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Viral Hepatitis Awareness — May 2008

May 2008 marks the 13th anniversary of Hepatitis Awareness Month in the United States. May 19 is World Hepatitis Day, which recognizes the importance of global commitments to prevent liver disease and cancer caused by viral hepatitis. This issue of *MMWR* includes a report on an outbreak of acute hepatitis C associated with unsafe injection practices at an endoscopy clinic and a report on hepatitis C virus (HCV) infections among young injection-drug users. Both reports highlight the role of viral hepatitis surveillance in detecting outbreaks and populations at risk. Development of effective state and local surveillance for acute and chronic viral hepatitis is a public health priority.

HCV infection is the most common bloodborne illness, the leading cause of chronic liver disease, and the primary indication for liver transplantation in the United States. HCV is spread primarily through exposure to infectious blood; injection-drug use is the major contributor to HCV transmission in the United States. Although HCV infection can result in acute illness, most of its effects on the liver, including cirrhosis and liver cancer, are not apparent until years after exposure. Many of the estimated 3.2 million persons living with chronic HCV infection in the United States are unaware of their infection status.

CDC recommends HCV testing for persons at risk (*1*). Persons with HCV infection also should be assessed regularly for severity of liver disease, onset of liver cancer, and the need for treatment. Additional information about viral hepatitis is available at http://www.cdc.gov/hepatitis.

Reference

1. CDC. Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. MMWR 1998;47(No. RR-19).

Acute Hepatitis C Virus Infections Attributed to Unsafe Injection Practices at an Endoscopy Clinic — Nevada, 2007

On January 2, 2008, the Nevada State Health Division (NSHD) contacted CDC concerning surveillance reports received by the Southern Nevada Health District (SNHD) regarding two persons recently diagnosed with acute hepatitis C. A third person with acute hepatitis C was reported the following day. This raised concerns about an outbreak because SNHD typically confirms four or fewer cases of acute hepatitis C per year. Initial inquiries found that all three persons with acute hepatitis C underwent procedures at the same endoscopy clinic (clinic A) within 35–90 days of illness onset. A joint investigation by SNHD, NSHD, and CDC was initiated on January 9, 2008. The epidemiologic and laboratory investigation revealed that hepatitis C virus (HCV) transmission likely resulted from reuse of syringes on individual patients and use of single-use medication vials on multiple patients at the clinic. Health officials advised clinic A to stop unsafe injection practices immediately, and approximately 40,000 patients of the clinic were notified about their potential risk for exposure to HCV and other bloodborne pathogens. This report

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focuses on the six cases of acute hepatitis C identified during the initial investigation, which is ongoing; additional cases of acute hepatitis C associated with exposures at clinic A might be identified. Comprehensive measures involving viral hepatitis surveillance, health-care provider education, public awareness, professional oversight, licensing, and improvements in medical devices can help detect and prevent transmission of HCV and other bloodborne pathogens in health-care settings.

The objectives of the investigation were to conduct case-finding and review health histories of infected persons, to determine the source of transmission and implement control measures, to identify other patients at risk for exposure, and to assist in development of recommendations to prevent HCV transmission in health-care settings. Persons with acute hepatitis C were interviewed, and blood samples were obtained after these persons gave oral consent. Blood samples were sent to CDC for testing for HCV genotype at the NS5b region and phylogenetic relatedness at the hypervariable 1 region (HVR1) to help determine whether a common source of transmission existed (*1*). Specimens also were tested for other bloodborne infections (hepatitis B virus [HBV]) and human immunodeficiency virus [HIV]). Case-finding activities included SNHD's review of acute hepatitis C surveillance records, cross-matching of local HCV laboratory records with clinic A procedure logs, review of medical records for patients who underwent procedures at clinic A on the same day as HCV-infected persons, and serologic HCV, HBV, and HIV testing of staff. An extensive review of the clinic practices and procedures also was conducted, including observation of several endoscopic procedures and endoscopic reprocessing, observation of anesthesia practices, and interviews with staff members regarding their infection-control practices.

For this investigation, a person was defined as having health-care–associated acute hepatitis C if he or she 1) had symptoms of acute hepatitis within 6 months of having a procedure performed at clinic A during July–December 2007; 2) had laboratory-confirmed HCV infection (antibodies to HCV [anti-HCV]) by enzyme immunoassay (EIA) and recombinant immunoblot assay (RIBA) or EIA with an appropriate signal-to-cutoff ratio for a given assay, or presence of HCV RNA by polymerase chain reaction (PCR) in the absence of acute hepatitis A virus (HAV); and 3) did not have other risks for HCV infection.

In addition to the three persons identified initially, three other persons were determined to have health-care–associated acute hepatitis C, for a total of six cases diagnosed during July–December 2007. One of the three cases was identified by review of surveillance records, another by

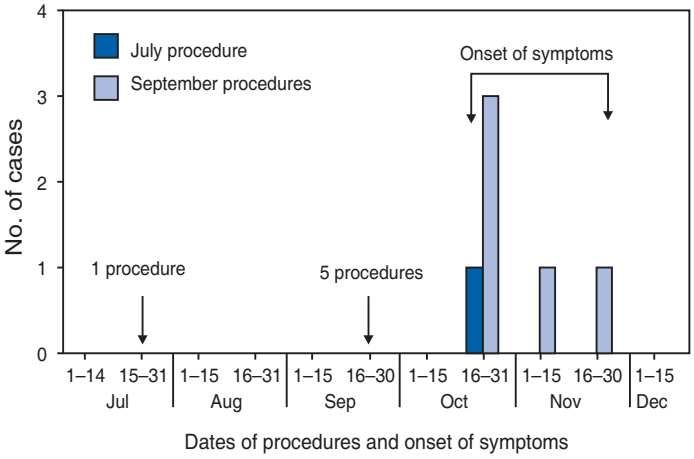
cross-matching local laboratory records with procedure records at clinic A, and the third by physician report after the start of the investigation. The six persons ranged in age from 37 to 72 years; four were female. All had signs and symptoms of acute hepatitis, including jaundice, abdominal discomfort, and laboratory evidence of liver inflammation with alanine aminotransferase (ALT) levels of 552–1,165 units/L.* Four of the six persons required hospitalization as a result of their HCV infection.

The six persons with acute hepatitis C had onset of symptoms in late October 2007 and November 2007, 35–90 days after undergoing procedures at clinic A (Figure 1) and within the typical incubation period of 15–160 days. None had significant risk factors for HCV infection and none had other common exposures. One of the procedures was performed in July 2007; the other five were performed on the same day in September 2007. Five persons (four with procedures on the same day) for whom blood specimens were available at the time of this report had HCV genotype 1a. The four who had procedures on the same day had viral sequences with 99%–100% genetic similarity at HVR1, pointing to a common source of infection. The viral sequence from the HCV-infected person who had the procedure in July 2007 was not genetically related to the other cluster, suggesting a separate transmission incident.

During the 2 days in which persons with health-care–associated hepatitis C had procedures at clinic A, 120 additional persons had procedures at the clinic. HCV test results for those persons are pending. Thirty-eight staff members at the clinic involved in direct patient care were available for testing during the investigation, and none had evidence of previous or current HCV infection. None of the persons with health-care–associated acute hepatitis C and none of the staff tested positive for HBV or HIV infections.

Inappropriate reuse of syringes on individual persons and use of medication vials intended for single-person use on multiple persons was identified through direct observation of infection-control practices at clinic A (Figure 2). Specifically, a clean needle and syringe were used to draw medication from a single-use vial of propofol, a short-acting intravenous anesthetic agent. The medication was injected directly through an intravenous catheter into the patient's arm. If a patient required more sedation, the needle was removed from the syringe and replaced with a new needle; the new needle with the old syringe was used to draw more medication. Backflow from the patient's intravenous catheter or from needle removal might have contaminated the syringe with HCV and subsequently contaminated the vial. Medication remaining in the vial was used to sedate the next patient.

FIGURE 1. Acute hepatitis C in six persons who underwent endoscopies at clinic A, by dates of procedures and onset of symptoms — Nevada, 2007



As soon as improper injection practices were observed, health officials advised clinic A to stop these practices and educated staff about the risks. Clinic A is a free-standing private endoscopy clinic in southern Nevada that primarily performed upper endoscopies and colonoscopies (approximately 50–60 procedures a day, 5 days a week). For at least the 4 years that clinic A occupied its existing location, the unsafe injection practices had been commonly used among some staff members who administered anesthesia, according to those who were interviewed. On February 27, 2008, SNHD began notifying approximately 40,000 persons who underwent procedures requiring anesthesia at the clinic from March 1, 2004, through January 11, 2008, via mail and through the media, to undergo screening for HCV, HBV, and HIV infections. Results of this screening are pending.

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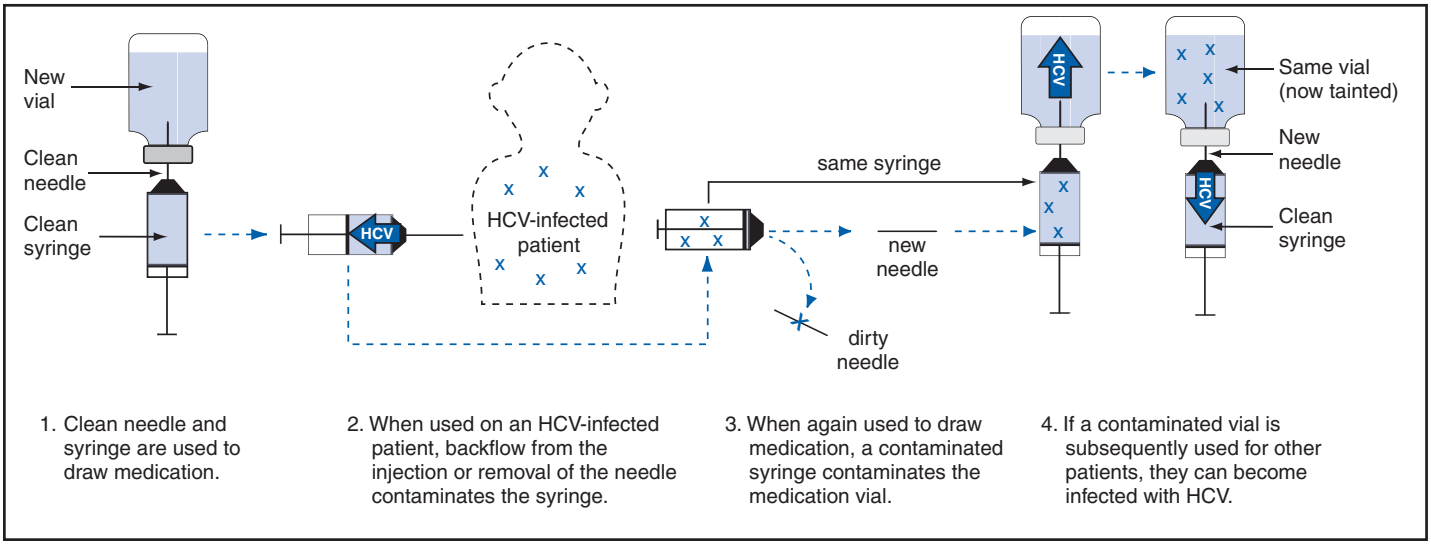
Editorial Note: Although case-control studies have not indicated an increased risk for acquiring HCV from medical, surgical, or dental procedures in the United States (*2*), outbreaks of HCV in health-care settings have long been recognized (*3*). These outbreaks have been identified primarily through clusters of temporally related cases detected by routine viral hepatitis surveillance, a method that likely

* The normal ALT range varies according to age, sex, and other factors. An upper limit of 28–55 units/L is generally considered normal.

FIGURE 2. Unsafe injection practices and circumstances that likely resulted in transmission of hepatitis C virus (HCV) at clinic A — Nevada, 2007



underestimates the magnitude of transmission. Surveillance for viral hepatitis typically is passive, with little or no capacity to investigate cases suggestive of transmission during health care and determine their cause (*4*). Among persons with acute HCV infections, 60%–70% are asymptomatic (*2*). Additionally, currently available laboratory tests cannot distinguish acute from chronic HCV infection, which makes identifying newly acquired cases difficult.

The investigation described in this report identified six cases of acute hepatitis C in persons who underwent procedures at clinic A 35–90 days before the onset of their illness. None of the persons had significant risk factors for HCV infection within the typical incubation period (15–160 days before onset of symptoms), and five of the cases had procedures on the same day (September 21, 2007). The genetic relatedness of the viruses from case patients who had procedures on September 21, 2007, supports the epidemiologic findings and points to a common source of infection. The lack of genetic relatedness to the patient seen in July 2007 suggests a separate transmission incident. The two distinct clusters suggest patient-to-patient transmission rather than staff-to-patient transmission.

Most outbreaks of health-care–associated HCV have involved patient-to-patient transmission attributed to unsafe injection practices (*3,5*). The reuse of syringes and needles or mishandling of medication vials usually have been implicated (*6–8*). In some situations, syringes or needles used on HCV-infected persons were directly reused on other persons. In other instances, syringes or needles used on HCV-infected persons were reused to draw medication from a vial from which medicine was then drawn and administered to multiple persons, as was found in this investigation.

When gross errors or high-risk infection-control breaches that could lead to bloodborne pathogen transmission are recognized, including unsafe injection practices, potentially exposed persons should be notified and tested, even if transmission has not been confirmed (*9*). Those persons who are found to be infected can then obtain proper medical care. In addition to approximately 40,000 notifications that occurred as a result of this outbreak, in unrelated incidents, unsafe injection practices at three other outpatient clinics in two states have resulted in approximately 28,000 patient notifications during the preceding year (CDC, unpublished data, 2008). These situations could have been avoided if standard infection-control precautions, which include basic safe injection practices, had been followed (Box) (*10*).

This outbreak highlights the importance of surveillance and investigation in detecting viral hepatitis transmission in health-care settings. Prevention of transmission in these settings requires understanding and adherence to recommended infection-control practices. Medical and nursing school curricula and other health-care professional training, licensing, and continuing education requirements should include infection-control content, including the safe handling and administration of parenteral medications, as areas of competency. Although hospitals employ infection-control professionals and regularly evaluate infection-control practices, such oversight might be limited in outpatient settings that are not associated with hospitals. As use of these settings grows, appropriate methods will be

BOX. Injection safety recommendations

- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Consider a syringe or needle contaminated after it has been used to enter or connect to a patients' intravenous infusion bag or administration set.
- Do not enter a vial with a used syringe or needle.
- Never use medications packaged as single-use vials for more than one patient.
- Assign medications packaged as multi-use vials to a single patient whenever possible.
- Do not use bags or bottles of intravenous solution as a common source of supply for more than one patient.
- Follow proper infection-control practices during the preparation and administration of injected medications.

Adapted from: CDC. Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings 2007. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at http://www.cdc.gov/ncidod/dhqp/gl_isolation.html.

needed to provide similar oversight for outpatient clinics. Better surveillance, education, and oversight are needed to detect and prevent bloodborne pathogen transmission in ambulatory and other health-care settings.

