



# MMWR™

## Morbidity and Mortality Weekly Report

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### National Kidney Month and World Kidney Day

March is National Kidney Month in the United States, and March 12 is World Kidney Day. Both commemorations are intended to raise awareness of kidney disease and the importance of prevention and early detection. Kidney disease is the ninth leading cause of death in the United States (1), but persons with chronic kidney disease (CKD) are more likely to die from cardiovascular disease than develop kidney failure (2).

In 2000, approximately 26 million U.S. adults had CKD (3). However, in 1999–2004, only 42% of adults with severe kidney disease (stage 4) and fewer than 10% of those with less severe disease (stages 1–3) were aware of their conditions (4). CDC, in collaboration with partners, has developed the Chronic Kidney Disease Initiative, including surveillance and screening projects and studies of CKD costs. Additional information is available at <http://www.cdc.gov/diabetes/projects/kidney.htm>.

This year, World Kidney Day focuses on high blood pressure, which, along with diabetes, is a leading cause of CKD (3). Information regarding kidney disease is available from the National Kidney Disease Education Program at <http://www.nkdep.nih.gov>. Information regarding World Kidney Day activities is available at <http://www.worldkidneyday.org>.

#### References

1. Heron MP, Hoyert DL, Xu J, Scott C, Tejada-Vera B. Deaths: preliminary data for 2006. *Natl Vital Stat Rep* 2008;56(16):4–5.
2. Collins AJ, Li S, Gilbertson DT, Liu J, Chen SC, Herzog CA. Chronic kidney disease and cardiovascular disease in the Medicare population. *Kidney Int Suppl* 2003;87:S24–31.
3. Coresh J, Selvin E, Stevens LA, et al. Prevalence of chronic kidney disease in the United States. *JAMA* 2007;298:2038–47.
4. Plantinga LC, Boulware LE, Coresh J, et al. Patient awareness of chronic kidney disease: trends and predictors. *Arch Intern Med* 2008;168:2268–75.

### Hepatitis C Virus Transmission at an Outpatient Hemodialysis Unit – New York, 2001–2008

In July 2008, the New York State Department of Health (NYSDOH) received reports of three hemodialysis patients seroconverting from anti-hepatitis C virus (HCV) negative to anti-HCV positive in a New York City hemodialysis unit during the preceding 6 months. NYSDOH conducted patient interviews and made multiple visits to the hemodialysis unit to observe hemodialysis treatments, assess infection control practices, evaluate HCV surveillance activities, review medical records, and conduct interviews with staff members. This report summarizes the results of that investigation, which found that six additional patients had HCV seroconversion during 2001–2008 and that the hemodialysis unit had numerous deficiencies in infection control policies, procedures, and training. Of the total of nine seroconversions, the sources for four HCV infections were identified phylogenetically and epidemiologically as four other patients in the unit. The unit's policy for routine patient testing for HCV infection was not in accordance with CDC recommendations, and the few recommendations followed were not implemented consistently. Hemodialysis units should routinely assess compliance to ensure complete and timely adherence with CDC recommendations to reduce the risk for HCV transmission in this setting.

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The hemodialysis unit was a large, for-profit, outpatient facility treating 70–100 patients daily at 30 dialysis stations. On May 24, 2008, the New York City Department of Health and Mental Hygiene informed NYSDOH of a confirmed HCV seroconversion in one patient receiving chronic hemodialysis treatment at the unit. On July 1, the unit reported two additional HCV seroconversions directly to NYSDOH. Interviews conducted by NYSDOH with the three patients who seroconverted revealed no other common health-care exposures or behavioral risk factors. In addition, none of the three had been informed by the hemodialysis unit of their HCV infections. Initial site visit findings by NYSDOH documented poor infection control practices and oversight. Specific recommendations addressing deficiencies were provided to the unit's administrative staff members at the initial site visit and throughout the investigation. An epidemiologic investigation subsequently was undertaken to identify additional patients with HCV infection, assess infection control practices, and make recommendations to prevent ongoing transmission.

### Epidemiologic Investigation

The epidemiologic study population consisted of all 162 patients who were receiving hemodialysis at the unit as of July 1, 2008. For all patients, HCV-related test results reported through the unit's central electronic laboratory system and the NYSDOH Electronic Clinical Laboratory Reporting System were reviewed, and patients were matched against New York state and New York City hepatitis surveillance registries. All current patients were offered anti-HCV testing. Because hemodialysis unit staff members were not considered likely sources of HCV transmission in this investigation, staff members were not tested.

Patients were considered HCV positive if their serum was 1) determined positive by enzyme immunoassay (EIA) testing with a signal-to-cutoff ratio consistent with CDC recommendations for a confirmed anti-HCV positive test or 2) determined positive by EIA followed by recombinant immunoblot assay or nucleic acid testing for HCV RNA (1). A chronic case of HCV was defined as a case in a patient who was HCV positive before or upon admission to the hemodialysis unit. An incident case was defined as a case in a patient who was HCV negative upon admission to the hemodialysis unit but who subsequently was confirmed HCV positive. Unit medical records for all HCV-positive patients were reviewed, and serum from available patients was submitted to NYSDOH's Wadsworth Center laboratory for HCV sequencing and phylogenetic analysis.

Of the 162 patients, HCV infection status at hemodialysis unit admission could be documented through medical records

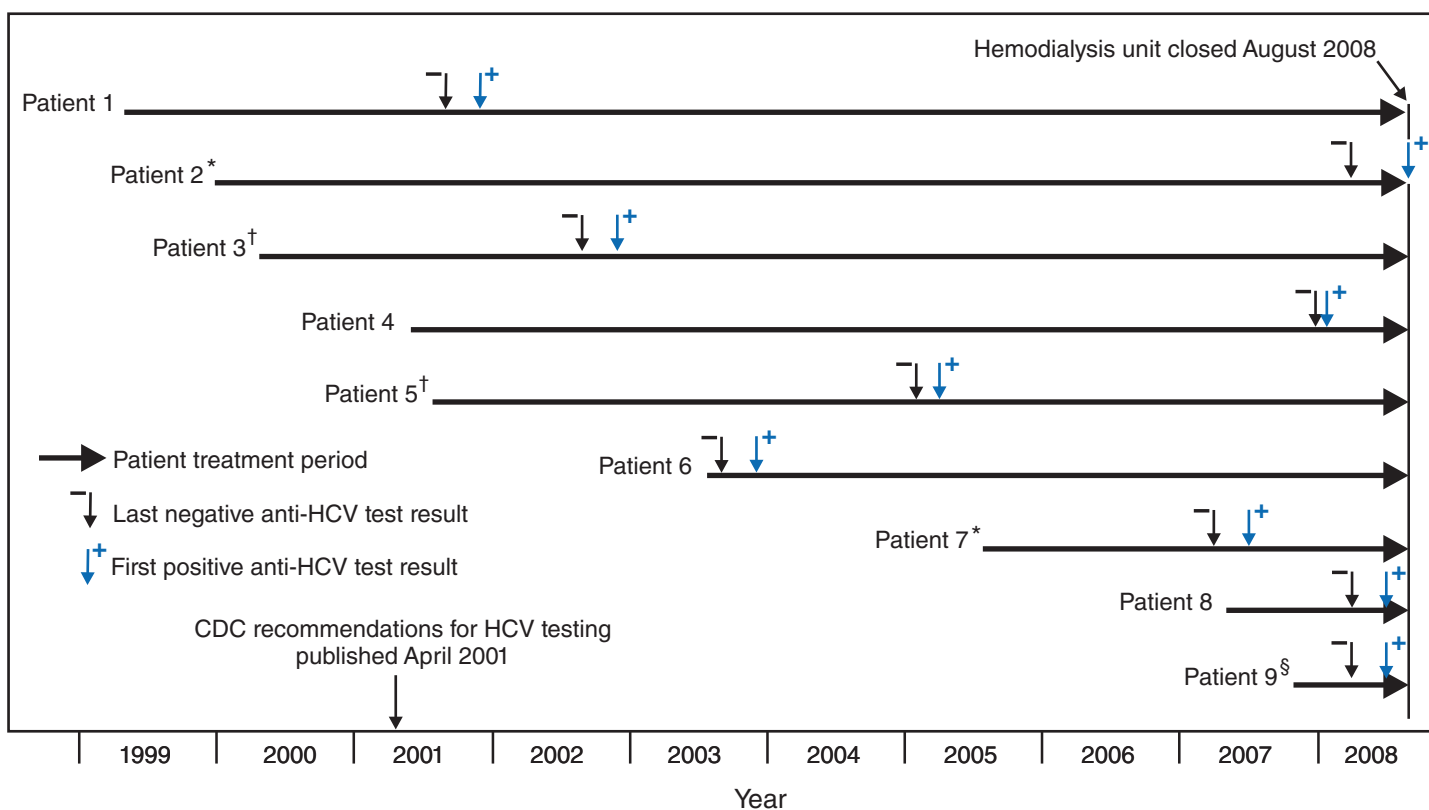
and previous test results for 110 (68%). Twenty (18%) of the 110 had chronic HCV infection at admission. Ninety (82%) were anti-HCV negative at admission, of whom nine (10%) were determined to have acquired incident HCV infection, seroconverting to anti-HCV positive during 2001–2008 (Figure).

Among the 162 patients, a total of 45 (28%) had at least one anti-HCV positive EIA test result, either at admission or during their hemodialysis treatment period. Serum was collected and tested from 35 of these patients, of whom 26 had sufficient virus for sequencing and subtyping of NS5b region: eight of the nine patients with incident infection, 12 patients with chronic infection upon admission, and six patients whose HCV admission status was unknown. An HCV source patient was defined as an HCV-positive patient 1) with a  $\geq 95\%$  sequence identity match in the NS5b region of the HCV genome with a patient with incident infection and 2) who had received hemodialysis treatment on recurring days at the same time as the patient with incident infection, during the seroconverting patient's exposure period (i.e., from 6 months before the patient's last negative anti-HCV test through 2 weeks before the first positive anti-HCV test).

The joint phylogenetic-epidemiologic analysis identified four different patients as the sources of HCV infection in four patients who seroconverted during 2005–2008 (all sequence identity matches between source and incident patients were  $\geq 98\%$ ). Of the four source patients, one was among the nine with incident infection, two were among those with chronic HCV infection at admission, and one had unknown HCV infection status at admission. All four patients with incident infection and their respective source patients had dozens of treatment days in common (range: 59–121 days). Two of the four patients with incident infection had at least one treatment on the same dialysis machines as their HCV source patients; however, no record existed of the other two with incident infection having been treated during their incubation periods on the same machines as their source patients.

HCV source patients could not be determined for five of the patients with incident infection because no sequence identity match was identified. None of the five had known HCV risk factors (e.g., occupational exposure, injection-drug use, high-risk sexual behaviors, or exposure to known HCV-positive persons). Two of the five reported no health-care exposures

**FIGURE. Timeline of hepatitis C virus (HCV) seroconversions in nine patients at a hemodialysis unit, by patient treatment period, last negative anti-HCV test result, and first positive anti-HCV test result — New York, 2001–2008**



\* Two patients with chronic HCV infection at admission to the hemodialysis unit were identified as the HCV sources for patients 2 and 7.

† Patient 3 was identified as the source of HCV infection for patient 5.

§ A patient with unknown HCV infection status at admission was the HCV source for patient 9.

outside of the hemodialysis unit during their exposure periods; the other three reported respectively 1) one emergency department visit, 2) one hospitalization, and 3) one emergency department visit and two hospital admissions. Epidemiologic analysis is continuing in an effort to define narrower exposure periods and determine the mechanism or mechanisms of HCV transmission at this facility.

## Site Investigation

During the site investigation, NYSDOH documented inadequate HCV infection surveillance and patient follow-up (2). Numerous deficiencies in standard infection control practices also were identified (2). The hemodialysis unit did not obtain confirmatory testing for anti-HCV positive results, inform patients of their change in HCV infection status, report HCV seroconversions to the local health department, or provide patients with medical evaluation related to HCV infection. Contrary to CDC recommendations (2), monthly alanine aminotransferase (ALT) levels were not obtained from >90% of HCV-susceptible patients, and anti-HCV testing, although conducted on most patients, was performed at intervals ranging from once per month to once per 2 years rather than semiannually.

Inadequate cleaning and disinfection practices were observed during site visits in July and August 2008. A single bleach-soaked gauze pad was used to clean a patient's entire dialysis station, including dialysis machine surfaces and ancillary patient equipment (e.g., blood pressure cuff and shared computer monitor and keyboard). The bleach solution was prepared and stored improperly, and staff members did not allow sufficient contact time between surfaces and bleach. Visible blood remained on dialysis chairs, dialysis machine surfaces, and the surrounding floor between patient treatments. Moreover, direct care staff members failed to don gloves with every patient encounter, change gloves between patients, or perform hand hygiene after contact with patients and soiled surfaces. Supervisory staff members failed to address these breaches. Many of the direct care staff members were unaware of the hemodialysis unit's written infection control policies, including those pertaining to cleaning and disinfection. Investigators also noted the lack of a separate clean area for medication storage and preparation and short turnover periods between patient treatments.

On August 14, 2008, after evidence of ongoing infection control deficiencies and despite efforts at remediation, NYSDOH directed the hemodialysis unit to transfer all patients immediately to other facilities; all patients were transferred the next day. The hemodialysis unit subsequently surrendered its operating certificate and paid a \$300,000 civil

penalty to the state; the unit has not reopened. Based on evidence of HCV transmission since 2005, all patients who had received one or more treatments at the hemodialysis unit since January 23, 2004 (the date of the last facility survey in which no infection control deficiencies were observed) were notified by mail of the investigation and advised to be tested for HCV and other bloodborne pathogens (i.e., hepatitis B virus and human immunodeficiency virus). Notification letters were mailed on September 15, 2008, to a total of 657 patients from 37 states and two territories. As of January 11, 2009, no additional HCV seroconversions had been reported from health departments in New York, 13 other states, and one territory, accounting for 90% of the patients who were notified.

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**Editorial Note:** An estimated 3.2 million persons have chronic HCV infection, the most common chronic bloodborne infection in the United States (3). The prevalence of anti-HCV is estimated at 8% among chronic hemodialysis patients (4), compared with 1.6% in the U.S. population overall (3). HCV infection increases the risk for death among patients receiving chronic hemodialysis treatment and those undergoing renal transplantation (5). Many persons infected with HCV remain asymptomatic, although progression of underlying liver disease occurs in approximately 80% (6). Chronic HCV infection is the leading indication for liver transplantation in the United States (7).

CDC recommendations for preventing HCV transmission in hemodialysis units were published in 2001 (Box) (2). Despite these recommendations, several hemodialysis-related HCV outbreaks have occurred in recent years; all involved breaches in infection control, and most were identified as a result of routine HCV screening (8). CDC recommends initial anti-HCV screening upon admission to the unit for all chronic hemodialysis patients. For HCV-susceptible patients, monthly ALT should be performed; anti-HCV screening should be obtained semiannually thereafter and in response to unexplained elevations in ALT, to facilitate early detection of transmission and implementation of control measures (2). Routine HCV screening of hemodialysis patients also is recommended by the National Kidney Foundation (9). However, dialysis providers are not reimbursed by Medicare for anti-HCV screening, and screening is not required by the Centers for Medicare and Medicaid Services (10). In the 2008 Medicare conditions for coverage for end stage renal disease facilities (10),



**BOX. Algorithm for routine hepatitis C virus (HCV) infection surveillance among chronic hemodialysis patients in a hemodialysis unit\*****For all patients who are anti-HCV negative****Enzyme immunoassay (EIA) testing for anti-HCV**

- Conduct upon admission and every 6 months thereafter, and in response to unexplained elevations in alanine aminotransferase (ALT)
  - If negative (nonreactive): no additional action necessary at this time
  - If indeterminate: repeat in 1–2 months
  - If positive (repeatedly reactive): obtain confirmatory testing<sup>†</sup>

**ALT level**

- Obtain upon admission and monthly thereafter, and in response to unexplained elevations in ALT

**For all patients who are anti-HCV positive**

All anti-HCV positive EIA test results should be confirmed using a more specific assay:

- **Recombinant immunoblot assay (RIBA) for anti-HCV**

- If negative: no additional action necessary at this time
- If indeterminate: perform reverse transcription polymerase chain reaction (RT-PCR) for HCV RNA and ALT. If either RT-PCR is positive or the ALT is elevated, HCV infection is confirmed
- If positive: HCV infection is confirmed

or

- **RT-PCR for HCV RNA<sup>§</sup>**

- If negative: perform RIBA for anti-HCV (some patients with HCV infection might be intermittently HCV RNA negative)
- If positive: HCV infection is confirmed (represents viremia and the presence of active infection)

**For all patients seroconverting from anti-HCV negative to anti-HCV positive**

- After a single confirmed HCV infection in the unit
  - Review laboratory results for all other patients to identify additional cases
  - Review unit practices and procedures and investigate potential sources of infection to determine whether transmission might have occurred within the hemodialysis unit
  - Review newly infected patient's recent medical history and history of high-risk behavior
- After more than one confirmed HCV infection during a 6-month period in the unit
  - Follow above recommendations for a single infection, and
  - Follow additional CDC recommendations and consult public health authorities

**For all patients with confirmed HCV infection (HCV-positive patients)**

- Inform the patient of HCV infection status
- Report all confirmed HCV infections and HCV seroconversions to public health authorities as required by law or regulation
- Evaluate patient (by consultation or referral) for the presence of active HCV infection and liver disease according to current medical practice guidelines
- Provide information to the patient regarding how to prevent further harm to the liver and transmitting HCV to others

\* Listings of Food and Drug Administration (FDA)-licensed or approved anti-HCV immunoassay test kits and nucleic acid-amplification tests (NATs) for qualitative detection of HCV RNA using reverse transcription polymerase chain reaction (RT-PCR) amplification being used in the United States are available at <http://www.fda.gov/cber/index.html>.

