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# Nephrogenic Fibrosing Dermopathy Associated with Exposure to Gadolinium-Containing Contrast Agents — St. Louis, Missouri, 2002–2006

Nephrogenic fibrosing dermopathy (NFD) causes thickening and hardening of the skin, often in the extremities, and occurs in patients with underlying renal disease. The skin lesions can progress rapidly, sometimes leading to joint immobility and the inability to walk (1). In May 2006, nephrologists at hospital A in St. Louis, Missouri, reported to CDC and the Missouri Department of Health and Senior Services (MoDHSS) a cluster of NFD among patients treated in their dialysis units. CDC and MoDHSS conducted an investigation to determine the number of affected patients and identify risk factors for NFD. Thirty-three patients with NFD were identified in St. Louis, 28 of whom had been treated at hospital A. A matched case-control study was conducted at the hospital. This report summarizes the preliminary results of that study, which indicated that exposure to gadoliniumcontaining contrast agents during magnetic resonance imaging (MRI) studies was independently associated with NFD. Clinicians should be aware of the potential for NFD, and when possible, should avoid use of gadolinium-containing contrast agents in patients with advanced renal disease.

A confirmed case was defined as clinical findings (i.e., skin thickening or hardening) and skin biopsy findings consistent with NFD in a person with renal disease in St. Louis during January 2000–August 2006. Suspected cases met either the clinical or the biopsy criteria but not both. Hospital A staff members manually searched a logbook of dermatology biopsies to identify diagnoses consistent with NFD from January 2000 onward. Study investigators searched the hospital pathology database for diagnoses of NFD and potentially related diagnoses from the same period. Investigators searched for additional cases that would not have been identified at hospital A by contacting eight pathology referral centers in St. Louis and requesting information on all patients who had NFD diagnosed since January 2000.

Demographics, comorbid conditions, and medication data for case-patients and controls were collected from hospital A inpatient and outpatient medical records, which included information from hospital A admissions (including emergency department visits), outpatient dialysis and other clinic visits, and laboratory and radiology studies performed in the hospital A system. The maximum erythropoietin (epoetin alfa) dose received during the preceding 6 months and the dose received at the time of disease detection (for case-patients) or match date (for controls) were classified as high or low relative to the median weekly dose received by all patients in the study. Continuous variables were compared using the Wilcoxon ranksum test, and categorical variables were compared using a chi-square test or Fisher's exact test. Matched univariate odds ratios (ORs) were calculated. After adjusting for clinically relevant variables determined to be associated within the univariate analysis, multivariable ORs were calculated using a conditional logistic regression model.

The case-control study included confirmed cases from hospital A. Three controls per case-patient were selected randomly from a group of patients who were treated in the same hospital A dialysis clinic or treatment center on the same day that a case was diagnosed. These matched controls were required to have received dialysis for at least 4 weeks or to have had renal

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insufficiency (serum creatinine >2.5 mg/dL) for at least 6 months preceding their match date. Only case-patients and controls with medical record information available for at least 3 of the 6 months preceding the match date were included.

Twenty-eight cases were identified at hospital A during December 2002-August 2006, including 25 confirmed and three suspected cases (Figure). Five additional patients from St. Louis with NFD outside of hospital A were identified during the study period; however, minimal information was available for these patients, and they were excluded. Among the 19 confirmed case-patients at hospital A who met criteria for inclusion in the case-control study, the median age was 50 years (range: 21-67), and 10 (53%) were male. The median number of months on dialysis was 30 (range: 0.1-192 months). The primary type of dialysis received in the 6 months preceding disease detection was hemodialysis for 11 (58%) of the 19 case-patients and peritoneal dialysis for six (32%) casepatients. Two of the 19 case-patients had acute renal failure and received dialysis only for a brief time (4 days for one patient, 45 days for the other) during the 6 months preceding disease diagnosis. The clinical sites at which NFD was first detected were hospital A during inpatient hospitalization for 13 (68%) case-patients, an outpatient peritoneal dialysis clinic affilitated with hospital A for four (21%) case-patients, and an outpatient hemodialysis unit affiliated with hospital A for two (11%) case-patients.

FIGURE. Number of confirmed and suspected cases of nephrogenic fibrosing dermopathy at hospital A, by date of disease detection — St. Louis, Missouri, December 2002–August 2006



\* Unable to determine date of disease detection for one suspected case.

No significant differences were detected between casepatients (n = 19) and matched controls (n = 57) regarding sex, number of months since first dialysis, primary type of dialysis received, inpatient hospitalization days in the preceding year, and presence of diabetes mellitus (Table 1). Significant differences were detected in median age, history of deep venous thrombosis (DVT), history of hypothyroidism, and presence of dependent edema. In univariate-matched analysis, exposure to gadolinium-containing contrast agents during the preceding 6 months or preceding year was more common among case-patients than controls (Table 2). The presence of dependent edema, history of DVT, and history of hypothyroidism also were associated with NFD. Although the associations were not statistically significant, case-patients were more likely than controls to have received a high dose (>18,000 U/week) of erythropoietin at the time of disease detection and a high maximum dose (>30,000 U/week) of erythropoietin in the preceding 6 months. After adjusting for age, presence of dependent edema, history of DVT, and history of hypothyroidism, only exposure to gadolinium-containing contrast agents during the preceding 6 months or preceding year remained statistically significant.

TABLE 1. Characteristics of nephrogenic fibrosing dermopathy case-patients and matched controls\* from hospital A-St. Louis, Missouri, December 2002–August 2006

	Case-		
Characteristic	patients	Controls	p value
Median age (yrs)	50	58	.04
Sex (%)			
Female	47	54	.60
Male	53	46	_
Median no. of months since first dialysis§	30	24	.20
Primary type of dialysis received in prece	ding		
6 months (%)	0		.64
Hemodialysis	58	60	_
Peritoneal dialysis	32	23	_
No dialysis	11	18	—
Comorbidities (%)			
Diabetes mellitus	37	47	.42
History of deep venous thrombosis	37	12	.02
History of hypothyroidism	32	9	.01
History of autoimmune disease	21	7	.08
Presence of dependent edema <sup>¶</sup>	78	31	.001
Median no. of inpatient days during			
preceding year	21	17	.40

\*Case-patients: n = 19; controls: n = 57 (N = 76). Case-control study included confirmed cases from hospital A. Controls were matched to each case by date and clinical site of case-patient at time of disease detection. Controls were required to have received dialysis for at least 4 weeks or demonstrate renal insufficiency (serum creatinine >2.5 mg/dL) for at least 6 months preceding their match date.

Continuous variables were compared using the Wilcoxon rank-sum test, and categorical variables were compared using a chi-square test or Fisher's exact test. Significance set at p<0.05.

§N = 75.

<sup>¶</sup>N = 67.

Five case-patients had no identified gadolinium exposure within 1 year preceding NFD diagnosis. However, of these, four had gadolinium exposure from 16 to 68 months preceding diagnosis; the fifth patient had no evidence of gadolinium exposure. Among case-patients (n = 14) and controls (n = 14) with gadolinium-containing contrast exposure in the preceding year, case-patients were more likely to have received peritoneal dialysis as their primary type of dialysis in the preceding 6 months (36% versus 0%) and had a longer median time on dialysis (27 months versus 10 months). Thirteen patients (nine case-patients, four controls) had multiple gadolinium-containing contrast exposures during the preceding year. The NFD attack rate estimated for persons undergoing outpatient chronic dialysis in the hospital A system for the 4 years in which cases were identified was 4.6 cases per 100 peritoneal dialysis patients and 0.61 cases per 100 hemodialysis patients.

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Editorial Note: NFD was first identified in 1997 as a fibrotic disorder of the skin in patients with renal failure (1). Since then, systemic involvement has been described in some patients with NFD, resulting in use of the term nephrogenic systemic fibrosis (NSF); NFD and NSF have been used to describe the same condition (3). No clear etiology has been established for NFD, and little is known about its pathogenesis or natural history. This report describes the largest geographic cluster of NFD that has been identified and provides evidence that exposure to a gadolinium-containing contrast agent is a risk factor for the development of the disease.

Although risk factors for NFD have not been studied extensively, possible correlations with severity of renal failure, thrombotic episodes, edema, and vascular procedures have been reported (2,4). Recently, medication exposures such as erythropoietin and gadolinium-containing contrast agents have been identified as potential risk factors for NFD (5,6). In May 2006, the Danish Medicines Agency reported 25 cases of NFD diagnosed in Europe among patients with recent exposure to gadolinium-containing contrast. In response, the Food and Drug Administration (FDA) issued a public health advisory in June 2006 regarding the use of these contrast agents in patients with renal failure (7). As of December 25, 2006, the FDA MedWatch system had received 90 reports of NFD possibly related to gadolinium-containing contrast agents.

	No. of	No. of	U	nivariate	М	ultivariate
Characteristic	case-patients	controls	OR	(95% CI <sup>†</sup> )	OR	(95% CI)
Comorbidities						
History of deep venous thrombosis	19	57	5.05	(1.25–20.42) <sup>§</sup>	3.37	(0.60–18.85)
Presence of dependent edema	18	49	7.11	(1.95–25.82) <sup>§</sup>	3.15	(0.67-14.77)
History of hypothyroidism	19	57	4.10	(1.14–14.70) <sup>§</sup>	4.18	(0.66–26.57)
Medications received						
Erythropoietin (high dose versus low dose)						
High maximum dose (>30,000 U/week)	13	38	2.95	(0.48–17.93)	**	_
High dose at match date (>18,000 U/week)	13	42	1.53	(0.36-6.49)	_	_
Iron (intravenous or oral) <sup>¶</sup>	14	48	0.79	(0.15-4.32)	_	_
Beta-blocker <sup>¶</sup>	17	56	2.01	(0.60-6.66)		_
Ace inhibitor or angiotensin-receptor blocker <sup>¶</sup>	18	56	1.92	(0.50–7.33)	_	—
Exposure to gadolinium-containing contrast agent						
In preceding 6 months <sup>††</sup>	19	57	6.11	(1.92–19.52) <sup>§</sup>		_
In preceding year	19	57	7.99	(2.22–28.77) <sup>§</sup>	8.97	(1.28–63.01) <sup>§</sup>
Any vascular procedure <sup>¶</sup>	19	57	1.30	(0.31–5.50)	_	_
Diagnosed infection <sup>¶</sup>	18	57	1.00	(0.33–3.00)	_	—

TABLE 2. Odds ratios (ORs) for selected characteristics among nephrogenic fibrosing dermopathy case-patients and matched controls\* from hospital A — St. Louis, Missouri, December 2002–August 2006

\* Case-control study included confirmed cases from hospital A. Controls were matched to each case by date and clinical site of case-patient at time of disease detection. Controls were required to have received dialysis for at least 4 weeks or to have demonstrated renal insufficiency (serum creatinine >2.5 mg/dL) for at least 6 months preceding their match date.

<sup>†</sup> Confidence interval.

§ Statistically significant.

<sup>¶</sup> During preceding 6 months.

\*\* Not included in model.

<sup>††</sup> ORs for multivariate model for exposure to gadolinium-containing contrast agent within 6 months were similar to those for 1 year, with only exposure to the agent remaining significant (OR = 6.59, Cl = 1.20–36.24).

Intravenously administered contrast agents are used routinely for MRI studies; the contrast agents contain gadolinium (a paramagnetic heavy metal), which is bound to a chelating agent. The mechanism for possible gadoliniumassociated NFD is unknown; however, one hypothesis is that the gadolinium ions might dissociate from the chelate and result in a fibrotic reaction (5). Five gadolinium-based contrast agents are available in the United States; the first was approved for use in 1988 (7). Adverse events associated with these agents typically are minor (e.g., nausea); severe effects such as allergic reactions or tissue necrosis as a result of extravasation are rare. In addition, gadolinium-containing contrast agents are believed to be less nephrotoxic than iodinated contrast agents used for computed tomography (CT) imaging (8). Excretion of gadolinium-containing contrast agents primarily occurs renally; the amount of contrast eliminated from the body after dialysis has not been wellevaluated. Two studies suggest that 65%-78% of gadolinium-containing contrast might be cleared after one hemodialysis session and 98% after three sessions (9,10). Peritoneal dialysis might achieve less effective gadoliniumcontrast clearance than hemodialysis. In one study, 69% of total gadolinium-containing contrast was excreted after 22 days in patients undergoing continuous ambulatory peritoneal dialysis (9). Delayed clearance might prolong the duration of gadolinium-containing contrast exposure among patients undergoing peritoneal dialysis. However, patients undergoing peritoneal dialysis have not been previously reported to be at higher risk for NFD than patients undergoing hemodialysis. The chronic peritoneal dialysis outpatients in this investigation had higher estimated NFD attack rates than chronic hemodialysis outpatients. No controls who had gadoliniumcontaining contrast exposure underwent primarily peritoneal dialysis.