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Use of Enhanced Surveillance for Hepatitis C Virus Infection to Detect a Cluster Among Young Injection-Drug Users — New York, November 2004–April 2007

Infection with hepatitis C virus (HCV) is a leading cause of chronic liver disease in the United States (*1*). Chronic hepatitis B and C virus infections were added to the nationally notifiable diseases list in 2003 (*2*). Approximately 3.2 million persons in the United States have chronic HCV infection (*3*). The most common risk factor for HCV infection is illicit drug use (specifically injection-drug use [IDU]) (*3,4*), although approximately one third to one half of cases have no identified risk factor (*4*; New York State Department of Health [NYSDOH], unpublished data, 2008). Because approximately 80% of acute HCV infections are asymptomatic and no serologic markers for recent infection exist, distinguishing recent from distant infection based on serology alone is challenging (*5*) and establishment of national HCV infection incidence is difficult. CDC provides funding to enhance surveillance for HCV infection and other forms of viral hepatitis in New York State (NYS) and seven other areas. One project of enhanced surveillance is to identify those HCV infections most likely to have been acquired recently. Since January 2006, NYSDOH has prioritized follow-up of positive laboratory markers for HCV infection among persons aged <30 years because they are more likely to be newly infected than older persons (*6*). In February 2007, NYSDOH detected a cluster of HCV infections among persons in this age group by using the prioritized algorithm. This report describes the subsequent investigation by NYSDOH and the Erie County Department of Health (ECDOH), which identified a group of patients with histories of IDU who were linked through a single high school that all the patients had attended at some time. The findings demonstrate how targeted enhanced surveillance can effectively detect clusters and outbreaks and guide appropriate interventions.

In 2004, the enhanced viral hepatitis surveillance project was launched in 34 of the 57 NYS counties outside of New York City. Detection and follow-up of reports of newly identified persons with HCV infections among NYS residents are given high priority to 1) collect accurate risk factor data, 2) guide prevention efforts, and 3) ensure patient referral to appropriate treatment. NYSDOH hepatitis surveillance staff members prioritize for immediate investigation any positive laboratory reports for markers of HCV infection among persons aged <30 years. Each week, the NYSDOH

TABLE. Demographic characteristics, risk factors, surveillance status, and clinical information for 20 patients with hepatitis C virus (HCV) infection — postal code A, Buffalo, New York, November 2004–April 2007*

Case	Interviewed	Age (yrs)	Sex	Race	Date of diagnosis	Reason for test	IDU†	Shared needles	Noninjection-drug use
1	Yes	17	Male	White	11/3/04	Risk factors	Yes	Yes††	Yes
2	No	23	Female	White	1/25/05	Symptomatic	Yes	—	Yes
3	No	26	Male	White	3/9/05	Risk factors	Yes	—	—
4	Yes	28	Male	White	12/6/05	Symptomatic	Yes	Yes	Yes
5	Yes	17	Male	White	12/29/05	Risk factors	Yes	Yes††	Yes
6	No	19	Male	White	1/20/06	Symptomatic	Yes	Yes††	Yes
7	Yes	17	Male	White	1/24/06	Risk factors	Yes	Yes††	Yes
8	Yes	16	Female	White	2/17/06	Risk factors	Yes	Yes††	Yes
9	Yes	21	Male	White	2/23/06	Risk factors	Yes	Yes††	Yes
10	No	22	Male	White	3/2/06	Risk factors	Yes	—	—
11	Yes	18	Female	White	5/17/06	Risk factors	Yes	Yes	Yes
12	Yes	19	Male	White	5/24/06	Risk factors	Yes	Yes	Yes
13	No	19	Male	White	5/24/06	Risk factors	Yes	—	—
14	No	20	Male	White	5/26/06	Symptomatic	Yes	Yes††	Yes
15	Yes	17	Female	White	8/14/06	Risk factors	No	No	No
16	Yes	23	Male	White	10/10/06	Risk factors	Yes	Yes††	Yes
17	No	19	Male	White	12/19/06	Risk factors	Yes	Yes††	Yes
18	No	26	Female	White	1/6/07	Risk factors	Yes	Yes	Yes
19	No	17	Female	White	3/13/07	Risk factors	Yes	Yes††	Yes
20	Yes	19	Male	White	4/26/07	Risk factors	Yes	Yes††	Yes

* Data were compiled from standard surveillance forms and patient interviews.
† Injection-drug use.
§ Alanine aminotransferase.
¶ Based on surveillance case definitions (available at http://www.cdc.gov/ncphi/disss/nndss/casedef/hepatitiscacutecurrent.htm and http://www.cdc.gov/ncphi/disss/nndss/casedef/hepatitisccurrent.htm).
** Polymerase chain reaction.
†† Shared needles with a person known or believed to be HCV positive.
§§ Not reported.
¶¶ With a partner known or believed to be HCV positive.
*** With a sex worker.

Electronic Clinical Laboratory Reporting System generates databases containing any HCV-positive laboratory reports for persons aged <30 years; these data are then sent to local health departments. Investigation is conducted by local health department staff members with NYSDOH assistance and includes complete laboratory results collection, health-care provider interview, medical record review, and patient interview.

In February 2007, NYSDOH staff members noticed an apparent high number of newly identified HCV infections among persons aged <30 years who resided in the same postal code (postal code A), corresponding to a suburban community of Buffalo, New York. An initial retrospective review found eight cases dating back to May 2006 in persons who resided in postal code A (case numbers 11–18) (Table), one of which was in a patient who had acute hepatitis C (*7*). All but one of the eight initially identified cases were in persons who reported a history of IDU. Further analysis of cases in persons residing in postal code A indicated that during November 2004–April 2007, a total of 20 HCV-positive persons aged <30 years had been reported. Fifteen of the 20 cases were diagnosed in 2006 or 2007. The community (2000 population: 42,000) in which postal code A is located is part of Erie County and had 47.5 new reports of HCV infection per 100,000 population aged <30 years during November 2004–April 2007. During the same period, Erie County had 18.6 new reports of HCV infection per 100,000 population; two suburban postal codes with similar populations, socioeconomic composition, and proximity to the inner city as the investigated community had 7.0 and 4.9 new reports of HCV infection per 100,000 population, respectively. Because the incidence of new

TABLE. (*Continued*) Demographic characteristics, risk factors, surveillance status, and clinical information for 20 patients with hepatitis C virus (HCV) infection — postal code A, Buffalo, New York, November 2004–April 2007*

Case	History of incarceration	History of high-risk sexual contact	Drug equipment sharing or high-risk sexual activity with another patient (patient no.)	Multiple sex partners	Attended high school A	Jaundice (at time of diagnosis)	Elevated ALT[§] (at time of diagnosis)	Disease status[¶]	HCV PCR** (genotype)
1	Yes	No	Yes (9)	Yes	Yes	No	—[§§]	Chronic	+ (1B)
2	—	Yes[¶¶]	No	Yes	Yes	Yes	Yes	Acute	+
3	—	—	No	—	Yes	No	—	Chronic	—
4	No	Yes***	No	Yes	No	Yes	Yes	Acute	+
5	No	Yes[¶¶]	Yes (8)	—	Yes	No	—	Chronic	+
6	Yes	—	Yes (7,16)	Yes	Yes	Yes	Yes	Acute	+
7	Yes	No	Yes (6,16)	Yes	Yes	No	—	Chronic	+
8	No	Yes[¶¶]	Yes (5)	Yes	Yes	No	Yes	Chronic	+
9	Yes	Yes[¶¶]	Yes (1)	Yes	Yes	No	Yes	Chronic	+
10	—	—	No	—	Yes	No	Yes	Chronic	+
11	No	Yes[¶¶]	No	—	Yes	No	Yes	Chronic	+
12	Yes	No	No	Yes	Yes	No	—	Chronic	—
13	—	—	No	—	Yes	No	No	Chronic	—
14	—	—	No	Yes	Yes	No	Yes	Acute	—
15	No	No	No	No	Yes	No	No	Chronic	—
16	Yes	No	Yes (6,7)	Yes	Yes	No	No	Chronic	—
17	—	—	Yes (20)	Yes	Yes	No	Yes	Chronic	+ (1A)
18	—	Yes[¶]	No	Yes	Yes	No	Yes	Chronic	+ (1A)
19	—	—	No	Yes	Yes	No	Yes	Chronic	+
20	No	No	Yes (17)	Yes	Yes	No	—	Chronic	+

reports in the community per population appeared to be approximately twice that of the county and approximately six times greater than that of any similar suburb, further investigation to characterize the cluster was warranted.

With initial detection of the cluster, an epidemiologic investigation was launched by NYSDOH in collaboration with ECDOH. Patients were interviewed in person by a two-person team at various locales, including correctional facilities, rehabilitation clinics, patient residences, and other locations. Current CDC case definitions for acute and chronic hepatitis C were used.* Four (20%) of the 20 patients had evidence of elevated serum alanine transaminase levels and discrete symptom onset and were classified as having acute hepatitis C. Sixteen (80%) other patients were asymptomatic or had illness that did not meet the acute case definition and were classified as having chronic HCV infection. Median age of the 20 patients was 19 years (range: 17–29 years), all were white, 15 (75%) were male, and 19 (95%) reported a history of IDU. Nineteen (95%) of the 20 patients attended or had attended one of the two high schools in postal code A (high school A) (Table). Fourteen (70%) had evidence of viremia by polymerase chain reaction; three (21%) of these 14 had a viral genotype reported. NYSDOH and ECDOH staff members successfully interviewed 11 of the 20 patients (one with acute hepatitis C and 10 with chronic HCV infection) using an integrated interview tool and a chart abstraction tool developed for this investigation; the remaining nine patients could not be contacted.

At the time of interview, all of the 11 interviewed patients were aware that they had tested HCV positive. However, three (27%) of the patients interviewed believed that their test results were false and that they were no longer (or never were) HCV infected. Ten (91%) interviewed patients reported previous but not current IDU (including use of heroin, cocaine, loritabs, oxycodin, morphine, valium, or crack cocaine) and sharing of drug-use equipment; some patients shared equipment with other identified patients. All 10 patients reported purchasing heroin in the same inner-city Buffalo location. Noninjectable-drug use, reported by 10 (91%) patients, was initiated at a median age of 14 years (range: 9–17 years); IDU was initiated at a median age of 16.5 years (range: 14–26 years).

* Case definitions available at http://www.cdc.gov/ncphi/disss/nndss/casedef/hepatitiscacutecurrent.htm and http://www.cdc.gov/ncphi/disss/nndss/casedef/hepatitisccurrent.htm.

At least four partnerships involving drug equipment sharing and high-risk sexual activity were reported among the 20 patients. The members of these partnerships knew other members who had experienced symptoms consistent with acute hepatitis, such as jaundice. However, documented HCV infection in these members, as evidenced by a report in the NYSDOH Chronic Hepatitis Registry, could not be verified.

Among interviewed patients, median reported number of lifetime sex partners was 10 (range: four to 100). Six (54%) patients claimed they had private health insurance, two reported having Medicaid, and three reported that they had no health insurance. Seven of the interviewed patients reported having a primary-care physician; four of these seven reported seeing a specialist for their HCV infection. None of the interviewed patients had received HCV treatment. Several barriers to potential treatment were cited, including concerns regarding the side effects of medication, lack of information regarding the availability of treatment services, lack of health insurance reimbursement, and a perceived lack of health-care providers capable or willing to treat HCV in patients with comorbidities such as IDU or mental health issues.

Several initiatives were launched by NYSDOH and ECDOH throughout Erie County to address the apparent clustering of HCV infection among injection-drug users. Staff members from NYSDOH, the NYS Office of Alcoholism and Substance Abuse Services, and ECDOH conducted cross-training sessions and developed a resource manual to help identify primary care, sexually transmitted disease (STD)/human immunodeficiency virus (HIV) screening, drug treatment, harm reduction, and HCV treatment services for patients. All interviewed patients were referred to ECDOH counselors for HIV/acquired immunodeficiency syndrome (AIDS) risk assessment and personalized intervention development. ECDOH conducted multiple events held at various community locations and ECDOH clinics, offering HCV, HIV, and STD screening, referral for services, and education on prevention, risk reduction, and family planning; these services are ongoing at all five ECDOH clinics. Presentations on hepatitis epidemiology, diagnosis and testing, and prevention were conducted at medical practices that serve high-risk communities throughout Erie County. ECDOH also collaborated with the Erie County Department of Mental Health to integrate HCV messages into existing prevention programs and implement screening programs in target areas with high HCV infection rates. Finally, ECDOH worked with school district representatives and high schools to address prevention of IDU and HCV transmission.

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Editorial Note: One goal of the CDC-funded enhanced viral hepatitis surveillance protocols is high-priority follow-up of cases that are likely to represent acute HCV infection. Another goal is detection of clusters or outbreaks of such cases, as this report describes. The markedly elevated number of new reports of HCV infection per population detected among persons aged <30 years in postal code A, compared with the number of reports in the surrounding community, indicated an apparent cluster of recently infected patients. Nearly all of the identified patients in the cluster reported a history of IDU, and partnerships involving drug equipment sharing, which have been described previously (*8*), were identified among the cluster. The cause of this cluster likely was IDU with shared, inadequately cleaned equipment. Because the investigation targeted only cases in persons aged <30 years, more direct links among members of this cluster involving persons aged ≥30 years might exist within the community. Furthermore, although infections identified in persons aged <30 years are more likely to be new infections than those identified in persons aged ≥30 years, not all infections in the population aged <30 years are new; a portion of the patients in this cluster likely had been infected with HCV for years.

Although the number of new reports of HCV infection per population in postal code A was higher than the overall Erie County number during November 2004–April 2007, this analysis could not determine whether this elevated number of reports represented a previously established and ongoing higher rate of HCV infection among persons aged <30 years or a more recent phenomenon. Cases within this apparent cluster likely are a reflection of the ongoing HCV epidemic among injection-drug users in the United States (*9*). Ongoing educational efforts and increased public awareness of hepatitis C, particularly among injection-drug users, might have led to higher rates of testing, which yielded additional reports. Because the prioritized algorithm was not in place before January 2006, earlier reported cases of HCV infection among this population might have gone unrecognized. Continued enhanced surveillance is needed to complement routine surveillance for HCV infections to better understand the burden of hepatitis C and to identify and prevent new HCV infections.

The results of this investigation demonstrate the potential for improved and consistent national hepatitis C surveillance to identify cases for investigation, estimate the magnitude of HCV infection and disease, detect outbreaks,

evaluate response measures, and facilitate research to initiate appropriate prevention measures. Given limited resources, an enhanced surveillance approach to give highest priority to likely new cases of HCV infection, such as those in persons aged <30 years, can be implemented to identify clusters and outbreaks. Establishing effective systems that provide reliable data to detect HCV infections among all populations could have a lasting effect on HCV disease control.

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Multistate Outbreak of Human *Salmonella* Infections Caused by Contaminated Dry Dog Food — United States, 2006–2007

During January 1, 2006–December 31, 2007, CDC collaborated with public health officials in Pennsylvania, other states, and the Food and Drug Administration (FDA) to investigate a prolonged multistate outbreak of *Salmonella enterica* serotype Schwarzengrund infections in humans. A total of 70 cases of *S.* Schwarzengrund infection with the outbreak strain (XbaI pulsed-field gel electrophoresis [PFGE] pattern JM6X01.0015) were identified in 19 states, mostly in the northeastern United States. This report describes the outbreak investigation, which identified the source of infection as dry dog food produced at a manufacturing plant in Pennsylvania. This investigation is the first to identify contaminated dry dog food as a source of human *Salmonella* infections. After handling pet foods, pet owners should wash their hands immediately, and infants should be kept away from pet feeding areas.

On May 8, 2007, the Pennsylvania Bureau of Laboratories reported three cases of *S.* Schwarzengrund infection with indistinguishable PFGE patterns to CDC's PulseNet.* On June 9, 2007, after PulseNet identified cases in Ohio and other states, CDC's OutbreakNet† team was notified of a potential multistate outbreak of *S.* Schwarzengrund infections. During June 2007, the Pennsylvania Department of Health (PADOH) interviewed persons identified by PulseNet as infected with the outbreak strain of *S.* Schwarzengrund. These initial interviews suggested exposure to dogs or dry dog food as a possible source of infection. Thirteen infected persons from Pennsylvania were questioned about dog-related exposures: eight (62%) owned one or more dogs, and the other five reported regular contact with a dog. Seven of the eight persons who owned dogs were able to recall the types of dog food they had purchased recently. Several brands had been purchased, but persons in the households of six patients recalled purchasing dog food products made by manufacturer A. These interviews suggested exposure to dogs or dry dog foods as a possible source of infection.

