cruz, Calif.	34	22	11	1	-	-	4
Seattle, Wash.	134	99	20	4	4	7	10
Spokane, Wash.	62	48	8	5	1	-	6
Tacoma, Wash.	U	U	U	U	U	U	U
TOTAL	10,843[¶]	7,556	2,046	742	269	217	770

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.

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
Scott Noldy
Carol A. Worsham

CDC Operations Team
Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Patsy A. Hall
Suzette A. Park
Felicia J. Perry
Pearl Sharp

Informatics

T. Demetri Vacalis, Ph.D.

Michele D. Renshaw
Erica R. Shaver

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