<sup>†</sup> Laboratories can choose to perform reflex supplemental testing based on screening-test positive signal-to-cut-off ratios or on all specimens with screening-test-positive results. Anti-HCV positive results classified as having high signal-to-cut-off ratios can be reported as HCV positive without additional testing. Anti-HCV positive samples with low signal-to-cut-off ratios should have confirmatory testing performed.

<sup>§</sup> Use of NAT RT-PCR for HCV RNA as the primary test for routine screening is not recommended. Obtain in the setting of persistent, unexplained ALT elevations in patients who repeatedly test anti-HCV negative.

**SOURCES:** CDC. Recommendations for preventing transmission of infections among chronic hemodialysis patients. MMWR 2001;50(No. RR-5).  
CDC. Guidelines for laboratory testing and result reporting of antibody to hepatitis C virus. MMWR 2003;52(No. RR-3).

CDC recommendations for preventing transmission of infections in hemodialysis units (2) were incorporated by reference, with the exception of screening for hepatitis C. The referenced recommendations have the authority of regulation.

This investigation documented four cases of patient-to-patient transmission of HCV infection and identified five additional patients who might have acquired HCV infection while receiving treatment at the hemodialysis unit. Multiple possible mechanisms of HCV transmission were identified, including contaminated health-care worker hands and treatment surfaces. Contact transmission in the setting of extensive environmental contamination is a common mechanism for transmission of bloodborne pathogens in hemodialysis units (2). Because this investigation was restricted to patients undergoing treatment as of July 31, 2008, the actual number of incident cases at the hemodialysis unit might have been larger.

This outbreak highlights the need for hemodialysis units to adhere to recommendations for infection control and comprehensive HCV surveillance, including routine anti-HCV screening, confirmatory testing of anti-HCV seroconversions, assessment of the adequacy of infection control practices in the setting of documented HCV seroconversion, and prompt reporting to the local health department as required by reportable disease laws or regulations. Had the hemodialysis unit in this report complied with these practices, HCV transmission might have been identified earlier, and control measures (e.g., reviewing infection control practices to identify potential mechanisms of transmission, ensuring adherence to unit infection control policies, and retraining direct care staff members) could have been implemented to interrupt further HCV transmission. Because many patients with HCV infection are asymptomatic, routine screening is essential to detect transmission within hemodialysis facilities and ensure that appropriate precautions are being followed consistently.

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#### References

1. CDC. Guidelines for laboratory testing and result reporting of antibody to hepatitis C virus. MMWR 2003;52(No. RR-3).
2. CDC. Recommendations for preventing transmission of infections among chronic hemodialysis patients. MMWR 2001;50(No. RR-5).
3. Armstrong GL, Wasley A, Simard EP, McQuillan GM, Kuhnert WL, Alter MJ. The prevalence of hepatitis C virus infection in the United States, 1999 through 2002. *Ann Intern Med* 2006;144:705–14.
4. Finelli L, Miller JT, Tokars JI, Alter MJ, Arduino MJ. National surveillance of dialysis-associated diseases in the United States, 2002. *Seminars in Dialysis* 2005;18:52–61.
5. Kamar N, Ribes D, Izopet J, Rostaing L. Treatment of hepatitis C virus infection (HCV) after renal transplantation: implications for HCV-positive dialysis patients awaiting a kidney transplant. *Transplantation* 2006;82:853–6.
6. CDC. Surveillance for acute viral hepatitis—United States, 2006. MMWR 2008;57(No. SS-2).
7. Sharara AI, Hunt CM, Hamilton JD. Hepatitis C. *Ann Intern Med* 1996;125:658–68.
8. Thompson ND, Perz JF, Moorman AC, Holmberg SD. Nonhospital health care-associated hepatitis B and C virus transmission: United States, 1998–2008. *Ann Intern Med* 2009;150:33–9.
9. Gordon CE, Balk EM, Becker BN, et al. KDOQI US commentary on the KDIGO clinical practice guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C in CKD. *Am J Kidney Dis* 2008;52:811–25.
10. Centers for Medicare and Medicaid Services, Center for Medicaid and State Operations/Survey and Certification Group. End Stage Renal Disease (ESRD) Program: interpretive guidance version 1.1. Baltimore, MD: Centers for Medicare and Medicaid Services; 2008. Available at <http://www.cms.hhs.gov/eog/downloads/eo%200526.pdf>.

## Methicillin-Resistant *Staphylococcus aureus* Skin Infections from an Elephant Calf — San Diego, California, 2008

Methicillin-resistant *Staphylococcus aureus* (MRSA) infections are a major cause of human skin and soft tissue infections in the United States (1). MRSA colonization and infection also have been observed in turtles, bats, seals, sheep, rabbits, rodents, cats, dogs, pigs, birds, horses, and cattle (2–8), and MRSA infections with an epidemiologic link to animal contact have been reported in veterinary personnel, pet owners, and farm animal workers (5,7,8). On January 29, 2008, the County of San Diego Health and Human Services Agency was notified of skin pustules on an African elephant (*Loxodonta africana*) calf and three of its caretakers at a zoo in San Diego County. After each of these infections (including the calf's infection) was laboratory confirmed as MRSA, an outbreak investigation and response was initiated by the zoo and the agency. This report summarizes the results of that investigation, which identified two additional confirmed MRSA infections, 15 suspected MRSA infections, and three MRSA-colonized persons (all among calf caretakers), and concluded that infection of the elephant calf likely came from a colonized caretaker. This is the first reported case of MRSA in an elephant and of suspected MRSA transmission from an animal to human caretakers at a zoo. Recommendations for preventing MRSA transmission in zoo settings include 1) training employees about their risks for infection and the recommended work practices to reduce them; 2) performing proper hand hygiene before and after animal contact; 3) using personal protective equipment (PPE) when

working with ill or infected animals, especially during wound treatment; and 4) cleaning and disinfecting contaminated equipment and surfaces.

The African elephant calf was born in captivity on November 28, 2007 (approximately 2 weeks before its anticipated due date), with a low birthweight. Because of loss of milk by the mother, the calf was separated from its mother on December 24 and hand-reared by zoo caretakers in an individual stall of the African elephant enclosure. Caretakers ranged in age from 24 to 59 years. Twenty-four-hour care was provided at the enclosure by nursery staff (who typically worked in the nursery building, where other young animals are raised) and elephant keepers, with intermittent visits by nutritionists, veterinarians, and veterinary technicians. Because of poor weight gain with bottle feeding, a central venous line was attempted by venous cutdown in the right neck for total parenteral nutrition on January 4, 2008. Three days later, on January 7, the calf developed cellulitis at the sutured surgical site, followed by pustules on the left leg and elbow on January 18. Swab samples obtained from the calf's left elbow and left leg on January 21 were laboratory confirmed as MRSA on January 26. After topical, oral, and intravenous antibiotics were administered, the calf's wounds healed. Nevertheless, the calf failed to thrive and was euthanized on February 4. Necropsy revealed *Enterococcus* spp. vegetative endocarditis but no MRSA bacteremia.

During January 12–17, three of the calf's caretakers reported cutaneous pustules. Swab samples were obtained from the three caretakers on January 21, and all were laboratory confirmed as MRSA on January 26. An investigation was initiated on January 29. A suspected case was defined as illness (observed via clinical examination by a physician) consistent with staphylococcal skin infection (e.g., carbuncle, furuncle, folliculitis, or cellulitis) that occurred in an elephant calf caretaker after contact with the elephant calf. Confirmed cases were defined as suspected cases in which MRSA was isolated from the site of infection. A case of MRSA colonization was defined as isolation of MRSA from a nasal culture in an elephant calf caretaker. A retrospective cohort study of all caretakers was conducted using a self-administered questionnaire during February 1–15. The cohort included all zoo staff members who had direct contact with the elephant calf or its immediate environment, including the enclosure and animal hospital (N = 55).

Investigators conducted environmental sampling and chart reviews of the elephant calf's medical record and the on-site staff medical log. To assess MRSA colonization, investigators obtained rectal and trunk cultures from the 11 other African elephants at the zoo and nasal cultures from 53 (96%) of elephant calf caretakers. All MRSA isolates were characterized by pulsed-field gel electrophoresis (PFGE) and other methods

at the San Diego Public Health Laboratory, the California Microbial Disease Laboratory, and CDC.

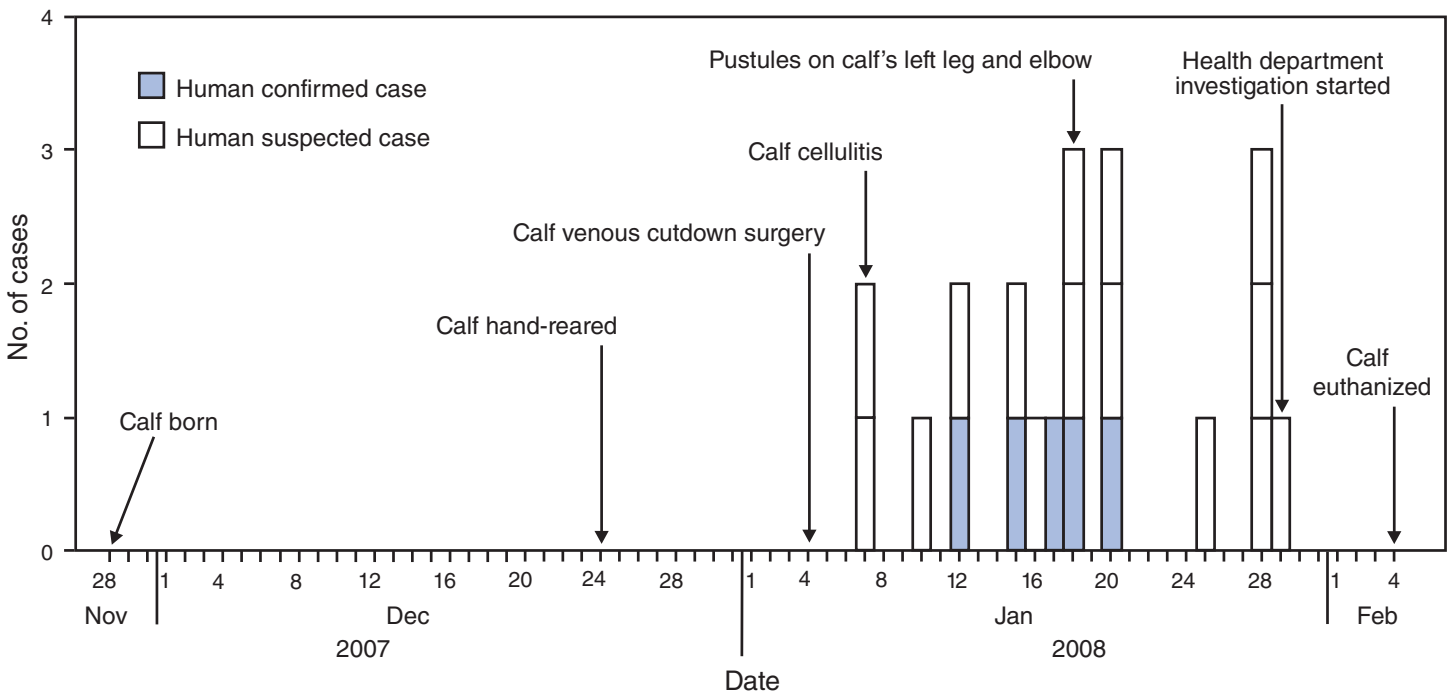
Review of the on-site staff medical log showed no cellulitis or skin infections among caretakers from November 28, 2007 to January 6, 2008. During January 7–February 4, a total of 20 MRSA wound infections (five confirmed and 15 suspected cases) were identified among 20 of the calf's caretakers (attack rate  $[20 / 55] = 36\%$ ) (Figure). The 20 cases occurred in 13 elephant keepers, five nursery staff members (who were specialty trained in hand-rearing), one veterinarian, and one nutritionist. No underlying diseases or risk factors for MRSA were identified among infected caretakers. Most infections were mild, with small pustules; none required surgical incision and drainage, intravenous antibiotics, or hospitalization. Lesions occurred along uncovered skin surfaces, especially the hands, forearms, and wrists; four patients developed lesions in areas with preexisting cuts or scrapes. In three cases, patients were prescribed oral antibiotics, including clarithromycin, doxycycline, azithromycin, and ciprofloxacin, for their infections.

The other 11 African elephants in the herd, including the calf's mother, tested negative for MRSA colonization. Analysis of PGFE results revealed that eight isolates (two wound isolates and one rectal isolate from the elephant calf, wound isolates from three caretakers, and nasal isolates from two caretakers) were USA300, the MRSA PFGE type most commonly identified in community-associated MRSA infections in the United States. Another employee nasal isolate was USA500, a less common MRSA strain. Three employee nasal specimens were positive, yielding a 5.7% MRSA carriage rate.

In univariate analysis, calf nursery staff members were three times more likely (relative risk [RR] = 3.3) to be infected compared with other staff members, whereas being a member of the veterinary staff (RR = 0.1) was protective (Table). Other significant risk factors included playing with the calf (RR = 3.1), bottle feeding the calf (RR = 3.4), bathing the calf (RR = 2.4), grooming the calf (RR = 2.8), lying alongside the calf (RR = 2.8), administering oral medication to the calf (RR = 2.0), spending >10 total days with the calf from birth until euthanization (RR = 2.1), and cleaning the calf laundry (RR = 3.1) or calf toys (RR = 2.3). In a logistic regression model of the variables determined to be significant in the univariate analysis ( $p < 0.05$ ), only activities requiring high exposure to the calf (i.e., at least three of the following activities: grooming the calf, bathing the calf, trunk blowing,\* playing with the calf, or lying alongside the calf) (adjusted odds ratio [aOR] = 7.8) or cleaning the calf toys and laundry (aOR = 6.5) remained significant after backward elimination.

\*Caretakers blew air with their unmasked mouths into the calf's trunk to stimulate bottle feeding.

**FIGURE.** Number of epidemiologically linked cases\* (N = 20) in an outbreak of methicillin-resistant *Staphylococcus aureus* (MRSA) among elephant calf caretakers, by date of pustule/cellulitis onset — San Diego, California, January 2008



\* A suspected case was defined as illness (observed via clinical examination by a physician) consistent with staphylococcal skin infection (e.g., carbuncle, furuncle, folliculitis, or cellulitis) that occurred in an elephant calf caretaker after contact with the elephant calf. Confirmed cases were defined as suspected cases in which MRSA was isolated from the site of infection.

Investigators performed environmental sampling of the calf's immediate environment on February 1. Surfaces sampled included cage doors in the elephant enclosure, countertops in the animal hospital, and the floor of an animal transport van. All the environmental samples, which were collected after bleach disinfection, were negative for MRSA.

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**Editorial Note:** MRSA skin infections have become a substantial community public health problem in recent years, and outbreaks of MRSA skin infections have been reported in various animal settings (e.g., veterinary offices, animal farms, and the homes of pet owners) (5,7,8). However, transmission of MRSA from an animal to human caretakers at a zoo has not been reported previously.

MRSA infection in zoo elephants also has not been reported previously. The investigation determined that the elephant calf likely acquired its MRSA infection from a colonized human caretaker. The calf developed cellulitis on January 7, after

exposure to caretakers who were later found to be colonized with MRSA of the same strain. The USA300 strain identified among the calf's caretakers is the most common type of human community-associated MRSA but it has never been reported de novo from animals. No MRSA colonization or skin infections were found in the other African elephants with which the calf shared living space.

The results of this investigation suggest that transmission also occurred from the calf to human caretakers, resulting in an outbreak of MRSA skin infections. Although transmission from caretaker to caretaker or transmission through contact with equipment surfaces cannot be ruled out, several factors support likely transmission directly from the calf. Veterinary staff members more often used PPE when handling the calf and were less likely to acquire MRSA than nursery staff or elephant keepers. Among caretakers, activities involving direct contact with the calf were associated with infection. The caretakers also did not report sharing personal items (e.g., towels, uniforms, bar soap, or razors), which has been implicated in other human-to-human MRSA outbreaks. Infected staff members kept their lesions covered.