PADOH collected dog stool specimens and opened bags of dry dog food from the homes of the 13 Pennsylvania patients. The outbreak strain of *S.* Schwarzengrund was isolated from five of 13 dog stool specimens and two of 22 dry dog food specimens collected from the homes. The contaminated dry dog food bags were two different brands (brand A and brand B), both produced by manufacturer A at plant A in Pennsylvania.

In July 2007, the Ohio Department of Health also interviewed persons infected with the outbreak strain of *S.* Schwarzengrund and collected two dog stool specimens from one patient's home. The outbreak strain of *S.* Schwarzengrund was isolated from one of the dog stool specimens. The dog recently had been fed brand A dry dog food, but the bag of dog food was no longer available for testing.

* PulseNet is the national molecular subtyping network for foodborne disease surveillance.

† OutbreakNet is a national network of epidemiologists and other public health officials who investigate outbreaks of foodborne, waterborne, and other enteric illnesses in the United States.

Epidemiologic Investigation

A case was defined as a laboratory-confirmed infection with the outbreak strain of *S.* Schwarzengrund in a person residing in the United States who either had symptoms beginning on or after January 1, 2006, or (if the symptom onset date was unknown) had *S.* Schwarzengrund isolated from a specimen on or after January 1, 2006. During January 1, 2006–December 31, 2007, a total of 70 human cases of the outbreak strain of *S.* Schwarzengrund were reported to CDC via PulseNet from 19 states (Figures 1 and 2). The last reported illness onset date was October 1, 2007. No illness was reported in pets.

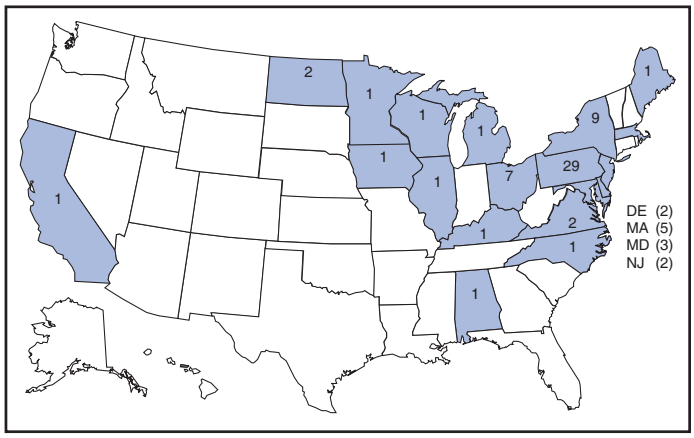
The largest number of reported cases was in Pennsylvania (29 cases), followed by New York (nine) and Ohio (seven) (Figure 1). Among 61 ill persons whose age was available, the median age was 3 years (range: 1 month–85 years), and 24 (39%) were aged ≤1 year; of 45 persons whose sex was known, 22 (49%) were female. Of 38 ill persons for whom clinical information was available, 15 (39%) had bloody diarrhea; of 45 persons whose hospitalization status was known, 11 (24%) had been hospitalized. No deaths were reported.

Case-Control Study

To determine the source of infections caused by the outbreak strain of *S.* Schwarzengrund, the OutbreakNet team coordinated a multistate case-control study during July 17–September 28, 2007. Case-patient households were defined as those with at least one member infected with the outbreak strain of *S.* Schwarzengrund with an illness onset date or isolation date occurring during January 1, 2006–August 30, 2007. For each case-patient household, one to three geographically matched control households were recruited using a reverse–digit-dialing system. Persons in each case-patient and control household were asked whether they had been exposed to dry dog or dry cat food, which brands they usually purchased, and which brands they purchased in the 2 weeks before illness onset (for cases) or the 2 weeks before interview (for controls). Data were analyzed as a matched case-control study, and a multivariable logistic analysis was conducted to control for confounding from coexposures.

One person was interviewed in each of 43 case-patient households and 144 control households in eight states: Delaware, Maine, Michigan, Minnesota, New York, North Dakota, Ohio, and Pennsylvania. Case-patient and control households were excluded from analysis where questions were not answered. Contact with a dog was reported by 34 (79%) persons in case-patient households compared with 86 (60%) persons in control households (matched odds ratio [mOR] = 2.7) (Table). Dry dog or cat food produced by manufacturer A usually was chosen for purchase by members of 19 (44%) case-patient households compared with 14 (10%) of control households (mOR = 7.8; 95% confidence interval [CI] = 2.6–27.8).

FIGURE 1. Number of cases* of *Salmonella* Schwarzengrund infection associated with contaminated dry dog food, by state — United States, January 1, 2006–December 31, 2007



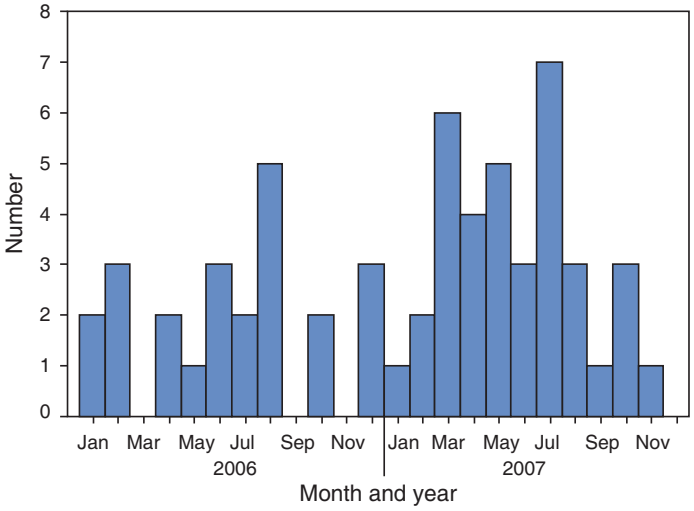
* N = 70.

Among the 19 persons in case-patient households who usually purchased manufacturer A pet food, 11 purchased brand A, three brand B, five brand C, and three brand D. All four brands were produced at plant A. Among the four brands, brand A typically was purchased by 11 (26%) persons in case-patient households compared with six (4%) persons in control households. In multivariable analysis, purchase of brand A was associated with illness (mOR = 23.7) (Table). In Pennsylvania alone, purchase of brand A also was associated with human illness in multivariable analysis (mOR = 15.4; CI = 2.1–infinity).

Environmental Investigation

During 2007, plant A produced approximately 25 brands of dry pet food; specific distribution information for brands produced in plant A was not available. Plant A labeled these dry pet foods with a 1-year shelf life (i.e., sell-by date). On July 12, 2007, PADOH staff members visited plant A and collected 144 swabs of specimens from environmental surfaces; the outbreak strain of *S.* Schwarzengrund was isolated from one sample. FDA tested previously unopened bags of seven brands (brands E, F, G, H, I, J, and K) of dry dog food produced at plant A. Two brands of dry dog food (E and F) yielded the outbreak strain of *S.* Schwarzengrund. On August 21, 2007, manufacturer A announced a voluntary recall of 50-pound bags of brand E dry dog food and

FIGURE 2. Number of cases* of *Salmonella* Schwarzengrund infection associated with contaminated dry dog food, by month outbreak strain was isolated — United States, January 1, 2006–December 31, 2007



* Cases (n = 59) for which month of *S.* Schwarzengrund isolation was available.

5-pound bags of brand F dry dog food. On July 26, 2007, manufacturer A suspended operations at plant A for cleaning and disinfection. In mid-November 2007, plant A resumed normal operations.

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Editorial Note: The laboratory and epidemiologic evidence in this investigation indicates that dry dog food produced by manufacturer A at plant A in Pennsylvania and sold under several brand names caused human illness during 2006–2007. Although previous reports in North America have associated *Salmonella* infection with certain pet treats, this report is the first to associate *Salmonella* with contaminated dry dog food. The case-control study found an association between infections in households and use of dry dog food or dry cat food produced by manufacturer A. In addition, the outbreak strain was isolated from 1) opened bags of dry dog food (brands A and B) that were produced in plant A by manufacturer A, 2) stool specimens from dogs in case-patient households that ate dry dog food produced in plant A, 3) an environmental sample from plant A, and 4) two bags (brands E and F) of previously unopened dry dog food produced in plant A.

A voluntary recall of specific-sized bags of two brands of dry dog food issued by the manufacturer in August 2007 was based only on lot-specific testing of finished unopened bags found to be positive for *Salmonella* by official FDA testing. Other sizes of bags of the two brands of dry dog food, although produced at plant A, were not recalled. Other brands of dry dog or cat food produced at plant A, including brands associated epidemiologically and microbiologically with illness, also were not included in the recall.

Plant A ceased operations during July–November 2007 to allow for cleaning and disinfection. However, because dry pet food has a 1-year shelf life and all contaminated products were not recalled, contaminated dry pet food might still be found in homes and could provide the potential for causing illness. Only an estimated 3% of *Salmonella* infections are laboratory-confirmed and reported to surveillance systems (*2*); therefore, this outbreak likely was larger than the 70 laboratory-confirmed cases identified.

Most *Salmonella* infections are acquired by handling or consuming contaminated food products, particularly foods

TABLE. Number and percentage of persons in case-patient and control households reporting pet-related exposures in study of outbreak of *Salmonella* serotype Schwarzengrund infections, by type of exposure — United States, January 1, 2006–August 30, 2007

Exposure	Case-patient households (n = 43*) No.	(%)	Control households (n = 144*) No.	(%)	Matched odds ratio	(95% CI†)
Contact with any animal that might eat dry pet food	37/42	(88)	108/143	(76)	2.0	(0.7–7.0)
Dog contact	34/43	(79)	86/143	(60)	2.7	(1.0–7.7)
Sleeps in bed with dog	13/41	(32)	36/143	(25)	1.5	(0.6–3.6)
Household purchases pet food	34/43	(79)	93/142	(65)	2.4	(1.0–7.0)
Household purchases dry pet food	32/42	(76)	91/142	(64)	2.1	(0.9–5.9)
Manufacturer A product typically used	19/43	(44)	14/144	(10)	7.8	(2.6–27.8)
Manufacturer A product used recently§	17/43	(40)	14/144	(10)	7.9	(2.4–33.9)
Brand A (from manufacturer A) typically used	11/43	(26)	6/144	(4)	23.7	(3.3– >999.9)

* Case-patient and control households were excluded from analysis where questions were not answered.
† Confidence interval.
§ Case-patient households: within 2 weeks of illness onset; control households: within 2 weeks of interview.

of animal origin. Infections also are acquired by direct and indirect contact with farm animals, reptiles, and occasionally pets. Investigations are ongoing to determine how persons might acquire *Salmonella* infections from dry pet food. Factors under review include the handling and storage of dry pet food, hand-washing practices, exposure of children to dry pet food, and location in the home where pets are fed. Although a specific source of contamination for the pet food from plant A was not identified, the plant equipment might have been contaminated, or contaminated ingredients might have been delivered to plant A. Dry pet foods typically are extruded, and production includes heat treatment, but the extruded food also is spray-coated with a taste enhancer, usually an animal fat.

Outbreaks of human illness associated with animal-derived pet treats have been described previously in North America (*3–6*). These include outbreaks of *Salmonella* Infantis infection caused by contaminated pig ear pet treats (*3,4*), *Salmonella* Newport infection caused by contaminated pet treats containing dried beef (*5*), and *Salmonella* Thompson infections associated with contact with contaminated pet treats made from of beef or seafood (*6*). Follow-up investigations of these outbreaks demonstrated that pet treats were frequently contaminated with *Salmonella* organisms. After a 1999 outbreak in Canada, *Salmonella* organisms were isolated from 48 (51%) of 94 samples of pig ear pet treats purchased from local retail stores (*5*). During 1999–2000 in the United States, *Salmonella* strains were isolated from 65 (41%) of 158 samples of pig ear and other animal-derived pet treats purchased from retail stores (*7*).

FDA regulates pet foods, treats, and supplements. If *Salmonella* is present, these products are considered adulterated under the Federal Food, Drug, and Cosmetic (FDC) Act.[§] During January 1–July 27, 2007, at least 15 pet food products were recalled because of *Salmonella* contamination (*8*). On November 2, 2007, a single brand of pet vitamin was recalled voluntarily by the manufacturer because of possible *Salmonella* contamination (*9*). *Salmonella* contamination has not been identified in canned pet food, probably because the manufacturing process eliminates contamination. However, *Salmonella* contamination has been associated with raw pet food diets (*10*).

Persons who suspect that contact with dry dog food has caused illness should consult their health-care providers. Most persons infected with *Salmonella* develop diarrhea, fever, and abdominal cramps 12–72 hours after infection, and *Salmonella* infection usually is diagnosed by culture of a stool sample. Illness typically lasts 4–7 days, and most persons recover without treatment. Infants, elderly persons, and persons with impaired immune systems are more likely than others to develop severe illness. To prevent *Salmonella* infections, persons should wash their hands for at least 20 seconds with warm water and soap immediately after handling dry pet foods, pet treats, and pet supplements, and before preparing food and eating. Infants should be kept away from pet feeding areas. Children aged <5 years should not be allowed to touch or eat pet food, treats, or supplements.[¶]

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[§] Available at http://www.fda.gov/opacom/laws/fdcact/fdcact4.htm.

[¶] Additional information available at http://www.cdc.gov/salmonella/schwarzengrund.html.

Paddle Sports Fatalities — Maine, 2000–2007

In 2006, approximately 70 million persons in the United States participated in recreational boating (*1*), and paddle sports vessels (i.e., canoes, kayaks, and inflatable rafts) made up the fastest-growing segment of the boating market. From 2005 to 2006, canoe sales in the United States increased by 23%, and kayak sales increased by 11%, while powerboat sales decreased by 5% (*1*). To analyze the trends and characteristics of deaths associated with paddle sports, the Maine Department of Health and Human Services examined data on fatalities that occurred during 2000–2007. The results of this analysis determined that paddle sports deaths were associated with inexperience, alcohol use, and not using a personal flotation device (PFD). To reduce the risk for paddle sports fatalities, boating organizations and water-sport enforcement agencies should encourage boater safety education, use of PFDs, and avoidance of alcohol before and during boating.

A case was defined as a fatality occurring in Maine during 2000–2007 that was associated with use of a canoe, kayak, or raft in a natural water source (i.e., lake, pond, river, stream, or ocean). Cases were identified by reviewing death certificates with *International Classification of Diseases, Tenth Revision* codes V90 and V92 and reports from the Maine Department of Inland Fisheries and Wildlife, the Maine Office of Chief Medical Examiner, and the U.S. Coast Guard. Supplemental information, including additional witness statements, was obtained from newspaper accounts. Level of experience was defined as the total hours spent in a particular paddle sport vessel during the lifetime of the decedent and was ascertained through interviews by the investigating warden with friends and family members of the decedent. The following case reports illustrate common scenarios and risk factors.

Case 1. In May 2004, three persons aged 19 years paddled in a canoe to an island on a lake. On the return trip, the wind picked up, and a wave swamped their canoe. None of the three persons was wearing a PFD. Two persons swam back to the island, but the third, a man with a blood alcohol concentration (BAC) of 0.16 g/dL, drowned; his body was found 50 yards from the island. The water temperature was 45.0°F (7.2°C).

Case 2. In April 2005, an inexperienced kayaker aged 48 years, wearing a PFD in a newly purchased kayak, paddled into a stream that had been swollen by rain and had overflowed its banks in a small town. Minutes after leaving the shore, the man became trapped in standing trees and was forcefully submerged. He drowned in front of a crowd of onlookers.