The number of cases identified at hospital A decreased during the second and third quarters of 2006 (Figure), and the reason for this decrease is unclear. Because NFD was not recognized at hospital A until late 2002, initially identified cases likely represented both incident (new) and prevalent (existing) cases; the decline might represent the subsequently smaller number of remaining prevalent cases that had not been identified. Although hospital A instituted changes such as limiting the use of gadolinium-containing contrast agents in patients with renal failure, these changes were initiated shortly before the investigation began and are unlikely to account completely for the decline.

The findings in this report are subject to at least two limitations. First, NFD is a rare condition. Even though the data in this report represent the largest cluster of NFD cases identified to date, the small sample size of the case-control study might have limited the power to demonstrate statistically significant associations for variables other than exposure to gadolinium-containing contrast agents. Second, the date of disease diagnosis was used instead of date of disease onset; the actual date of disease onset is unknown. To identify exposures that preceded the actual date of disease onset, exposures as early as 1 year before the date of diagnosis were included. This might have resulted in the inclusion of gadolinium exposures that were not related to the development of NFD.

When possible, use of gadolinium-containing contrast agents should be avoided in patients with advanced renal failure, particularly in patients who are undergoing peritoneal dialysis. Depending on the indication for imaging, other radiologic modalities (e.g., ultrasound and CT) might be acceptable substitutes in certain situations. If gadolinium-containing contrast is medically necessary, prompt hemodialysis after contrast administration to facilitate clearance of the contrast might be reasonable for patients who have established hemodialysis access; however, the effectiveness of this strategy in reducing the risk for NFD development or progression is unknown. Among patients with no other indication for chronic or acute hemodialysis, the risks of establishing hemodialysis access should be weighed against theoretical benefits of hemodialysis after gadolinium-containing contrast administration. CDC and FDA are collaborating to assess potential differences among gadolinium-containing contrast agents, including the associated risk for NFD and possible related factors. Additional studies are needed to assess the ability of peritoneal dialysis and hemodialysis to clear gadoliniumcontaining contrast agents and to clarify the mechanism by which use of gadolinium or chelating agents might result in NFD. Clinicians who treat patients with renal disease should be aware of the risk for NFD and consider the diagnosis in patients with characteristic skin lesions. Suspected adverse drug events should be reported to FDA via the MedWatch program by phone (1-800-FDA-1088), by fax (1-800-FDA-0178), or online (http://www.fda.gov/medwatch/index.html).

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# Blood Donor Screening for Chagas Disease — United States, 2006–2007

Chagas disease, a zoonotic disease caused by the bloodborne parasite Trypanosoma cruzi, affects an estimated 11 million persons throughout much of Latin America. In endemic areas, T. cruzi is transmitted primarily by triatomine insects (i.e., kissing bugs); infection also can occur via blood transfusion, congenital transmission, organ transplantation, laboratory incident, and ingestion of triatomine-contaminated food or drink (1). To evaluate an investigational assay for detecting T. cruzi infection in blood donations, the American Red Cross conducted a clinical trial during August 2006–January 2007, screening 148,969 blood samples at three blood-collection centers in the United States. In January 2007, after the new assay was licensed by the Food and Drug Administration (FDA), other centers began screening donors for T. cruzi. This report describes the results of the American Red Cross study, which identified 32 donations (approximately one in 4,655) as confirmed positive for T. cruzi antibodies. As blooddonation screening for Chagas disease becomes more widespread, public health officials and health-care providers should anticipate increased numbers of questions regarding the diagnosis, evaluation, and management of Chagas disease.

Chagas disease has an acute stage, typically asymptomatic or with mild symptoms (e.g., fever, malaise, swelling at the site of innoculation and lymphadenopathy) during the first 6–8 weeks after infection. If not treated, infection is lifelong with low-level, intermittent parasitemia. The majority of infected persons remain asymptomatic in the chronic indeterminate phase (i.e., a prolonged period of clinically silent infection that follows acute primary infection). However, an estimated 30% will have onset of chronic symptomatic disease, usually decades after the initial infection, with cardiac manifestations (e.g., cardiomyopathy, arrhythmias, and sudden death) or gastrointestinal involvement (e.g., megaesophagus or megacolon).

In the United States, vector-borne transmission of Chagas disease is rare (2). However, one study revealed an increasing Chagas seroprevalence among blood donors in Los Angeles County, California, from 1996 (one in 9,850 donors) to 1998 (one in 5,400 donors) (7). In 1991, a questionnaire was introduced to screen blood donors; those reporting a history of Chagas disease are deferred, but most persons with Chagas disease likely are unaware of their infections. Seven cases of transfusion-associated transmission have been documented in the United States and Canada during the past 20 years; all occurred in immunosuppressed recipients (3-6). Because acute infections often are asymptomatic and the level of awareness of Chagas disease among clinicians is low, cases of transfusion-associated transmission can go undetected.

In 2005, a new commercial test for blood-donation screening for Chagas disease was developed. The test, manufactured by Ortho-Clinical Diagnostics (Raritan, New Jersey), is an enzyme-linked immunosorbent assay (ELISA) that uses epimastigote lysate antigens for detection of antibodies to *T. cruzi* in serum and plasma (8). In clinical trials evaluating the test, including the American Red Cross study, blood donor specimens with initially reactive results were retested twice and considered repeat reactive if one or both of the repeat tests were reactive. Repeat reactive specimens from the clinical trials underwent further testing using a radioimmunoprecipitation assay (RIPA); those with positive RIPA results were considered confirmed positive. However, FDA has not licensed a supplemental test as a confirmatory assay in blood donation screening for *T. cruzi* antibodies.

After a clinical trial in 2005 with approximately 40,000 blood donors resulted in only one repeat reactive specimen (which tested negative with RIPA) (8), the American Red Cross conducted a larger study of the new screening assay in areas where Chagas was expected to be more prevalent. The study

was conducted in three collection facilities of the American Red Cross, including the Southern California Region (Los Angeles, California), the Northern California Region (Oakland, California), and the Arizona Region (Tucson, Arizona). Blood donations collected during August 28, 2006– January 28, 2007, were tested with the screening assay for those blood donors willing to participate in the study. All donors were asked to participate; 78.5% agreed, and their specimens were tested.

A total of 148,969 blood-donation specimens were tested; 63 specimens from 61 donors were repeat reactive for T. cruzi antibodies (approximately one in 2,365 donations). Among the 61 donors with repeat reactive speciments, 40 (66%) were male; the age range was 17-84 years, with a mean age of 47 years and a median of 50 years. Of the 63 repeat reactive specimens, 50 (79%; one in 1,993 donations) were collected from the Los Angeles center, nine (14%; one in 3,258 donations) were collected from the Oakland center, and four (6%; one in 5,995 donations) were collected from the Tucson center. Fiftyfive (90%) of the 61 donors were allogeneic donors; the remaining six included five autologous donors (two with two reactive donations each) and one directed donor. Of the 55 allogeneic donors, 18 (33%) were first-time donors, and 37 (67%) had donated blood previously. All of the 63 repeat reactive donations were tested with RIPA, of which 32 (51%) were positive and 31 (49%) were negative.

On December 13, 2006, based in part on preliminary results from the American Red Cross study, FDA licensed the Ortho *T. cruzi* ELISA Test System to screen blood donors in the United States. The new assay also is labeled for testing plasma and serum samples from living cell and tissue donors and from heart-beating organ donors, but is not labeled for general clinical diagnostic use.

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**Editorial Note:** Findings from the American Red Cross study described in this report provided evidence to support FDA approval of the first blood donor screening test for Chagas disease in the United States. Use of this test by blood centers to screen for *T. cruzi* antibodies is not required. However, both

the American Red Cross and Blood Systems, Inc., bloodcollection organizations that are responsible for approximately 65% of the U.S. blood supply, began screening all donations for *T. cruzi* on January 29, 2007, and providing testing services for smaller blood-collection centers and hospitals that requested testing. FDA is expected to recommend implementation of the test by all blood-collection establishments.

The AABB (formerly known as the American Association of Blood Banks) has issued recommendations to its member facilities regarding how to use the new test.\* AABB recommends that all components from blood donations that are repeat reactive by the ELISA test should be quarantined and removed from distribution, and the donor should be deferred from making donations indefinitely. Recipient tracing should be conducted to identify and test recipients of blood components collected previously from donors who are confirmed positive (i.e., repeat reactive by ELISA and positive by RIPA). AABB also suggests testing at-risk family members of donors who are confirmed positive or family members with a similar history of exposure to vectors in an endemic area (e.g., the children of seropositive women). Deferred donors, at-risk family members, and potentially infected recipients should be referred to health-care providers for evaluation and management.

Screening blood donations for *T. cruzi* antibodies can identify persons with previously undiagnosed Chagas disease and further enhance the safety of the U.S. blood supply. However, as with any screening test, limitations exist. Although available data regarding the performance of the new assay have suggested high sensitivity and specificity (8,9), some falsenegative results have occurred with this assay (8) and with other assays used to screen for *T. cruzi* antibodies (10). In addition, when a screening assay is used in a population with low disease prevalence, a greater proportion of false-positive results can be expected. Donors with reactive screening assay results require further clinical diagnostic testing to verify *T. cruzi* infection and to guide clinical management.

For clinical purposes, no single laboratory test is adequately sensitive and specific to diagnose Chagas disease. Diagnosis generally is made by using at least two different serologic tests (e.g., diagnostic ELISA tests, immunofluorescence assay, or indirect hemagglutination) (1) and by considering clinical findings and exposure risk. Clinical diagnostic testing for Chagas disease is available through commercial laboratories and the Division of Parasitic Diseases (DPD) at CDC. After diagnosis, health-care providers should conduct a thorough clinical evaluation to determine the stage of disease, develop an appropriate treatment plan, and provide information regarding prognosis. CDC is preparing guidance for the clinical evaluation, staging, management, and treatment of patients with Chagas disease.

Cases of Chagas disease likely will be increasingly identified as a result of screening blood donors for infection with *T. cruzi*. In addition, requests for diagnostic testing might become more frequent as awareness of Chagas disease increases among clinicians and the general public. Most identified cases likely will represent chronic infections that were acquired years earlier.

Chagas treatment options are limited and are most effective during the acute stage of infection. However, increasing evidence suggests that treatment of persons with chronic infections can result in seroreversion and prevent progression of cardiac morbidity (1). Treatment of women of childbearing age with Chagas disease can decrease the risk for congenital transmission. Antitrypanosomal medication in the United States is currently available only through CDC under an investigational new drug protocol.

Questions regarding laboratory diagnosis, evaluation, and management of Chagas disease can be posed to DPD by telephone, 770-488-7775. Additional information regarding Chagas disease is available at http://www.cdc.gov/ncidod/dpd/ parasites/chagasdisease/default.htm.

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<sup>\*</sup> Available at http://www.aabb.org/content/members\_area/association\_bulletins/ ab06-08.htm.