MRSA in animals can be of human or animal origin. MRSA strains isolated from household pets typically are prevalent human strains that likely were acquired from human contacts



**TABLE. Attack rate and relative risk for suspected and confirmed\* cases of methicillin-resistant *Staphylococcus aureus* (MRSA) skin infection among interviewed zoo cohort (N = 55), by risk factor — San Diego, California, February 2008**

Risk factor	Persons with risk factor			Persons without risk factor			Relative risk	(95% CI) <sup>†</sup>	p value <sup>§</sup>
	Total	No. of cases	Attack rate (%)	Total	No. of cases	Attack rate (%)			
<b>Caretaker position</b>									
Nursery staff	5	5	100	50	15	30	3.3	(2.2–5.1)	<0.01
Veterinary medical staff	15	1	7	40	19	48	0.1	(0.02–0.96)	<0.01
Nutrition staff	4	1	25	51	19	37	0.7	(0.1–3.8)	0.62
Elephant keeper <sup>¶</sup>	30	13	43	25	7	28	1.6	(0.7–3.3)	0.24
<b>Co-worker contact</b>									
Social activities with coworkers	19	3	16	36	17	47	0.3	(0.1–1.0)	0.02
<b>General calf contact</b>									
Spent >10 total days with calf from birth until euthanization**	23	12	52	32	8	25	2.1	(1.0–4.3)	0.04
Bottle fed the calf	26	15	58	29	5	17	3.4	(1.4–7.9)	<0.01
Bathed the calf	14	9	64	41	11	27	2.4	(1.3–4.5)	0.01
Groomed the calf	22	13	59	33	7	21	2.8	(1.3–5.9)	<0.01
Played with the calf	31	16	52	24	4	17	3.1	(1.2–8.1)	<0.01
Restrained the calf	33	15	46	22	5	23	2.0	(0.9–4.7)	0.09
Trunk blowing <sup>††</sup>	22	12	55	33	8	24	2.1	(1.0–4.3)	0.03
Lay alongside the calf	22	13	59	33	7	21	2.8	(1.3–5.9)	<0.01
Had high exposure to calf <sup>§§</sup>	31	17	55	24	3	13	4.4	(1.5–13.3)	<0.01
<b>Veterinary care</b>									
Applied ointment to calf wounds	24	12	50	31	8	26	1.9	(0.9–4.0)	0.06
Performed calf venipuncture	15	5	38	40	15	38	0.9	(0.4–2.0)	0.78
Administered oral medication to calf	16	9	56	39	11	28	2.0	(1.0–3.9)	0.05
Changed calf wound dressings	23	10	44	32	10	31	1.4	(0.7–2.8)	0.35
<b>Environmental contact</b>									
Cleaning activities composite <sup>¶¶</sup>	32	18	56	23	2	9	6.5	(1.7–25.2)	<0.01
Cleaned calf laundry	27	15	56	28	5	18	3.1	(1.3–7.4)	<0.01
Cleaned calf toys	22	12	55	33	8	24	2.3	(1.1–4.6)	0.02

\* A suspected case was defined as illness (observed via clinical examination by a physician) consistent with staphylococcal skin infection (e.g., carbuncle, furuncle, folliculitis, or cellulitis) that occurred in an elephant calf caretaker after contact with the elephant calf. Confirmed cases were defined as suspected cases in which MRSA was isolated from the site of infection.

<sup>†</sup> 95% confidence interval of the calculated relative risk.

<sup>§</sup> Fisher's exact test, two-tailed.

<sup>¶</sup> Primary caretaker for elephant calf (i.e., feeding, cleaning stall, and playing).

\*\* More than 10 days spent in direct contact with the calf from birth on November 28, 2007, until the calf was euthanized on February 4, 2008.

<sup>††</sup> Caretakers blew air with their unmasked mouths into the calf's trunk to stimulate bottle feeding.

<sup>§§</sup> Includes at least three of the following activities: grooming the calf, trunk blowing, restraining the calf, lying alongside the calf, or bathing the calf.

<sup>¶¶</sup> Includes all the following: cleaned calf barn, cleaned calf laundry, or cleaned calf toys.

(3,4,8). In contrast, MRSA strains most commonly identified in horses and pigs are not prevalent human strains and might represent strains that are animal-adapted or of animal origin. Although animals likely are not a major source of MRSA acquisition for humans, transmission of MRSA from infected or colonized animals to humans is possible via contact with contaminated body fluids.

Veterinary personnel and others who have direct contact with animals that have a high prevalence of colonization (e.g., pigs) might be at increased risk for MRSA acquisition (5). Surveys of MRSA colonization in veterinary personnel have indicated colonization rates ranging from 4.6% to 18.0%, compared with a colonization rate of 1.5% in the general U.S. population (4,9,10). Although MRSA has been cultured from veterinary hospitals (4), only one report documents MRSA skin

infections in veterinary personnel acquired from an animal. In that report, workers had close animal contact with a neonatal horse that was colonized with MRSA (8). The National Association of State Public Health Veterinarians has published recommendations for standard infection control precautions to be implemented by veterinary personnel in its Compendium of Veterinary Standard Precautions: Zoonotic Disease Prevention in Veterinary Personnel.<sup>†</sup> According to these recommendations, hygiene is critical to preventing disease transmission from animals to humans. Hands should be washed with running water and soap before and after handling animals. The use of hand sanitizer is inadequate when gross contamination with organic debris is present. Before handling or treating animals, caretakers should don 1) dedicated clothing or protective

<sup>†</sup> Available at <http://www.nasphv.org/Documents/VeterinaryPrecautions.pdf>.

outerwear; 2) gloves, if touching blood, body fluids, secretions, excretions, mucous membranes, or non-intact skin (including wounds); and 3) face protection, if splashes or sprays might occur. During a MRSA cluster or outbreak, wound cultures of animals and humans are indicated, especially if skin pustules are present. In addition, training employees working with animals about their risk for MRSA infection, recommended work practices, and the proper care and use of PPE is important in reducing their risk for exposure to MRSA and other zoonoses. In addition, cleaning equipment and surfaces with detergent-based cleaners or Environmental Protection Agency (EPA)-registered detergent-disinfectants, followed by disinfection of contaminated surfaces, is important to remove MRSA from the environment.

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### References

1. Fridkin SK, Hageman JC, Morrison M, et al. Methicillin-resistant *Staphylococcus aureus* disease in three communities. *N Engl J Med* 2005;352:1436–44.
2. Walther B, Wieler LH, Friedrich AW, et al. Methicillin-resistant *Staphylococcus aureus* (MRSA) isolated from small and exotic animals at a university hospital during routine microbiological examinations. *Vet Microbiol* 2008;127:171–8.
3. Leonard FC, Markey BK. Methicillin-resistant *Staphylococcus aureus* in animals: a review. *Vet J* 2008;175:27–36.
4. Loeffler A, Boag AK, Sung J, et al. Prevalence of methicillin-resistant *Staphylococcus aureus* among staff and pets in a small animal referral hospital in the UK. *J Antimicrob Chemother* 2005;56:692–7.
5. van Loo I, Huijsdens X, Tiemersma E, et al. Emergence of methicillin-resistant *Staphylococcus aureus* of animal origin in humans. *Emerg Infect Dis* 2007;13:1834–9.
6. Devriese LA, Van Damme LR, Fameree L. Methicillin (cloxacillin)-resistant *Staphylococcus aureus* strains isolated from bovine mastitis cases. *Zentralbl Veterinarmed B* 1972;19:598–605.
7. Cefai C, Ashurst S, Owens C. Human carriage of methicillin-resistant *Staphylococcus aureus* linked with pet dog. *Lancet* 1994;344:539–40.
8. Weese JS, Caldwell F, Willey BM, et al. An outbreak of methicillin-resistant *Staphylococcus aureus* skin infections resulting from horse to human transmission in a veterinary hospital. *Vet Microbiol* 2006;114:160–4.
9. Wulf MW, Sørum M, van Nes A, et al. Prevalence of methicillin-resistant *Staphylococcus aureus* among veterinarians: an international study. *Clin Microbiol Infect* 2008;14:29–34.
10. Gorwitz RJ, Kruszon-Moran D, McAllister SK, et al. Changes in the prevalence of nasal colonization with *Staphylococcus aureus* in the United States, 2001–2004. *J Infect Dis* 2008;197:1226–34.

## Progress Toward Poliomyelitis Eradication – Afghanistan and Pakistan, 2008

Afghanistan and Pakistan, two of the four remaining countries where wild poliovirus (WPV) transmission has never been interrupted (1),\* represent one epidemiologic reservoir. During 2008, both countries continued to conduct coordinated supplemental immunization activities (SIAs)<sup>†</sup> against type 1 WPV (WPV1) and type 3 WPV (WPV3) using oral polio vaccine (OPV). Much of Afghanistan remained polio-free in 2008, with the exception of the conflict-affected South Region. In Pakistan, however, WPV transmission increased, particularly after WPV1 reintroduction into polio-free areas of Punjab Province. In total, 149 WPV cases (31 in Afghanistan and 118 in Pakistan) were confirmed in 2008, compared with 49 cases in 2007. Serious security problems in areas along the common border limited access by vaccination teams to large numbers of children in the two countries. In Pakistan, continued managerial and operational problems impeded full implementation of SIAs and adversely affected vaccination coverage in areas not affected by security problems. This report updates previous reports (1,2) and describes polio eradication activities in Afghanistan and Pakistan during January–December 2008. Further progress toward interruption of WPV transmission in Afghanistan and Pakistan will require continued measures to overcome access problems in conflict-affected areas of both countries and improvements in the quality of SIAs and delivery of routine immunization services in Pakistan.

### Immunization Activities

In 2007, the most recent year for which data were available, routine immunization coverage of infants with 3 doses of trivalent oral poliovirus vaccine (OPV3) by age 12 months was 83% overall in both Afghanistan and Pakistan (3). However, acute flaccid paralysis (AFP) surveillance data<sup>§</sup> suggest that actual routine OPV3 coverage was much lower nationally and varied widely by political area (province, territory, or region) in both countries. Based on AFP surveillance data reported during 2008, routine OPV3 coverage among children aged

\* The other two countries where WPV transmission has never been interrupted are India and Nigeria.

<sup>†</sup> Mass campaigns conducted for a brief period (days to weeks) in which 1 dose of oral poliovirus vaccine is administered to all children aged <5 years, regardless of vaccination history. Campaigns can be conducted nationally or in portions of the country.

<sup>§</sup> Vaccination histories of children aged 6–23 months with AFP who do not test as WPV positive are used to estimate OPV coverage of the overall target population. These AFP data are used to verify national reported routine immunization coverage estimates.

6–23 months with nonpolio AFP in Afghanistan was 69% in the Central Region, 66% in the East Region, 47% in the Southeast Region, and 13% in the South Region; in Pakistan, coverage was 72% in Punjab Province, 60% in Northwest Frontier Province (NWFP), 53% in Sindh Province, and 37% in Balochistan Province.

Large-scale house-to-house SIAs targeting children aged <5 years and using trivalent and/or monovalent type 1 (mOPV1) and type 3 OPV, depending on the epidemiologic situation, continued in Afghanistan and Pakistan during 2008 (Table 1). Afghanistan conducted four national immunization days (NIDs) and five subnational immunization days (SNIDs) in the East, Southeast, and South regions along the border with Pakistan, covering about 50% of the national population of children aged <5 years. Pakistan conducted five NIDs and six SNIDs in the main WPV transmission areas, targeting 40%–50% of the total population aged <5 years.

To improve SIA monitoring and coverage evaluation, finger marking (with an indelible ink pen) of children vaccinated during SIAs was introduced in both countries in 2008. Comparison of finger-marking rates to post-campaign

surveys based on caretaker recall showed persisting gaps in vaccination coverage, particularly in Pakistan (e.g., in Sindh Province, 72%–84% by finger marking versus >95% by caretaker recall).

As a result of deteriorating regional security, the percentage of children aged <5 years living in inaccessible areas (considered too dangerous by the World Health Organization [WHO] and the local government to conduct an SIA) increased during 2008 in both countries. During January–November 2008, the percentage of children aged <5 years living in inaccessible areas in Pakistan increased from 11% to 13% in NWFP and from 21% to 38% in eight large districts and tribal agencies (Swat, Bajour, Mohmand, Charsadda, Peshawar, parts of Kohat, Kurram, and South Waziristan).<sup>‡</sup> Security restrictions specifically prevented United Nations staff members who supervise and monitor SIAs from entering >90% of districts in the South Region and 50% of districts in the East and Southeast in Afghanistan, and 80% of districts in NWFP in Pakistan, a worsening of the situation since 2007.

<sup>‡</sup> Total populations aged <5 years in the districts were 5.9 million in NWFP and 1.95 million in the eight districts and tribal agencies.

**TABLE 1. Supplementary immunization activities (SIAs), by area, month, SIA type, and oral poliovirus vaccine (OPV) product used — Afghanistan and Pakistan, 2008\***

Country/Area	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Type of SIA <sup>†</sup> and OPV <sup>§</sup> product used											
<b>Afghanistan</b>	SNID	SNID	NID	NID		SNID		NID	SNID	NID	SNID	
Badakhshan			T	T				T		T		
Northeast			T	T				T		T		
North			T	T				T		T		
Central			T	T				T		T		
West												
Farah Province	M3		M1	M3		M1, M3		T	M1	T	M1	
All others			T	T				T		T	T, M1	
East	M3	M1	M1	M3		M1, M3		T	M3	T	T	
Southeast	M3	M1	T	T		M1, M3		T		T	T	
South <sup>¶</sup>	M3	M1	M1	M3		M1, M3		T	M1	T	M1	
<b>Pakistan</b>	NID		SNID	SNID	NID	SNID	SNID**	NID	SNID	NID	NID	
FANA, AJK, ICT <sup>††</sup>	T				T			T	M1	T	T	
Punjab												
Northern	T				T	M1		T	T, M1	M1	T	
Southern	T, M3		M1	T, M3	T	M1	T, M1, M3	T	T	M1	T	
NWFP and FATA <sup>§§</sup>	T, M1		M1	T	T	M1	M1, M3	T	T, M1	T, M1	T	
Balochistan	T, M3		M1	M3	T	M1	M1, M3	T	M1	T	T	
Sindh												
North	M3		M1	M3	T	M1	M1, M3	T		M1	T	
Central and Karachi	T		T, M1	T	T	M1	T, M1, M3	T		T, M1	T	

\* Data as of March 3, 2009.

<sup>†</sup> SIA type: NID = national immunization day, SNID = subnational immunization day.

<sup>§</sup> OPV product: T = trivalent OPV; M1 = monovalent OPV, type 1; M3 = monovalent OPV, type 3.

<sup>¶</sup> Short-interval additional dose (SIAD) campaigns also were conducted in Kandahar or Hilmand but not noted.

\*\* Two SNIDs were conducted: July 1–3 (M3), July 28–30 (M1).

<sup>††</sup> Azad, Jammu, Kashmir (AJK), the Federally Administered Northern Areas (FANA), and Islamabad Capital Territory (ICT).

<sup>§§</sup> Northwest Frontier Province (NWFP), including the Federally Administrated Tribal Areas (FATA).

## AFP Surveillance

In 2008, AFP surveillance quality indicators exceeded WHO operational targets.\*\* The annual nonpolio AFP rate (per 100,000 population aged <15 years) at the national level was 7.6 in Afghanistan (range among the eight regions: 5.0–11.4) and 6.5 in Pakistan (range among the five provinces/territories: 3.9–11.2), an increase from 2007, during which the nonpolio AFP rates were 6.9 and 5.6, respectively. The percentage of AFP cases with adequate stool specimen collection was 93% in Afghanistan (range by region: 85%–97%) and 90% in Pakistan (range by province/territory: 82%–94%) (Table 2).

The polio laboratory at the National Institute of Health (NIH) in Islamabad, Pakistan, provides laboratory support for AFP surveillance in both countries, including genomic sequencing. During 2008, the NIH laboratory processed 3,465 stool samples from Afghanistan and 13,086 from Pakistan.

\*\* The quality of AFP surveillance is monitored by three performance indicators: 1) detection rate of AFP cases not caused by WPV, 2) the proportion of AFP cases with adequate stool specimens, and 3) the proportion of stool specimens processed in a WHO-accredited laboratory. Current WHO operational targets for countries with endemic polio transmission are a nonpolio AFP detection rate of at least two cases per 100,000 population aged <15 years and adequate stool-specimen collection from >80% of AFP cases, in which two specimens are collected at least 24 hours apart, both within 14 days of paralysis onset, and shipped on ice or frozen ice packs to a WHO-accredited laboratory, arriving in good condition.

## WPV Incidence

In Afghanistan, 31 polio cases were reported during 2008, compared with 17 cases in 2007 (Figure, Table 2). Among polio cases reported during 2008, 25 (81%) were caused by WPV1 and six (19%) by WPV3, compared with six (35%) and 11 (65%), respectively, during 2007. Of the 31 polio cases reported in 2008, 27 (87%) were among children aged <36 months; seven (23%) had received no OPV doses, nine (29%) had received 1–3 of any OPV doses, and 15 (48%) had received  $\geq 4$  of any OPV doses.

In Pakistan, the reported number of polio cases increased from 32 in 2007 to 118 during 2008 (Figure, Table 2). In 2008, 81 (69%) cases were caused by WPV1 and 37 (31%) by WPV3, compared with 19 (59%) and 13 (41%), respectively, during 2007. During 2008, 102 (86%) of the 118 cases involved children aged <36 months; among those children, 10 (9%) had received no OPV doses, 16 (13%) had received 1–3 of any OPV doses, and 92 (78%) had received  $\geq 4$  of any OPV doses.

Genetic sequencing data from 2008 indicate the persistence of endemic WPV circulation in two main transmission zones of both countries, and a recurrence of WPV transmission in previously polio-free areas of Punjab Province, Pakistan. The northern transmission zone includes most of NWFP and the Federally Administered Tribal Areas (FATA) in Pakistan and bordering areas in eastern Afghanistan (Figure). In 2008, 56 cases were reported from this zone, including an outbreak of

**TABLE 2. Acute flaccid paralysis (AFP) surveillance indicators and reported wild poliovirus (WPV) cases, by country and area, quarter, and WPV type — Afghanistan and Pakistan, 2008\***

Country/Area	AFP surveillance indicators			No. of reported WPV cases						
	No. of AFP cases	Nonpolio AFP rate <sup>†</sup>	% with adequate specimens <sup>§</sup>	By quarter				By type <sup>¶</sup>		Total WPV cases
				1st	2nd	3rd	4th	WPV1	WPV3	
<b>Afghanistan</b>	<b>1,383</b>	<b>7.6</b>	<b>93</b>	<b>5</b>	<b>7</b>	<b>11</b>	<b>8</b>	<b>25</b>	<b>6</b>	<b>31</b>
Badakhshan	36	7.2	89							
Northeast	217	11.0	91							
North	213	8.6	93							
Central	290	8.7	96							
West	163	5.5	97	1	1	1		2	1	3
East	180	11.4	90		1	1	1		3	3
Southeast	89	5.0	96							
South	195	5.3	85	4	5	9	7	23	2	25
<b>Pakistan</b>	<b>5,335</b>	<b>6.5</b>	<b>90</b>	<b>3</b>	<b>14</b>	<b>67</b>	<b>34</b>	<b>81</b>	<b>37</b>	<b>118</b>
AJK, FANA, ICT**	114	3.9	90			5		3	2	5
Punjab	2,177	5.0	94			24	7	31		31
NWFP and FATA††	1,458	11.2	86		3	28	22	20	33	53
Balochistan	253	6.3	82		3	5	3	11		11
Sindh	1,333	7.2	90	3	8	5	2	16	2	18

\* Data as of March 3, 2009.