Case 3. In June 2001, a tour group of six persons went on a commercial river rafting trip. All wore helmets and PFDs; a guide accompanied them in the raft. The raft hit a rock and capsized while going over some rapids. Five passengers and the guide were able to hold onto the raft, but a male aged 44 years was not; the current swept him downstream, where he was entrapped in an eddy. His body was found 20 minutes later; cause of death was drowning.

During 2000–2007, a total of 38 paddle sports fatalities in 37 incidents were identified in Maine. Twenty-nine (76%) of the decedents were Maine residents; eight were residents of other states, and one was a resident of another country. Paddle sports fatalities amounted to 46% of the 82 total boating deaths during this period in Maine (Figure). Twenty-two (58%) of the 38 deaths were associated with canoes, 12 (32%) with kayaks, and four (10%) with rafts (Table). Primary cause of death for 23 (61%) decedents was drowning after capsizing. Eight deaths (21%) resulted from drowning after falling overboard, two (5%) from drowning after entrapment, two (5%) from drowning in persons who had a history of seizure, two (5%) from cardiac arrest while boating, and one (3%) from hypothermia. No deaths were attributed to trauma.

Twenty-six (68%) of the decedents were not wearing PFDs. Among canoeists, 21 (95%) of 22 decedents did not wear a PFD, although eight (38%) had PFDs in their canoes. Of the 31 fatalities for which BAC was tested, five (16%) decedents had BACs ≥0.08 g/dL (the legal limit for driving and boating in Maine), with a median among the five of 0.17 g/dL (range 0.12–0.24 g/dL).

Twenty-one (55%) of the fatalities occurred on lakes or ponds, 13 (34%) on rivers or streams, and four (11%) on the Atlantic Ocean. Nineteen (50%) paddle sports–related fatalities occurred during May or June. Fifteen (39%) deaths occurred on Saturday or Sunday; 21 (55%) deaths occurred

FIGURE. Number of boating deaths, by type of vessel — Maine, 2000–2007

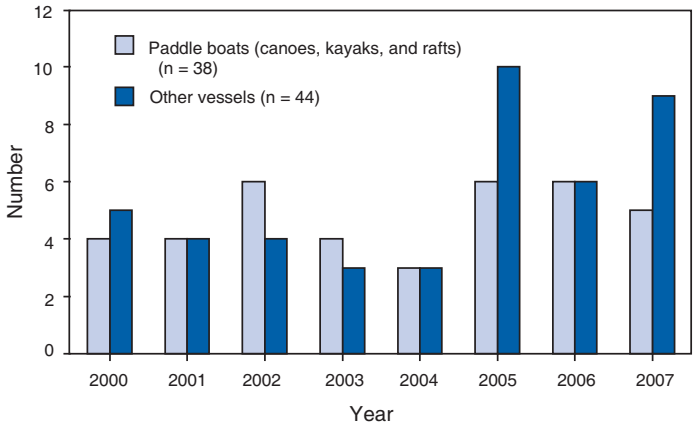

TABLE. Number and percentage of paddle sports fatalities, by selected characteristics — Maine, 2000–2007

Characteristic	No.	(%)*
Total	**38**	**(100)**
Sex		
Male	35	(92)
Female	3	(8)
Age group (yrs)		
<18	3	(8)
18–29	8	(21)
30–39	2	(5)
40–49	7	(18)
50–59	11	(29)
≥60	7	(18)
Day of week		
Monday	4	(11)
Tuesday	7	(18)
Wednesday	5	(13)
Thursday	3	(8)
Friday	4	(11)
Saturday	10	(26)
Sunday	5	(13)
Vessel type		
Canoe	22	(58)
Kayak	12	(32)
Raft	4	(10)
Water temperature (°F)		
30–39	3	(8)
40–49	6	(16)
50–59	12	(32)
60–69	3	(8)
70–79	4	(11)
Unknown	10	(26)
Site		
Lake/Pond	21	(55)
River/Stream	13	(34)
Ocean	4	(11)
Experience (hrs)		
<20	10	(26)
20–500	10	(26)
>500	2	(5)
Unknown	16	(42)
Cause of death		
Drowning after capsizing	23	(61)
Drowning after falling overboard	8	(21)
Drowning after entrapment	2	(5)
Cardiac arrest	2	(5)
Seizure	2	(5)
Hypothermia	1	(3)
Personal flotation device use		
Yes	12	(32)
No	26	(68)
Blood alcohol concentration		
None	24	(63)
<0.08 g/dL	2	(5)
≥0.08 g/dL	5	(13)
Unknown	7	(18)

* Subtotals might not add to 100 because of rounding.

between noon and 6:00 p.m. The median water temperature at the time of the fatal incidents was 54°F (12°C) (range: 31°F–78°F [0.6°C–26°C]); 75% of the fatalities occurred in water with a temperature <60°F (<16°C).

Among the 38 fatalities, 35 (92%) decedents were male; median age was 48 years (range: 16–77 years). Two decedents were aged 17 years, and one was aged 16 years; the other 35 were adults. Among the 22 fatalities for which such information was available, 10 decedents had <20 hours of experience in their vessels.

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Editorial Note: During 2000–2006,* the percentage of boating fatalities associated with paddle sports vessels in Maine (49%) was three times the national percentage (13%) recorded in the U.S. Coast Guard Boating Accident Report database for the same period (*2*). However, other findings in this report were similar to national data. In this analysis, factors associated with paddle sports deaths included being male, not using PFDs, using alcohol, inexperience, and capsizing the vessel. On the national level, during 2000–2006, males accounted for 91% of all boating fatalities (*2*), a percentage similar to that observed in this analysis. In the United States, during 1999–2006, the percentage of adults using PFDs was estimated at 9% for all vessels, 23% for canoes, and 85% for kayaks (*3*). In Maine, PFD use in paddle sports is mandated only for children aged <10 years, and noncompliance results in a $50 fine (*4*).† Increased use of PFDs might be encouraged by education, enforcement, and incentives, such as programs that loan PFDs to paddle sports participants at a minimal charge or for free (*5*).

Approximately 16% of paddle sports decedents in Maine who were tested had BACs ≥0.08 g/dL, the legal limit for driving or boating in the state. Education and enforcement might reduce alcohol use among persons operating paddle sports vessels. Some states have prohibited alcohol sales near parks and water sources to reduce the risk for alcohol-related incidents and deaths (*6*).

Education aimed at paddle sports participants might help offset inexperience and reduce capsizing incidents. Five states require registration of paddle sports vessels, but none mandate boating safety education specifically for paddle sports

* 2007 data on national boating fatalities are not yet available.

† Maine Revised Statutes Title 12 §13068-A. Operating watercraft; prohibitions. Available at http://janus.state.me.us/legis/statutes/12/title12sec13068-a.pdf.

(*7*). Registration offers an opportunity to determine the number of paddle sports participants and require boating safety education that might encourage PFD use, discourage alcohol use, and underscore the dangers of cold water shock and immersion (*8*). In Maine, paddle sports vessels do not require registration or boating education, although legislation mandating boating safety education was proposed in 2007.[§]

The findings in this report are subject to at least two limitations. First, data for certain variables (e.g., paddle sports experience, BAC, and water temperature) were not available for all decedents and incidents. Second, no data were available for the number of paddle sports vessels in Maine or the frequency of their use; therefore fatality rates based on these denominators could not be calculated.

United States Power Squadrons, a nonprofit educational organization dedicated to promoting boating safety, offers a Paddle Smart™ seminar with safety information specific to paddle sports (*9*). This seminar and other prevention strategies that promote PFD use, discourage alcohol use before and during boating, and support boating safety education, might help reduce paddle sports fatalities in Maine. Evaluations of boating safety education programs should be conducted to determine which are most effective at preventing fatalities.

Acknowledgments

The findings in this report are based, in part, on contributions by B Corkum, A Sites, MPH, Maine Dept of Health and Human Svcs. B Chaplin, Maine Dept of Inland Fisheries and Wildlife. K Bisgard, DVM, Office of Workforce Development, CDC.

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Notice to Readers

Click It or Ticket Campaign — May 19–June 1, 2008

During 2006, motor-vehicle crashes resulted in 32,092 deaths to motor-vehicle occupants (excluding motorcyclists), and 2.7 million occupants were treated for injuries in emergency departments in the United States (*1,2*). Safety belts are an effective means of preventing serious injury and death in the event of a crash. However, millions of persons continue to travel unrestrained, and some groups, including men and young adults (ages 18–34 years), are less likely to be restrained than others (*3*). Consequently, young adult males have high rates of crash fatalities (*2*).

Click It or Ticket, May 19–June 1, 2008, is a national campaign, coordinated by the National Highway Traffic Safety Administration, to increase the proper use of safety belts. Law enforcement agencies across the nation participate in the campaign by conducting intensive, high-visibility enforcement of safety belt laws. This year, the campaign will focus on young adult males and will include daytime and nighttime enforcement activities. Additional information regarding Click It or Ticket activities is available from the National Highway Traffic Safety Administration website at http://www.nhtsa.gov. Additional information on preventing motor-vehicle crash injuries is available at http://www.cdc.gov/ncipc/duip/mvsafety.htm.

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Notice to Readers

National Emergency Medical Services Week — May 18–24, 2008

In the United States, injury is the leading cause of death for persons aged 1–44 years. Prehospital emergency medical services (EMS) have a substantial impact on the care of the injured and on public health. At an injury scene, EMS providers determine the severity of injury, initiate medical management, and identify the most appropriate facility to which to transport the patient.

Every day, under any circumstances, approximately 750,000 EMS providers serve their communities. National EMS Week (May 18–24, 2008) brings together local communities and medical personnel to promote safety and recognize the dedication of paramedics, emergency medical technicians, first responders, firefighters, police, and others who provide often heroic, lifesaving services as a routine part of their jobs.

National EMS Week will feature activities that support this year's theme, Your Life is Our Mission. In support of National EMS Week, CDC is launching a series of fact sheets on the treatment of blast injuries for EMS responders and physicians in trauma and emergency departments. These fact sheets are available online at http://www.emergency.cdc.gov/blastinjuries.

In partnership with the American College of Emergency Physicians, CDC also is sponsoring an online course, Bombings: Injury Patterns and Care, which is designed to provide the latest clinical information regarding blast-related injuries from terrorism. The course is available at http://www.bt.cdc.gov/masscasualties/bombings_injurycare.asp. This online course and the blast injury fact sheets are supported by CDC's Terrorism Injuries Information, Dissemination and Exchange (TIIDE) Project. TIIDE was established through a cooperative agreement to link acute care and EMS to state and local injury-prevention programs for terrorism preparedness and response.

Notice to Readers

National Recreational Water Illness Prevention Week — May 19–25, 2008

The week of May 19–25, 2008, marks the fourth annual National Recreational Water Illness Prevention Week. This yearly observance provides an opportunity for public health agencies to increase awareness of recreational water illness and promote healthy recreational water experiences.

Recreational water illness (RWI) is spread by swallowing, breathing, or having contact with contaminated water from swimming pools, water parks, interactive fountains, spas, lakes, rivers, or oceans. The most commonly reported RWI is diarrhea caused by pathogens such as *Cryptosporidium*, Norovirus, *Shigella*, *Escherichia coli* O157:H7, and *Giardia*. Children, pregnant women, and persons with compromised immune systems are at greatest risk for RWIs. Infection with *Cryptosporidium* can be life threatening in persons with weakened immune systems. Other RWIs include various skin, ear, eye, respiratory, and neurologic infections.

In 2007, state and local health departments across the country investigated more RWI outbreaks than ever before. This upsurge was driven by an increase in the number of reported RWI outbreaks caused by *Cryptosporidium*, a chlorine-resistant parasite, and was primarily associated with treated recreational water venues, such as pools, water parks, and interactive fountains. Although seven such RWI outbreaks caused by *Cryptosporidium* were identified in 2004 (*1*), CDC has received preliminary reports of 18 that occurred during 2007 (CDC, unpublished data, 2008) and expects to receive more as the 2007 count is finalized. Because *Cryptosporidium* is chlorine resistant, even a well maintained pool can transmit this parasite. Therefore, public health officials, pool operators, and beach managers should work together to educate the public regarding preventing RWIs by keeping *Cryptosporidium* and other pathogens out of all recreational waters, treated and untreated (e.g., oceans and lakes). RWI prevention guidelines for pool staff members are available at http://www.cdc.gov/healthyswimming/twelvesteps.htm. Suggestions for pool users are available at http://www.cdc.gov/healthyswimming/pdf/pool_user_tips.pdf.

To help promote healthy recreational water experiences, public health officials also can participate in development of the national Model Aquatic Health Code (MAHC). Currently, no complete pool code exists at the national level. In 2005, local, state, and federal public health officials and representatives from the aquatics sector met to develop a strategic plan to prevent RWIs, with the top recommendation calling for a national model code that would provide uniform guidelines for the design, construction, operation, and maintenance of treated recreational water venues. Although it will not provide a set of federal regulations, MAHC will give state and local agencies a tool with which to update their own codes. Information regarding participation in the development of MAHC is available at http://www.cdc.gov/healthyswimming/model_code.htm.

Suggestions for how public health professionals can promote healthy swimming during National Recreational Water Illness Prevention Week are available at http://www.cdc.gov/healthyswimming/tools.htm. Additional information is available at http://www.cdc.gov/healthyswimming/health_dept.htm.

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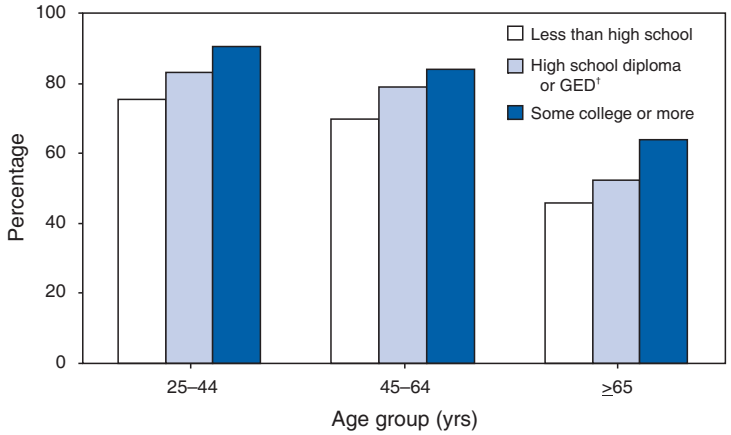
QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Women Aged ≥25 Years Who Had a Papanicolaou (Pap) Smear Test* During the Preceding 3 Years, by Age Group and Education Level — National Health Interview Survey, United States, 2005*



* Estimates are based on household interviews of a sample of the civilian, noninstitutionalized U.S. population and are derived from the cancer control supplement of the National Health Interview Survey. Results are based on responses to a series of questions about Pap smear tests, including, "Have you ever had a Pap smear test?" and "When did you have your most recent Pap smear test?"

† General Educational Development diploma.

The likelihood of having a Pap smear test during the preceding 3 years increased with education level in each of the age groups. Overall, older women were less likely to be tested; the lowest rate (46.1%) was among women aged ≥65 years who had not completed high school. Nine out of 10 women aged 25–44 years with some college or more reported having a Pap smear test during the preceding 3 years, the highest rate of any group.