# Measles Among Adults Associated with Adoption of Children in China — California, Missouri, and Washington, July–August 2006

On August 15, 2006, the Missouri Department of Health and Senior Services (MoDHSS) was notified of a measles case in a Missouri resident who had recently traveled to China. The patient had traveled with a group of 11 families seeking to adopt children from three orphanages in Guangdong Province. Members of the group, which was sponsored by a Missouri-based adoption agency, traveled separately but stayed at the same hotel in Guangdong Province during July 13-27. This report describes the multistate investigation that followed, which identified two additional measles cases. None of the three patients recalled contact during travel with anyone who appeared ill. All three patients recovered fully, and no secondary cases were identified among family members, other travelers, patients, or medical staff who might have been exposed. Because of delays in diagnoses (the earliest case was identified 2 weeks after rash onset), no control measures (e.g., vaccination of contacts or administration of immunoglobulin) were indicated. Communicable diseases that are no longer endemic in the United States continue to occur among travelers, often resulting in delayed recognition and delayed notification of public health authorities. Because of the risk for spread in the community of imported communicable diseases such as measles (1), thorough investigation is needed to determine possible sources of infection and the extent of disease spread in the community.

Case 1. On July 13, a woman from Missouri aged 36 years traveled with her husband to Guangdong Province. She returned to the United States on July 28 with her husband and their adopted child. On July 30, she had onset of fever. The next day, a rash appeared on her face and trunk. On August 2, she sought medical care and was tested for tickborne illnesses endemic in rural Missouri (e.g., Rocky Mountain spotted fever and ehrlichiosis). On August 9, a measles immunoglobulin M (IgM) antibody test was obtained, which was reported positive on August 14. The patient had received 2 documented doses of measles-containing vaccine (MCV) in her lifetime (1 dose at age 11 months and another at age 10 years). She and her husband had stayed at the same hotel as 10 other U.S. families while awaiting finalization of their adoptions. On August 15, the CDC Division of Global Migration and Quarantine (DGMQ) was asked to assist in contacting potentially exposed passengers on both a trans-Pacific flight and a domestic flight, on which the patient had flown during her return trip from China. On August 18, a list of trip participants was obtained from the adoption agency. MoDHSS contacted each family by telephone and identified two additional cases of rash illness (cases 2 and 3) in persons from the adoption group.

DGMQ collaborated with MoDHSS to obtain the passenger manifests (i.e., lists of passengers and their seating assignments) and available passenger-locator information (i.e., personal contact information for passengers) for potentially exposed passengers on the international and domestic U.S. flights on which the patient from Missouri had flown. Six passengers seated near the patient on the international flight were identified as potentially exposed; all six were contacted, and none reported symptoms consistent with measles during one incubation period (7–21 days) after the flight. The passenger manifest and passenger-locator information for all passengers on the domestic U.S. flight were obtained because no seating was assigned for the flight.

Contact information was available for 101 of 118 passengers. DGMQ provided that information to the state health departments in states where passengers resided. The number of passengers who were contacted by the state health departments is unknown. No measles cases associated with this flight were reported to CDC.

**Case 2.** On August 2, a woman from California aged 39 years, who had been part of the same adoption trip, had onset of a maculopapular rash on her face, chest, and back. She had returned from China on July 28 and thus was not considered infectious\* during her return travel to the United States. She had no fever, coryza, cough, or conjunctivitis. MoDHSS learned of this patient's symptoms while interviewing the patient from Missouri and notified the California Department of Health on August 16. A measles IgM antibody titer was obtained and was positive. The patient reported receiving at least 2 doses of MCV in her lifetime, for which no documentation was available.

**Case 3.** On July 29, a woman from Washington aged 38 years was evaluated in the emergency department of a military hospital for fever (102.9° F [39.4° C]) and a maculopapular rash on her chest and face. She described headache, facial swelling, cough, nasal congestion, nausea, and diarrhea that began July 27 while en route from China to Seattle. Her symptoms initially were attributed to amoxicillin she was taking for sinusitis diagnosed before her travel, and the drug was discontinued. On July 31, approximately 48 hours after discontinuing the antibiotic, she returned to the hospital with continued fever and rash that had progressed to her trunk and arms. She was hospitalized for 4 days to evaluate her

<sup>\*</sup> The infectious period for measles generally is considered to be from 4 days before the onset of rash to 4 days after the onset of rash. The California patient completed travel 5 days before the onset of rash.

symptoms and elevated levels of hepatic transaminases. Viral hepatitis studies were negative. The patient improved and was discharged home. On August 21, MoDHSS notified the Washington State Department of Health (WSDH) that the woman had traveled with the adoption group. Serum obtained on August 22 by the local health department was reactive for measles IgM antibody. The patient had received 1 documented MCV dose at age 1 year.

WSDH and CDC were unable to identify contacts of the patient from Washington on the international flight because a manifest from the carrier could not be obtained. For the interstate flight, the delay in receiving notification of the patient's illness meant that the airline was unable to provide the manifest for the indicated flight in a timely manner. Therefore, a manifest was not requested by WSDH.

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**Editorial Note:** During 2001–2005, import-associated measles cases (i.e., imported, import-linked, or imported virus cases)<sup>†</sup> accounted for the majority of cases reported in the United States (1,3,4). Imported measles cases among adoptees from China have been reported previously (4,5). This report documents imported measles cases during July–August 2006 among adopting parents from the United States who were exposed to measles while visiting China.

China is the leading country of origin for foreign-born children adopted in the United States (6). During 1998–2005, annual U.S. adoptions of children from China increased by 88%, from 4,206 to 7,906 (6). A national measles outbreak in China increased reported measles cases there from 70,549 in 2004 to 124,219 in 2005 (7). In Guangdong Province, 11,146 measles cases were reported during January–June 2006, a 30% increase compared with the same period in 2005 (8). This situation in China presented an increased risk for measles exposure to travelers and potential importation into the United States. China has set a measles-elimination goal for 2012, and the country is conducting activities to achieve this goal (e.g., conducting an international field review [November 2006] and convening the first National Technical Advisory meeting on measles elimination [December 2006]).

According to the Advisory Committee on Immunization Practices (ACIP), persons born during 1957 or later without 1) adequate documentation of immunity by previous vaccination with 2 doses of MCV, 2) laboratory evidence of immunity, or 3) physician-diagnosed measles should be vaccinated with the measles, mumps, and rubella (MMR) vaccine before travel abroad (9). The U.S. Department of State requires that internationally adopted children aged >10 years receive the following vaccines before entry into the United States: measles, mumps, and rubella; polio; tetanus and diphtheria toxoids; pertussis; Haemophilus influenzae type B; hepatitis B; varicella; and pneumococcal. For those aged  $\leq 10$  years, the adopting parents must sign an affidavit promising to provide these vaccinations within 30 days of entry to the United States. The education that most adoptive parents receive regarding their own medical preparations before travel can vary substantially. In this instance, the adoption agency provided the ACIP recommendations to the clients and repeatedly advised their clients about the importance of being properly vaccinated; however, no standard mechanisms were in place to ensure that these recommendations were followed before travel abroad. In the United States and internationally, several organizations (e.g., the American Academy of Pediatrics Section on Adoption and Foster Care and the Joint Council for International Children's Services) are working to improve immunization and education standards regarding international adoptions. Health-care providers should continue to promote appropriate pretravel vaccination for their patients.

Investigation of all three cases was substantially delayed because of delays in diagnosis and delays in notifying jurisdictions where exposed travelers resided. Because measles is rare in the United States (as a result of high immunization levels), it is often unrecognized by clinicians who might not consider measles in a differential diagnosis. Health-care providers should routinely gather information regarding the patient's travel history and maintain a high level of suspicion for measles in patients with rash, fever, and recent travel to areas of known measles endemicity. Although a single dose of measles vaccine administered in the second year of life induces immunity in 95% of vaccinees (10), cases can occur even among vaccinated persons. More common than vaccine failure is incomplete documentation or inaccurate recall of vaccination status. In the cases described in this report, the patient from Missouri had 2 MCV doses documented, the patient from Washington had 1 MCV dose documented, and the patient from California had no MCV doses documented.

<sup>&</sup>lt;sup>†</sup>Imported measles includes cases in which exposure and infection occurred outside the United States; import-linked measles includes indigenously acquired measles that is epidemiologically linked to an imported case; imported virus measles includes indigenous cases that are caused by a known imported measles genotype but do not have an epidemiologic link to an imported case (*1,2*).

DGMQ is authorized<sup>§</sup> to conduct investigations involving international flights arriving in the United States and can assist state health departments with investigations involving interstate flights. In the case of interstate flights, DGMQ may request passenger manifests and passenger-locator information to assist the state in which the plane lands. Once notified of an exposure, DGMQ contacts the airline to obtain the passenger manifest and passenger-locating information of contacts. A software application developed by DGMQ, eManifest, is used to securely import, sort, and assign passenger-locator information to jurisdictions. These data are transmitted securely to state and territorial health agencies via the Epidemic Information Exchange (Epi-X) forum. Staff from the 18 CDC quarantine stations follow up with public health agencies to ensure the information has been received. DGMQ continues to work with airlines to develop mechanisms for the timely provision of passenger-locator information to CDC and with federal and state partners to improve the process of distributing this information.

#### Acknowledgment

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#### Notice to Readers

# Supply of Vaccines Containing Varicella-Zoster Virus

CDC received notice from Merck & Co., Inc., that it has lower amounts of varicella-zoster virus (VZV) than expected from recently manufactured bulk vaccine. Bulk vaccine production is an intermediate step in the manufacture of VZVcontaining vaccines. Varicella bulk is stored frozen until it is needed in the final preparation phase of each vaccine. Production of VZV bulk has been suspended temporarily while the manufacturer identifies the cause of the low virus yield. Merck is the only U.S. supplier of VZV-containing vaccine, including varicella vaccine (Varivax<sup>®</sup>); combined measles, mumps, rubella, and varicella (MMR-V) vaccine (ProQuad<sup>®</sup>); and zoster vaccine (Zostavax<sup>®</sup>). This lower virus yield does not affect the quality of any of Merck's VZV-containing vaccines currently on the market, any lots of vaccine manufactured and ready for release to the market, or any VZV-containing vaccines presently being manufactured.

To conserve existing bulk vaccine with adequate VZV potency, Merck is prioritizing continued production of varicella and zoster vaccines over production of MMR-V vaccine. Merck is taking this approach because the production of varicella vaccine requires less VZV than the production of MMR-V vaccine. Although zoster vaccine requires a similar amount of VZV for production as MMR-V vaccine, projected supply needs for zoster vaccine are much lower than projected supply needs for MMR-V vaccine. Merck also will increase production of combined measles, mumps, and rubella (MMR) vaccine (M-M-R II<sup>®</sup>).

Current supply assessments in the United States indicate that this interruption in bulk vaccine supply will not affect the supply of either varicella vaccine or zoster vaccine. The U.S. varicella vaccine supply is expected to be adequate to fully implement the recommended immunization schedule for varicella vaccine for all age groups, including the routine 2-dose schedule for children at 12-15 months and at 4-6 years, catch-up vaccination with the second dose for children and adolescents who received only 1 dose, and vaccination with 2 doses for other children, adolescents, and adults without evidence of immunity (1-3). For zoster vaccine, the supply is expected to be adequate to vaccinate adults aged  $\geq 60$ years in accordance with current provisional vaccine policy recommendations (4). The MMR-V vaccine supply is adequate to continue ordering this combination vaccine (5); however, the manufacturer expects supplies of MMR-V vaccine to be depleted toward the end of 2007, depending on market demand. When this occurs, supplies of separate MMR and varicella vaccines are expected to be adequate to fulfill the

<sup>&</sup>lt;sup>§</sup>Additional information available at http://www.cdc.gov/ncidod/dq/factsheet legal.htm.

need for these two products in place of MMR-V vaccine. CDC will continue to work with Merck and vaccine-provider stakeholders to monitor the supply of VZV-containing vaccines. Updates on vaccine shortages and delays are available at http:// www.cdc.gov/nip/news/shortages/default.htm.

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1.1 years for white men, 0.8 years for white women, 0.9 years for black men, and 1.3 years for black women.

**SOURCES:** CDC. United States life tables. Available at http://www.cdc.gov/nchs/datawh/statab/unpubd/mortabs/ lewk3\_10.htm.