† Per 100,000 children aged <15 years; excludes 52 AFP cases pending for classification as of March 3, 2009.

§ Two stool specimens collected at an interval of at least 24 hours within 14 days of paralysis onset and properly shipped to the laboratory.

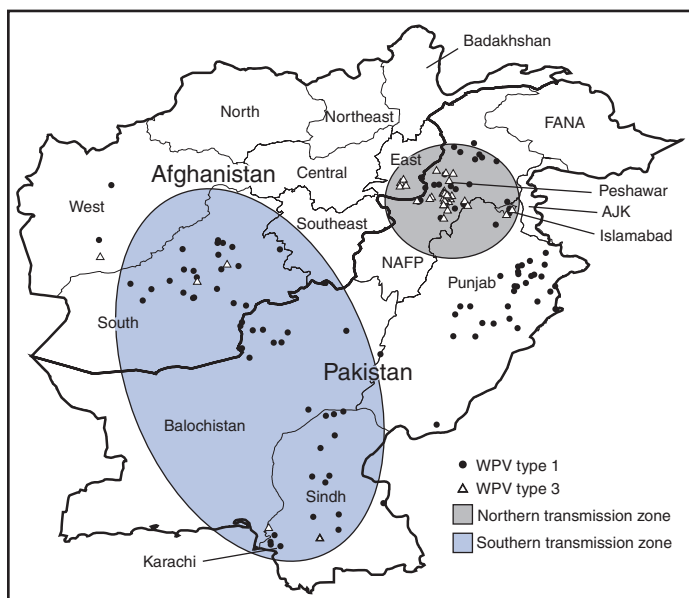
¶ Type 1 (WPV1) and type 3 (WPV3).

\*\* Includes Azad, Jammu, Kashmir (AJK), the Federally Administered Northern Areas (FANA), and Islamabad Capital Territory (ICT).

†† Northwest Frontier Province (NWFP), including Federally Administrated Tribal Areas (FATA).



**FIGURE. Wild poliovirus (WPV) cases, by type and province or region\* — Afghanistan and Pakistan, 2008**



\* NWFP: North-West Frontier Province (includes Federally Administered Tribal Areas [FATA]); AJK: Azad, Jammu, and Kashmir; FANA: Federally Administered Northern Areas.

33 WPV3 cases, centered in Peshawar, the provincial capital of NWFP, during the second half of the year. The WPV3 outbreak followed a series of SIAs using mOPV1 during 2007–2008 targeting WPV1 transmission in central NWFP. The southern transmission zone forms a corridor from the West and South regions of Afghanistan into Pakistan through Balochistan and southern Punjab into Sindh (including Karachi). In 2008, a total of 58 cases were reported from this zone. In addition, a WPV1 outbreak involving 31 cases occurred in northern Punjab during July–November 2008 after nearly 2 years without a reported WPV1 case. Only one outbreak-related case was reported from southern Punjab. The outbreak was linked genetically to two separate WPV1 clusters, one circulating in NWFP and the other in Sindh Province. Before the outbreak, only five NIDs had been conducted in 2007 in northern Punjab compared with five NIDs and five SNIDs in southern Punjab. In addition, routine immunization coverage and SIA management and implementation in northern Punjab had declined during 2007.

**Reported by:** World Health Organization (WHO) Eastern Mediterranean Regional Office Egypt, Cairo; WHO Afghanistan, Kabul; WHO Pakistan, Islamabad; Polio Eradication Dept, WHO, Geneva, Switzerland. Global Immunization Div, Div of Viral Diseases, National Center for Immunization and Respiratory Diseases, CDC.

**Editorial Note:** During 2008, despite continued intensive polio eradication activities in Afghanistan and Pakistan, WPV1 and WPV3 continued to circulate in the two shared transmission zones of both countries. In addition, WPV1 was reintroduced into previously polio-free areas of northern Punjab Province, Pakistan. However, most of Afghanistan continues to be free of endemic WPV transmission. Similarly, after efforts to improve strategy implementation in Sindh Province, Pakistan, no WPV1 cases have been reported there since August 2008.

Two critical factors hamper efforts to interrupt WPV transmission in both countries: conflicts affecting increasingly large parts of the border area between the countries, and operational and management issues impeding the quality of SIAs in Pakistan. In the northern transmission zone, large areas of NWFP and FATA in Pakistan and the East region of Afghanistan often were too dangerous to conduct SIAs. Access in the South Region of Afghanistan decreased further during 2008, after some improvements in late 2007 (2). In Sindh and Balochistan provinces, which did not have serious security problems, political and managerial issues adversely affected supervision and accountability, resulting in failure to fully and properly implement SIAs and continued WPV transmission.

Maintaining high levels of immunity in areas where WPV transmission has been interrupted also remains a priority, to prevent recurrence of outbreaks such as the one in Punjab. In addition to continued support from the international polio eradication partnership, interruption of WPV transmission in Afghanistan and Pakistan will require overcoming one of the most important remaining challenges in polio eradication globally: the barriers to access and vaccination of children in large, remote, and security-compromised areas. Efforts to engage political and tribal leaders will need to be enhanced to secure access and safe passage of vaccination teams to these areas. In the interim, critical improvements are needed in the quality of SIAs and delivery of routine immunization in both countries.

#### References

1. CDC. Progress toward interruption of wild poliovirus transmission—worldwide, January 2006–May 2007. *MMWR* 2007;56:682–5.
2. CDC. Progress toward poliomyelitis eradication—Pakistan and Afghanistan, 2007. *MMWR* 2008;57:315–9.
3. World Health Organization. WHO vaccine-preventable diseases monitoring system: 2008 global summary. Geneva, Switzerland: World Health Organization. Available at <http://www.who.int/vaccines/globalsummary/immunization/countryprofileselect.cfm>.

Notice to Readers**Ground Water Awareness Week –  
March 8–14, 2009**

An estimated 88 to 100 million persons in the United States are served by community drinking water systems that rely on ground water as their sole or primary source (1,2); approximately 15 million U.S. households have their own private wells (3). Each year, the National Ground Water Association sponsors Ground Water Awareness Week to stress the importance of protecting ground water and to focus attention on annual private well maintenance and water testing (4). This year, Ground Water Awareness Week is March 8–14.

U.S. Environmental Protection Agency regulations that protect public drinking water systems do not apply to privately owned wells (5). Owners of private wells are responsible for ensuring that their well water is safe from contaminants of health concern. Possible contaminants include disease-causing microorganisms, natural contaminants, and manufactured pollutants. Twenty waterborne-disease outbreaks associated with drinking water were reported to CDC during 2005–2006, including seven outbreaks caused by bacteria and viruses in ground water sources (6).

Private wells should be located away from potential contamination sources such as septic and waste-water systems, animal enclosures, and chemical storage areas (5). Private wells also should be checked every year for mechanical problems, cleanliness, and the presence of coliform bacteria and any other contaminants of local concern. A local health department or water well systems professional can help ensure delivery of high-quality water from an existing well or, if needed, help locate and construct a new well in a safer area. Additional information about well maintenance and water testing is available at <http://www.cdc.gov/healthywater/drinking/privatewells/testing.html>.

**References**

1. US Environmental Protection Agency. Factoids: drinking water and ground water statistics for 2008. Washington, DC: US Environmental Protection Agency; 2009. Available at [http://www.epa.gov/ogwdw000/databases/pdfs/data\\_factoids\\_2008.pdf](http://www.epa.gov/ogwdw000/databases/pdfs/data_factoids_2008.pdf).
2. US Environmental Protection Agency. Economic analysis for the final ground water rule. Washington, DC: US Environmental Protection Agency; 2006. Available at [http://www.epa.gov/safewater/disinfection/gwr/pdfs/support\\_gwr\\_economicanalysis.pdf](http://www.epa.gov/safewater/disinfection/gwr/pdfs/support_gwr_economicanalysis.pdf).
3. US Census Bureau. American housing survey for the United States: 2007. Washington, DC: US Census Bureau; 2008. Available at <http://www.census.gov/prod/2008pubs/h150-07.pdf>.
4. National Ground Water Association. National ground water awareness week. Westerville, OH: National Ground Water Association; 2009. Available at <http://www.ngwa.org/public/awarenessweek/index.aspx>.
5. US Environmental Protection Agency. Private drinking water wells. Washington, DC: US Environmental Protection Agency; 2006. Available at <http://www.epa.gov/safewater/privatewells/index2.html>.
6. CDC. Surveillance for waterborne disease and outbreaks associated with drinking water and water not intended for drinking—United States, 2005–2006. *MMWR* 2008;57(No. SS-9):39–69.

Notice to Readers**Introduction to Public Health  
Surveillance Course**

CDC and Rollins School of Public Health at Emory University will cosponsor a course, Introduction to Public Health Surveillance, to be held June 1–5, 2009, at Emory University in Atlanta, Georgia. The course will provide practicing public health professionals with theoretical and practical knowledge to design, implement, and evaluate effective surveillance program. Course topics include an overview and history of surveillance systems; planning considerations; sources and collection of data; analysis, interpretation, and communication of data; surveillance systems technology; ethics and legalities; state and local concerns; and future considerations. Tuition is charged.

Additional information and applications are available by mail (Emory University, Hubert Department of Global Health, 1518 Clifton Rd. NE, Rm. 746, Atlanta, GA 30322), telephone (404-727-3485), fax (404-727-4590), e-mail ([pvaleri@emory.edu](mailto:pvaleri@emory.edu)), or Internet (<http://www.sph.emory.edu/epicourses>).

Notice to Readers**NNDSS Tables have Updated “N”  
Indicators for the Year 2008**

The 2008 Council of State and Territorial Epidemiologists (CSTE) State Reportable Conditions Assessment (2008 SRCA) has collected data from each reporting jurisdiction (i.e., 50 U.S. states, the District of Columbia, New York City, and five U.S. territories) to determine which of the nationally notifiable infectious diseases (NNIDs) were reportable in each reporting jurisdiction during 2008. The 2008 assessment is the second SRCA project conducted by CSTE with assistance from CDC (1). The 2008 SRCA gathered information regarding whether the condition is explicitly reportable (i.e., listed as a specific disease or as a category of diseases on reportable disease lists) or whether it is implicitly reportable (i.e., included in a general category of the reportable disease list, such as “rare diseases of public health importance”) Only conditions that were explicitly reportable were considered reportable under 2008 SRCA methodology.

Results of the 2008 SRCA will be used to indicate whether a specified NNID is not notifiable for a specified period and reporting jurisdiction. This information is noted with an “N” indicator (for “not notifiable”) in the *MMWR* Table II weekly

update (Provisional cases of selected notifiable diseases, United States) and in the annual *MMWR Summary of Notifiable Diseases, United States*. This notation will allow readers to distinguish whether 1) no cases were reported even though the condition is reportable or 2) no cases were reported because the condition is not reportable.

The 2008 SRCA data collection concluded in February 2009; results will be used to populate the “N” indicators for NNDSS data in both 2008 and 2009 *MMWR* data tables. The 2009 NNDSS data displayed in the *MMWR* weekly provisional tables will reflect reporting requirements gathered from the 2008 SRCA until 2009 SRCA official results are available.

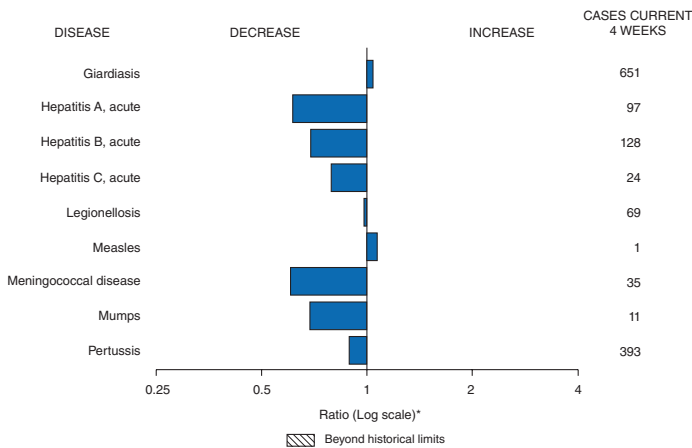
#### Reference

1. CDC. Changes to MMWR table I and presentation of National Notifiable Diseases Surveillance System data—January 2008. *MMWR* 2008;57:14.

### Errata: Vol. 58, No. 7

On page 175, Figure 1, “Selected notifiable disease reports, United States, comparison of provisional 4-week totals February 21, 2009, with historical data,” was incorrect. The correct Figure is as follows.

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals February 21, 2009, 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.

### Errata: Vol. 57, No. SS-5

In the *MMWR Surveillance Summary* (Vol. 57, No. SS-5), “Assisted Reproductive Technology Surveillance—United States, 2005,” several errors occurred in the last two columns of Table 8 on page 22. The corrected table is on the following page.

**TABLE 8. Number and percentage of infants born in multiple-birth deliveries, by patient's state/territory of residence\* at time of assisted reproductive technology (ART) procedure — United States, 2005**

Patient's state of residency	No. infants born		No. infants born in multiple-birth deliveries		Infants born in multiple-birth deliveries† (%)	Infants born in twin deliveries (%)	Infants born in triplet or higher order deliveries (%)
	No.	No. with missing residency	No.	No. with missing residency			
Alabama	338	0	181	0	53.6	48.5	5.0
Alaska	63	0	32	0	50.8	50.8	0.0
Arizona	767	26	347	10	45.2	38.5	6.8
Arkansas	215	0	109	0	50.7	46.5	4.2
California	7,159	637	3,635	294	50.8	44.5	6.3
Colorado	999	46	525	30	52.6	49.2	3.3
Connecticut	1,025	23	480	8	46.8	44.2	2.6
Delaware	148	0	69	0	46.6	44.6	2.0
District of Columbia	202	21	101	10	50.0	48.5	1.5
Federated States of Micronesia	¶	¶	¶	¶	¶	0.0	0.0
Florida	2,418	60	1,160	29	48.0	43.2	4.8
Georgia	1,286	574	663	282	51.6	44.6	7.0
Guam	¶	¶	¶	¶	¶	0.0	0.0
Hawaii	264	2	136	2	51.5	43.6	8.0
Idaho	241	0	131	0	54.4	45.6	8.7
Illinois	3,211	16	1,501	8	46.7	42.1	4.6
Indiana	669	2	347	0	51.9	43.6	8.2
Iowa	414	0	197	0	47.6	42.5	5.1
Kansas	271	0	145	0	53.5	48.0	5.5
Kentucky	403	2	208	2	51.6	39.0	12.7
Louisiana	301	0	153	0	50.8	45.8	5.0
Maine	95	0	47	0	49.5	46.3	3.2
Maryland	1,656	24	769	8	46.4	42.3	4.1
Massachusetts	2,964	964	1,293	440	43.6	40.6	3.0
Michigan	1,285	7	650	4	50.6	43.5	7.1
Minnesota	971	3	500	0	51.5	48.4	3.1
Mississippi	187	0	89	0	47.6	42.8	4.8
Missouri	740	217	318	100	43.0	37.3	5.7
Montana	79	0	44	0	55.7	46.8	8.9
Nebraska	255	0	121	0	47.5	41.6	5.9
Nevada	526	24	262	10	49.8	46.4	3.4
New Hampshire	292	0	139	0	47.6	44.5	3.1
New Jersey	3,459	169	1,692	89	48.9	43.9	5.1
New Mexico	169	0	95	0	56.2	54.4	1.8
New York	3,807	148	1,768	68	46.4	41.9	4.5
New York City	1,604	610	729	276	45.4	42.8	2.6
North Carolina	1,029	2	498	0	48.4	43.3	5.1
North Dakota	84	0	34	0	40.5	32.1	8.3
Ohio	1,365	11	688	4	50.4	41.5	8.9
Oklahoma	288	2	138	2	47.9	46.9	1.0
Oregon	533	8	298	8	55.9	53.3	2.6
Pennsylvania	1,808	134	896	54	49.6	44.2	5.3
Puerto Rico	148	0	77	0	52.0	45.9	6.1
Rhode Island	331	0	174	0	52.6	49.8	2.7
South Carolina	513	0	261	0	50.9	43.3	7.6
South Dakota	74	0	37	0	50.0	50.0	0.0
Tennessee	511	2	261	2	51.1	46.0	5.1
Texas	3,103	51	1,666	27	53.7	48.3	5.4
Utah	371	1	208	0	56.1	51.2	4.9
Vermont	47	0	16	0	34.0	27.7	6.4
Virgin Islands, U.S.	11	0	0	0	0.0	0.0	0.0
Virginia	1,572	19	713	10	45.4	40.7	4.6
Washington	811	9	387	2	47.7	43.5	4.2
West Virginia	92	0	48	0	52.2	45.7	6.5
Wisconsin	685	1	344	0	50.2	46.7	3.5
Wyoming	39	0	19	0	48.7	41.0	7.7
Non-U.S. resident	141	0	70	0	49.6	36.9	12.8
<b>Total</b>	<b>52,041</b>	<b>3,815</b>	<b>25,469</b>	<b>1,779</b>	<b>48.9</b>	<b>43.9</b>	<b>5.1</b>

\* In cases of missing residency data, the patient's place of residency was as that in which the ART procedure was performed.