SOURCE: CDC. Health, United States, 2007: with chartbook on trends in the health of Americans. Hyattsville, MD: US Department of Health and Human Services, CDC; 2007. Available at http://www.cdc.gov/nchs/data/hus/hus07.pdf.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 10, 2008 (19th Week)*

Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years 2007	2006	2005	2004	2003	States reporting cases during current week (No.)
Anthrax	—	—	—	1	1	—	—	—	
Botulism:									
foodborne	—	1	0	31	20	19	16	20	
infant	—	21	1	87	97	85	87	76	
other (wound & unspecified)	—	4	1	25	48	31	30	33	
Brucellosis	1	21	3	128	121	120	114	104	NE (1)
Chancroid	2	20	1	24	33	17	30	54	NY (1), NC (1)
Cholera	—	—	0	7	9	8	6	2	
Cyclosporiasis§	—	26	16	91	137	543	160	75	
Diphtheria	—	—	—	—	—	—	—	1	
Domestic arboviral diseases§,¶:									
California serogroup	—	—	0	44	67	80	112	108	
eastern equine	—	—	—	4	8	21	6	14	
Powassan	—	—	0	1	1	1	1	—	
St. Louis	—	—	0	7	10	13	12	41	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,**:									
Ehrlichia chaffeensis	2	26	5	809	578	506	338	321	NE (1), MD (1)
Ehrlichia ewingii	—	—	—	—	—	—	—	—	
Anaplasma phagocytophilum	—	6	6	731	646	786	537	362	
undetermined	—	1	2	136	231	112	59	44	
Haemophilus influenzae,††									
invasive disease (age <5 yrs):									
serotype b	—	11	0	22	29	9	19	32	
nonserotype b	3	62	3	179	175	135	135	117	MN (2), NC (1)
unknown serotype	4	84	5	186	179	217	177	227	NY (1), NE (1), TN (1), AZ (1)
Hansen disease§	—	27	2	98	66	87	105	95	
Hantavirus pulmonary syndrome§	—	3	1	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal§	2	30	3	287	288	221	200	178	OH (1), WA (1)
Hepatitis C viral, acute	9	207	15	841	766	652	720	1,102	PA (1), OH (2), MI (1), FL (1), TX (1), WA (1), OR (2)
HIV infection, pediatric (age <13 yrs)§§	—	—	6	—	—	380	436	504	
Influenza-associated pediatric mortality§,¶¶	3	72	1	76	43	45	—	N	MI (1), FL (2)
Listeriosis	6	165	10	791	884	896	753	696	TN (1), WA (1), CA (4)
Measles***	3	62	1	42	55	66	37	56	AR (1), CA (2)
Meningococcal disease, invasive†††:									
A, C, Y, & W-135	4	118	6	311	318	297	—	—	NE (1), FL (1), TX (2)
serogroup B	1	62	2	154	193	156	—	—	WA (1)
other serogroup	—	14	1	32	32	27	—	—	
unknown serogroup	6	263	14	570	651	765	—	—	MO (1), FL (1), OR (2), CA (2)
Mumps	3	206	102	780	6,584	314	258	231	NY (1), FL (1), WA (1)
Novel influenza A virus infections	—	—	—	1	N	N	N	N	
Plague	—	1	0	7	17	8	3	1	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Poliovirus infection, nonparalytic§	—	—	—	—	N	N	N	N	
Psittacosis§	—	1	0	10	21	16	12	12	
Q fever§,§§§ total:	—	16	3	173	169	136	70	71	
acute	—	12	—	—	—	—	—	—	
chronic	—	4	—	—	—	—	—	—	
Rabies, human	—	—	—	—	3	2	7	2	
Rubella¶¶¶	1	4	0	12	11	11	10	7	FL (1)
Rubella, congenital syndrome	—	—	—	—	1	1	—	1	
SARS-CoV§,****	—	—	0	—	—	—	—	8	

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

* Incidence data for reporting years 2007 and 2008 are provisional, whereas data for 2003, 2004, 2005, and 2006 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 in 2007 and 2008 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. Seventy-one cases occurring during the 2007–08 influenza season have been reported.

*** Of the three measles cases reported for the current week, two were indigenous, and one was imported.

††† 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.

¶¶¶ The one rubella case reported for the current week was imported.

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

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 10, 2008 (19th Week)*

Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years 2007	2006	2005	2004	2003	States reporting cases during current week (No.)
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	3	53	3	118	125	129	132	161	MN (2), NV (1)
Syphilis, congenital (age <1 yr)	—	44	7	336	349	329	353	413	
Tetanus	—	2	0	25	41	27	34	20	
Toxic-shock syndrome (staphylococcal)§	—	19	2	85	101	90	95	133	
Trichinellosis	—	2	0	6	15	16	5	6	
Tularemia	1	8	2	128	95	154	134	129	KS (1)
Typhoid fever	1	118	6	420	353	324	322	356	CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	—	3	0	28	6	2	—	N	
Vancomycin-resistant *Staphylococcus aureus*§	—	—	0	2	1	3	1	N	
Vibriosis (noncholera *Vibrio* species infections)§	2	50	2	377	N	N	N	N	FL (1), WA (1)
Yellow fever	—	—	—	—	—	—	—	—	

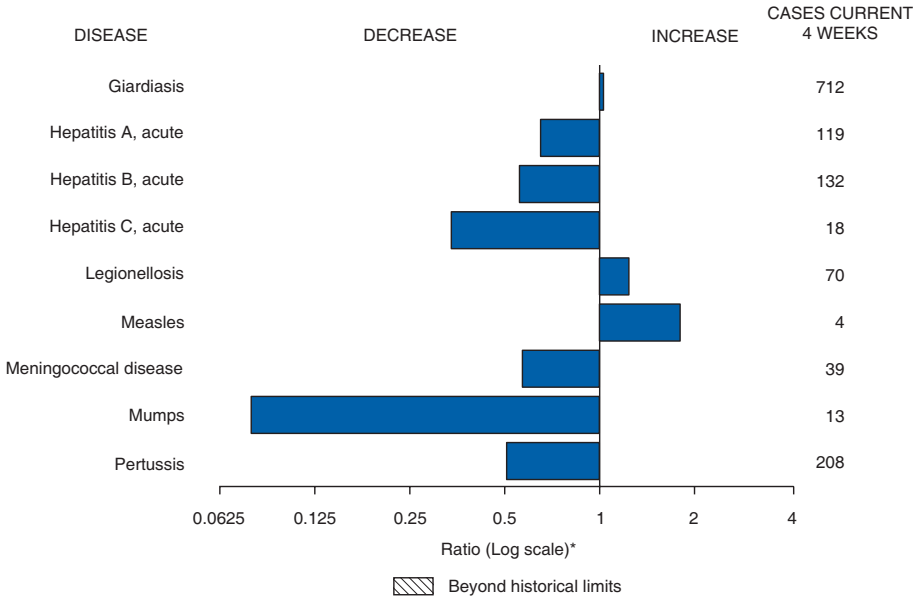
—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

* Incidence data for reporting years 2007 and 2008 are provisional, whereas data for 2003, 2004, 2005, and 2006 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 in 2007 and 2008 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.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 10, 2008, 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.

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Chlamydia†					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	11,700	21,138	24,739	359,172	390,885	105	134	339	2,426	2,728	36	87	974	1,145	1,039
New England	254	688	1,516	12,284	11,738	—	0	1	1	1	—	5	16	72	99
Connecticut	118	218	1,093	3,296	2,957	N	0	0	N	N	—	0	6	6	42
Maine§	46	50	67	941	928	N	0	0	N	N	—	1	6	5	9
Massachusetts	—	313	660	6,197	5,623	N	0	0	N	N	—	2	11	30	23
New Hampshire	7	39	73	678	697	—	0	1	1	1	—	1	5	15	14
Rhode Island§	63	61	98	1,140	1,237	—	0	0	—	—	—	0	3	3	4
Vermont§	20	10	32	32	296	N	0	0	N	N	—	1	4	13	7
Mid. Atlantic	2,461	2,759	4,891	52,569	51,497	—	0	0	—	—	7	12	120	157	125
New Jersey	219	406	520	6,629	7,923	N	0	0	N	N	—	0	8	3	9
New York (Upstate)	563	556	2,044	9,613	8,862	N	0	0	N	N	5	4	20	47	33
New York City	1,166	951	3,192	21,209	18,360	N	0	0	N	N	—	2	10	27	30
Pennsylvania	513	802	1,754	15,118	16,352	N	0	0	N	N	2	6	103	80	53
E.N. Central	1,328	3,403	4,371	59,605	66,376	1	1	3	16	12	7	20	134	259	236
Illinois	10	1,014	1,711	15,096	18,494	N	0	0	N	N	—	2	13	24	30
Indiana	296	387	655	7,411	7,877	N	0	0	N	N	—	2	41	34	14
Michigan	829	752	1,198	16,822	14,188	1	0	2	12	10	2	4	11	62	53
Ohio	75	866	1,530	13,253	18,615	—	0	1	4	2	4	5	60	76	66
Wisconsin	118	377	612	7,023	7,202	N	0	0	N	N	1	7	59	63	73
W.N. Central	664	1,218	1,693	22,402	22,748	—	0	77	—	3	7	16	125	214	135
Iowa	143	164	251	3,128	3,192	N	0	0	N	N	—	4	61	44	24
Kansas	200	152	529	3,260	2,802	N	0	0	N	N	—	2	16	19	18
Minnesota	—	256	335	4,372	4,963	—	0	77	—	—	4	4	34	57	31
Missouri	284	465	551	8,635	8,352	—	0	1	—	3	—	3	14	45	27
Nebraska§	37	88	161	1,527	1,889	N	0	0	N	N	3	2	24	32	7
North Dakota	—	31	65	506	651	N	0	0	N	N	—	0	6	1	1
South Dakota	—	53	81	974	899	N	0	0	N	N	—	2	16	16	27
S. Atlantic	3,163	3,931	7,511	66,340	72,940	—	0	1	2	2	14	20	65	241	242
Delaware	44	65	144	1,344	1,287	—	0	0	—	—	—	0	4	6	2
District of Columbia	149	115	200	2,233	2,217	—	0	0	—	—	—	0	3	5	3
Florida	1,298	1,285	1,556	24,730	18,178	N	0	0	N	N	10	9	35	118	111
Georgia	4	737	1,514	771	15,375	N	0	0	N	N	4	5	15	72	54
Maryland§	—	469	683	7,546	6,729	—	0	1	2	2	—	0	3	3	11
North Carolina	272	206	4,656	7,917	11,207	N	0	0	N	N	—	1	18	9	20
South Carolina§	732	459	3,345	10,148	7,542	N	0	0	N	N	—	1	15	11	16
Virginia§	664	485	1,061	10,587	9,245	N	0	0	N	N	—	1	6	12	22
West Virginia	—	62	96	1,064	1,160	N	0	0	N	N	—	0	5	5	3
E.S. Central	1,215	1,505	2,392	27,944	31,216	—	0	0	—	—	—	4	64	37	47
Alabama§	—	480	605	7,545	9,286	N	0	0	N	N	—	1	14	17	17
Kentucky	304	196	302	3,835	2,751	N	0	0	N	N	—	1	40	5	15
Mississippi	370	300	1,048	6,413	8,598	N	0	0	N	N	—	0	11	3	9
Tennessee§	541	512	716	10,151	10,581	N	0	0	N	N	—	1	18	12	6
W.S. Central	544	2,620	4,425	47,108	42,885	—	0	1	1	—	1	6	28	58	52
Arkansas§	324	221	455	5,247	3,250	N	0	0	N	N	1	0	8	8	4
Louisiana	—	304	851	4,125	7,126	—	0	1	1	—	—	1	4	3	16
Oklahoma	220	245	416	4,558	4,605	N	0	0	N	N	—	1	11	14	11
Texas§	—	1,778	3,922	33,178	27,904	N	0	0	N	N	—	3	16	33	21
Mountain	295	1,321	1,839	12,863	27,155	65	89	170	1,642	1,813	—	9	567	88	76
Arizona	52	416	679	1,091	8,709	65	85	168	1,611	1,761	—	1	4	12	16
Colorado	11	288	488	1,837	6,594	N	0	0	N	N	—	2	26	17	21
Idaho§	15	57	233	1,317	1,491	N	0	0	N	N	—	2	72	21	4
Montana§	36	48	363	1,032	1,017	N	0	0	N	N	—	1	7	10	4
Nevada§	116	183	400	3,460	3,437	—	1	6	17	17	—	0	6	3	3
New Mexico§	—	152	562	2,016	3,583	—	0	3	11	12	—	2	9	10	20
Utah	65	124	216	2,099	1,877	—	0	7	3	23	—	1	484	9	1
Wyoming§	—	18	34	11	447	—	0	1	—	—	—	0	8	6	7
Pacific	1,776	3,311	4,502	58,057	64,330	39	39	217	764	897	—	2	20	19	27
Alaska	56	91	126	1,478	1,815	N	0	0	N	N	—	0	2	1	—
California	1,554	2,797	4,115	50,768	50,401	39	39	217	764	897	—	0	0	—	—
Hawaii	—	111	151	1,848	2,112	N	0	0	N	N	—	0	4	1	—
Oregon§	166	192	403	3,850	3,388	N	0	0	N	N	—	2	16	17	27
Washington	—	112	613	113	6,614	N	0	0	N	N	—	0	0	—	—
American Samoa	—	0	32	62	41	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	5	34	50	296	—	0	0	—	—	—	0	0	—	—
Puerto Rico	163	112	612	2,489	2,880	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	4	27	192	72	—	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 years 2007 and 2008 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	155	290	1,595	4,638	5,109	3,274	6,666	7,919	101,773	125,880	41	44	159	1,039	1,001
New England	1	23	55	381	399	36	103	227	1,739	1,887	2	3	9	56	70
Connecticut	—	6	18	97	107	26	45	199	713	639	—	0	8	2	20
Maine§	—	3	10	35	49	1	2	7	33	36	—	0	4	5	6
Massachusetts	—	9	29	155	178	—	49	127	823	958	—	1	6	35	36
New Hampshire	—	1	4	28	5	3	2	6	45	57	—	0	2	5	7
Rhode Island§	—	1	15	24	21	5	6	13	123	179	—	0	2	4	1
Vermont§	1	3	9	42	39	1	0	5	2	18	2	0	1	5	—
Mid. Atlantic	28	59	120	802	928	502	662	1,004	11,364	13,207	7	9	29	198	210
New Jersey	—	6	15	22	122	39	116	175	1,991	2,237	—	1	7	29	33
New York (Upstate)	17	24	100	338	297	156	129	518	2,218	2,120	3	2	20	54	58
New York City	2	16	29	213	303	198	177	528	3,255	3,931	—	1	6	35	41
Pennsylvania	9	14	30	229	206	109	230	550	3,900	4,919	4	3	9	80	78
E.N. Central	23	44	90	698	844	410	1,315	1,736	21,092	26,689	1	6	24	149	134
Illinois	—	13	33	151	247	4	389	589	4,650	6,467	—	2	7	41	49
Indiana	N	0	0	N	N	111	158	308	3,012	3,161	—	1	20	35	17
Michigan	5	10	22	146	239	263	300	648	6,461	5,852	—	0	3	6	12
Ohio	18	16	36	296	238	16	345	687	4,859	8,701	1	2	6	61	49
Wisconsin	—	6	21	105	120	16	121	214	2,110	2,508	—	0	4	6	7
W.N. Central	14	27	583	561	319	196	353	446	5,725	7,213	11	3	24	84	53
Iowa	—	5	23	86	69	16	31	56	500	743	—	0	1	2	1
Kansas	6	3	11	52	40	69	42	130	829	797	2	0	2	8	4
Minnesota	—	0	575	191	6	—	63	92	1,022	1,279	4	0	21	17	19
Missouri	3	9	23	142	136	100	180	235	2,784	3,778	3	1	6	40	22
Nebraska§	5	4	8	62	41	11	26	50	471	473	1	0	3	12	6
North Dakota	—	0	3	10	6	—	2	6	31	37	1	0	2	5	1
South Dakota	—	1	6	18	21	—	5	10	88	106	—	0	0	—	—
S. Atlantic	43	55	101	753	926	1,115	1,589	2,538	22,992	28,779	11	11	30	273	261
Delaware	—	1	6	14	12	9	23	44	432	513	—	0	1	3	5
District of Columbia	—	0	5	22	28	75	46	70	839	867	—	0	2	6	2
Florida	31	22	47	388	399	436	477	619	8,534	7,704	6	3	10	75	74
Georgia	4	12	24	124	199	3	308	626	299	6,253	1	2	9	67	57
Maryland§	7	5	18	71	89	—	132	237	2,053	2,076	1	1	5	49	46
North Carolina	N	0	0	N	N	62	152	1,825	3,480	5,649	3	0	9	29	29
South Carolina§	—	3	7	37	25	253	189	840	3,680	3,234	—	1	6	23	24
Virginia§	1	9	39	80	164	277	130	485	3,416	2,175	—	1	23	14	17
West Virginia	—	0	8	17	10	—	17	38	259	308	—	0	3	7	7
E.S. Central	3	10	23	134	161	456	571	940	10,169	11,598	2	3	8	58	53
Alabama§	2	5	11	70	82	—	205	282	3,085	3,960	—	0	3	6	11
Kentucky	N	0	0	N	N	142	80	161	1,484	957	—	0	1	1	3
Mississippi	N	0	0	N	N	132	128	401	2,446	3,080	—	0	2	8	4
Tennessee§	1	4	16	64	79	182	174	261	3,154	3,601	2	2	6	43	35
W.S. Central	2	6	34	69	106	159	1,010	1,355	15,934	17,732	4	2	22	50	41
Arkansas§	2	2	9	35	43	77	77	138	1,664	1,538	—	0	3	2	3
Louisiana	—	1	14	11	33	—	173	384	2,103	4,177	—	0	2	3	5
Oklahoma	—	3	29	23	30	82	93	171	1,692	1,857	4	1	14	44	30
Texas§	N	0	0	N	N	—	643	1,102	10,475	10,160	—	0	3	1	3
Mountain	13	31	67	336	482	68	253	337	2,557	4,879	2	5	13	125	121
Arizona	1	3	11	34	69	21	90	130	292	1,812	1	2	11	66	54
Colorado	11	10	26	106	157	15	58	91	666	1,232	—	1	4	9	24
Idaho§	1	3	19	46	38	—	4	19	56	98	1	0	4	6	4
Montana§	—	2	8	22	29	—	1	48	36	35	—	0	1	1	—
Nevada§	—	3	8	33	40	27	45	126	926	812	—	0	1	7	6
New Mexico§	—	2	5	23	46	—	29	105	376	577	—	1	4	15	17
Utah	—	7	32	61	91	5	13	39	205	292	—	0	6	21	14
Wyoming§	—	1	3	11	12	—	1	5	—	21	—	0	1	—	2
Pacific	28	54	688	904	944	332	636	798	10,201	13,896	1	2	10	46	58
Alaska	1	2	5	26	20	5	11	24	152	186	1	0	4	8	4
California	19	41	91	637	747	310	568	683	9,354	11,753	—	0	5	5	15
Hawaii	—	1	5	9	28	—	11	23	183	252	—	0	1	7	3
Oregon§	1	9	19	148	146	17	24	63	495	394	—	1	4	24	36
Washington	7	0	590	84	3	—	12	130	17	1,311	—	0	6	2	—
American Samoa	—	0	0	—	—	—	0	1	2	2	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	1	—	1	9	18	44	—	0	1	—	—
Puerto Rico	—	4	31	7	92	12	4	23	92	123	—	0	1	—	1
U.S. Virgin Islands	—	0	0	—	—	—	1	4	31	19	N	0	0	N	N