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TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending February 17, 2007 (7th Week)\*

	Current	Cum	5-year weekly	Total o	cases rep	orted for	r previou	s years	
Disease	week	2007	average <sup>†</sup>	2006	2005	2004	2003	2002	States reporting cases during current week (No.)
Anthrax	_	_	0	1	_	_	_	2	
Botulism:									
foodborne	_	_	0	18	19	16	20	28	
infant	_	6	1	89	85	87	76	69	
other (wound & unspecified)	_	1	0	47	31	30	33	21	
Brucellosis	_	5	2	115	120	114	104	125	
Chancroid	_	1	1	34	17	30	54	67	
Cholera	_	_	0	6	8	5	2	2	
Cvclosporiasis§		8	2	125	543	171	75	156	
Diphtheria		_	_				1	1	
Domestic arboviral diseases <sup>§,1</sup>									
California serogroup	_	_	_	63	80	112	108	164	
eastern equine	_	_	_	7	21	6	14	10	
Powassan	_	_	_	1	1	1		1	
St Louis			_	à	13	12	/1	28	
western equine		_		3	10	12	41	20	
Eprichiosies:									
human granuloovtio	1	0	-1	520	796	527	262	511	NV (1)
human manaoutio	'	10	1	175	506	220	201	216	<b>N</b> T (1)
human (other & upoposified)	_	12	1	100	110	500	321	210	
		4	0	190	112	59	44	23	
invasive disease (age <5 yrs):			0	~	0	10	00	0.4	
serotype b	_	1	0	9	105	19	32	34	
nonserotype b		4	4	97	135	135	117	144	
unknown serotype	/	43	5	240	217	1//	227	153	NY (1), MD (1), GA (1), FL (1), AZ (2), UT (1)
Hansen disease <sup>3</sup>		4	1	74	87	105	95	96	
Hantavirus pulmonary syndrome <sup>s</sup>	_	1	0	36	26	24	26	19	011 (4)
Hemolytic uremic syndrome, postdiarrneal <sup>3</sup>	1	9	2	250	221	200	1/8	216	
Hepatitis C viral, acute	6	62	20	827	652	/13	1,102	1,835	NY (2), MI (1), MD (1), FL (1), ID (1)
HIV infection, pediatric (age <13 yrs) <sup>™</sup>	_		5	52	380	436	504	420	
Influenza-associated pediatric mortality <sup>8,88</sup>	3	15	1	41	45		N	N	GA (1), MN (2)
Listeriosis	4	52	8	/82	896	753	696	665	OH (1), IN (1), VA (1), IX (1)
Measles	_	1	1	51	66	37	56	44	
Meningococcal disease, invasive***:	-		_						
A, C, Y, & W-135	6	19	7	230	297	—	_	_	IN (3), OK (1), WA (2)
serogroup B	1	10	3	139	156	—	—	_	IN (1)
other serogroup	1	2	1	24	27	_	—	_	OK (1)
unknown serogroup	6	79	21	714	765	_	—	_	OH (1), MD (1), AL (1), TX (1), CO (1), UT (1)
Mumps	6	49	9	6,492	314	258	231	270	OH (1), KS (3), CO (1), AZ (1)
Plague	_	_	0	15	8	3	1	2	
Poliomyelitis, paralytic	_	_	_	_	1	_	—	_	
Poliovirus infection, nonparalytic <sup>§</sup>	—	—	—	N	N	N	N	N	
Psittacosis§	—	1	0	20	16	12	12	18	
Q fever <sup>§</sup>	1	12	1	166	136	70	71	61	AR (1)
Rabies, human	_	—	—	3	2	7	2	3	
Rubella <sup>†††</sup>	—	2	0	8	11	10	7	18	
Rubella, congenital syndrome	—	—	0	1	1	—	1	1	
SARS-CoV <sup>§.§§§</sup>	_	_	0	_	—	—	8	N	
Smallpox <sup>§</sup>	_	_	_	_	—	—	—	—	
Streptococcal toxic-shock syndrome <sup>§</sup>	_	6	3	98	129	132	161	118	
Syphilis, congenital (age <1 yr)	_	11	8	310	329	353	413	412	
Tetanus	_	_	0	32	27	34	20	25	
Toxic-shock syndrome (staphylococcal)§	_	5	2	108	90	95	133	109	
Trichinellosis	_	1	0	14	16	5	6	14	
Tularemia	_	_	0	84	154	134	129	90	
Typhoid fever	2	18	6	271	324	322	356	321	CT (1), PA (1)
Vancomycin-intermediate Staphylococcus aure	us§ —	_	_	3	2	_	Ν	Ν	
Vancomycin-resistant Staphylococcus aureus§	_	_	_		3	1	Ν	Ν	
Vibriosis (non-cholera Vibrio species infections)	)§ —	8	_	N	Ň	Ν	Ν	N	
Vellow fever	·	_				_	_	1	

-: No reported cases.

No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Incidence data for reporting years 2006 and 2007 are provisional, whereas data for 2002, 2003, 2004, and 2005 are finalized. Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 +

§

1

Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/illes/Syearweeklyaverage.pdf. Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2004 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. Includes both neuroinvasive and non-neuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed) (ArboNET Surveillance). Data for West Nile virus are available in Table II. Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (proposed). Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly. Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases (proposed). A total of 16 cases were reported for the 2006-07 flu season. No measles cases were reported for the current week. **††** 

§§

11 No measles cases were reported for the current week.

Data for meningococcal disease (all serogroups) are available in Table II. No rubella cases were reported for the current week. +++

§§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed).

			Chlamydi	a†			Coccid	ioidomyo	osis			Cryp	tosporid	iosis	
		Pre	vious	_			Pre	vious	-			Prev	/ious		
Reporting area	Current week	<u>52 v</u> Med	veeks Max	Cum 2007	Cum 2006	Current week	52 v Med	Max	Cum 2007	Cum 2006	Current week	52 v Med	/eeks Max	Cum 2007	Cum 2006
United States	7,547	19,703	22,109	97,021	126,581	55	150	367	887	1,123	23	67	304	268	345
New England Connecticut Maine <sup>§</sup> Massachusetts New Hampshire Rhode Island <sup>§</sup> Vermont <sup>§</sup>	486 49 326 31 62 18	605 119 44 297 40 62 21	1,188 654 72 604 69 108 45	3,621 301 298 2,194 277 406 145	3,395 429 255 1,869 220 446 176	       N	0 0 0 0 0 0	0 0 0 0 0 0	N  -  - N	N  -  - 	1  1 	3 0 0 1 0 1	22 3 6 14 5 5 5	12 3 3 4 2	55 36 4 11 2 
<b>Mid. Atlantic</b> New Jersey New York (Upstate) New York City Pennsylvania	1,537 152 484 419 482	2,398 383 502 737 782	3,746 562 2,447 1,566 1,005	13,224 1,392 2,292 4,580 4,960	14,877 2,582 1,867 5,369 5,059	N N N N	0 0 0 0	0 0 0 0	N N N N	N N N N N	1  	10 0 3 2 4	31 3 13 11 17	28 — 7 4 17	56 1 7 16 32
<b>E.N. Central</b> Illinois Indiana Michigan Ohio Wisconsin	607  431 43 133	3,116 1,003 380 668 656 368	4,100 1,352 614 1,225 1,424 527	12,667 3,170 2,365 4,211 1,373 1,548	22,584 7,465 2,886 3,432 5,880 2,921	1 — 1 N	1 0 0 0 0	3 0 3 2 0	4  3 1 N	4  2 N	5  - 1 3 	16 2 1 2 5 5	110 22 18 9 33 53	52  11 28 11	70 10 2 12 26 20
W.N. Central lowa Kansas Minnesota Missouri Nebraska <sup>§</sup> North Dakota South Dakota	603 170 123 — 219 36 — 55	1,186 163 146 247 448 97 29 51	1,445 223 280 321 628 180 64 84	6,676 1,146 891 2,836 478 110 346	8,500 1,191 1,208 1,764 3,044 674 272 347	N N   N N N N	0 0 0 0 0 0 0	1 0 0 1 0 0 0	2 N   2 N N N	N N     N N N N N N N N N N N N N N N	1  1   	12 2 1 3 2 1 0 1	77 28 8 21 21 16 1 7	41 7 5 8 7 3 <u>-</u> 11	35 3 6 14 8 3 1
S. Atlantic Delaware District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup> West Virginia	1,866 70 322 300 264 541 342 27	3,778 68 58 973 708 345 631 356 461 57	5,632 107 155 1,187 2,541 482 1,772 2,105 687 96	20,708 504 327 3,300 3,839 2,477 3,658 3,399 2,897 307	23,840 482 347 5,970 3,487 2,162 5,650 2,102 3,364 276	N   N N     N N N N N N N N N N N N N	0 0 0 0 0 0 0 0 0 0	1 0 0 1 0 0 0 0	1 N N 1 N N N N	2 N N 2 N N N N	8 	17 0 7 5 0 1 1 0	67 2 32 12 3 11 13 5 3	100 1 3 45 35 3 2 4 6 1	89 
<b>E.S. Central</b> Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	739  116  623	1,446 419 140 383 517	2,035 761 691 807 616	8,717 1,540 927 2,345 3,905	9,496 3,263 1,375 1,567 3,291	N N N N	0 0 0 0	0 0 0 0	N N N N		 	3 1 1 0 1	15 12 3 3 5	7 2 4 1	6 2 1 1 2
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	957 100  857	2,136 154 186 243 1,453	2,671 336 607 423 1,907	10,732 935 628 1,265 7,904	13,757 1,058 2,201 1,392 9,106	         	0 0 0 0	1 0 1 0 0	N N N	N   N N	3 1 2	4 0 1 3	46 2 9 4 37	7 1 1 4 1	11 1 5 5
Mountain Arizona Colorado Idaho <sup>§</sup> Montana <sup>§</sup> Nevada <sup>§</sup> New Mexico <sup>§</sup> Utah Wyoming <sup>§</sup>	364 66 98 14 186 —	1,290 461 308 43 50 103 188 94 28	2,042 1,017 418 253 143 397 314 180 54	5,445 1,828 1,019  285 838 943 469 63	8,568 2,595 2,143 434 127 914 1,537 628 190	54 54 N N 	106 105 0 0 1 0 1 0	202 200 0 0 3 3 3 0	670 662 N N 3 5	800 782 N N 10 - 6 2	2 2  	3 0 1 0 0 0 0 0	39 3 7 26 1 5 3 11	12 1 6 1  3 1	9 3 2 1 1 2
Pacific Alaska Zalifornia Hawaii Oregon <sup>§</sup> Washington	388 84  196 108	3,355 81 2,652 104 173 351	3,930 155 3,191 133 394 604	15,231 541 10,828 363 1,287 2,212	21,564 508 16,765 800 1,208 2,283	N N N N N	45 0 45 0 0 0	214 0 214 0 0 0	210 N 210 N N N	317 N 317 N N N	2  -  - 2	1 0 0 1 0	5 1 0 1 4 0	9  9 	14 — — 14 —
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	U U 	0 0 104 5	46 0 236 16	U U 877	U U 592 U		0 0 0 0	0 0 0 0		U U N U	U U N U	0 0 0 0	0 0 0 0	U U N U	U U N U

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly. Chamydia refers to genital infections caused by *Chlamydia trachomatis*. S Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