† Statistics might not sum to total because of rounding.

§ Of all ART procedures, 0.7% were reported from military medical centers located in California, District of Columbia, Hawaii, and Texas. States and territories for which  $\geq 1\%$  of ART procedures among state residents were performed in a military medical center were Alaska, Delaware, District of Columbia, Guam, Hawaii, Kansas, Maryland, New Mexico, North Carolina, Oklahoma, South Carolina, Texas, Virginia, and Wyoming. In District of Columbia, Guam, and Hawaii,  $>5\%$  of ART procedures among residents were performed in a military medical center.

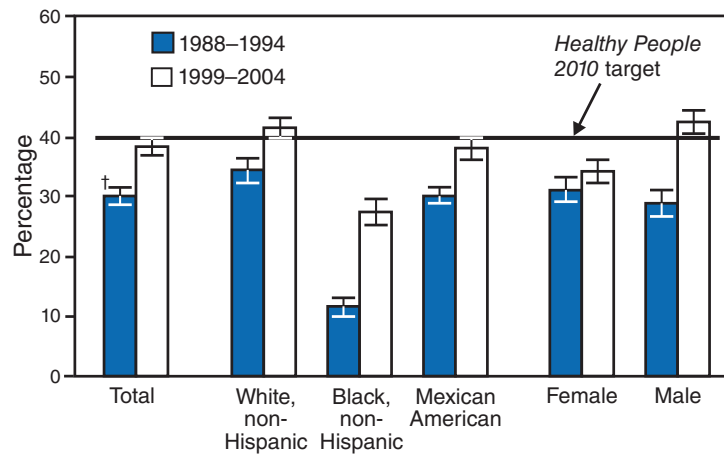
¶ Data not shown to preserve confidentiality, but included in total.



# QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

## Percentage of Adults Aged 35–44 Years with No Permanent Tooth Loss from Disease, by Race/Ethnicity\* and Sex — National Health and Nutrition Examination Survey, United States, 1988–1994 and 1999–2004



\* Findings based on dental examination of a sample of the civilian, non-institutionalized population conducted as part of the National Health and Nutrition Examination Survey. Before 1999, respondents were asked to select only one race. For 1999 and later years, respondents were asked to select one or more races. For all years, the categories black and white include persons who reported only one racial group and exclude persons of Hispanic ethnicity. Persons of Mexican-American ethnicity might be any race.

† 95% confidence interval.

The proportion of adults who have never had a permanent tooth extracted because of dental caries or periodontal disease has nearly reached the *Healthy People 2010* target of 40% (objective 21-3), increasing from 30% during 1988–1994 to 38% during 1999–2004. Although still furthest from the target percentage, tooth retention among non-Hispanic blacks improved the most compared with Mexican Americans and non-Hispanic whites, increasing from approximately 12% during 1988–1994 to approximately 27% during 1999–2004. Although tooth retention was similar among females (31%) and males (29%) during 1988–1994, males significantly exceeded the *Healthy People 2010* target during 1999–2004, increasing 14 percentage points to 43%. In contrast, the observed 3% increase in tooth retention for females was not statistically significant from 1988–1994 to 1999–2004.

**SOURCES:** National Health and Nutrition Examination Survey, 1988–2004 data files. Available at <http://www.cdc.gov/nchs/nhanes.htm>.

CDC. Trends in oral health status: United States, 1988–1994 and 1999–2004. *Vital Health Stat* 2007;11(248). Available at [http://www.cdc.gov/nchs/data/series/sr\\_11/sr11\\_248.pdf](http://www.cdc.gov/nchs/data/series/sr_11/sr11_248.pdf).

US Department of Health and Human Services. *Healthy People 2010* (2nd ed, in 2 vols). Washington, DC: US Department of Health and Human Services; 2000. Available at <http://www.health.gov/healthypeople>.

**TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending February 28, 2009 (8th week)\***

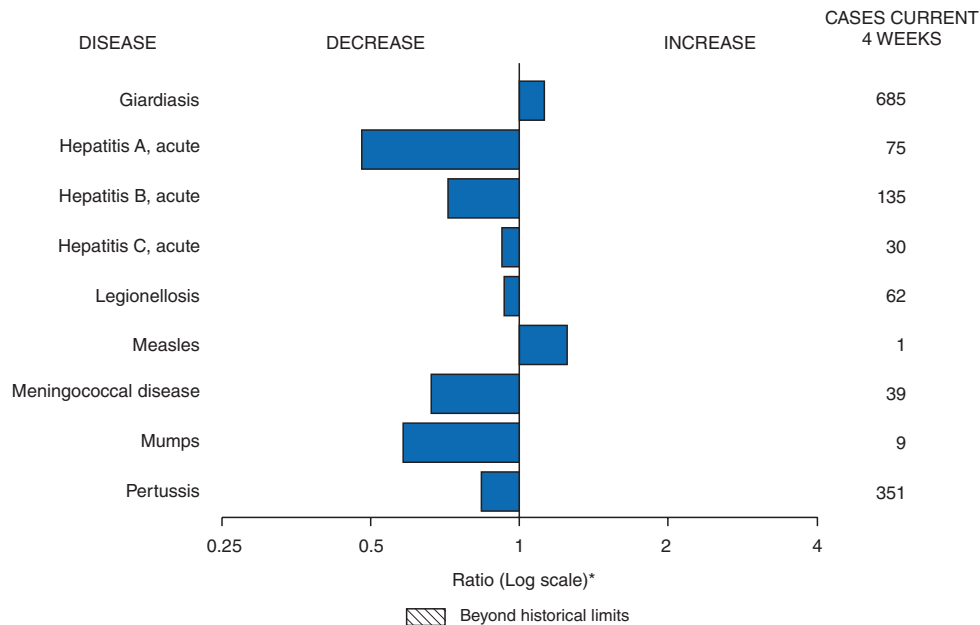
Disease	Current week	Cum 2009	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2008	2007	2006	2005	2004	
Anthrax	—	—	0	—	1	1	—	—	
Botulism:									
foodborne	—	3	—	14	32	20	19	16	
infant	1	5	2	100	85	97	85	87	AR (1)
other (wound and unspecified)	—	3	1	19	27	48	31	30	
Brucellosis	—	3	1	82	131	121	120	114	
Chancroid	—	4	1	29	23	33	17	30	
Cholera	—	—	0	3	7	9	8	6	
Cyclosporiasis§	1	16	3	132	93	137	543	160	FL (1)
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases§,¶:									
California serogroup	—	—	0	47	55	67	80	112	
eastern equine	—	—	—	3	4	8	21	6	
Powassan	—	—	—	2	7	1	1	1	
St. Louis	—	—	—	10	9	10	13	12	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,¶¶:									
<i>Ehrlichia chaffeensis</i>	1	15	2	907	828	578	506	338	GA (1)
<i>Ehrlichia ewingii</i>	—	—	—	8	—	—	—	—	
<i>Anaplasma phagocytophilum</i>	2	4	1	592	834	646	786	537	WI (1), GA (1)
undetermined	1	1	0	71	337	231	112	59	OH (1)
<i>Haemophilus influenzae</i> ,††									
invasive disease (age <5 yrs):									
serotype b	—	2	0	29	22	29	9	19	
nonserotype b	1	26	4	186	199	175	135	135	OH (1)
unknown serotype	2	29	5	186	180	179	217	177	PA (2)
Hansen disease§	—	9	1	73	101	66	87	105	
Hantavirus pulmonary syndrome§	—	—	0	16	32	40	26	24	
Hemolytic uremic syndrome, postdiarrheal§	—	7	2	263	292	288	221	200	
Hepatitis C viral, acute	9	86	14	855	845	766	652	720	NY (1), OH (1), MI (1), NE (1), NC (2), TX (1), CO (1), CA (1)
HIV infection, pediatric (age <13 years)§§	—	—	3	—	—	—	380	436	
Influenza-associated pediatric mortality§,¶¶¶	5	23	3	88	77	43	45	—	NY (1), MD (2), CA (2)
Listeriosis	4	62	9	707	808	884	896	753	NC (1), CO (1), WA (1), HI (1)
Measles***	—	1	1	135	43	55	66	37	
Meningococcal disease, invasive†††:									
A, C, Y, and W-135	3	27	9	318	325	318	297	—	PA (1), MN (1), OK (1)
serogroup B	1	13	5	172	167	193	156	—	TX (1)
other serogroup	—	3	1	30	35	32	27	—	
unknown serogroup	9	56	18	599	550	651	765	—	OH (1), MO (2), KS (1), NC (1), AR (1), CA (2), AK (1)
Mumps	3	40	16	410	800	6,584	314	258	NC (2), CO (1)
Novel influenza A virus infections	—	1	—	2	4	N	N	N	
Plague	—	—	0	1	7	17	8	3	
Poliomyelitis, paralytic	—	—	—	—	—	—	1	—	
Polio virus infection, nonparalytic§	—	—	—	—	—	N	N	N	
Psittacosis§	—	1	0	10	12	21	16	12	
Q fever total§,§§§:	3	6	2	92	171	169	136	70	
acute	2	4	1	82	—	—	—	—	CA (2)
chronic	1	2	0	10	—	—	—	—	KY (1)
Rabies, human	—	—	—	1	1	3	2	7	
Rubella¶¶¶¶	—	—	0	16	12	11	11	10	
Rubella, congenital syndrome	—	1	0	—	—	1	1	—	
SARS-CoV§,*****	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	2	10	3	135	132	125	129	132	OH (1), NC (1)
Syphilis, congenital (age <1 yr)	—	—	5	—	430	349	329	353	
Tetanus	—	1	0	19	28	41	27	34	
Toxic-shock syndrome (staphylococcal)§	—	11	2	73	92	101	90	95	
Trichinellosis	—	6	0	37	5	15	16	5	
Tularemia	—	3	0	111	137	95	154	134	
Typhoid fever	1	44	6	422	434	353	324	322	MO (1)
Vancomycin-intermediate <i>Staphylococcus aureus</i> §	1	4	0	49	37	6	2	—	NY (1)
Vancomycin-resistant <i>Staphylococcus aureus</i> §	—	—	—	—	2	1	3	1	
Vibriosis (noncholera <i>Vibrio</i> species infections)§	5	20	1	487	549	N	N	N	MD (1), FL (2), CO (1), CA (1)
Yellow fever	—	—	—	—	—	—	—	—	

See Table I footnotes on next page.

**TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending February 28, 2009 (8th week)\***

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.  
 \* Incidence data for reporting year 2008 and 2009 are provisional, whereas data for 2004, 2005, 2006, and 2007 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 preceding years. Additional information is available at <http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf>.  
 § Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>.  
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.  
 \*\* The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).  
 †† Data for *H. influenzae* (all ages, all serotypes) 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. 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. Twenty-two influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.  
 \*\*\* No measles cases were reported for the current week.  
 ††† Data for meningococcal disease (all serogroups) are available in Table II.  
 §§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.  
 ¶¶¶ 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.

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals February 28, 2009, 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.

**Notifiable Disease Data Team and 122 Cities Mortality Data Team**  
 Patsy A. Hall  
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 Lenee Blanton      Pearl C. Sharp

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\***

Reporting area	Chlamydia†					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 week		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	11,517	21,380	24,772	143,715	183,907	95	125	343	1,049	1,143	55	106	461	444	507
<b>New England</b>	906	709	1,656	5,896	4,724	—	0	0	—	1	—	4	20	10	64
Connecticut	351	215	1,303	1,426	872	N	0	0	N	N	—	0	3	3	38
Maine§	48	51	72	428	397	N	0	0	N	N	—	1	6	2	—
Massachusetts	402	327	1,016	3,275	2,622	N	0	0	N	N	—	0	9	—	13
New Hampshire	6	39	63	155	357	—	0	0	—	1	—	1	4	3	4
Rhode Island§	99	53	208	466	454	—	0	0	—	—	—	0	3	—	—
Vermont§	—	19	53	146	22	N	0	0	N	N	—	1	7	2	9
<b>Mid. Atlantic</b>	2,054	2,753	6,448	20,748	18,612	—	0	0	—	—	9	13	34	57	61
New Jersey	324	430	652	2,102	3,433	N	0	0	N	N	—	0	2	—	4
New York (Upstate)	613	555	4,214	3,837	2,829	N	0	0	N	N	5	4	17	22	9
New York City	553	1,102	3,403	9,200	5,627	N	0	0	N	N	—	1	8	11	18
Pennsylvania	564	774	1,073	5,609	6,723	N	0	0	N	N	4	5	15	24	30
<b>E.N. Central</b>	1,352	3,018	3,718	18,772	47,433	—	1	3	2	5	11	25	125	93	114
Illinois	34	643	1,122	4,891	26,683	N	0	0	N	N	—	2	13	5	13
Indiana	327	379	713	2,886	3,189	N	0	0	N	N	—	3	13	6	11
Michigan	722	843	1,226	6,869	6,755	—	0	3	—	4	1	5	13	25	28
Ohio	40	794	1,346	2,164	7,315	—	0	2	2	1	5	6	59	41	30
Wisconsin	229	288	488	1,962	3,491	N	0	0	N	N	5	9	46	16	32
<b>W.N. Central</b>	653	1,280	1,537	9,139	10,143	—	0	2	—	—	6	16	68	47	64
Iowa	125	175	251	1,391	1,340	N	0	0	N	N	1	4	30	6	21
Kansas	—	181	413	1,522	1,406	N	0	0	N	N	2	1	8	5	6
Minnesota	—	271	311	1,215	2,379	—	0	0	—	—	1	4	15	12	14
Missouri	407	490	566	3,860	3,583	—	0	2	—	—	1	3	13	12	6
Nebraska§	64	83	245	614	702	N	0	0	N	N	1	2	8	8	11
North Dakota	—	30	60	53	312	N	0	0	N	N	—	0	2	—	1
South Dakota	57	56	85	484	421	N	0	0	N	N	—	1	9	4	5
<b>S. Atlantic</b>	2,408	3,802	6,324	25,633	29,949	—	0	1	3	—	17	19	47	139	92
Delaware	47	69	151	770	547	—	0	1	1	—	—	0	1	—	3
District of Columbia	—	127	201	858	982	—	0	0	—	—	—	0	2	—	2
Florida	1,309	1,370	1,571	11,108	9,921	N	0	0	N	N	7	8	35	46	46
Georgia	1	588	1,274	2,024	5,322	N	0	0	N	N	9	5	13	63	21
Maryland§	407	442	692	3,445	3,130	—	0	1	2	—	1	1	4	4	—
North Carolina	—	0	460	—	2,348	N	0	0	N	N	—	0	16	20	7
South Carolina§	608	474	3,038	3,641	4,095	N	0	0	N	N	—	1	4	3	5
Virginia§	—	618	1,059	3,267	3,071	N	0	0	N	N	—	1	4	2	4
West Virginia	36	60	102	520	533	N	0	0	N	N	—	0	3	1	4
<b>E.S. Central</b>	1,183	1,595	2,022	12,143	12,024	—	0	0	—	—	—	3	9	12	17
Alabama§	—	422	531	2,379	3,947	N	0	0	N	N	—	1	6	3	9
Kentucky	—	245	373	1,742	1,788	N	0	0	N	N	—	0	4	3	3
Mississippi	401	419	765	3,645	2,324	N	0	0	N	N	—	0	2	3	2
Tennessee§	782	538	790	4,377	3,965	N	0	0	N	N	—	1	6	3	3
<b>W.S. Central</b>	426	2,814	3,504	19,064	21,746	—	0	1	—	—	5	7	164	16	20
Arkansas§	304	274	455	2,446	2,215	N	0	0	N	N	1	1	7	2	1
Louisiana	—	425	775	2,433	2,433	—	0	1	—	—	—	1	5	2	5
Oklahoma	122	198	392	820	1,613	N	0	0	N	N	2	1	16	5	7
Texas§	—	1,900	2,469	13,365	15,485	N	0	0	N	N	2	3	150	7	7
<b>Mountain</b>	377	1,247	1,951	6,210	11,144	74	89	181	772	767	2	8	37	26	34
Arizona	38	467	650	2,323	3,416	72	86	179	759	744	—	1	9	3	9
Colorado	—	179	588	756	2,890	N	0	0	N	N	1	1	12	6	5
Idaho§	17	65	314	488	584	N	0	0	N	N	1	1	5	3	8
Montana§	29	55	87	372	483	N	0	0	N	N	—	1	3	2	5
Nevada§	280	175	415	1,563	1,649	2	0	6	10	9	—	0	1	3	—
New Mexico§	—	117	455	194	1,050	—	0	3	1	7	—	2	23	6	3
Utah	13	106	253	201	928	—	0	1	2	7	—	0	6	—	3
Wyoming§	—	33	85	313	144	—	0	1	—	—	—	0	4	3	1
<b>Pacific</b>	2,158	3,624	4,242	26,110	28,132	21	35	172	272	370	5	8	30	44	41
Alaska	73	82	183	595	622	N	0	0	N	N	—	0	1	1	—
California	1,603	2,858	3,217	20,815	21,662	21	35	172	272	370	5	5	14	30	31
Hawaii	44	102	162	710	827	N	0	0	N	N	—	0	1	—	—
Oregon§	199	186	631	1,531	1,578	N	0	0	N	N	—	1	4	11	7
Washington	239	400	527	2,459	3,443	N	0	0	N	N	—	1	17	2	3
American Samoa	—	0	14	—	29	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	4	24	—	14	—	0	0	—	—	—	0	0	—	—
Puerto Rico	63	123	333	1,117	654	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	12	23	—	94	—	0	0	—	—	—	0	0	—	—

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 year 2008 and 2009 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.

† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\*

Reporting area	Giardiasis					Gonorrhea					Haemophilus influenzae, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	195	307	601	1,750	2,068	2,591	5,705	6,609	34,675	55,790	20	47	87	341	522
<b>New England</b>	6	23	49	93	190	108	100	301	746	657	—	2	8	12	31
Connecticut	—	5	14	27	41	61	50	274	290	180	—	0	7	5	—
Maine§	4	3	12	31	16	2	2	6	15	11	—	0	2	2	2
Massachusetts	—	4	17	—	79	41	38	123	380	389	—	0	4	—	25
New Hampshire	1	3	11	11	18	1	2	5	13	15	—	0	1	3	1
Rhode Island§	—	1	8	8	14	3	5	13	42	60	—	0	7	1	—
Vermont§	1	3	15	16	22	—	1	3	6	2	—	0	3	1	3
<b>Mid. Atlantic</b>	35	60	108	310	385	418	608	1,099	4,229	4,215	5	10	22	69	93
New Jersey	—	3	14	—	76	65	95	167	433	891	—	1	5	2	22
New York (Upstate)	29	21	72	141	101	119	115	627	764	751	2	3	18	23	19
New York City	3	16	30	92	108	106	205	587	1,736	871	—	1	6	5	15
Pennsylvania	3	16	46	77	100	128	209	267	1,296	1,702	3	4	10	39	37
<b>E.N. Central</b>	31	47	88	230	341	431	1,019	1,341	6,173	19,082	3	7	18	44	83
Illinois	—	11	32	30	89	12	190	412	1,566	11,050	—	2	7	9	32
Indiana	N	0	7	N	N	89	147	254	1,048	1,376	—	1	13	9	9
Michigan	3	12	22	62	68	214	306	657	2,307	2,719	—	0	2	2	4
Ohio	26	17	31	114	123	23	266	531	628	2,905	3	2	6	21	29
Wisconsin	2	8	20	24	61	93	77	141	624	1,032	—	0	2	3	9
<b>W.N. Central</b>	10	28	143	154	217	141	315	392	2,111	2,647	1	3	12	24	39
Iowa	5	6	18	37	45	8	29	53	183	247	—	0	1	—	1
Kansas	1	3	11	20	16	—	41	83	370	348	—	0	3	2	1
Minnesota	—	0	106	1	76	—	54	78	214	592	1	0	10	5	9
Missouri	2	8	22	64	48	104	149	193	1,080	1,189	—	1	4	11	21
Nebraska§	2	4	10	21	22	24	25	49	193	211	—	0	2	6	6
North Dakota	—	0	3	—	4	—	2	7	4	25	—	0	3	—	1
South Dakota	—	2	10	11	6	5	8	20	67	35	—	0	0	—	—
<b>S. Atlantic</b>	38	58	104	499	313	644	1,277	2,008	7,305	10,140	7	12	24	110	142
Delaware	1	1	3	4	5	12	18	44	156	178	—	0	2	—	1
District of Columbia	—	1	5	—	6	—	54	101	364	341	—	0	2	—	2
Florida	31	27	57	274	143	346	434	518	3,283	3,661	5	3	8	42	36
Georgia	—	9	60	140	79	—	229	484	649	1,988	1	2	9	23	40
Maryland§	6	5	10	32	33	112	116	211	894	1,002	—	1	5	17	27
North Carolina	N	0	0	N	N	—	0	831	—	393	1	1	9	12	9
South Carolina§	—	2	6	12	15	171	175	829	1,081	1,554	—	1	7	4	7
Virginia§	—	8	29	33	22	—	182	486	786	900	—	1	6	3	14
West Virginia	—	1	5	4	10	3	13	26	92	123	—	0	3	9	6
<b>E.S. Central</b>	2	8	22	22	54	350	547	764	3,758	4,421	—	3	8	18	26
Alabama§	—	4	12	7	34	—	163	213	769	1,614	—	0	2	4	5
Kentucky	N	0	0	N	N	—	89	153	528	697	—	0	1	1	—
Mississippi	N	0	0	N	N	132	143	285	1,170	872	—	0	2	—	2
Tennessee§	2	3	13	15	20	218	165	297	1,291	1,238	—	2	6	13	19
<b>W.S. Central</b>	2	7	21	29	34	109	953	1,299	5,601	7,717	—	2	17	11	13
Arkansas§	—	2	8	6	10	68	87	167	718	700	—	0	2	1	—
Louisiana	—	2	10	12	14	—	165	317	838	1,330	—	0	1	1	2
Oklahoma	2	3	11	11	10	41	79	142	310	678	—	1	16	9	10
Texas§	N	0	0	N	N	—	606	729	3,735	5,009	—	0	2	—	1
<b>Mountain</b>	19	27	61	145	175	89	196	337	754	1,776	2	5	12	42	73
Arizona	2	3	8	21	16	2	62	86	259	533	—	2	6	26	35
Colorado	7	10	27	48	63	—	56	101	104	460	1	1	5	6	15
Idaho§	6	3	14	17	22	—	3	13	18	31	—	0	4	1	—
Montana§	2	1	9	16	9	1	2	6	12	14	—	0	1	—	1
Nevada§	—	1	8	6	12	83	35	129	321	426	1	0	2	4	3
New Mexico§	—	1	8	6	20	—	22	47	19	223	—	0	4	3	8
Utah	2	6	18	25	27	3	8	19	11	81	—	0	5	2	11
Wyoming§	—	0	3	6	6	—	2	9	10	8	—	0	2	—	—
<b>Pacific</b>	52	56	146	268	359	301	576	716	3,998	5,135	2	2	6	11	22
Alaska	1	2	10	7	9	15	11	19	97	70	1	0	1	3	3
California	37	35	59	199	266	238	465	591	3,337	4,238	—	0	3	—	8
Hawaii	—	0	4	1	4	5	11	22	69	89	1	0	2	4	2
Oregon§	3	7	18	31	68	13	23	48	192	218	—	1	4	4	9
Washington	11	8	93	30	12	30	55	88	303	520	—	0	2	—	—
American Samoa	—	0	0	—	—	—	0	1	—	1	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	15	—	4	—	0	0	—	—
Puerto Rico	2	2	13	14	14	2	4	25	28	45	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	2	6	—	16	N	0	0	N	N

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 year 2008 and 2009 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).

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\***

Reporting area	Hepatitis (viral, acute), by type†										Legionellosis				
	A					B									
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
	Med	Max				Med	Max				Med	Max			
<b>United States</b>	12	44	76	204	403	40	69	111	388	546	13	47	147	218	276
<b>New England</b>	1	1	6	4	25	—	1	3	2	14	—	2	16	6	9
Connecticut	1	0	4	3	3	—	0	2	1	8	—	0	5	4	3
Maine§	—	0	5	—	2	—	0	2	1	1	—	0	2	—	—
Massachusetts	—	0	4	—	14	—	0	1	—	4	—	0	2	—	2
New Hampshire	—	0	2	1	—	—	0	2	—	1	—	0	5	—	1
Rhode Island§	—	0	2	—	6	—	0	1	—	—	—	0	14	1	1
Vermont§	—	0	1	—	—	—	0	1	—	—	—	0	1	1	2
<b>Mid. Atlantic</b>	—	5	10	22	67	1	8	15	29	80	4	14	59	55	66
New Jersey	—	1	3	4	16	—	1	7	2	31	—	1	8	2	8
New York (Upstate)	—	1	4	6	10	1	1	10	13	6	1	5	21	19	10
New York City	—	2	6	4	19	—	2	6	2	8	—	2	12	2	11
Pennsylvania	—	1	4	8	22	—	2	8	12	35	3	6	33	32	37
<b>E.N. Central</b>	1	6	16	28	61	4	8	17	56	72	4	10	41	48	73
Illinois	—	2	10	5	18	—	2	7	4	19	—	1	13	—	14
Indiana	—	0	4	2	2	—	1	7	7	3	—	1	6	4	3
Michigan	—	2	5	10	30	1	3	7	11	26	—	2	16	10	22
Ohio	1	1	4	10	7	3	2	14	34	20	4	3	18	32	32
Wisconsin	—	0	2	1	4	—	0	1	—	4	—	0	3	2	2
<b>W.N. Central</b>	3	3	16	12	44	2	2	10	25	11	—	2	8	1	14
Iowa	—	1	7	—	17	1	0	3	4	2	—	0	2	—	3
Kansas	—	0	3	—	4	—	0	3	—	1	—	0	1	1	—
Minnesota	1	0	8	2	2	1	0	10	2	—	—	0	4	—	1
Missouri	1	1	3	6	8	—	1	5	13	7	—	1	7	—	4
Nebraska§	1	0	5	4	12	—	0	3	6	1	—	0	3	—	5
North Dakota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	1	—	1	—	0	0	—	—	—	0	1	—	1
<b>S. Atlantic</b>	4	7	15	59	59	26	18	34	157	152	3	9	22	58	50
Delaware	—	0	1	—	—	—	0	1	—	5	—	0	2	—	1
District of Columbia	U	0	0	U	U	U	0	0	U	U	—	0	2	—	2
Florida	4	2	8	35	25	6	6	11	50	51	2	3	7	22	21
Georgia	—	1	4	7	9	4	3	8	25	23	—	1	5	13	4
Maryland§	—	1	4	7	7	—	2	5	17	17	1	2	10	10	11
North Carolina	—	0	9	6	9	15	0	17	56	24	—	0	7	12	3
South Carolina§	—	0	3	2	2	—	1	4	1	16	—	0	2	—	1
Virginia§	—	1	5	2	5	1	2	8	5	7	—	1	5	1	4
West Virginia	—	0	1	—	2	—	1	4	3	9	—	0	3	—	3
<b>E.S. Central</b>	—	1	9	4	7	—	7	13	29	62	—	2	10	12	14
Alabama§	—	0	2	1	1	—	1	6	3	20	—	0	2	—	1
Kentucky	—	0	3	—	3	—	1	5	8	21	—	1	4	5	8
Mississippi	—	0	2	2	—	—	1	3	4	4	—	0	1	—	—
Tennessee§	—	0	6	1	3	—	3	8	14	17	—	1	5	7	5
<b>W.S. Central</b>	—	4	12	5	23	2	13	24	40	81	—	1	13	4	5
Arkansas§	—	0	1	1	—	—	0	4	—	3	—	0	2	—	—
Louisiana	—	0	2	—	1	—	1	4	4	12	—	0	2	1	—
Oklahoma	—	0	5	1	—	2	2	10	9	4	—	0	6	—	—
Texas§	—	4	11	3	22	—	8	18	27	62	—	1	12	3	5
<b>Mountain</b>	1	4	12	15	29	2	3	12	14	27	—	2	8	11	15
Arizona	1	2	11	8	12	—	1	5	4	14	—	0	2	6	4
Colorado	—	0	2	2	7	1	0	3	2	3	—	0	2	—	2
Idaho§	—	0	3	—	4	—	0	2	—	—	—	0	1	—	1
Montana§	—	0	1	2	—	—	0	1	—	—	—	0	1	1	1
Nevada§	—	0	3	2	—	1	0	3	5	6	—	0	2	3	2
New Mexico§	—	0	3	1	3	—	0	2	3	2	—	0	2	—	1
Utah	—	0	2	—	1	—	0	3	—	2	—	0	2	1	4
Wyoming§	—	0	1	—	2	—	0	1	—	—	—	0	0	—	—
<b>Pacific</b>	2	9	25	55	88	3	7	43	36	47	2	4	10	23	30
Alaska	—	0	1	1	—	—	0	2	1	—	—	0	1	1	—
California	2	7	25	48	71	3	5	29	29	35	2	3	8	17	25
Hawaii	—	0	2	1	1	—	0	1	1	2	—	0	1	1	1
Oregon§	—	0	2	2	9	—	0	3	3	7	—	0	2	2	3
Washington	—	0	6	3	7	—	1	14	2	3	—	0	4	2	1
American Samoa	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	2	1	3	—	0	4	—	12	—	0	1	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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 year 2008 and 2009 are provisional.  
 † Data for acute hepatitis C, viral are available in Table I.  
 § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\*

Reporting area	Lyme disease				Malaria				Meningococcal disease, invasive† All serotypes						
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	51	448	1,456	775	1,068	5	22	44	103	135	13	16	48	99	205
<b>New England</b>	3	45	261	44	149	—	0	6	1	6	—	0	3	2	7
Connecticut	—	0	0	—	—	—	0	3	—	—	—	0	0	—	1
Maine§	2	6	73	8	—	—	0	0	—	1	—	0	1	1	1
Massachusetts	—	1	114	—	106	—	0	2	—	3	—	0	3	—	5
New Hampshire	1	13	141	22	38	—	0	2	—	1	—	0	1	1	—
Rhode Island§	—	0	0	—	—	—	0	1	—	1	—	0	1	—	—
Vermont§	—	4	41	14	5	—	0	1	1	—	—	0	0	—	—
<b>Mid. Atlantic</b>	34	251	1,140	397	582	—	4	14	18	28	1	2	6	8	19
New Jersey	—	29	211	66	178	—	0	0	—	—	—	0	2	—	3
New Jersey (Upstate)	24	99	1,086	103	39	—	0	10	7	2	—	0	3	—	5
New York City	—	1	7	—	8	—	3	10	7	20	—	0	2	2	2
Pennsylvania	10	96	533	228	357	—	1	3	4	6	1	1	5	6	9
<b>E.N. Central</b>	—	12	147	20	40	—	2	7	8	27	1	3	9	20	38
Illinois	—	1	13	—	2	—	1	5	1	13	—	1	5	2	16
Indiana	—	0	8	—	—	—	0	2	—	1	—	0	4	3	2
Michigan	—	1	10	1	3	—	0	2	1	5	—	0	3	2	7
Ohio	—	0	5	2	—	—	0	2	6	7	1	1	4	11	8
Wisconsin	—	9	129	17	33	—	0	3	—	1	—	0	2	2	5
<b>W.N. Central</b>	—	8	214	9	3	1	1	10	5	2	4	2	6	12	21
Iowa	—	1	8	2	3	—	0	3	1	—	—	0	3	1	5
Kansas	—	0	1	2	—	—	0	2	1	—	1	0	2	2	1
Minnesota	—	5	214	4	—	—	0	8	1	—	1	0	4	3	7
Missouri	—	0	1	—	—	1	0	3	2	1	2	0	2	6	6
Nebraska§	—	0	2	—	—	—	0	2	—	1	—	0	1	—	1
North Dakota	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	1	1	—	—	0	0	—	—	—	0	1	—	1
<b>S. Atlantic</b>	12	70	223	273	264	3	5	15	51	39	1	3	9	19	29
Delaware	5	12	37	46	63	—	0	1	1	—	—	0	1	—	—
District of Columbia	—	2	11	—	10	—	0	2	—	—	—	0	0	—	—
Florida	1	2	10	15	3	1	1	7	15	12	—	1	4	10	10
Georgia	—	0	6	11	—	1	1	5	8	9	—	0	2	2	3
Maryland§	4	31	161	168	168	1	1	7	16	15	—	0	3	1	2
North Carolina	1	0	5	7	2	—	0	7	8	2	1	0	3	4	3
South Carolina§	1	0	2	3	2	—	0	1	1	—	—	0	3	1	5
Virginia§	—	15	53	19	14	—	1	3	2	1	—	0	2	1	6
West Virginia	—	1	11	4	2	—	0	0	—	—	—	0	1	—	—
<b>E.S. Central</b>	—	1	5	2	1	—	0	2	4	2	—	0	6	1	12
Alabama§	—	0	2	—	—	—	0	1	—	1	—	0	2	—	—
Kentucky	—	0	2	—	—	—	0	1	—	1	—	0	1	—	4
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	2	—	2
Tennessee§	—	0	3	2	1	—	0	2	4	—	—	0	3	1	6
<b>W.S. Central</b>	—	2	9	—	1	—	1	11	—	7	3	2	7	8	22
Arkansas§	—	0	0	—	—	—	0	0	—	—	1	0	2	2	2
Louisiana	—	0	1	—	—	—	0	1	—	—	—	0	2	2	9
Oklahoma	—	0	1	—	—	—	0	2	—	1	1	0	3	1	3
Texas§	—	2	9	—	1	—	1	11	—	6	1	1	6	3	8
<b>Mountain</b>	—	0	16	2	4	—	0	3	—	7	—	1	3	9	14
Arizona	—	0	2	—	2	—	0	2	—	2	—	0	2	3	2
Colorado	—	0	1	1	—	—	0	1	—	2	—	0	1	2	2
Idaho§	—	0	1	1	1	—	0	1	—	—	—	0	1	2	2
Montana§	—	0	16	—	—	—	0	0	—	—	—	0	1	—	1
Nevada§	—	0	2	—	—	—	0	0	—	3	—	0	1	2	1
New Mexico§	—	0	2	—	1	—	0	1	—	—	—	0	1	—	2
Utah	—	0	1	—	—	—	0	1	—	—	—	0	1	—	3
Wyoming§	—	0	1	—	—	—	0	0	—	—	—	0	1	—	1
<b>Pacific</b>	2	4	19	28	24	1	3	11	16	17	3	4	19	20	43
Alaska	—	0	2	—	—	—	0	2	—	—	1	0	2	2	—
California	2	3	8	25	23	—	2	8	13	12	2	2	19	11	33
Hawaii	N	0	0	N	N	—	0	1	—	1	—	0	1	1	—
Oregon§	—	1	3	3	1	—	0	1	1	3	—	1	3	3	6
Washington	—	0	12	—	—	1	0	7	2	1	—	0	5	3	4
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	—	—	0	1	—	—
U.S. Virgin Islands	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—

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 year 2008 and 2009 are provisional.

† Data for meningococcal disease, invasive caused by serogroups A, C, Y, and 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).