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2007 and 2008 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Hepatitis (viral, acute), by type† A					Hepatitis (viral, acute), by type† B					Legionellosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	34	52	207	849	963	36	79	300	1,099	1,502	20	48	122	594	531
New England	—	3	6	41	32	—	1	5	16	28	—	2	14	26	28
Connecticut	—	0	3	10	5	—	0	5	7	16	—	1	4	7	3
Maine§	—	0	1	2	—	—	0	2	3	1	—	0	2	1	—
Massachusetts	—	1	5	18	13	—	0	1	3	2	—	0	2	1	13
New Hampshire	—	0	3	2	8	—	0	1	1	4	—	0	2	3	—
Rhode Island§	—	0	2	9	6	—	0	3	1	4	—	0	5	10	11
Vermont§	—	0	1	—	—	—	0	1	1	1	—	0	2	4	1
Mid. Atlantic	2	9	21	100	150	5	9	17	141	222	9	14	37	129	137
New Jersey	—	2	6	16	49	—	2	7	35	72	—	2	13	12	20
New York (Upstate)	1	1	6	24	29	2	2	7	25	28	4	4	15	36	36
New York City	—	3	9	29	48	—	2	7	18	53	—	2	11	14	30
Pennsylvania	1	2	6	31	24	3	3	8	63	69	5	5	21	67	51
E.N. Central	3	6	13	105	108	2	8	15	117	190	3	11	30	137	128
Illinois	—	2	6	26	49	—	1	5	22	60	—	2	12	18	28
Indiana	—	0	4	5	4	—	0	8	9	13	—	1	7	7	7
Michigan	1	2	7	53	24	1	2	6	43	47	1	3	11	41	39
Ohio	2	1	3	14	24	1	2	6	40	57	2	4	17	67	46
Wisconsin	—	0	2	7	7	—	0	1	3	13	—	0	1	4	8
W.N. Central	1	4	24	113	58	1	2	7	30	42	—	2	9	29	16
Iowa	—	1	6	43	13	—	0	2	7	12	—	0	2	6	3
Kansas	—	0	3	9	2	—	0	2	4	4	—	0	1	1	—
Minnesota	—	0	23	10	29	—	0	5	1	4	—	0	6	3	2
Missouri	—	0	3	18	5	1	1	4	16	15	—	1	3	9	8
Nebraska§	1	1	5	32	5	—	0	1	2	4	—	0	2	9	2
North Dakota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	1	1	4	—	0	1	—	3	—	0	1	1	1
S. Atlantic	8	9	22	117	173	11	16	58	279	376	4	8	27	119	120
Delaware	—	0	1	2	1	—	0	2	2	6	—	0	2	2	1
District of Columbia	—	0	0	—	14	—	0	0	—	1	—	0	3	7	1
Florida	7	2	8	57	56	11	6	12	130	123	2	3	10	53	52
Georgia	—	1	5	13	28	—	2	6	35	50	1	1	3	9	15
Maryland§	—	1	4	15	29	—	2	6	25	40	1	1	5	21	24
North Carolina	—	0	9	9	7	—	0	16	25	52	—	0	7	7	11
South Carolina§	1	0	4	6	4	—	1	6	22	28	—	0	2	2	5
Virginia§	—	1	5	13	32	—	2	16	29	57	—	1	6	15	8
West Virginia	—	0	2	2	2	—	0	30	11	19	—	0	3	3	3
E.S. Central	—	2	5	14	31	2	7	15	112	108	1	2	6	28	27
Alabama§	—	0	4	3	7	1	2	6	32	40	1	0	1	4	3
Kentucky	—	0	2	5	5	—	2	7	30	12	—	1	3	15	11
Mississippi	—	0	1	—	5	—	0	3	12	8	—	0	0	—	—
Tennessee§	—	1	3	6	14	1	2	8	38	48	—	1	4	9	13
W.S. Central	—	5	46	64	76	9	17	121	232	282	1	2	16	14	25
Arkansas§	—	0	1	1	5	—	1	3	12	29	—	0	3	1	2
Louisiana	—	0	3	4	13	—	1	6	14	33	—	0	2	—	1
Oklahoma	—	0	8	4	3	1	2	38	26	10	1	0	2	1	—
Texas§	—	4	45	55	55	8	12	97	180	210	—	2	14	12	22
Mountain	5	4	9	66	96	1	3	7	52	87	1	2	6	27	24
Arizona	3	2	7	30	75	—	1	4	13	42	—	1	5	8	6
Colorado	1	0	3	7	8	—	0	3	6	13	—	0	2	1	5
Idaho§	1	0	3	13	2	—	0	2	4	4	—	0	1	1	1
Montana§	—	0	2	—	1	—	0	1	—	—	—	0	1	2	1
Nevada§	—	0	1	2	6	1	1	3	16	20	1	0	2	5	3
New Mexico§	—	0	3	10	1	—	0	2	5	5	—	0	1	3	2
Utah	—	0	2	2	2	—	0	2	7	3	—	0	3	7	4
Wyoming§	—	0	1	2	1	—	0	1	1	—	—	0	1	—	2
Pacific	15	11	103	229	239	5	8	84	120	167	1	3	38	85	26
Alaska	—	0	1	2	1	—	0	2	6	3	—	0	1	1	—
California	15	9	42	185	227	4	6	19	82	139	1	2	14	70	23
Hawaii	—	0	2	3	3	—	0	2	3	2	—	0	1	4	1
Oregon§	—	1	3	16	8	—	1	3	13	22	—	0	2	5	1
Washington	—	0	59	23	—	1	0	64	16	1	—	0	23	5	1
American Samoa	—	0	0	—	—	—	0	0	—	14	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	—	2	—	0	0	—	—
Puerto Rico	—	0	4	2	32	—	1	5	5	24	—	0	1	—	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 years 2007 and 2008 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serogroups				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	54	328	1,326	1,757	2,922	4	24	152	230	340	11	18	71	457	460
New England	2	44	301	108	274	—	1	30	3	14	—	1	3	14	20
Connecticut	—	12	214	—	60	—	0	22	—	—	—	0	1	1	3
Maine§	—	6	61	33	19	—	0	2	—	3	—	0	1	1	3
Massachusetts	—	0	31	25	86	—	0	3	2	10	—	0	3	12	10
New Hampshire	2	8	88	41	97	—	0	4	1	1	—	0	0	—	1
Rhode Island§	—	0	77	—	—	—	0	8	—	—	—	0	1	—	1
Vermont§	—	1	13	9	12	—	0	2	—	—	—	0	1	—	2
Mid. Atlantic	36	174	692	942	1,474	—	7	18	49	92	—	2	6	50	56
New Jersey	—	40	220	172	538	—	1	7	—	21	—	0	1	1	8
New York (Upstate)	12	54	224	171	243	—	1	8	7	14	—	1	3	16	13
New York City	—	5	27	4	62	—	4	9	33	50	—	0	4	8	17
Pennsylvania	24	52	326	595	631	—	1	4	9	7	—	1	5	25	18
E.N. Central	—	6	169	28	170	—	2	7	39	50	—	3	9	77	75
Illinois	—	0	16	2	9	—	1	6	18	26	—	1	3	25	26
Indiana	—	0	7	2	2	—	0	2	1	1	—	0	4	12	13
Michigan	—	0	5	7	4	—	0	2	6	7	—	0	2	13	12
Ohio	—	0	4	4	3	—	0	3	12	9	—	1	4	21	17
Wisconsin	—	4	149	13	152	—	0	1	2	7	—	0	2	6	7
W.N. Central	1	3	728	60	53	—	0	8	20	18	2	2	8	48	28
Iowa	—	1	11	5	17	—	0	1	2	2	—	0	3	11	7
Kansas	—	0	2	1	3	—	0	1	2	—	—	0	1	1	2
Minnesota	1	0	728	51	32	—	0	8	6	11	—	0	7	15	8
Missouri	—	0	4	3	—	—	0	4	6	2	1	0	3	12	8
Nebraska§	—	0	1	—	1	—	0	2	4	2	1	0	2	7	1
North Dakota	—	0	2	—	—	—	0	1	—	—	—	0	1	1	1
South Dakota	—	0	0	—	—	—	0	0	—	1	—	0	1	1	1
S. Atlantic	10	62	218	527	890	2	5	15	55	68	2	3	7	62	65
Delaware	6	12	34	167	176	—	0	1	1	2	—	0	1	—	—
District of Columbia	—	0	8	39	6	—	0	0	—	3	—	0	0	—	—
Florida	1	0	4	8	2	2	1	7	18	16	2	1	5	24	24
Georgia	1	0	3	1	—	—	1	3	10	6	—	0	3	8	7
Maryland§	2	31	136	261	573	—	1	5	21	19	—	0	2	4	14
North Carolina	—	0	8	2	6	—	0	4	2	5	—	0	4	3	6
South Carolina§	—	0	4	2	5	—	0	1	1	1	—	0	3	9	6
Virginia§	—	18	68	44	118	—	0	7	2	15	—	0	3	12	8
West Virginia	—	0	9	3	4	—	0	1	—	1	—	0	1	2	—
E.S. Central	—	0	5	2	10	1	0	3	5	11	—	1	3	23	25
Alabama§	—	0	3	2	1	—	0	1	3	1	—	0	1	1	6
Kentucky	—	0	2	—	—	—	0	1	1	2	—	0	2	5	3
Mississippi	—	0	1	—	—	—	0	1	—	1	—	0	2	7	5
Tennessee§	—	0	4	—	9	1	0	2	1	7	—	0	2	10	11
W.S. Central	—	1	9	9	22	—	1	59	11	25	2	2	12	43	51
Arkansas§	—	0	1	—	—	—	0	1	—	—	—	0	2	4	7
Louisiana	—	0	0	—	2	—	0	1	—	11	—	0	3	12	17
Oklahoma	—	0	1	—	—	—	0	4	1	1	—	0	4	8	10
Texas§	—	1	8	9	20	—	1	55	10	13	2	1	7	19	17
Mountain	—	1	3	4	8	—	1	5	9	19	—	1	3	23	36
Arizona	—	0	1	2	—	—	0	1	3	4	—	0	1	2	8
Colorado	—	0	1	2	—	—	0	2	2	9	—	0	2	4	13
Idaho§	—	0	2	—	2	—	0	2	—	—	—	0	2	2	2
Montana§	—	0	2	—	1	—	0	1	—	1	—	0	1	3	1
Nevada§	—	0	2	—	5	—	0	3	4	1	—	0	2	5	3
New Mexico§	—	0	2	—	—	—	0	1	—	1	—	0	1	4	1
Utah	—	0	1	—	—	—	0	3	—	3	—	0	2	2	6
Wyoming§	—	0	1	—	—	—	0	0	—	—	—	0	1	1	2
Pacific	5	2	15	77	21	1	2	37	39	43	5	4	39	117	104
Alaska	—	0	2	—	2	—	0	0	—	2	—	0	2	2	1
California	4	2	8	75	19	1	2	8	32	30	2	3	17	86	86
Hawaii	N	0	0	N	N	—	0	1	1	2	—	0	2	1	4
Oregon§	1	0	1	2	—	—	0	2	3	9	2	1	3	16	13
Washington	—	0	12	—	—	—	0	30	3	—	1	0	28	12	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	—	1	—	0	1	—	4
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 years 2007 and 2008 are provisional.
† Data for meningococcal disease, invasive caused by serogroups A, C, Y, & W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	52	159	1,132	2,115	3,240	49	98	173	1,309	1,992	6	31	165	96	263
New England	—	20	45	259	523	7	8	22	100	181	—	0	1	—	2
Connecticut	—	0	5	—	20	4	4	10	57	77	—	0	0	—	—
Maine†	—	1	5	14	33	—	1	5	12	30	N	0	0	N	N
Massachusetts	—	15	33	222	420	N	0	0	N	N	—	0	1	—	2
New Hampshire	—	1	3	8	32	1	1	4	12	14	—	0	1	—	—
Rhode Island†	—	0	31	10	2	N	0	0	N	N	—	0	0	—	—
Vermont†	—	0	6	5	16	2	2	13	19	60	—	0	0	—	—
Mid. Atlantic	16	22	44	275	471	5	19	31	324	331	2	1	5	13	24
New Jersey	—	3	9	3	79	—	0	0	—	—	—	0	3	2	5
New York (Upstate)	13	7	24	100	229	5	9	20	130	137	2	0	2	4	—
New York City	—	2	7	29	51	—	0	2	5	24	—	0	2	4	12
Pennsylvania	3	7	23	143	112	—	9	23	189	170	—	0	2	3	7
E.N. Central	12	21	186	525	629	3	3	39	13	9	1	1	4	2	13
Illinois	—	2	8	35	76	N	0	0	N	N	—	0	3	1	9
Indiana	—	0	12	15	11	—	0	1	1	2	—	0	2	—	1
Michigan	2	4	16	54	110	2	1	28	8	4	—	0	1	—	1
Ohio	10	10	176	421	285	1	1	11	4	3	1	0	2	1	2
Wisconsin	—	0	14	—	147	N	0	0	N	N	—	0	0	—	—
W.N. Central	3	12	136	171	255	4	4	13	36	73	2	4	33	10	34
Iowa	—	2	8	27	66	1	0	3	4	8	—	0	4	—	1
Kansas	—	2	5	21	61	—	0	7	—	43	—	0	2	—	6
Minnesota	—	0	131	5	48	—	0	6	17	4	—	0	4	—	—
Missouri	1	2	18	94	29	3	0	3	5	5	2	3	25	10	26
Nebraska†	2	1	12	21	9	—	0	0	—	—	—	0	2	—	—
North Dakota	—	0	4	—	4	—	0	5	8	6	—	0	0	—	—
South Dakota	—	0	4	3	38	—	0	2	2	7	—	0	1	—	1
S. Atlantic	7	14	50	209	359	25	40	61	698	845	—	14	111	39	117
Delaware	—	0	2	2	2	—	0	0	—	—	—	0	2	1	5
District of Columbia	—	0	2	4	2	—	0	0	—	—	—	0	1	1	1
Florida	5	3	9	61	96	—	0	25	44	124	—	0	3	2	3
Georgia	—	0	3	—	15	—	6	17	110	81	—	0	6	4	13
Maryland†	1	2	6	27	51	—	9	18	128	137	—	1	6	11	15
North Carolina	—	2	38	59	112	16	9	19	170	168	—	1	96	11	58
South Carolina†	—	1	22	22	34	—	0	11	—	46	—	0	7	2	9
Virginia†	1	2	11	32	41	9	13	27	211	260	—	2	11	6	12
West Virginia	—	0	12	2	6	—	0	11	35	29	—	0	3	1	1
E.S. Central	2	7	31	73	95	—	3	7	34	53	—	4	16	15	60
Alabama†	1	1	6	18	28	—	0	0	—	—	—	1	10	6	15
Kentucky	—	0	4	7	9	—	0	3	8	7	—	0	2	—	1
Mississippi	1	3	29	32	15	—	0	1	1	—	—	0	3	1	2
Tennessee†	—	1	4	16	43	—	2	6	25	46	—	1	10	8	42
W.S. Central	—	19	186	115	260	2	14	40	37	421	1	2	122	12	7
Arkansas†	—	2	17	20	56	2	1	7	24	10	—	0	15	1	—
Louisiana	—	0	2	2	9	—	0	0	—	—	—	0	2	2	1
Oklahoma	—	0	26	4	1	—	0	32	13	19	1	0	101	4	—
Texas†	—	16	170	89	194	—	12	34	—	392	—	1	8	5	6
Mountain	1	19	37	249	458	—	2	8	18	3	—	0	4	3	5
Arizona	—	2	8	38	125	N	0	0	N	N	—	0	1	2	1
Colorado	—	5	13	31	114	—	0	0	—	—	—	0	2	—	—
Idaho†	1	0	4	14	18	—	0	4	—	—	—	0	1	—	1
Montana†	—	1	11	56	21	—	0	3	—	—	—	0	1	—	—
Nevada†	—	0	7	12	14	—	0	2	1	—	—	0	0	—	—
New Mexico†	—	1	7	7	21	—	0	2	13	1	—	0	1	1	1
Utah	—	5	27	89	130	—	0	2	—	1	—	0	0	—	—
Wyoming†	—	0	2	2	15	—	0	4	4	1	—	0	2	—	2
Pacific	11	13	616	239	190	3	4	10	49	76	—	0	1	2	1
Alaska	—	1	6	25	13	—	0	3	10	28	N	0	0	N	N
California	—	8	129	77	132	3	3	8	38	48	—	0	1	1	1
Hawaii	—	0	2	4	9	—	0	0	—	—	N	0	0	N	N
Oregon†	—	2	14	40	36	—	0	3	1	—	—	0	1	1	—
Washington	11	0	482	93	—	—	0	0	—	—	N	0	0	N	N
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	—	—	—	1	5	22	19	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2007 and 2008 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†					Shigellosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	381	862	2,665	9,054	11,532	31	74	245	972	885	188	359	1,295	5,046	4,376
New England	—	30	151	433	911	—	3	12	46	126	—	3	13	53	114
Connecticut	—	0	123	123	431	—	0	8	8	71	—	0	12	12	44
Maine§	—	2	14	35	35	—	0	4	3	13	—	0	2	1	10
Massachusetts	—	17	58	220	351	—	2	10	24	30	—	2	8	33	52
New Hampshire	—	2	10	21	42	—	0	4	7	8	—	0	1	1	4
Rhode Island§	—	1	14	20	31	—	0	2	2	1	—	0	9	5	3
Vermont§	—	1	5	14	21	—	0	3	2	3	—	0	1	1	1
Mid. Atlantic	47	107	190	1,031	1,619	3	9	196	292	110	9	21	79	521	194
New Jersey	—	19	48	85	328	—	1	7	3	28	—	4	14	71	30
New York (Upstate)	26	24	63	300	405	3	3	192	264	33	7	4	37	173	34
New York City	2	23	52	294	390	—	0	5	8	13	1	7	35	238	103
Pennsylvania	19	33	69	352	496	—	2	11	17	36	1	2	66	39	27
E.N. Central	33	95	255	1,015	1,702	7	9	35	84	108	31	60	134	970	423
Illinois	—	28	188	249	618	—	1	13	7	17	—	16	29	251	205
Indiana	—	9	34	100	147	—	1	12	8	9	—	7	83	271	22
Michigan	2	19	43	221	264	—	2	8	22	18	—	1	7	19	14
Ohio	31	25	64	329	339	7	2	9	33	39	28	22	104	284	105
Wisconsin	—	9	29	116	334	—	2	11	14	25	3	5	19	145	77
W.N. Central	22	51	103	693	751	5	12	38	109	108	8	25	64	310	778
Iowa	—	8	18	99	127	—	2	13	25	21	—	2	6	24	23
Kansas	5	7	20	77	113	1	1	4	9	8	—	0	3	6	13
Minnesota	6	13	39	204	181	—	3	15	19	43	3	4	11	75	91
Missouri	5	14	29	190	213	2	3	12	38	19	4	15	48	123	621
Nebraska§	5	6	13	85	56	1	1	6	11	16	—	0	3	—	9
North Dakota	1	0	9	13	9	1	0	1	2	—	1	0	5	23	6
South Dakota	—	3	11	25	52	—	0	5	5	1	—	1	30	59	15
S. Atlantic	117	229	444	2,436	2,812	5	12	40	165	173	34	76	152	1,054	1,451
Delaware	2	3	8	38	38	—	0	2	4	6	—	0	2	3	4
District of Columbia	—	0	4	19	14	—	0	2	4	—	—	0	4	11	4