			Giardiasi	s			G	onorrhe	a		Hae	<i>mophilu</i> All age	s influen: s, all sere	z <i>ae</i> , invas otypes⁺	ive
		Prev	/ious		0		Pre	evious				Prev	vious		•
Reporting area	week	<u> </u>	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	126	312	528	1,309	1,862	2,364	6,672	8,403	32,584	44,850	39	42	113	303	326
New England	7	18	44	60	123	60	99	208	588	606	_	2	12	20	15
Connecticut Maine <sup>§</sup>	5	3	25 14	28 18	17	2	26	152	70 14	120	_	0	8	15	
Massachusetts		5	18		77	45	47	95	401	348	_	ŏ	7		12
New Hampshire	1	0	9	1	5	2	3	9	16	38	—	0	2	3	_
Vermont <sup>§</sup>	1	3	17	13	18	10	9	19	10	72	_	0	3	_	1
Mid. Atlantic	26	65	109	235	358	345	637	1.029	3.630	4.250	8	9	26	65	80
New Jersey		8	16		59	41	103	159	493	746	_	1	4	3	14
New York (Upstate)	23	25 16	85 31	100	74 121	87 116	121	582 377	623 1 079	575	4	3	15	17	12
Pennsylvania	2	14	34	67	104	101	223	324	1,435	1,613	3	3	8	30	33
E.N. Central	13	46	96	165	360	354	1,271	2,206	4,769	9,411	4	5	13	30	48
Illinois		8	27		72	_	356	487	1,098	2,945	_	0	4		14
Michigan	2	13	38	62	110	281	267	250 880	1.624	1,279		0	5	э 4	/ 8
Ohio	11	15	32	82	104	16	303	702	464	2,747	2	2	6	21	11
Wisconsin	_	9	24	21	74	57	130	178	613	1,026	_	0	3	_	8
W.N. Central	11	24	118	96 26	174	180 27	383 37	507 64	2,285 234	2,586 247	_	2	12	15	14
Kansas	2	3	11	9	20	41	43	94	280	345	_	ŏ	2	4	2
Minnesota	4	0	87	5	48	100	64	87	277	422	_	0	9	_	_
Nebraska§	3	9	∠8 9	45 6	51	6	27	∠68 56	1,347	1,355	_	0	2	9	3
North Dakota	—	0	2	_	1	_	2	6	5	20	—	0	2	—	_
South Dakota		1	6	5	12	6	6	15	35	50		0	0	_	_
S. Atlantic Delaware	31	51 1	92 4	276	261	771 26	1,658 28	2,543 44	8,394 217	10,573 181	12	11	26 1	84 1	82
District of Columbia	_	1	4	6	7		35	61	147	257	_	õ	2		_
Florida	25	22	44	142	115		452	549	1,564	2,820	6	3	9	25	17
Maryland <sup>§</sup>	3	4	11	26	29	81	121	160	814	953	2	1	5	29	15
North Carolina	—	0	0	_		140	314	571	1,921	3,129	—	0	8	3	12
South Carolina <sup>®</sup>	2	1 9	8 28	3 36	13	209 75	158 121	1,135 249	1,475 514	874 632	_	0	3	4	9
West Virginia	_	Ō	6	1	1	9	18	42	98	74	—	Ó	4	2	_
E.S. Central	2	11	42	45	48	237	585	877	3,298	3,878	4	2	8	21	16
Alabama <sup>s</sup>	N	6	30	24 N	26 N		195 55	313 268	662 353	1,595 485	_	0	5	5	3
Mississippi	N	0	0	N	N		149	434	905	647	_	ŏ	1	_	_
Tennessee§	2	4	12	21	22	201	194	239	1,378	1,151	4	1	5	16	12
W.S. Central	2	6	21	30	18	293	897	1,279	4,508	5,945	1	1	26	13	12
Arkansas <sup>®</sup> Louisiana	_	3	13	13	6	58	83 122	354	538 528	1.272	_	0	2	2	
Oklahoma	2	2	11	15	12		90	184	456	484	1	1	24	11	g
Texas <sup>®</sup>	N	0	0	N	N	235	577	932	2,986	3,504	_	0	2	_	1
Arizona	25	28	68 10	146	164	80	280	466	1,324	2,000	8	4	10	39	36
Colorado	15	10	33	54	45	7	72	92	372	527		1	4	8	12
Idaho <sup>§</sup>	1	3	12	12	24		2	20	17	24	_	0	1	1	2
Nevada <sup>§</sup>	_	2	8	9	8 4	64	30	20 135	231	343	_	0	1	1	_
New Mexico <sup>§</sup>		1	6	6	8	—	32	65	190	270	_	0	2	2	6
Utah Wyoming <sup>§</sup>	4	1	25 4	25 3	47	_	1/	26 5	87	130 30	3	0	4	6	- 3
Pacific	Q	57	98	256	356	44	784	971	3 788	5 601	2	2	7	16	23
Alaska		1	17	11	2	6	10	27	54	61	_	ō	2	4	2
California	—	40	68	171	274	_	640	833	3,016	4,665	_	0	5	_	2
Oregon <sup>§</sup>	8	8	12	49	66	17	28	46	154	209	2	1	4	12	16
Washington	1	7	42	18	7	21	77	142	511	528	—	0	1	—	1
American Samoa	U	0	0	U	U	U	0	2	U	U	U	0	0	U	U
G.N.M.I. Guam	U	0	0	U	U	U 	0	0	U	U 	U	0	0	U 	0
Puerto Rico	1	2	15	4	5		6	13	36	47		õ	2		_
U.S. Virgin Islands	11	0	0	[]	U	11	0	4	11	U		0	0	U	11

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. \* Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

			Hepatiti A	s (viral, ac	ute), by ty	pet		В				Le	gionellos	sis	
		Prev	ious				Prev	ious				Prev	vious		
Poporting area	Current	52 w	eeks	Cum	Cum	Current	52 w	Mex	Cum	Cum	Current	<u>52 w</u>	eeks	Cum	Cum
United States	20	62	117	181	525	23	84	202	311	485	25	48	107	159	164
New England	1	2	20	2	40	20	1	6	4	29	1	1	12	2	10
Connecticut	1	1	2	1	3		0	2	_	14	1	Ó	9	1	2
Maine <sup>§</sup>	—	0	2	—	1	—	0	2	—	3	—	0	2	—	1
New Hampshire	_	0	4 16	1	20	_	0	3	_	3	_	0	4	_	- 0
Rhode Island§	_	Õ	2	_	1	2	Õ	4	4	_	_	Õ	6	_	_
Vermont <sup>§</sup>	_	0	2	—	2	—	0	1	—	—	—	0	2	1	1
Mid. Atlantic	1	7	19	25	46	2	8	17	31	69	3	15	53	33	49
New Jersey New York (Unstate)	_	1	5 11	3	14	1	2	6	3	25	1	1	11 30	3	10
New York City	1	2	11	10	16	_	2	6	3	16	_	2	18	2	13
Pennsylvania	_	1	5	6	11	1	3	7	19	25	2	5	19	20	19
E.N. Central	5	6	13	22	40	4	8	16	49	48	7	8	26	39	29
Illinois Indiana	_	1	4	2	9	1	1	/ 0	1	8	_	0	2	2	1
Michigan	2	2	8	12	14	3	3	8	22	24	1	3	10	14	7
Ohio	3	1	4	8	11	_	2	10	23	14	6	4	19	23	8
Wisconsin	_	1	4	_	3	_	0	3	3	2	_	0	3	_	6
W.N. Central	1	2	8	8	20	—	3	9	14	14	—	1	15	8	4
Kansas	_	0	5	_	13	_	0	2		3	_	0	2	_	_
Minnesota	_	Ō	7	—	_	_	Ō	5	_	_	_	Ō	11	1	_
Missouri	—	1	3	4	4	_	1	6	9	8	—	0	2	5	4
Nebraska <sup>3</sup> North Dakota	_	0	2		_	_	0	0		_	_	0	2	_	_
South Dakota	1	Õ	3 3	2	2	_	Õ	1	1	_	_	Õ	1	_	_
S. Atlantic	6	9	29	51	82	10	23	42	107	137	11	9	23	51	40
Delaware	—	0	2		1	—	1	4	3	4	—	0	2	1	1
Elorida	3	03	5 13	23	26	6	0	16	44	1	6	03	5 10	21	18
Georgia	1	1	5	11	4	1	3	8	12	15	5	1	3	8	1
Maryland <sup>§</sup>	1	1	6	3	15	_	2	7	12	30	_	2	8	12	14
North Carolina	_	0	20	1	28	_	0	23	16	19	_	0	5	3	3
Virginia <sup>§</sup>	1	1	7	6	3	1	2	4	12	4	_	1	5	3	3
West Virginia	_	0	3	—	_	2	0	7	3	2	_	0	4	1	_
E.S. Central	_	2	8	6	13	3	7	22	20	47	_	2	9	6	6
Alabama§	_	0	3	1	_	_	2	13	9	16	_	0	2	1	1
Mississippi	_	0	5	2	2	_	0	5 4		13	_	0	5	3	
Tennessee§	_	1	5	2	11	3	3	7	10	14	_	1	7	2	4
W.S. Central	_	6	20	2	24	1	18	102	31	60	_	1	12	2	2
Arkansas§	_	0	9		2	_	1	4	4	7	_	0	1	_	1
Louisiana	_	0	4	2	1	_	0	5 14	2	3	_	0	2	_	_
Texas <sup>§</sup>	_	4	15	_	20	1	14	83	24	50	_	0	12	2	1
Mountain	5	5	12	29	53	1	3	8	12	28	3	2	9	14	7
Arizona	4	3	9	25	34	_	0	2		7	1	1	4	3	_
Colorado	1	1	3	3	7	—	0	4	2	7	_	0	2	2	2
Idano <sup>s</sup> Montana§	_	0	2	_	3	_	0	2	1	4	1	0	3	1	1
Nevada§	_	Ő	1	1	3	_	Ő	4	5	6	_	Ő	2	2	3
New Mexico <sup>§</sup>	—	0	2	—	3		0	2	3	3		0	1	2	
Utah Wyoming§	_	0	2	_	2	1	0	5	1	1	1	1	6	4	1
Pacific	1	15	52	26	207		11	24	12	52		1	6	1	17
Alaska	_	15	53 0	30	207	_	0	24 3	43		_	0	0	4	
California	_	13	48	30	193	—	8	17	28	42	_	1	6	4	17
Hawaii	_	0	2	_	5	_	0	1			_	0	0	_	_
Washington	1	1 0	4 4	5 1	6	_	1	5 8	11 2	10	_	0	0	_	_
American Samoa		0				IJ		0	-			0	0		
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	_	õ	õ	_	_	_	õ	õ	_	_	_	õ	õ	_	_
Puerto Rico		1	9	4	6		1	9	3	2		0	4		

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. \* Data for acute hepatitis C, viral are available in Table I. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