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\***

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	68	189	661	1,261	1,213	20	92	159	306	554	19	42	145	100	31
<b>New England</b>	—	8	26	33	199	3	7	21	32	33	—	0	2	1	1
Connecticut	—	0	4	—	15	3	3	17	14	18	—	0	0	—	—
Maine†	—	1	7	20	12	—	1	5	6	3	—	0	1	1	—
Massachusetts	—	2	17	—	158	—	0	0	—	—	—	0	0	—	1
New Hampshire	—	1	4	7	4	—	0	3	1	4	—	0	1	—	—
Rhode Island†	—	1	8	2	5	—	0	4	5	4	—	0	2	—	—
Vermont†	—	0	2	4	5	—	1	6	6	4	—	0	0	—	—
<b>Mid. Atlantic</b>	5	18	52	106	139	5	33	67	55	145	—	1	28	—	3
New Jersey	—	1	6	2	10	—	0	0	—	—	—	0	2	—	2
New York (Upstate)	4	6	41	21	36	5	9	20	35	38	—	0	27	—	—
New York City	—	0	4	—	23	—	0	2	—	5	—	0	2	—	1
Pennsylvania	1	9	35	83	70	—	21	52	20	102	—	0	2	—	—
<b>E.N. Central</b>	29	36	174	352	377	1	3	29	6	1	—	1	15	2	1
Illinois	—	11	45	75	24	—	1	21	1	1	—	1	11	1	1
Indiana	—	1	96	12	3	—	0	2	—	—	—	0	3	—	—
Michigan	—	6	21	89	27	1	1	9	5	—	—	0	1	1	—
Ohio	29	10	57	171	311	—	1	7	—	—	—	0	4	—	—
Wisconsin	—	2	7	5	12	N	0	0	N	N	—	0	1	—	—
<b>W.N. Central</b>	8	21	153	276	100	3	3	13	18	10	—	4	32	2	1
Iowa	—	3	21	8	18	—	0	5	—	1	—	0	2	—	—
Kansas	1	1	13	20	4	3	0	3	14	—	—	0	0	—	—
Minnesota	—	2	126	—	—	—	0	10	2	4	—	0	0	—	—
Missouri	5	7	50	211	67	—	1	8	1	—	—	4	31	2	1
Nebraska†	2	2	32	34	9	—	0	0	—	—	—	0	4	—	—
North Dakota	—	0	1	—	—	—	0	7	—	2	—	0	0	—	—
South Dakota	—	0	7	3	2	—	0	2	1	3	—	0	1	—	—
<b>S. Atlantic</b>	6	19	71	206	99	2	26	77	148	331	19	15	69	90	20
Delaware	—	0	3	4	—	—	0	0	—	—	—	0	5	—	—
District of Columbia	—	0	1	—	2	—	0	0	—	—	—	0	2	—	—
Florida	4	6	20	53	18	2	0	8	25	139	1	0	3	1	1
Georgia	—	2	9	4	4	—	5	47	61	47	—	1	8	3	3
Maryland†	—	2	8	8	17	—	7	17	6	58	1	1	7	5	4
North Carolina	—	0	65	102	35	N	0	4	N	N	17	6	55	75	11
South Carolina†	2	2	11	16	8	—	0	0	—	—	—	1	9	3	—
Virginia†	—	3	24	17	15	—	10	24	51	77	—	2	15	2	—
West Virginia	—	0	2	2	—	—	1	9	5	10	—	0	1	1	1
<b>E.S. Central</b>	3	8	29	85	40	2	3	7	12	13	—	3	23	3	2
Alabama†	—	1	5	7	11	—	0	0	—	—	—	1	8	1	1
Kentucky	2	3	12	55	6	2	1	4	12	3	—	0	1	—	—
Mississippi	—	2	5	13	17	—	0	1	—	1	—	0	3	1	—
Tennessee†	1	2	14	10	6	—	2	6	—	9	—	2	19	1	1
<b>W.S. Central</b>	1	32	179	77	54	—	1	11	4	6	—	2	41	1	2
Arkansas†	—	1	20	1	14	—	0	6	2	6	—	0	14	1	—
Louisiana	—	1	7	7	—	—	0	0	—	—	—	0	1	—	1
Oklahoma	1	0	29	6	1	—	0	10	2	—	—	0	26	—	—
Texas†	—	27	154	63	39	—	0	1	—	—	—	1	6	—	1
<b>Mountain</b>	8	14	34	66	136	1	2	8	15	5	—	1	3	1	1
Arizona	1	3	10	10	33	N	0	0	N	N	—	0	2	—	—
Colorado	5	3	13	34	40	—	0	0	—	—	—	0	1	—	—
Idaho†	2	1	5	9	2	—	0	0	—	—	—	0	1	—	—
Montana†	—	0	11	3	15	—	0	3	4	—	—	0	1	—	—
Nevada†	—	0	7	5	1	—	0	4	—	—	—	0	2	—	—
New Mexico†	—	1	8	4	2	1	0	3	5	4	—	0	1	—	1
Utah	—	3	17	1	40	—	0	6	—	—	—	0	1	1	—
Wyoming†	—	0	2	—	3	—	0	4	6	1	—	0	2	—	—
<b>Pacific</b>	8	25	81	60	69	3	4	13	16	10	—	0	1	—	—
Alaska	2	3	21	13	18	—	0	4	2	4	N	0	0	N	N
California	—	8	23	—	20	3	3	12	14	6	—	0	1	—	—
Hawaii	—	0	3	5	2	—	0	0	—	—	N	0	0	N	N
Oregon†	—	3	15	30	16	—	0	2	—	—	—	0	1	—	—
Washington	6	5	77	12	13	—	0	0	—	—	—	0	0	—	—
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	0	—	—	2	1	5	6	5	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

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 year 2008 and 2009 are provisional.  
 † Contains data reported through the National Electronic Disease Surveillance System (NEDSS).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\*

Reporting area	Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC)†					Shigellosis				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	334	925	1,487	3,779	4,362	21	86	251	272	328	153	440	612	1,908	1,991
<b>New England</b>	—	15	63	106	657	—	3	14	7	60	—	2	7	3	57
Connecticut	—	0	52	52	484	—	0	5	5	44	—	0	2	2	38
Maine§	—	2	8	14	19	—	0	3	—	2	—	0	6	—	—
Massachusetts	—	4	52	—	116	—	0	11	—	10	—	0	5	—	14
New Hampshire	—	2	10	18	15	—	1	3	2	2	—	0	1	1	1
Rhode Island§	—	2	9	14	14	—	0	3	—	—	—	0	1	—	3
Vermont§	—	1	7	8	9	—	0	6	—	2	—	0	2	—	1
<b>Mid. Atlantic</b>	36	90	177	383	509	3	6	192	19	27	19	47	96	273	154
New Jersey	—	10	30	11	108	—	0	3	2	5	1	15	38	79	53
New York (Upstate)	23	27	62	117	101	3	3	188	12	9	5	11	35	16	21
New York City	1	21	54	97	135	—	1	5	3	7	—	14	35	62	61
Pennsylvania	12	28	78	158	165	—	0	8	2	6	13	6	24	116	19
<b>E.N. Central</b>	28	94	194	468	482	—	11	75	33	39	38	81	128	483	478
Illinois	—	26	72	61	148	—	1	10	3	6	—	17	35	60	170
Indiana	—	9	53	15	30	—	1	14	3	2	—	9	39	8	136
Michigan	5	18	38	104	100	—	3	43	9	9	—	4	24	41	10
Ohio	21	27	65	212	127	—	3	17	12	5	37	42	80	323	103
Wisconsin	2	14	50	76	77	—	4	20	6	17	1	7	33	51	59
<b>W.N. Central</b>	48	49	150	260	238	3	12	59	34	33	3	16	40	66	113
Iowa	9	8	16	34	48	—	2	21	6	10	—	4	12	23	5
Kansas	8	7	31	36	21	—	1	7	2	2	3	1	5	19	2
Minnesota	11	12	69	69	60	1	3	21	11	8	—	5	25	10	20
Missouri	3	14	48	62	70	1	2	11	10	9	—	3	14	9	45
Nebraska§	17	4	13	45	26	1	2	30	5	2	—	0	3	4	—
North Dakota	—	0	7	—	2	—	0	1	—	—	—	0	4	—	12
South Dakota	—	2	9	14	11	—	1	4	—	2	—	0	9	1	29
<b>S. Atlantic</b>	84	249	456	1,159	1,118	4	14	51	71	59	28	58	100	312	432
Delaware	1	2	9	3	12	—	0	2	1	—	—	0	1	3	—
District of Columbia	—	1	4	—	8	—	0	1	—	2	—	0	3	—	2
Florida	42	97	174	520	587	2	2	11	27	19	7	13	34	82	174
Georgia	8	43	86	204	118	—	1	7	7	1	4	19	48	87	166
Maryland§	5	13	36	73	76	1	2	9	10	10	5	2	8	38	11
North Carolina	26	23	106	207	123	1	1	21	20	9	7	3	27	51	12
South Carolina§	1	18	55	83	92	—	1	4	2	4	4	8	32	22	63
Virginia§	1	19	75	58	69	—	3	27	3	8	1	4	57	25	4
West Virginia	—	3	6	11	33	—	0	3	1	6	—	0	3	4	—
<b>E.S. Central</b>	12	58	138	208	260	—	5	21	12	23	12	35	67	109	281
Alabama§	—	15	46	48	86	—	1	17	1	6	—	6	18	17	69
Kentucky	8	10	18	56	43	—	1	7	3	6	—	3	24	13	35
Mississippi	—	14	57	38	55	—	0	2	1	1	—	3	18	5	90
Tennessee§	4	14	60	66	76	—	2	7	7	10	12	18	47	74	87
<b>W.S. Central</b>	24	137	358	238	244	2	6	27	4	31	30	98	223	374	226
Arkansas§	7	11	40	52	31	1	1	3	1	3	8	11	27	30	21
Louisiana	—	17	50	32	57	—	0	1	—	1	—	11	26	26	47
Oklahoma	5	15	36	35	33	1	1	19	3	2	2	3	43	22	18
Texas§	12	93	297	119	123	—	5	12	—	25	20	65	196	296	140
<b>Mountain</b>	20	61	111	285	321	6	10	39	51	44	11	23	54	152	103
Arizona	9	20	44	115	106	—	1	5	2	7	10	13	33	110	46
Colorado	5	12	43	54	75	6	4	18	36	8	1	2	11	16	20
Idaho§	2	3	15	23	18	—	2	15	3	17	—	0	2	—	1
Montana§	—	2	8	16	6	—	0	3	1	4	—	0	1	—	—
Nevada§	3	3	9	32	29	—	0	2	1	2	—	4	13	14	23
New Mexico§	—	6	33	13	42	—	1	6	5	5	—	2	12	11	8
Utah	1	6	19	29	35	—	1	9	2	1	—	1	3	1	2
Wyoming§	—	1	4	3	10	—	0	1	1	—	—	0	1	—	3
<b>Pacific</b>	82	111	529	672	533	3	9	58	41	12	12	30	82	136	147
Alaska	—	1	4	6	8	—	0	1	—	—	1	0	1	2	—
California	60	80	515	516	429	2	6	39	35	10	10	27	75	112	131
Hawaii	3	5	15	49	32	—	0	2	1	1	—	1	3	3	5
Oregon§	1	7	20	48	40	—	1	8	—	1	—	1	10	9	9
Washington	18	12	154	53	24	1	2	42	5	—	1	2	28	10	2
American Samoa	—	0	1	—	1	—	0	0	—	—	—	0	1	1	1
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	—	1	—	0	0	—	—	—	0	3	—	1
Puerto Rico	6	8	29	41	86	—	0	1	—	—	—	0	4	—	3
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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 year 2008 and 2009 are provisional.

† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\*

Reporting area	Streptococcal diseases, invasive, group A				Streptococcus pneumoniae, invasive disease, nondrug resistant† Age <5 years					
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max		
<b>United States</b>	94	89	182	769	984	34	34	55	254	358
<b>New England</b>	1	4	31	23	57	—	1	11	3	24
Connecticut	—	0	26	11	—	—	0	11	—	—
Maine§	—	0	3	2	7	—	0	1	—	1
Massachusetts	—	0	8	—	42	—	0	3	—	20
New Hampshire	1	0	2	4	5	—	0	1	2	3
Rhode Island§	—	0	8	1	—	—	0	2	—	—
Vermont§	—	0	3	5	3	—	0	1	1	—
<b>Mid. Atlantic</b>	21	17	43	146	195	8	4	19	29	60
New Jersey	—	1	11	1	43	—	1	4	2	12
New York (Upstate)	15	6	23	57	49	8	2	19	20	17
New York City	—	4	12	28	45	—	0	5	—	20
Pennsylvania	6	7	16	60	58	—	1	3	7	11
<b>E.N. Central</b>	20	16	42	155	198	5	6	11	43	72
Illinois	—	4	16	34	54	—	1	5	8	22
Indiana	—	2	19	15	23	—	0	5	2	7
Michigan	—	3	9	24	42	1	1	5	9	19
Ohio	10	5	14	62	57	4	1	4	21	13
Wisconsin	10	1	10	20	22	—	0	2	3	11
<b>W.N. Central</b>	5	5	39	54	65	8	2	11	22	23
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	1	0	8	15	9	—	0	3	3	2
Minnesota	—	0	35	—	20	5	0	9	8	6
Missouri	3	2	6	24	26	2	1	2	8	12
Nebraska§	1	1	3	9	8	—	0	1	1	2
North Dakota	—	0	3	—	—	—	0	2	—	—
South Dakota	—	0	2	6	2	1	0	1	2	1
<b>S. Atlantic</b>	24	21	36	191	214	—	6	16	57	64
Delaware	—	0	1	5	3	—	0	0	—	—
District of Columbia	—	0	4	—	5	—	0	1	—	—
Florida	13	5	10	55	53	—	1	3	11	9
Georgia	3	5	14	46	52	—	1	6	22	19
Maryland§	3	3	10	31	42	—	1	4	10	17
North Carolina	2	2	9	18	19	—	0	0	—	—
South Carolina§	1	1	5	14	11	—	1	6	11	10
Virginia§	2	3	9	18	22	—	0	6	—	8
West Virginia	—	0	3	4	7	—	0	2	3	1
<b>E.S. Central</b>	6	3	9	42	31	4	2	6	7	13
Alabama§	N	0	0	N	N	—	0	0	—	—
Kentucky	2	1	2	12	8	—	0	0	—	—
Mississippi	N	0	0	N	N	—	0	3	—	4
Tennessee§	4	3	7	30	23	4	1	5	7	9
<b>W.S. Central</b>	8	9	53	67	58	5	5	31	44	33
Arkansas§	2	0	2	4	—	—	0	3	7	3
Louisiana	—	0	2	3	5	—	0	3	6	1
Oklahoma	2	2	13	29	19	1	1	7	8	14
Texas§	4	6	40	31	34	4	3	22	23	15
<b>Mountain</b>	9	9	21	73	141	3	4	11	42	58
Arizona	3	3	8	23	41	2	2	9	28	33
Colorado	6	2	10	30	42	—	1	4	7	11
Idaho§	—	0	2	—	4	—	0	1	1	1
Montana§	N	0	0	N	N	—	0	1	—	—
Nevada§	—	0	1	2	2	—	0	1	—	1
New Mexico§	—	2	5	16	38	1	0	3	5	6
Utah	—	1	4	1	14	—	0	4	1	6
Wyoming§	—	0	2	1	—	—	0	1	—	—
<b>Pacific</b>	—	3	8	18	25	1	1	5	7	11
Alaska	—	0	4	2	5	1	0	4	6	6
California	N	0	0	N	N	—	0	0	—	—
Hawaii	—	2	8	16	20	—	0	2	1	5
Oregon§	N	0	0	N	N	—	0	0	—	—
Washington	N	0	0	N	N	—	0	0	—	—
American Samoa	—	0	12	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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 year 2008 and 2009 are provisional.

† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDS event code 11717).