Florida	74	87	181	1,226	1,157	1	2	18	55	42	12	32	75	353	877
Georgia	28	32	86	333	438	—	1	6	9	22	17	29	85	393	455
Maryland§	7	15	44	154	207	4	1	5	27	28	1	2	7	21	29
North Carolina	2	23	228	261	397	—	1	24	17	25	—	1	12	35	22
South Carolina§	4	17	52	207	240	—	0	3	13	4	4	7	21	195	26
Virginia§	—	23	50	156	285	—	3	9	30	45	—	4	14	40	33
West Virginia	—	4	25	42	36	—	0	3	6	1	—	0	61	3	1
E.S. Central	21	60	144	567	722	5	5	26	66	37	23	51	178	645	344
Alabama§	6	16	50	176	211	—	1	19	25	8	5	14	43	155	141
Kentucky	—	9	23	94	142	—	1	12	9	11	—	9	35	96	38
Mississippi	4	17	57	117	142	—	0	1	2	2	3	18	112	170	96
Tennessee§	11	17	34	180	227	5	2	12	30	16	15	9	32	224	69
W.S. Central	55	97	875	773	861	1	5	23	69	59	70	49	707	927	481
Arkansas§	5	13	50	95	112	—	0	4	13	11	17	2	13	97	35
Louisiana	—	16	44	58	180	—	0	0	—	3	—	6	22	58	150
Oklahoma	7	9	60	109	103	1	0	13	4	8	3	3	31	38	20
Texas§	43	51	790	511	466	—	4	11	52	37	50	35	663	734	276
Mountain	29	51	83	786	781	2	8	42	88	93	4	18	40	200	249
Arizona	7	17	39	238	255	—	1	8	20	30	2	10	30	94	118
Colorado	20	11	47	246	200	2	1	17	10	18	—	2	6	16	39
Idaho§	—	3	10	42	38	—	2	16	24	5	—	0	2	4	4
Montana§	—	1	10	21	31	—	0	3	12	—	—	0	2	—	11
Nevada§	2	5	12	75	75	—	0	3	5	9	2	2	10	68	12
New Mexico§	—	6	14	73	78	—	0	3	9	18	—	1	6	11	40
Utah	—	5	17	73	76	—	1	9	6	13	—	0	5	4	6
Wyoming§	—	1	5	18	28	—	0	1	2	—	—	0	5	3	19
Pacific	57	102	1,045	1,320	1,373	3	7	166	53	71	9	26	218	366	342
Alaska	—	1	5	8	27	—	0	1	1	—	—	0	1	—	6
California	38	85	286	1,010	1,173	3	4	34	31	49	7	24	61	309	306
Hawaii	—	5	14	57	84	—	0	5	2	12	—	0	43	15	13
Oregon§	2	6	16	97	86	—	1	11	5	10	—	1	6	20	17
Washington	17	0	749	148	3	—	0	140	14	—	2	0	159	22	—
American Samoa	—	0	1	1	—	—	0	0	—	—	—	0	1	1	1
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	5	4	4	—	0	0	—	—	—	0	3	5	6
Puerto Rico	1	12	55	57	275	—	0	1	1	—	—	0	2	—	13
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2007 and 2008 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Streptococcal disease, invasive, group A					*Streptococcus pneumoniae*, invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	85	93	235	2,372	2,383	29	35	156	686	692
New England	1	5	24	135	200	—	1	5	39	57
Connecticut	—	0	22	13	49	—	0	4	—	10
Maine§	—	0	3	11	10	—	0	1	1	1
Massachusetts	—	3	7	82	105	—	1	4	30	41
New Hampshire	—	0	2	16	22	—	0	1	7	—
Rhode Island§	—	0	6	5	2	—	0	1	—	3
Vermont§	1	0	2	8	12	—	0	1	1	2
Mid. Atlantic	20	17	41	486	497	1	5	38	81	115
New Jersey	—	3	8	67	104	—	1	6	17	30
New York (Upstate)	13	6	20	174	141	1	2	14	39	47
New York City	—	4	10	82	122	—	1	35	25	38
Pennsylvania	7	5	16	163	130	N	0	0	N	N
E.N. Central	4	16	59	492	447	5	5	22	148	116
Illinois	—	4	15	130	145	—	2	6	32	28
Indiana	—	2	11	63	48	—	0	14	19	7
Michigan	1	3	10	77	106	—	1	5	37	41
Ohio	3	5	15	141	122	1	1	5	26	34
Wisconsin	—	0	38	81	26	4	0	9	34	6
W.N. Central	20	5	39	215	173	10	2	23	61	41
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	6	31	22	—	0	2	10	1
Minnesota	18	0	35	101	82	9	0	21	24	23
Missouri	1	2	10	48	44	—	1	2	18	13
Nebraska§	—	0	3	17	11	1	0	3	4	3
North Dakota	1	0	3	8	10	—	0	1	1	1
South Dakota	—	0	2	10	4	—	0	1	4	—
S. Atlantic	25	22	51	483	515	1	5	10	92	101
Delaware	—	0	2	6	3	—	0	0	—	—
District of Columbia	—	0	6	18	7	—	0	2	3	—
Florida	10	6	16	118	110	—	1	4	26	29
Georgia	5	4	10	91	114	—	0	0	—	—
Maryland§	3	4	9	87	92	1	1	5	34	35
North Carolina	5	2	22	62	55	N	0	0	N	N
South Carolina§	—	1	6	29	52	—	1	4	19	12
Virginia§	2	2	12	60	73	—	0	4	7	23
West Virginia	—	0	3	12	9	—	0	1	3	2
E.S. Central	3	4	13	76	87	3	2	11	47	41
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	—	1	3	16	23	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	13	3
Tennessee§	3	3	13	60	64	3	2	9	34	38
W.S. Central	3	7	83	190	141	6	5	61	108	109
Arkansas§	—	0	1	3	12	—	0	2	4	6
Louisiana	—	0	1	3	13	—	0	2	1	23
Oklahoma	—	1	17	56	39	1	1	5	39	23
Texas§	3	5	65	128	77	5	3	56	64	57
Mountain	8	10	24	250	267	3	4	12	103	104
Arizona	2	4	9	90	95	—	2	8	60	53
Colorado	5	2	9	60	69	3	1	4	26	23
Idaho§	—	0	2	9	6	—	0	1	2	2
Montana§	N	0	0	N	N	—	0	1	—	—
Nevada§	1	0	2	6	2	N	0	0	N	N
New Mexico§	—	2	7	49	46	—	0	3	9	22
Utah	—	1	5	34	45	—	0	4	6	4
Wyoming§	—	0	1	2	4	—	0	0	—	—
Pacific	1	3	7	45	56	—	0	2	7	8
Alaska	1	0	3	13	9	N	0	0	N	N
California	—	0	0	—	—	N	0	0	N	N
Hawaii	—	2	6	32	47	—	0	2	7	8
Oregon§	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	—	0	12	16	4	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	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 years 2007 and 2008 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 (NNDSS 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	*Streptococcus pneumoniae*, invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Age <5 years									
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	34	45	216	1,166	1,211	6	9	27	192	246	94	222	329	3,708	3,644
New England	2	1	20	21	73	—	0	4	3	9	—	6	14	98	75
Connecticut	—	0	16	—	46	—	0	3	—	4	—	0	6	7	9
Maine§	—	0	2	8	6	—	0	1	1	1	—	0	2	2	1
Massachusetts	—	0	0	—	—	—	0	0	—	—	—	3	10	83	46
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	3	4	7
Rhode Island§	—	0	3	5	10	—	0	1	1	2	—	0	3	2	10
Vermont§	2	0	2	8	11	—	0	1	1	2	—	0	5	—	2
Mid. Atlantic	1	2	7	69	76	—	0	2	12	19	37	32	45	653	583
New Jersey	—	0	0	—	—	—	0	0	—	—	4	4	10	83	73
New York (Upstate)	—	1	5	21	25	—	0	1	4	8	2	3	10	47	44
New York City	—	0	0	—	—	—	0	0	—	—	28	17	30	409	363
Pennsylvania	1	2	6	48	51	—	0	2	8	11	3	5	12	114	103
E.N. Central	9	13	46	337	323	—	2	14	54	53	12	18	31	339	312
Illinois	—	3	13	51	59	—	0	6	11	21	—	7	19	57	152
Indiana	—	3	28	102	64	—	0	11	13	7	3	2	6	56	16
Michigan	—	0	1	4	—	—	0	1	1	—	7	2	17	85	43
Ohio	9	7	15	180	200	—	1	4	29	25	2	4	14	123	76
Wisconsin	—	0	0	—	—	—	0	0	—	—	—	1	3	18	25
W.N. Central	2	3	91	93	90	1	0	2	7	14	1	8	15	142	98
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	5	6
Kansas	2	1	5	40	50	—	0	1	2	2	—	0	5	12	7
Minnesota	—	0	90	—	1	—	0	2	—	10	—	1	4	31	22
Missouri	—	1	8	53	32	1	0	1	2	—	1	5	10	91	62
Nebraska§	—	0	0	—	2	—	0	0	—	—	—	0	1	3	1
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	1	—	5	—	0	1	3	2	—	0	3	—	—
S. Atlantic	18	19	43	481	513	2	3	9	81	122	21	50	196	758	752
Delaware	—	0	1	2	4	—	0	1	—	1	—	0	3	1	3
District of Columbia	—	0	5	19	5	—	0	0	—	—	4	2	11	34	63
Florida	11	11	26	265	278	2	2	6	49	65	1	18	35	310	245
Georgia	7	6	18	157	198	—	1	6	27	50	1	7	174	27	101
Maryland§	—	0	2	3	1	—	0	1	1	—	—	7	14	130	109
North Carolina	N	0	0	N	N	N	0	0	N	N	8	6	18	122	124
South Carolina§	—	0	0	—	—	—	0	0	—	—	—	1	10	31	31
Virginia§	N	0	0	N	N	N	0	0	N	N	7	4	17	103	72
West Virginia	—	1	7	35	27	—	0	2	4	6	—	0	1	—	4
E.S. Central	2	4	12	131	71	3	1	4	24	14	15	19	32	364	273
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	149	97
Kentucky	—	0	3	31	15	—	0	2	7	1	6	1	7	35	28
Mississippi	—	0	0	—	—	—	0	0	—	—	4	2	15	45	47
Tennessee§	2	4	12	100	56	3	1	3	17	13	5	8	14	135	101
W.S. Central	—	1	5	23	43	—	0	2	7	7	—	39	57	640	554
Arkansas§	—	0	2	6	1	—	0	1	3	2	—	2	10	35	40
Louisiana	—	1	4	17	42	—	0	2	4	5	—	10	22	122	143
Oklahoma	N	0	0	N	N	N	0	0	N	N	—	1	5	22	23
Texas§	—	0	0	—	—	—	0	0	—	—	—	25	46	461	348
Mountain	—	1	6	11	22	—	0	2	3	8	2	8	29	73	153
Arizona	—	0	0	—	—	—	0	0	—	—	—	4	21	3	75
Colorado	—	0	0	—	—	—	0	0	—	—	1	1	7	33	18
Idaho§	N	0	0	N	N	N	0	0	N	N	—	0	1	1	1
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	3	—	1
Nevada§	N	0	0	N	N	N	0	0	N	N	1	2	6	26	34
New Mexico§	—	0	1	1	—	—	0	0	—	1	—	0	3	10	19
Utah	—	0	6	10	14	—	0	2	3	6	—	0	2	—	4
Wyoming§	—	0	2	—	8	—	0	1	—	1	—	0	1	—	1
Pacific	—	0	0	—	—	—	0	1	1	—	6	41	67	641	844
Alaska	N	0	0	N	N	N	0	0	N	N	—	0	1	—	3
California	N	0	0	N	N	N	0	0	N	N	6	37	59	576	784
Hawaii	—	0	0	—	—	—	0	1	1	—	—	0	2	8	4
Oregon§	N	0	0	N	N	N	0	0	N	N	—	0	2	6	7
Washington	N	0	0	N	N	N	0	0	N	N	—	3	13	51	46
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	4
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	1	3	10	52	48
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 years 2007 and 2008 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 May 10, 2008, and May 12, 2007 (19th Week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2008	Cum 2007
United States	601	628	1,430	12,428	19,070	—	1	141	—	5	—	2	299	—	4
New England	9	13	39	218	497	—	0	2	—	—	—	0	2	—	—
Connecticut	—	0	1	—	1	—	0	2	—	—	—	0	1	—	—
Maine¶	—	2	26	—	164	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	2	—	—	—	0	2	—	—
New Hampshire	—	6	18	100	148	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Vermont¶	9	5	19	118	184	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	89	56	145	1,017	2,427	—	0	3	—	—	—	0	3	—	—
New Jersey	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
New York (Upstate)	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
New York City	N	0	0	N	N	—	0	3	—	—	—	0	3	—	—
Pennsylvania	89	56	145	1,017	2,427	—	0	1	—	—	—	0	1	—	—
E.N. Central	96	158	358	2,880	5,372	—	0	18	—	—	—	0	12	—	1
Illinois	11	4	51	376	76	—	0	13	—	—	—	0	8	—	—
Indiana	—	0	222	—	—	—	0	4	—	—	—	0	2	—	—
Michigan	29	65	154	1,202	2,122	—	0	5	—	—	—	0	0	—	—
Ohio	55	61	129	1,248	2,607	—	0	4	—	—	—	0	3	—	1
Wisconsin	1	6	80	54	567	—	0	2	—	—	—	0	2	—	—
W.N. Central	12	22	69	602	968	—	0	41	—	—	—	0	117	—	1
Iowa	N	0	0	N	N	—	0	4	—	—	—	0	3	—	1
Kansas	1	5	36	224	376	—	0	3	—	—	—	0	7	—	—
Minnesota	—	0	0	—	—	—	0	9	—	—	—	0	12	—	—
Missouri	11	12	53	319	455	—	0	9	—	—	—	0	3	—	—
Nebraska¶	N	0	0	N	N	—	0	5	—	—	—	0	15	—	—
North Dakota	—	0	39	43	84	—	0	11	—	—	—	0	49	—	—
South Dakota	—	1	9	16	53	—	0	9	—	—	—	0	32	—	—
S. Atlantic	77	97	180	2,029	2,441	—	0	12	—	—	—	0	6	—	—
Delaware	—	1	4	10	17	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	6	14	8	—	0	0	—	—	—	0	0	—	—
Florida	68	28	87	865	539	—	0	1	—	—	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	8	—	—	—	0	5	—	—
Maryland¶	N	0	0	N	N	—	0	2	—	—	—	0	2	—	—
North Carolina	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
South Carolina¶	8	15	54	330	617	—	0	2	—	—	—	0	1	—	—
Virginia¶	—	22	82	502	697	—	0	1	—	—	—	0	1	—	—
West Virginia	1	15	66	308	563	—	0	0	—	—	—	0	0	—	—
E.S. Central	22	15	82	523	258	—	0	11	—	4	—	0	14	—	—
Alabama¶	22	15	82	516	257	—	0	2	—	—	—	0	1	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	2	7	1	—	0	7	—	3	—	0	12	—	—
Tennessee¶	N	0	0	N	N	—	0	1	—	1	—	0	2	—	—
W.S. Central	267	172	855	4,295	5,573	—	0	34	—	1	—	0	18	—	1
Arkansas¶	10	13	42	271	326	—	0	5	—	—	—	0	2	—	—
Louisiana	—	1	8	27	71	—	0	5	—	—	—	0	3	—	—
Oklahoma	N	0	0	N	N	—	0	11	—	—	—	0	7	—	—
Texas¶	257	159	825	3,997	5,176	—	0	18	—	1	—	0	10	—	1
Mountain	29	35	120	850	1,513	—	0	36	—	—	—	1	143	—	1
Arizona	—	0	0	—	—	—	0	8	—	—	—	0	10	—	—
Colorado	29	13	40	323	569	—	0	17	—	—	—	0	65	—	—
Idaho¶	N	0	0	N	N	—	0	3	—	—	—	0	22	—	—
Montana¶	—	6	40	141	193	—	0	10	—	—	—	0	30	—	—
Nevada¶	N	0	0	N	N	—	0	1	—	—	—	0	3	—	1
New Mexico¶	—	5	22	103	241	—	0	8	—	—	—	0	6	—	—
Utah	—	7	72	282	495	—	0	8	—	—	—	0	8	—	—
Wyoming¶	—	0	9	1	15	—	0	4	—	—	—	0	33	—	—
Pacific	—	0	4	14	21	—	0	18	—	—	—	0	23	—	—
Alaska	—	0	4	14	21	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	17	—	—	—	0	21	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	3	—	—	—	0	4	—	—
Washington	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	2	7	25	149	—	0	0	—	—	—	0	0	—	—
Puerto Rico	2	10	37	107	309	—	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 years 2007 and 2008 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 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 May 10, 2008 (19th Week)