		L	.yme disea	ase			I	Valaria			Men	ingococ All	cal disea	se, invasi .ps	ive†
	•	Prev	/ious				Prev	vious				Pre	vious		-
Reporting area	Current week	52 w Med	Max	Cum 2007	Cum 2006	Current week	Med	Max	Cum 2007	2006	Current	52 v Med	Max	2007	2006
United States	85	245	1,012	644	609	3	23	41	72	160	15	19	45	110	176
New England	7	19	260	44	51	_	0	6	_	5	_	1	3	2	6
Connecticut	5	8	227	12	20	—	0	3	—	—	—	0	2	1	2
Maine <sup>s</sup> Massachusetts	_	2	34	20	10 13	_	0	1	_	4	_	0	2	1	2
New Hampshire	2	3	95	8	6	—	0	3	—	_	—	Ō	2	—	_
Rhode Island <sup>®</sup> Vermont <sup>§</sup>	_	0	93 15	4	1	_	0	1	_	1	_	0	1	_	_
Mid. Atlantic	11	143	566	333	370	_	5	13	13	41	_	2	11	12	30
New Jersey		25	186	52	139	—	1	3	_	12	—	0	2	_	3
New York (Upstate)	4	59	347	/0	42 4	_	1	9	35	20 20	_	1	4	2	2 12
Pennsylvania	7	43	234	211	185	_	1	4	5	6	_	ò	4	7	13
E.N. Central	—	12	158	3	38	_	2	7	8	18	6	2	12	15	16
Illinois Indiana	_	0	0	_	_	_	1	5	2		4	0	3 5	6	1
Michigan	—	1	5	1	2	—	0	2	2	2	_	0	4	5	2
Ohio Wisconsin	_	0 11	5 154	2	4	_	0	2	2	6	2	1	4	4	3
W.N. Central	5	5	169	13	9	_	1	14	8	4	_	1	4	9	7
lowa	_	1	8		1	_	Ö	1	1	_	_	ò	2	1	_
Kansas Minnesota	5	0	2 167	1 12	8	_	0	2 12		2	_	0	1	1	_
Missouri	_	Ō	2		_	_	0	1	1	1	_	0	3	5	3
Nebraska§	_	0	2	_	_	_	0	1	2	—	_	0	1		4
South Dakota	_	0	1	_	_	_	0	0	_	1	_	0	1	1	_
S. Atlantic	59	37	129	234	128	3	6	14	28	45	1	4	10	19	33
Delaware	_	7	28	41	43	—	0	1	1	—	—	0	1	—	2
Florida	1	1	5	7	3	_	1	4	8	4	_	2	7	7	10
Georgia		0	1		1	_	1	6	3	16	_	0	3	4	1
Maryland <sup>®</sup> North Carolina	57	19 0	86 4	164	73	3	1	5 4	8	13	1	0	2	4	4
South Carolina§		0	2		_	—	0	2	_	2	—	Ō	2	2	2
Virginia <sup>§</sup> West Virginia	1	6 0	36 10	22	_	_	1	4	6	7	_	0	4	2	3
E.S. Central	_	0	3	2	_	_	0	3	5	4	1	1	3	8	6
Alabama§	—	0	3	_	—	—	0	2	_	1	1	0	2	2	1
Kentucky Mississippi	_	0	2	_	_	_	0	1	1	1	_	0	1	2	1
Tennessee§	_	Ő	2	2	_	—	Ő	2	3	1	_	Ő	2	4	3
W.S. Central	_	0	5	1	_	_	1	7	2	5	3	1	4	8	5
Arkansas <sup>8</sup> Louisiana	_	0	0	_	_	_	0	2	1	_	_	0	1	1	2
Oklahoma	_	Ő	Ö		—	_	Õ	2	1	1	2	Ő	3	4	1
Texas <sup>§</sup>	_	0	5	1		_	1	6	_	4	1	0	3	3	2
Mountain Arizona	_	0	3	2	1	_	1	6	_	9	2	1	4	9	17
Colorado	_	Ő	1	_	_	_	0	2	_	3	1	0	2	1	7
Idaho <sup>§</sup>	_	0	2		—	—	0	1	—	—	—	0	1	1	—
Nevada§	_	0	1	1	_	_	0	1	_	_	_	0	0	_	_
New Mexico <sup>§</sup>	—	0	1	—	—	—	0	1	—		_	0	1	1	
Utan Wyoming <sup>§</sup>	_	0	1	_	_	_	0	2	_	4	1	0	2	3	- 3
Pacific	3	3	16	12	12	_	4	13	8	29	2	5	16	28	56
Alaska	1	0	1	1		—	0	4	2	2	—	0	1		1
California Hawaii	N	2	14	9 N	12 N	_	2	6	2	24	_	3	10	19	33
Oregon§	2	õ	2	2	_	_	ŏ	3	3	2	_	õ	4	4	15
Washington	_	0	2		—	_	0	5	1	1	2	0	5	3	7
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	_	_
Guam	_	ŏ	ŏ	_	_	_	ŏ	ŏ	_	_	_	Ő	ŏ	_	_
Puerto Rico U.S. Virgin Islands	N U	0 0	0 0	N U	N U	U	0 0	1 0	 U	U	U	0 0	1 0	1	_

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. \* Data for meningococcal disease, invasive caused by serogroups A, C, Y, & W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

<u>(7th Week)*</u>			<b>D</b>												
		Dees	Pertussi			Rab	ies, anim	nal		Ro	ocky Mo	untain sp	otted feve	er	
	Current	52 w	eeks	Cum	Cum	Current	52 v	vious veeks	Cum	Cum	Current	52 v	/ious /eeks	Cum	Cum
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	107	254	575	746	1,810	27	108	171	293	593	3	35	118	31	161
New England	2	21	53	14	211	10	12	26	56	48	_	0	1	_	_
Connecticut Mainet	_	1	9 14	7	14	6	4	14	29	11	N	0	0	N	
Massachusetts	_	8	28	_	162	_	2	17		22		Ő	1		
New Hampshire	2	2	27	4	1	2	1	5	8	1	—	0	1	—	_
Vermont <sup>†</sup>	_	1	17	3	21	2	1	3	4	6	_	0	0	_	_
Mid. Atlantic	20	36	149	206	204	_	17	57	38	77	_	1	6	4	5
New Jersey	_	4	13	7	59	_	0	0	_	_	_	0	1	_	1
New York (Upstate)	17	20	143	143	32	—	0	0		—	—	0	2	—	- 1
Pennsylvania	3	11	26	56	102	_	16	56	30	77	_	1	4	4	3
E.N. Central	26	41	77	175	344	_	2	18	_	3	_	1	6	1	2
Illinois	_	8	17	_	97	—	Ō	7	—	1	—	0	4	_	1
Indiana Michigan	6	4	23	43	8 65	_	0	2	_	2	_	0	1	1	_
Ohio	20	11	56	132	124	_	0	9	_		_	0	4	_	1
Wisconsin	_	2	8	—	50	—	0	0	—	—	—	0	1	—	—
W.N. Central	4	20	71	57	260	3	6	20	16	17	1	2	14	6	3
lowa		5	12	16	83	- 1	1	7	1	3	—	0	1		—
Minnesota	4	4	56		- 13	_	0	6	2	1	_	0	2	_	_
Missouri	_	5	13	5	74	_	1	6	1	1	1	2	12	5	3
Nebraska <sup>†</sup>	_	1	9	1	27		0	0	- 2		_	0	5	_	_
South Dakota	_	0	4	4	1		0	4		7	_	0	0	_	_
S. Atlantic	8	17	136	79	134	10	38	62	141	333	_	13	68	8	146
Delaware	_	0	1	_	1	_	0	0	_	_	_	0	3	1	2
District of Columbia	6	0	2	41	2		0	0		176	_	0	1	_	
Georgia		4	20	41	6	_	5	16	16	25	_	1	5	1	2
Maryland <sup>†</sup>	1	2	6	15	35	_	6	13	18	30	_	1	6	4	6
North Carolina	- 1	0	94	10	19	9	9	22	42	23	—	5	61	_	133
Virginia <sup>†</sup>	_	3	19	13	12	_	12	27	30	57	_	2	13	2	_
West Virginia	_	Ō	9	_	_	_	2	7	6	9	_	0	2	_	_
E.S. Central	_	6	28	27	47	_	4	13	8	24	1	6	31	10	3
Alabama <sup>†</sup>	_	2	19	11	10	—	1	8		8	—	2	11	5	_
Mississippi	_	0	э 4	1	8 7	_	0	4	4		_	0	1	_	_
Tennessee <sup>†</sup>	_	3	11	15	22	_	2	9	4	15	1	4	22	5	3
W.S. Central	_	18	111	19	60	4	6	34	10	65	_	1	27	_	2
Arkansas <sup>†</sup>	_	1	13	_	4	1	0	5	2	1	_	0	10	_	2
Oklahoma	_	0	2	_	1	3	1	9	8	5	_	0	18	_	_
Texas <sup>†</sup>	_	14	98	19	54	_	0	29	_	59	_	0	4	_	_
Mountain	39	42	88	140	421	_	3	27	6	16	1	0	5	2	_
Arizona	14	7	29	21	73	—	2	10	5	16	—	0	2	_	—
Idaho†	1	9	32	54 8	16	_	0	25	_	_	1	0	3	1	_
Montana <sup>†</sup>	_	1	9	5	16	_	Ō	2	_	_	_	0	2	_	_
Nevada <sup>†</sup>	_	0	6		5	_	0	0	_	_	_	0	0	_	_
Utah	17	13	39	41	76	_	0	2 1	1	_	_	0	2	_	_
Wyoming <sup>†</sup>	—	1	8	8	8	—	0	2	—	—	—	0	1	—	—
Pacific	8	28	228	29	129	_	4	12	18	10	_	0	1	_	_
Alaska	—	1	8	8	16	—	0	6	14	3	N	0	0	N	N
Hawaii	_	∠ı 1	225 6	2	45 24	N	3 0	0	4 N	Ň	N	0	0	N	N
Oregon <sup>†</sup>	1	1	8	6	30	_	Ō	4	_		_	Ō	1	_	_
Washington	7	5	46	13	14	—	0	0	—	—	N	0	0	N	N
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I. Guam	U	0	0	U	0	<u> </u>	0	0	<u> </u>	0	U	0	0	UN	U
Puerto Rico	_	0	1	_	_	1	1	6	7	12	N	Ő	Ő	N	N
U.S. Virgin Islands	11	0	0	U	U	11	0	0	U	U	11	0	0	U	11

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		s	almonello	sis		Shiga t	oxin-pro	ducing E	. coli (ST	EC)†		:	Shigellos	is	
	-	Prev	/ious	0			Pre	vious	•			Pre	vious		
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	257	812	1,369	2,865	3,911	20	68	173	154	251	95	257	475	1,028	1,310
New England Connecticut Maine <sup>§</sup>		20 0 2	82 36 13	67 36 12	610 479 7		2 0 0	16 0 8	2	85 72 1	=	3 0 0	14 5 2	8 5 2	89 64
Massachusetts New Hampshire Rhode Island <sup>§</sup>		13 4 1	53 25 10	7	106 12 4	1	0 0 0	9 3 2	2	8 2 1		2 0 0	11 2 3	1	22 3 
Vermont <sup>®</sup> Mid. Atlantic		1 89	6 190	4 400	2 396	5	0	4 63	 20	1 12	5	0 16	2 43		113
New Jersey New York (Upstate) New York City Pennsylvania		14 26 24 29	49 84 50 67	25 117 97 161	70 47 125 154	4 1	1 3 0 2	4 14 4 49	1 10  9	2 2 1 7	4 1	3 4 4 1	35 40 14 6	9 23 6	44 32 28 9
<b>E.N. Central</b> Illinois Indiana	25 — 8	102 24 15	196 59 55	247 11 30	474 145 28	3	10 1 1	58 7 8	30 	28 3 4	8 3	22 7 2	56 41 17	41 3 8	115 50 7
Michigan Ohio Wisconsin	1 16 —	18 24 17	35 56 27	53 123 30	95 127 79	3	1 3 2	6 18 39	5 25 —	6 6 9	5	2 3 3	8 14 10	4 18 8	28 17 13
W.N. Central Iowa Kansas Minnesota Missouri Nebraska <sup>§</sup> North Dakota	25 1 2 14 6 2	47 8 7 11 14 4 0	109 26 16 60 35 9 5	203 31 30 39 69 17 2	225 39 32 47 67 23 	4 1 3 —	12 1 3 2 1 0	43 22 4 27 13 11 0	23 — 12 5 4	31  14  	15 5 10 	36 2 4 9 1	77 13 11 24 69 14 18	179 5 4 35 120 2 	159 2 13 11 101 19
South Dakota S. Atlantic	 114	3 222	7 396	15 1,124	17 968	4	0 11	5 32	47	 38		6 65	24 145	13 464	12 284
District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup> West Virginia		1 95 33 13 30 19 20 2	4 176 69 33 130 51 57 16	4 494 223 76 182 52 81 6	9 422 126 68 222 51 54 54	3 1 	0 2 1 2 2 0 2 0	3 1 9 7 9 11 3 11 5	3 	 8 4 6 15 1 4	36 6 1 —	0 31 24 1 1 2 0	2 76 56 10 21 9 9 2	270 174 10 5 4	
E.S. Central Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	8 3 1 -	62 22 8 12 16	153 95 23 42 32	177 52 45 5 75	235 105 37 35 58	 	4 0 1 0 3	21 5 12 0 9	8 1 1 6	20 2 6 	6 1 2 - 3	13 5 3 1 3	84 75 15 13 13	71 21 10 1 39	103 15 60 18 10
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	13 5 8	82 15 15 8 46	186 45 42 40 105	71 29 10 30 2	196 47 30 26 93	 	3 0 0 2	27 7 1 17 23	6 4 1 1	1 — — 1	7 2 2 3	36 2 1 2 29	174 10 25 9 161	63 8 5 5 45	95 5 1 12 77
Mountain Arizona Colorado Idaho <sup>§</sup> Montana <sup>§</sup> Nevada <sup>§</sup> New Mexico <sup>§</sup> Utah Wyoming <sup>§</sup>	24 9 6 2 1 — 6	51 18 12 3 2 4 5 1	87 45 30 9 10 20 15 15 4	229 93 54 17 9 12 14 22 8	281 108 62 21 13 16 23 29 9		8 2 1 2 0 0 1 1 0	35 13 8 0 4 5 14 3	10 5 1 	25 11 6 4  2 2	10 6 2 	26 11 3 0 1 2 1 0	87 35 15 3 13 20 15 6 19	73 41 9 1 2 8 7 3 2	111 62 11 4  9 16 8 1
Pacific Alaska California Hawaii Oregon <sup>§</sup> Washington	11 2  9	114 1 89 5 8 10	181 4 158 16 16 58	347 5 264 21 27 30	526 15 416 31 50 14	3 N  - 3	4 0 0 1 2	17 0 1 2 9 13	8 N 1 3 3	11 N N 1 7 3	1   1	32 0 28 0 1 2	87 2 76 3 6 13	91 4 69 2 8 8	241 1 176 10 41 13
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	U U 2	0 0 11	0 0 0 47	U U 16	U U 15	U U N 	0 0 0 0	0 0 0			U U 	0 0 0 0	0 0 0 6		U U 1