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\*

Reporting area	<i>Streptococcus pneumoniae</i> , invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Aged <5 years									
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
	Med	Max				Med	Max				Med	Max			
<b>United States</b>	74	54	101	551	631	14	8	22	69	69	110	243	338	1,603	1,923
<b>New England</b>	—	1	48	6	13	—	0	5	—	1	2	5	14	47	37
Connecticut	—	0	48	—	—	—	0	5	—	—	—	1	4	7	2
Maine§	—	0	2	2	3	—	0	1	—	—	—	0	2	1	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	2	4	11	34	30
New Hampshire	—	0	1	1	—	—	0	0	—	—	—	0	2	5	3
Rhode Island§	—	0	2	—	6	—	0	1	—	—	—	0	5	—	2
Vermont§	—	0	2	3	4	—	0	1	—	1	—	0	2	—	—
<b>Mid. Atlantic</b>	1	3	13	16	54	—	0	2	1	4	52	34	52	279	250
New Jersey	—	0	0	—	—	—	0	0	—	—	6	4	10	28	41
New York (Upstate)	1	1	6	6	9	—	0	1	1	—	2	2	8	12	11
New York City	—	1	5	—	20	—	0	0	—	—	38	22	36	198	147
Pennsylvania	—	1	9	10	25	N	0	2	N	N	6	5	12	41	51
<b>E.N. Central</b>	13	10	40	94	115	3	1	6	11	11	4	17	34	153	352
Illinois	N	0	0	N	N	—	0	0	—	—	—	2	11	29	255
Indiana	1	2	31	8	33	—	0	5	—	2	1	3	10	26	17
Michigan	—	0	3	4	5	—	0	1	—	1	2	3	18	36	22
Ohio	12	7	18	82	77	3	1	4	11	8	—	6	17	52	46
Wisconsin	—	0	0	—	—	—	0	0	—	—	1	1	3	10	12
<b>W.N. Central</b>	3	2	7	15	55	1	0	2	5	2	—	7	14	39	74
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	3	—
Kansas	1	0	4	4	24	N	0	1	N	N	—	0	3	1	5
Minnesota	—	0	0	—	—	—	0	0	—	—	—	2	6	10	19
Missouri	2	1	4	11	30	—	0	1	1	—	—	4	10	23	49
Nebraska§	—	0	0	—	—	—	0	0	—	—	—	0	2	2	1
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	1	—	1	—	0	1	—	1	—	0	1	—	—
<b>S. Atlantic</b>	37	22	51	315	280	9	4	14	41	37	24	56	166	382	279
Delaware	—	0	1	2	—	—	0	0	—	—	—	0	4	6	1
District of Columbia	N	0	0	N	N	N	0	0	N	N	—	2	9	26	17
Florida	27	14	36	206	155	8	2	13	30	21	5	19	37	148	122
Georgia	9	7	22	91	103	1	1	5	11	12	6	13	143	34	15
Maryland§	1	0	2	2	2	—	0	0	—	1	10	7	14	39	35
North Carolina	N	0	0	N	N	N	0	0	N	N	3	6	19	78	43
South Carolina§	—	0	0	—	—	—	0	0	—	—	—	2	6	9	17
Virginia§	N	0	0	N	N	N	0	0	N	N	—	5	16	41	29
West Virginia	—	1	7	14	20	—	0	2	—	3	—	0	1	1	—
<b>E.S. Central</b>	16	5	22	71	70	1	1	4	7	4	16	21	37	163	166
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	52	83
Kentucky	2	1	6	18	13	N	0	2	N	N	—	1	10	10	10
Mississippi	—	0	2	—	—	—	0	1	—	—	4	3	18	26	13
Tennessee§	14	3	20	53	57	1	0	3	4	3	12	8	19	75	60
<b>W.S. Central</b>	2	2	7	16	22	—	0	1	2	5	2	44	76	275	286
Arkansas§	2	0	4	10	2	—	0	1	1	1	1	3	35	36	8
Louisiana	—	1	6	6	20	—	0	1	1	4	—	10	33	32	67
Oklahoma	N	0	0	N	N	—	0	0	—	—	1	1	7	10	19
Texas§	—	0	0	—	—	—	0	0	—	—	—	27	46	197	192
<b>Mountain</b>	2	2	11	16	21	—	0	4	2	4	4	8	25	23	87
Arizona	—	0	0	—	—	—	0	0	—	—	—	4	13	2	43
Colorado	—	0	0	—	—	—	0	0	—	—	—	1	5	2	20
Idaho§	N	0	1	N	N	—	0	1	—	—	—	0	2	1	—
Montana§	—	0	1	—	—	N	0	0	N	N	—	0	7	—	—
Nevada§	2	1	3	11	8	—	0	1	1	1	4	1	7	16	18
New Mexico§	—	0	1	—	—	—	0	0	—	—	—	1	4	2	6
Utah	—	1	10	1	13	—	0	4	1	3	—	0	18	—	—
Wyoming§	—	0	2	4	—	—	0	0	—	—	—	0	1	—	—
<b>Pacific</b>	—	0	1	2	1	—	0	1	—	1	6	44	72	242	392
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
California	N	0	0	N	N	N	0	0	N	N	3	41	66	219	347
Hawaii	—	0	1	2	1	—	0	1	—	1	1	0	3	7	6
Oregon§	N	0	0	N	N	N	0	0	N	N	2	0	3	6	3
Washington	N	0	0	N	N	N	0	0	N	N	—	2	9	10	36
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	N	0	0	N	N	7	3	11	26	14
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—

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 year 2008 and 2009 are provisional.

† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 28, 2009, and February 23, 2008 (8th week)\*

Reporting area	West Nile virus disease†														
	Varicella (chickenpox)				Neuroinvasive				Nonneuroinvasive§						
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
	Med	Max				Med	Max				Med	Max			
<b>United States</b>	288	450	1,011	2,923	4,678	—	1	75	—	1	—	1	74	—	1
<b>New England</b>	1	10	22	45	113	—	0	2	—	—	0	1	—	—	
Connecticut	—	0	0	—	—	—	0	2	—	—	0	1	—	—	
Maine¶	—	0	0	—	—	—	0	0	—	—	0	0	—	—	
Massachusetts	—	0	1	—	—	—	0	0	—	—	0	0	—	—	
New Hampshire	—	4	10	27	67	—	0	0	—	—	0	0	—	—	
Rhode Island¶	—	0	0	—	—	—	0	1	—	—	0	0	—	—	
Vermont¶	1	5	17	18	46	—	0	0	—	—	0	0	—	—	
<b>Mid. Atlantic</b>	33	42	81	296	464	—	0	8	—	—	0	4	—	—	
New Jersey	N	0	0	N	N	—	0	2	—	—	0	1	—	—	
New York (Upstate)	N	0	0	N	N	—	0	5	—	—	0	2	—	—	
New York City	—	0	0	—	—	—	0	2	—	—	0	2	—	—	
Pennsylvania	33	42	81	296	464	—	0	2	—	—	0	1	—	—	
<b>E.N. Central</b>	114	146	312	1,289	1,136	—	0	8	—	—	0	3	—	—	
Illinois	36	37	71	340	36	—	0	4	—	—	0	2	—	—	
Indiana	—	0	3	9	—	—	0	1	—	—	0	1	—	—	
Michigan	12	58	116	391	564	—	0	4	—	—	0	2	—	—	
Ohio	60	46	106	498	524	—	0	3	—	—	0	1	—	—	
Wisconsin	6	6	50	51	12	—	0	2	—	—	0	1	—	—	
<b>W.N. Central</b>	65	19	71	237	279	—	0	6	—	1	—	0	21	—	
Iowa	N	0	0	N	N	—	0	2	—	—	0	1	—	—	
Kansas	14	5	30	49	142	—	0	2	—	1	—	0	3	—	
Minnesota	—	0	0	—	—	—	0	2	—	—	0	4	—	—	
Missouri	51	10	51	188	121	—	0	3	—	—	0	1	—	—	
Nebraska¶	N	0	0	N	N	—	0	1	—	—	0	8	—	—	
North Dakota	—	0	39	—	4	—	0	2	—	—	0	11	—	—	
South Dakota	—	0	2	—	12	—	0	5	—	—	0	6	—	—	
<b>S. Atlantic</b>	55	76	173	342	940	—	0	3	—	—	0	3	—	—	
Delaware	—	1	5	1	3	—	0	0	—	—	0	1	—	—	
District of Columbia	—	0	3	—	4	—	0	0	—	—	0	0	—	—	
Florida	43	29	87	249	307	—	0	2	—	—	0	0	—	—	
Georgia	N	0	0	N	N	—	0	1	—	—	0	1	—	—	
Maryland¶	N	0	0	N	N	—	0	2	—	—	0	2	—	—	
North Carolina	N	0	0	N	N	—	0	0	—	—	0	0	—	—	
South Carolina¶	—	12	67	17	118	—	0	0	—	—	0	1	—	—	
Virginia¶	1	18	60	1	355	—	0	0	—	—	0	1	—	—	
West Virginia	11	11	33	74	153	—	0	1	—	—	0	0	—	—	
<b>E.S. Central</b>	—	15	101	16	174	—	0	7	—	—	0	8	—	1	
Alabama¶	—	15	101	16	173	—	0	3	—	—	0	2	—	—	
Kentucky	N	0	0	N	N	—	0	1	—	—	0	0	—	—	
Mississippi	—	0	2	—	1	—	0	4	—	—	0	7	—	—	
Tennessee¶	N	0	0	N	N	—	0	2	—	—	0	3	—	1	
<b>W.S. Central</b>	2	98	435	447	1,171	—	0	8	—	—	0	7	—	—	
Arkansas¶	2	6	61	19	132	—	0	1	—	—	0	1	—	—	
Louisiana	—	1	5	7	26	—	0	3	—	—	0	5	—	—	
Oklahoma	N	0	0	N	N	—	0	1	—	—	0	1	—	—	
Texas¶	—	90	422	421	1,013	—	0	6	—	—	0	4	—	—	
<b>Mountain</b>	13	33	90	221	385	—	0	12	—	—	0	22	—	—	
Arizona	—	0	0	—	—	—	0	10	—	—	0	8	—	—	
Colorado	6	14	44	90	174	—	0	4	—	—	0	10	—	—	
Idaho¶	N	0	0	N	N	—	0	1	—	—	0	6	—	—	
Montana¶	5	5	27	61	44	—	0	0	—	—	0	2	—	—	
Nevada¶	N	0	0	N	N	—	0	2	—	—	0	3	—	—	
New Mexico¶	—	3	18	25	45	—	0	1	—	—	0	1	—	—	
Utah	2	11	55	45	118	—	0	2	—	—	0	5	—	—	
Wyoming¶	—	0	4	—	4	—	0	0	—	—	0	2	—	—	
<b>Pacific</b>	5	3	8	30	16	—	0	38	—	—	0	23	—	—	
Alaska	3	2	6	22	3	—	0	0	—	—	0	0	—	—	
California	—	0	0	—	—	—	0	37	—	—	0	20	—	—	
Hawaii	2	1	5	8	13	—	0	0	—	—	0	0	—	—	
Oregon¶	N	0	0	N	N	—	0	2	—	—	0	4	—	—	
Washington	N	0	0	N	N	—	0	1	—	—	0	1	—	—	
American Samoa	N	0	0	N	N	—	0	0	—	—	0	0	—	—	
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Guam	—	2	17	—	4	—	0	0	—	—	0	0	—	—	
Puerto Rico	11	6	20	43	84	—	0	0	—	—	0	0	—	—	
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	0	0	—	—	

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 year 2008 and 2009 are provisional.

† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (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 starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>.

¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,\* week ending February 28, 2009 (8th week)

Reporting area	All causes, by age (years)						P&I†	Total	Reporting area	All causes, by age (years)						P&I†	Total
	All Ages	≥65	45-64	25-44	1-24	<1				All Ages	≥65	45-64	25-44	1-24	<1		
<b>New England</b>	494	359	95	23	7	10	48	<b>S. Atlantic</b>	1,219	742	307	92	50	28	65		
Boston, MA	132	88	29	10	3	2	14	Atlanta, GA	143	83	42	7	3	8	7		
Bridgeport, CT	31	25	5	1	—	—	6	Baltimore, MD	161	87	54	12	7	1	11		
Cambridge, MA	14	11	3	—	—	—	—	Charlotte, NC	77	44	21	5	3	4	10		
Fall River, MA	29	20	5	2	2	—	4	Jacksonville, FL	89	57	21	6	4	1	1		
Hartford, CT	53	36	14	2	1	—	4	Miami, FL	154	98	29	18	7	2	11		
Lowell, MA	25	22	—	1	—	2	2	Norfolk, VA	52	29	17	3	1	2	—		
Lynn, MA	3	2	1	—	—	—	1	Richmond, VA	54	27	13	9	4	1	1		
New Bedford, MA	23	21	2	—	—	—	1	Savannah, GA	70	48	16	6	—	—	7		
New Haven, CT	U	U	U	U	U	U	U	St. Petersburg, FL	52	36	12	2	—	2	1		
Providence, RI	53	39	7	2	—	5	7	Tampa, FL	217	141	50	12	8	6	11		
Somerville, MA	4	3	1	—	—	—	—	Washington, D.C.	133	79	29	11	13	1	—		
Springfield, MA	34	22	8	4	—	—	4	Wilmington, DE	17	13	3	1	—	—	5		
Waterbury, CT	32	23	9	—	—	—	—	<b>E.S. Central</b>	924	603	224	63	19	15	77		
Worcester, MA	61	47	11	1	1	1	5	Birmingham, AL	175	113	50	6	3	3	18		
<b>Mid. Atlantic</b>	2,321	1,579	509	140	44	48	134	Chattanooga, TN	103	69	22	7	3	2	11		
Albany, NY	35	22	7	3	1	2	3	Knoxville, TN	110	79	21	6	2	2	7		
Allentown, PA	25	21	3	1	—	—	—	Lexington, KY	68	48	13	4	—	3	5		
Buffalo, NY	83	57	18	5	2	1	9	Memphis, TN	182	110	52	15	2	3	17		
Camden, NJ	16	7	6	1	1	1	—	Mobile, AL	48	36	9	2	1	—	5		
Elizabeth, NJ	22	17	3	2	—	—	1	Montgomery, AL	60	34	23	2	1	—	5		
Erie, PA	39	33	4	1	1	—	3	Nashville, TN	178	114	34	21	7	2	9		
Jersey City, NJ	U	U	U	U	U	U	U	<b>W.S. Central</b>	1,470	899	375	117	43	35	104		
New York City, NY	1,090	760	231	57	20	21	55	Austin, TX	89	53	23	5	3	5	6		
Newark, NJ	30	13	13	2	—	2	1	Baton Rouge, LA	U	U	U	U	U	U	U		
Paterson, NJ	7	5	1	—	—	1	2	Corpus Christi, TX	55	34	15	4	2	—	4		
Philadelphia, PA	564	346	141	48	16	13	23	Dallas, TX	249	141	64	25	9	9	16		
Pittsburgh, PA§	45	32	10	1	—	2	6	El Paso, TX	94	70	20	3	1	—	3		
Reading, PA	43	33	8	2	—	—	3	Fort Worth, TX	U	U	U	U	U	U	U		
Rochester, NY	140	105	24	6	1	4	11	Houston, TX	394	223	108	38	17	8	27		
Schenectady, NY	21	15	3	2	1	—	6	Little Rock, AR	92	52	30	8	2	—	2		
Scranton, PA	25	16	8	1	—	—	1	New Orleans, LA	U	U	U	U	U	U	U		
Syracuse, NY	77	54	16	5	1	1	3	San Antonio, TX	273	185	55	21	6	6	24		
Trenton, NJ	26	18	7	1	—	—	2	Shreveport, LA	82	52	25	3	1	1	10		
Utica, NY	16	13	3	—	—	—	1	Tulsa, OK	142	89	35	10	2	6	12		
Yonkers, NY	17	12	3	2	—	—	4	<b>Mountain</b>	899	611	201	62	13	12	64		
<b>E.N. Central</b>	2,272	1,426	582	161	48	54	140	Albuquerque, NM	U	U	U	U	U	U	U		
Akron, OH	73	52	13	7	1	—	2	Boise, ID	48	36	5	4	1	2	2		
Canton, OH	38	25	12	1	—	—	2	Colorado Springs, CO	99	57	30	9	2	1	4		
Chicago, IL	485	225	166	63	20	10	29	Denver, CO	96	62	24	4	2	4	7		
Cincinnati, OH	116	85	20	5	3	3	7	Las Vegas, NV	290	192	71	21	3	3	21		
Cleveland, OH	236	166	49	14	3	4	6	Ogden, UT	37	27	7	3	—	—	5		
Columbus, OH	186	128	47	7	3	1	20	Phoenix, AZ	U	U	U	U	U	U	U		
Dayton, OH	140	93	40	4	1	2	9	Pueblo, CO	23	18	5	—	—	—	1		
Detroit, MI	161	74	49	18	8	12	9	Salt Lake City, UT	136	91	28	14	1	2	13		
Evansville, IN	60	45	11	3	1	—	5	Tucson, AZ	170	128	31	7	4	—	11		
Fort Wayne, IN	81	52	23	4	1	1	—	<b>Pacific</b>	1,777	1,248	365	95	35	34	185		
Gary, IN	14	9	3	2	—	—	—	Berkeley, CA	17	12	3	1	1	—	3		
Grand Rapids, MI	41	29	10	1	1	—	3	Fresno, CA	148	96	41	5	4	2	26		
Indianapolis, IN	217	142	54	10	2	9	22	Glendale, CA	46	39	7	—	—	—	10		
Lansing, MI	56	37	15	4	—	—	2	Honolulu, HI	84	65	15	3	—	1	13		
Milwaukee, WI	74	51	14	6	—	3	5	Long Beach, CA	66	46	13	4	2	1	9		
Peoria, IL	35	28	5	1	—	1	3	Los Angeles, CA	294	204	53	24	5	8	43		
Rockford, IL	47	36	10	1	—	—	2	Pasadena, CA	19	12	5	2	—	—	2		
South Bend, IN	61	47	7	4	1	2	4	Portland, OR	134	96	29	5	1	3	6		
Toledo, OH	90	56	24	4	1	5	10	Sacramento, CA	193	136	41	7	5	4	14		
Youngstown, OH	61	46	10	2	2	1	—	San Diego, CA	178	129	37	7	3	2	13		
<b>W.N. Central</b>	701	450	168	46	18	19	47	San Francisco, CA	U	U	U	U	U	U	U		
Des Moines, IA	67	46	13	4	—	4	4	San Jose, CA	192	138	37	11	4	2	26		
Duluth, MN	40	27	8	3	2	—	3	Santa Cruz, CA	42	29	10	3	—	—	3		
Kansas City, KS	22	12	7	2	1	—	3	Seattle, WA	132	83	33	9	5	2	4		
Kansas City, MO	114	78	26	5	2	3	5	Spokane, WA	89	65	14	5	—	5	5		
Lincoln, NE	41	30	8	3	—	—	4	Tacoma, WA	143	98	27	9	5	4	8		
Minneapolis, MN	62	37	18	1	2	4	6	<b>Total¶</b>	<b>12,077</b>	<b>7,917</b>	<b>2,826</b>	<b>799</b>	<b>277</b>	<b>255</b>	<b>864</b>		
Omaha, NE	78	52	16	8	2	—	5										
St. Louis, MO	96	53	26	9	6	2	5										
St. Paul, MN	68	42	20	4	—	2	6										
Wichita, KS	113	73	26	7	3	4	6										

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 &gt;100,000. A death is reported by the place of occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.







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