Reporting Area	All causes, by age (years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total
New England	505	343	118	24	7	13	43
Boston, MA	128	80	35	7	3	3	10
Bridgeport, CT	40	29	9	1	1	—	6
Cambridge, MA	11	9	2	—	—	—	1
Fall River, MA	24	18	5	1	—	—	2
Hartford, CT	56	35	14	4	1	2	5
Lowell, MA	14	11	1	2	—	—	1
Lynn, MA	4	4	—	—	—	—	—
New Bedford, MA	28	23	5	—	—	—	—
New Haven, CT	19	13	4	1	1	—	4
Providence, RI	62	39	18	4	—	1	6
Somerville, MA	3	2	1	—	—	—	—
Springfield, MA	39	20	10	3	—	6	5
Waterbury, CT	25	21	3	—	—	1	2
Worcester, MA	52	39	11	1	1	—	1
Mid. Atlantic	1,881	1,312	391	103	33	41	98
Albany, NY	54	39	12	2	1	—	4
Allentown, PA	24	19	3	1	1	—	—
Buffalo, NY	64	49	11	2	1	1	7
Camden, NJ	39	23	9	1	1	5	1
Elizabeth, NJ	16	12	3	—	1	—	1
Erie, PA	43	40	3	—	—	—	2
Jersey City, NJ	20	7	4	8	1	—	—
New York City, NY	973	679	206	57	15	16	43
Newark, NJ	42	17	12	6	1	5	3
Paterson, NJ	20	9	10	1	—	—	2
Philadelphia, PA	163	99	39	13	7	5	7
Pittsburgh, PA§	30	21	8	1	—	—	1
Reading, PA	30	20	10	—	—	—	—
Rochester, NY	142	109	24	3	1	5	16
Schenectady, NY	19	15	4	—	—	—	1
Scranton, PA	29	24	3	—	—	2	1
Syracuse, NY	108	81	22	3	1	1	8
Trenton, NJ	31	20	5	3	2	1	—
Utica, NY	13	11	—	2	—	—	—
Yonkers, NY	21	18	3	—	—	—	1
E.N. Central	1,833	1,212	427	97	46	51	112
Akron, OH	45	27	13	2	1	2	—
Canton, OH	43	30	12	1	—	—	6
Chicago, IL	308	180	89	25	8	6	15
Cincinnati, OH	88	58	18	1	3	8	8
Cleveland, OH	230	165	50	9	—	6	9
Columbus, OH	173	110	46	7	5	5	14
Dayton, OH	123	97	17	5	2	2	10
Detroit, MI	154	67	61	14	7	5	9
Evansville, IN	53	40	10	2	—	1	4
Fort Wayne, IN	68	45	11	5	5	2	1
Gary, IN	13	5	5	—	2	1	—
Grand Rapids, MI	42	30	8	2	1	1	2
Indianapolis, IN	58	35	13	4	3	3	7
Lansing, MI	46	32	11	1	1	1	4
Milwaukee, WI	95	66	20	6	2	1	2
Peoria, IL	58	47	5	3	1	2	7
Rockford, IL	60	40	14	3	1	2	1
South Bend, IN	46	35	5	3	2	1	5
Toledo, OH	83	63	13	3	2	2	3
Youngstown, OH	47	40	6	1	—	—	5
W.N. Central	553	363	118	40	18	13	41
Des Moines, IA	46	34	10	1	—	1	6
Duluth, MN	15	12	2	—	—	1	1
Kansas City, KS	31	18	9	4	—	—	3
Kansas City, MO	110	69	29	10	1	1	10
Lincoln, NE	40	30	6	1	3	—	1
Minneapolis, MN	46	33	6	2	2	3	2
Omaha, NE	72	48	14	6	3	1	10
St. Louis, MO	71	34	14	11	7	4	3
St. Paul, MN	57	40	12	4	1	—	3
Wichita, KS	65	45	16	1	1	2	2
S. Atlantic	1,189	726	314	81	25	43	85
Atlanta, GA	79	37	26	7	2	7	3
Baltimore, MD	136	85	38	10	2	1	17
Charlotte, NC	104	70	26	3	—	5	4
Jacksonville, FL	214	147	46	12	5	4	16
Miami, FL	92	54	25	9	2	2	20
Norfolk, VA	46	25	14	3	2	2	1
Richmond, VA	49	29	12	5	2	1	—
Savannah, GA	65	34	18	4	1	8	3
St. Petersburg, FL	59	38	14	4	1	2	3
Tampa, FL	212	135	53	15	4	5	16
Washington, D.C.	121	63	40	8	4	6	1
Wilmington, DE	12	9	2	1	—	—	1
E.S. Central	773	537	163	43	19	11	53
Birmingham, AL	143	96	32	7	4	4	11
Chattanooga, TN	86	62	16	4	2	2	5
Knoxville, TN	89	66	17	5	1	—	6
Lexington, KY	56	39	11	4	1	1	—
Memphis, TN	156	103	34	12	6	1	10
Mobile, AL	61	45	12	2	1	1	1
Montgomery, AL	65	43	17	3	2	—	8
Nashville, TN	117	83	24	6	2	2	12
W.S. Central	1,455	916	339	107	57	36	80
Austin, TX	81	55	20	4	—	2	1
Baton Rouge, LA	67	25	20	5	17	—	—
Corpus Christi, TX	69	44	16	4	1	4	4
Dallas, TX	192	96	46	27	15	8	8
El Paso, TX	73	55	9	8	1	—	2
Fort Worth, TX	129	95	29	2	1	2	10
Houston, TX	318	195	77	25	12	9	14
Little Rock, AR	90	52	28	7	—	3	3
New Orleans, LA¶	U	U	U	U	U	U	U
San Antonio, TX	258	174	56	14	8	6	25
Shreveport, LA	81	58	15	5	1	2	8
Tulsa, OK	97	67	23	6	1	—	5
Mountain	1,105	689	251	105	33	26	68
Albuquerque, NM	119	55	27	34	2	1	10
Boise, ID	56	37	13	2	1	3	4
Colorado Springs, CO	78	36	18	16	5	3	2
Denver, CO	80	56	18	4	1	1	5
Las Vegas, NV	252	162	59	19	7	5	16
Ogden, UT	25	21	3	1	—	—	1
Phoenix, AZ	174	109	33	15	12	4	11
Pueblo, CO	25	14	7	4	—	—	4
Salt Lake City, UT	129	91	27	4	3	4	10
Tucson, AZ	167	108	46	6	2	5	5
Pacific	1,625	1,100	359	91	37	37	169
Berkeley, CA	14	13	—	—	—	1	3
Fresno, CA	119	85	23	7	1	3	14
Glendale, CA	23	17	4	2	—	—	7
Honolulu, HI	75	50	18	3	2	2	12
Long Beach, CA	51	38	8	—	3	2	7
Los Angeles, CA	243	156	57	16	10	4	34
Pasadena, CA	32	19	9	3	—	1	3
Portland, OR	126	77	36	7	2	4	7
Sacramento, CA	175	123	41	6	2	3	19
San Diego, CA	168	113	35	12	3	4	14
San Francisco, CA	125	83	30	7	2	3	16
San Jose, CA	168	125	28	8	2	5	13
Santa Cruz, CA	35	26	6	2	1	—	5
Seattle, WA	116	68	29	10	5	4	8
Spokane, WA	64	40	20	2	1	1	3
Tacoma, WA	91	67	15	6	3	—	4
Total	10,919**	7,198	2,480	691	275	271	749

U: Unavailable. —:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

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

¶ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

** Total includes unknown ages.

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