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	Stre	ptococcal	disease, i	nvasive, gro	oup A	Strept	ococcus p	neumonia Age <5 yea	e, invasive ( ars	disease <sup>†</sup>	
Descritions	Current	Prev 52 w	ious eeks	Cum	Cum	Current	Prev 52 w	vious veeks	Cum	Cum	
Reporting area	week	Med	IVIAX	2007	2006	week	ivied	IVIAX	2007	2006	
United States	57	84	213	491	790	22	23	67	153	161	
New England	1	3	15 0	10	33	_	1	4	6	8	
Maine <sup>§</sup>	_	õ	2	2	3	_	Ő	2	_	_	
Massachusetts	_	1	5	_	24	_	0	4	_	7	
New Hampshire	_	0	9	2	5	_	0	4	2	1	
Vermont <sup>§</sup>	1	0	4	6	1	_	0	3	3	_	
Mid Atlantic		1/	40	75	151	1	2	12	20	21	
New Jersev		2	40	75	35	4	1	4	20	8	
New York (Upstate)	4	5	24	30	24	4	2	13	20	11	
New York City	_	3	8	11	33		0	2		2	
Pennsylvania	5	6	13	34	59	N	0	0	N	N	
E.N. Central	3	14	45	80	172	2	6	14	28	50	
Ilinois	-	4	12	6	63	-	1	6	1	11	
Michigan	_	2	11	13	40	1	1	5	13	14	
Ohio	2	4	19	49	38	_	1	7	9	11	
Wisconsin	—	1	4	—	14	_	0	2	1	8	
W.N. Central	3	4	57	32	34	_	2	10	8	5	
owa		0	0			—	0	0	_		
Kansas	1	1	3	8	18	_	0	3	2	4	
VIInnesota Missouri	2	2	52	20	9	_	0	2	5	1	
Nebraska§		Ō	2	1	6	_	Ő	2	_	_	
North Dakota	_	0	2	1	1	—	0	1	1	_	
South Dakota	—	0	2	2	—	—	0	0	_	—	
S. Atlantic	16	21	44	129	186	5	1	7	30	12	
Delaware	—	0	2	_	1	—	0	0	—	—	
District of Columbia	4	5	16	30	4	2	0	2	6	_	
Georgia	7	5	12	41	44	1	Ő	2	8	_	
Maryland§	_	4	12	24	33	2	1	5	13	9	
North Carolina	1	0	26	14	21	—	0	0	_	—	
South Carolina <sup>s</sup>	4	2	0 Q	0 12	10	_	0	1	2	_	
West Virginia	—	0	6	2	5	_	ŏ	2	_	3	
E.S. Central	3	4	11	28	33	1	0	6	12	5	
Alabama§	Ň	0	0	N	N	Ň	Ō	Ō	N	Ň	
Kentucky		0	5	6	5	—	0	0	—	_	
	N	0	0	N	N 28		0	2	10	5	
	3	3	9	22	20	1	0	0	12	_	
W.S. Central	3	6	29	31	56	4	4	32	20	24	
Louisiana	_	0	2	-	1		0	1	1	-	
Oklahoma	3	2	8	16	24	2	1	12	8	11	
Texas <sup>§</sup>	—	4	25	11	30	1	2	17	8	9	
Mountain	18	11	42	92	107	4	4	12	25	36	
Arizona	8	5	34	39	61	2	2	9	16	21	
Colorado	4	2	1	24	23	2	1	4	/	9	
Montana§	N	0	0	N	N	N	0	0	N	N	
Nevada§	_	Ō	3	3	_	_	Ō	Ō	_	_	
New Mexico <sup>§</sup>	_	1	5	6	8	—	0	2	2	5	
Utah Muoming <sup>§</sup>	6	1	5	17	12	_	0	0	_	_	
vvyorning <sup>s</sup>		0	1	1	1		0	0			
Pacific	1	2	9	14	18 N	2	0	1	4	—	
niaska California	I N	0	2	5 N	N	2 N	0	1 0	4 N	N	
Hawaii		2	9	9	18		õ	1			
Oregon§	Ν	0	0	Ň	N	N	0	0	Ν	Ν	
Washington	N	0	0	Ν	N	N	0	0	Ν	Ν	
American Samoa	U	0	0	U	U	U	0	0	U	U	
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	
Guam Puerto Rico	—	0	0	_	_	N	0	0	N	N	
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	

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		St	reptococo	us pneum	<i>oniae</i> , inva	sive diseas	e, drug re	esistant <sup>†</sup>			<b>S</b> 10	abilia ne	imonyon	daaaand	
		Prev	vious				Pre	e <o year<br="">vious</o>	5		Sy	Pre	imary an	a seconda	ary
	Current	52 w	eeks	Cum	Cum	Current	<u>52 v</u>	veeks	Cum	Cum	Current	<u>52 v</u>	veeks	Cum	Cum
Reporting area	week	Med	Max	2007	2006	меек	Med	10	2007	2006	week	190	Max	2007	1 1 4 4
Now England	41	44	90	10	414	5	0	19	40	1	00	100	232	030	1,144
Connecticut	_	0	0			_	0	Ó	_	_	-	4 0	6	3	23
Maine <sup>§</sup>	_	0	2	3	2	_	0	1	—	_	1	0	2		1
New Hampshire	_	0	0	_	_	_	0	0	_	_	1	0	2	4	4
Rhode Island <sup>§</sup>	- 1	0	2	3		_	0	1	—		1	0	3	3	
Mid Atlantic	1	2	2	4	20	_	0	2		י ס		22	25	175	120
New Jersey	_	0	0	20	20	_	0	0	-		1	23	8	16	22
New York (Upstate)	1	1	5	6	4	_	0	2	1	_	3	3	13	10 118	13
Pennsylvania	_	2	6	20	16	_	0	2	3	2	1	5	12	31	29
E.N. Central	7	10	40	111	79	1	1	8	11	15	8	15	32	67	128
Illinois Indiana	4	0	2 24		6 10	_	0	1		2 4	_	7	13	7	75 12
Michigan		Ō	3		6	_	Õ	1	-		6	2	10	20	6
Ohio Wisconsin	3 N	5	38 0	94 N	57 N	1	1	5	10	9	1	4	9 4	29 6	28 7
W.N. Central	_	1	51	11	8	_	0	10	1	1	2	5	13	17	32
lowa	_	0	0	<u> </u>	_	_	Ö	0	_	_	_	Ö	3		2
Kansas Minnesota	_	0	1 50	1	_	_	0	0 10	_	_	2	0	3	3	4
Missouri	—	1	3	10	8	—	Ö	1	—	1	_	3	9	8	16
Nebraska <sup>s</sup> North Dakota	_	0	1	_	_	_	0	0	_	_	_	0	2	_	1
South Dakota	_	0	3	_	_	_	0	1	1	_	_	Ō	3	_	_
S. Atlantic	28	21	49	176	243	2	2	8	20	22	16	42	114	211	235
Delaware District of Columbia	_	0	0	1	7	_	0	0 2	_	_	_	0	3	2 10	5 20
Florida	18	12	29	99	95	2	2	8	17	21	_	15	23	68	100
Georgia Maryland <sup>§</sup>	10	0	24	/0	129	_	0	0	_	_	6	5	83 14	5 42	31
North Carolina	—	0	0	_	—	—	0	0	_	—	3	5	21	42	42
Virginia <sup>§</sup>	N	0	0	N	N	_	0	0	_	_	2	3	5 17	14 28	16
West Virginia	—	1	14	6	12		0	1	3	—	—	0	2	—	_
E.S. Central		2	11	22 N	38 N	2	0	2	3	5	5	14	29	83	69
Kentucky		0	3	6	7	_	0	2	_	_	1	1	9	11	6
Mississippi Tennessee§	_	0	0	16	31	2	0	0	3	5		1	8 12	14 35	10 21
W S Central	4	0	5	17	3		0	1	_	2	8	29	54	158	178
Arkansas§	—	0	3		3	_	0	0	_	2	1	1	7	12	11
Louisiana Oklahoma		0	2	1 16	_	_	0	1	_	_	_	5 1	27 4	17 12	14 8
Texas <sup>§</sup>	_	0	0		_	_	0	Ő	_	_	7	21	34	117	145
Mountain	_	1	7	7	19	_	0	5	1	7	_	8	26	27	62
Arizona Colorado	_	0	0	_	_	_	0	0	_	_	_	3	16 5	11	32
Idaho <sup>§</sup>	Ν	Ő	Ő	Ν	Ν	_	Ő	Ö	_	_	_	Ö	1	_	1
Montana <sup>s</sup> Nevada <sup>§</sup>	_	0	0	5	2	_	0	0	1	_	_	0	1 12	8	16
New Mexico <sup>§</sup>	_	0	0	-	-	_	0	0	_	_	_	1	5	7	4
Utah Wvoming <sup>§</sup>	_	0	7 3	1	12 5	_	0	4	_	6 1	_	0	2	_	1
Pacific	_	0	0	_	_	_	0	0	_	_	2	36	51	69	285
Alaska		0	0			—	0	0	—	—	_	0	4	1	
Hawaii	IN	0	0			_	0	0	_	_	_	32 0	44	50	248
Oregon <sup>§</sup>	N	0	0	N	N		0	0	—	—	_	0	6	2	2
Amorican Samaa	IN II	0	0				0	0			2	2		10	32
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam Ruerto Bico	N	0	0	N	N	_	0	0	—	—	—	0	0		
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	Ŭ	20 U

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-: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

Med: Median. Max: Maximum. <sup>\*</sup> Incidence data for reporting years 2006 and 2007 are provisional.
<sup>\*</sup> Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).
<sup>§</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

		Varic	ella (chick	enpox)			Neu	West roinvasiv	Nile virus ve	s disease <sup>†</sup>		Non-	neuroinva	asive§	
		Prev	vious	· · · /			Prev	/ious	-			Pre	vious		
Reporting area	Current	52 w Med	Max	Cum 2007	Cum 2006	Current	52 w	veeks Max	Cum 2007	Cum 2006	Current	52 v	veeks Max	Cum 2007	Cum 2006
United States	684	807	1,432	5,002	6,455		1	178		2000		1	399		
New England	6	23	59	83	302	_	0	3	_	_	_	0	2	_	_
Connecticut	_	0	0	_		_	0	3	_	—	_	0	1	_	_
Maine <sup>1</sup>	_	0	16	_	56	—	0	0	_	—	—	0	0	_	_
Nassachusells New Hamnshire	3	5	47	30	58	_	0	0	_	_	_	0	0	_	_
Rhode Island <sup>1</sup>	_	0	0			_	0	Ő	_	_	_	Ő	Ő	_	_
Vermont <sup>®</sup>	3	12	52	53	107	—	0	0	—	—	—	0	0	—	_
Mid. Atlantic	81	106	189	845	926	_	0	11	_	_	_	0	4		_
New Jersey	N	0	0	N	N	—	0	2	—	—	—	0	1	—	_
New York (Upstate)	N	0	0	N	N	_	0	5	_	_	_	0	1	_	_
Pennsvlvania	81	106	189	845	926	_	0	2	_	_	_	0	2 1	_	_
F N Central	164	276	587	1 809	2 875	_	0	43	_	_	_	0	33	_	_
Illinois		1	7		14	_	0	23	_	_	_	Ő	23	_	_
Indiana		0	0			—	0	7	_	_	_	0	12	_	_
Michigan	36	104	258	752	842	—	0	11	_	—	—	0	2	_	_
Wisconsin	128	130	449 52	1,052	293	_	0	2	_	_	_	0	2	_	_
W N. Control	24	20	00	206	410		0	26				0	70		
lowa	34 N	29	98	200 N	412 N	_	0	30	_	_	_	0	4	_	_
Kansas	17	5	45	140	96	_	Õ	3	_	_	_	õ	3	_	_
Minnesota		0	0			—	0	6	—	—	—	0	7	—	—
Missouri	17 N	20	82	133	295 N	_	0	14	_	_	_	0	2	_	_
North Dakota	IN	0	8		8	_	0	9 5	_	_	_	0	28	_	_
South Dakota	_	1	15	13	13	_	Ō	7	_	_	_	Ō	22	_	_
S. Atlantic	47	87	223	473	440	_	0	2	_	_	_	0	7	_	_
Delaware	_	1	6	7	19	_	0	0	_	_	_	0	0	_	_
District of Columbia		0	5	170	3	—	0	0	_	—	—	0	1	_	_
Florida Georgia	29 N	0	37	176 N	N N	_	0	1	_	_	_	0	0	_	_
Maryland <sup>1</sup>	N	Ő	0	N	N	_	0	2	_	_	_	ŏ	2	_	_
North Carolina	_	0	0	_		—	0	1	_	_	_	0	0	_	_
South Carolina <sup>®</sup>	2	15	57	73	148	—	0	1	_	—	—	0	0	—	_
West Virginia	16	28 27	70	216	236	_	0	1	_	_	_	0	2	_	_
E S Contral	10		12	12	200		0	15		0		0	16		
Alabama <sup>1</sup>	_	4	43	43		_	0	2			_	ő	0	_	_
Kentucky	Ν	0	0	N	N	_	0	2	_	—	_	0	1	_	_
Mississippi		0	1	1		—	0	10	_	2	_	0	16	_	_
Iennessee	N	0	0	N	N	_	0	4	_	_	_	0	2	_	_
W.S. Central	258	200	722	1,026	961	—	0	58	_	—	—	0	26	_	_
Arkansas" Louisiana	_	12	92	20 14	115	_	0	4 13	_	_	_	0	2	_	_
Oklahoma	_	Ö	Ő	_	_	_	Ő	6	_	_	_	ŏ	4		_
Texas <sup>1</sup>	257	175	629	992	842	—	0	38	—	—	—	0	16	—	—
Mountain	93	61	137	424	539	_	0	61	_	_	_	1	228	_	_
Arizona		0	0			—	0	9	—	—	—	0	15	—	_
Colorado	46 N	24	76	179 N	357 N	_	0	10	_	_	_	0	51 157	_	_
Montana <sup>¶</sup>	1	0	11	48	N	_	0	30	_	_	_	0	157	_	_
Nevada <sup>1</sup>	_	Ō	3	_	1	_	0	9	_	_	_	Ō	16	_	_
New Mexico <sup>1</sup>	3	3	34	22	66	—	0	1	—	—	—	0	.1	_	_
Utah Wyoming1	43	1/	65 11	1/5	112	_	0	8	_	_	_	0	1/	_	_
Desifie	_	1		10	0		0	45				0	10		
Alaska	1	0	9	13	N	_	0	15	_	_	_	0	51	_	_
California		ŏ	ŏ		Ň	_	ŏ	15	_	_	_	ŏ	37		_
Hawaii		0	0			—	0	0	_	_	_	0	0	_	_
Uregon <sup>1</sup> Washington	N	0	0	N	N	—	0	2	—	—	—	0	14	—	—
vvasiliigion	IN	0	0	IN	IN 		0	0			_	0	2		
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam		0	0	_			0	0				0	0	_	
Puerto Rico	6	10	30	41	47	_	Õ	õ	_	_	_	õ	õ	_	_
LLS Virgin Islands	11	0	0	11	11	11	0	0	11	U	11	0	0	11	11

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. † Incidence data for reporting years 2006 and 2007 are provisional. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed) (ArboNET Surveillance). § Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I. Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-1 associated pediatric mortality, and in 2004 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. 1 Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### TABLE III. Deaths in 122 U.S. cities.\* week ending February 17, 2007 (7th Week)

	All causes, by age (years)								All causes, by age (years)						
Reporting Area	All Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	P&l⁺ Total	Reporting Area	All Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	P&l⁺ Total
New England	576	408	119	31	7	11	56	S. Atlantic	1,224	727	320	95	41	41	55
Boston, MA	138	94	28	9	3	4	18	Atlanta, GA	210	111	51	24	3	21	5
Bridgeport, CT	32	24	7	1	_	_	2	Baltimore, MD	154	92	45	10	6	1	13
Cambridge, MA	12	9		3	-	_		Charlotte, NC	126	70	38	12	4	2	11
Hartford CT	20	23	22	3	3	1	4	Miami Fl	139	09 84	20 40	9	0	5	4 5
Lowell MA	30	18	10	2		_	2	Norfolk VA	68	39	18	5	2	4	3
Lvnn. MA	16	14	2	_	_	_	5	Bichmond, VA	50	23	24	2	1		6
New Bedford, MA	19	15	3	1	_		4	Savannah, GA	42	28	8	3	2	1	2
New Haven, CT	35	26	7	2	_	_	6	St. Petersburg, FL	51	30	13	3	4	1	3
Providence, RI	68	47	13	5	_	3	2	Tampa, FL	146	98	30	9	5	4	1
Somerville, MA	3	2	1	_	_	_	_	Washington, D.C.	79	49	20	7	2	1	2
Springfield, MA	50	37	10	2	—	1	—	Wilmington, DE	21	14	5	2	—	_	—
Waterbury, CT	24	21	2	1	_		2	E.S. Central	1 079	706	279	55	21	18	98
Worcester, MA	59	43	12	2	_	2	3	Birmingham, AL	257	164	69	8	9	7	23
Mid. Atlantic	2,077	1,448	460	101	33	34	110	Chattanooga, TN	110	83	17	6	1	3	8
Albany, NY	46	31	13	1	_	1	6	Knoxville, TN	107	69	27	8	1	2	7
Allentown, PA	23	22	1	_	_	_	_	Lexington, KY	113	71	32	5	3	2	11
Buffalo, NY	61	38	18	3	1	1	6	Memphis, TN	173	110	51	9	1	2	20
Camden, NJ	U	U	U	U	U	U	U	Mobile, AL	129	83	37	6	3	—	11
Elizabeth, NJ	15	10	3	2	_		4	Montgomery, AL	50	36	9	5	_	_	6
Erie, PA	49	40	7	_	2	_	3	Nashville, TN	140	90	37	8	3	2	12
Jersey City, NJ	28	21	5		2		4	W.S. Central	1,123	733	272	74	16	28	73
New York City, NY	1,078	/6/	230	49	1/	14	44	Austin, TX	114	71	26	11	2	4	7
Newark, NJ Patorson NJ	/ 1	35	28	1			с 11	Baton Rouge, LA	58	32	17	7	_	2	_
Philadelphia PA	337	205	86	20	3	14	11	Corpus Christi, TX	50	34	13	2	—	1	5
Pittsburgh PA§	23	205	3	29	1	14		Dallas, TX	210	122	51	26	2	9	17
Reading PA	35	26	6	3			4	El Paso, TX	25	14	6	4	1	_	2
Rochester, NY	126	95	24	3	3	1	9	Fort Worth, TX	142	99	37	3		3	8
Schenectady, NY	21	18	3	_	_	_	2	Houston, TX	0	U	U	U	U	U	U
Scranton, PA	16	13	3	_	_	_	_		//	48	23	1	1	4	1
Syracuse, NY	77	59	11	3	2	2	8	New Offeans, LA"	202	150	40	0	5	0	10
Trenton, NJ	38	28	10	_	_	_	1	Sall Antonio, TA	203	150	40	7	3	2	19
Utica, NY	16	12	4	—	—	_	2	Tulsa OK	167	115	41	7	2	2	8
Yonkers, NY	17	10	5	1	1	_	1					,	-	-	
E.N. Central	1,895	1,263	440	112	39	41	139	Mountain	1,185	//8	264	88	29	26	88
Akron, OH	43	31	10	2	_	_	2	Roico ID	135	79	30	12	Э	3	4
Canton, OH	44	31	12	1	—	_	4	Colorado Springs CO	20 20	37	10	1	1	-	
Chicago, IL	294	192	65	20	10	7	18	Denver CO	107	65	28	5	2	7	10
Cincinnati, OH	85	60	16	4	3	2	14	Las Vegas NV	293	183	76	25	7	2	21
Cleveland, OH	190	136	36	16	2	_	8	Ogden, UT	33	25	5	2	1	_	5
Columbus, OH	185	119	50	9	4	3	18	Phoenix, AZ	157	103	33	12	5	4	11
Dayton, OH	100	/ 1	21	4	3		10	Pueblo, CO	39	28	8	3	_	_	5
Evansvilla IN	193	90	70	17	5		12	Salt Like City, UT	146	95	26	14	6	5	14
Fort Wayne IN	62	49	10	2	_	1	1	Tucson, AZ	176	124	37	12	2	1	11
Garv. IN	24	12	10	2	_		2	Pacific	1 312	903	277	71	32	29	106
Grand Rapids, MI	65	49	12	1	1	2	8	Berkeley, CA	23	14	5	3	_	1	2
Indianapolis, IN	136	80	37	7	4	8	7	Fresno, CA	U	U	U	U	U	U	U
Lansing, MI	36	26	8	2	_	_	3	Glendale, CA	U	U	U	U	U	U	U
Milwaukee, WI	106	70	23	10	2	1	7	Honolulu, HI	50	32	14	1	—	3	2
Peoria, IL	62	46	12	2	—	2	5	Long Beach, CA	65	43	11	5	3	3	6
Rockford, IL	47	32	9	5	1		4	Los Angeles, CA	U	U	U	U	U	U	U
South Bend, IN	58	38	11	5	1	3	5	Pasadena, CA	21	14	5	_	1	1	3
Toledo, OH	75	57	15	1	2	_	6	Portland, OR	99	59	32	4	2	2	9
Youngstown, OH	56	45	8	2	1	_	4	Sacramento, CA	206	146	39	10	8	3	26
W.N. Central	577	382	134	26	19	16	41	San Diego, CA	163	116	30	11	1	5	13
Des Moines, IA	56	39	13	3	1	_	4	San Francisco, CA	110	175	29	12	2	1	8
Duluth, MN	42	29	9	3	_	1	2	Santa Cruz CA	249	1/5	47 1	13	/	1	19
Kansas City, KS	24	12	9	_	1	2	2	Seattle WA	∠0 110	22	4 28	7	1	_	2
Kansas City, MO	98	64	22	6	2	4	6	Spokane WA	60	12	15	1	1	2	4
Lincoln, NE	41	31	9	1	—	—	5	Tacoma WA	113	43 84	18	⊿	6	- 1	5
Minneapolis, MN	62	42	9	2	5	4	3				10	+	0		
Omaha, NE	71	47	19	2	1	2	5	Total	11,048**	7,348	2,565	653	237	244	766
St. Louis, MO	39	16	11	5	7	_	5	1							
St. Paul, MN	67	45	16	3	1	2	3								
wichita, KS	11	57	17	1	1	1	6	1							

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. <sup>↑</sup> Pneumonia and influenza.

<sup>1</sup>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. <sup>1</sup>Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted. \*\* Total includes unknown ages.





\* 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.

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