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Nonpharmaceutical Fentanyl-Related Deaths — Multiple States, April 2005–March 2007

On April 21, 2006, increases in overdoses were reported among illicit drug users in Camden, New Jersey, via the CDC Epidemic Information Exchange (Epi-X). This alert elicited reports of similar increases in overdoses in other parts of New Jersey, and in Maryland; Chicago, Illinois; Detroit, Michigan; and Philadelphia, Pennsylvania. The increases in Chicago and Detroit had been recognized several months earlier but attributed to heroin overdoses until fentanyl was detected in the blood or urine of some decedents. Illicitly manufactured nonpharmaceutical fentanyl (NPF), a synthetic opioid 30–50 times more potent than heroin (*1*), also was found by law enforcement personnel and medical examiner staffs at the scene of some overdoses. In May 2006, to identify NPF-related deaths in six state and local jurisdictions, CDC implemented an ad hoc case-finding and surveillance system, later managed by the Drug Enforcement Administration (DEA). This report summarizes the results of that effort, which identified 1,013 NPF-related deaths that occurred during April 4, 2005–March 28, 2007. As a result, on April 23, 2007, DEA began regulating access to N-phenethyl-4-piperidone, a chemical used to make illicit NPF (*1*). Increased public health efforts are needed to improve epidemiologic data collection on drug overdoses, enable early detection of increases in drug overdoses, educate illicit drug users regarding the risks for overdose, and help users obtain treatment for their addictions.

Since 1990, pharmaceutical fentanyl (e.g., Duragesic transdermal patches) has been approved for patient use to relieve severe or chronic pain. However, pharmaceutical fentanyl also has been misused and associated with fatal drug overdoses (*2*). In addition, since the 1970s, NPF and various fentanyl analogs (e.g., alphamethylfentanyl) have been produced illicitly, sold in street drug markets for their heroin-like effect, and implicated in fatal overdoses (*3*). One gram of pure fentanyl can be cut into approximately 7,000 doses for street sale (*1*). Manufacture of NPF requires minimal technical knowledge, and recipes for making NPF are available on the Internet (*1*). Testing of drug samples containing fentanyl can distinguish between pharmaceutical and illicitly manufactured NPF. However, testing of biologic samples (e.g., serum) cannot distinguish between pharmaceutical fentanyl and NPF (*4*).

In May 2006, in response to concern over reports of increased NPF-related deaths, CDC collaborated with medical examiners, law enforcement agencies, and public health departments in six state and local jurisdictions* to establish an ad hoc surveillance system for NPF-related deaths. In each jurisdiction, reports from participating medical examiners were reviewed. An NPF-related death was defined as one in which 1) fentanyl caused or contributed to the death, 2) no evidence was found of the involvement of pharmaceutical fentanyl products, and 3) toxicology testing confirmed fentanyl in the body, in unused drugs of the decedent, or in a specimen from a person with whom the decedent shared drugs. Public health departments and law enforcement agencies collaborated with participating medical examiners, initially identifying NPF-related deaths that

* All of Delaware and New Jersey and parts of Illinois, Michigan, Missouri, and Pennsylvania.

INSIDE

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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occurred during April 2005–May 2006 and adding new NPF-related deaths as they were identified. In September 2006, DEA took over the surveillance system, using the same case definition; data collection ended in May 2007.

Testing of street drugs found samples consisting of NPF alone and NPF mixed with other drugs. Most of the implicated NPF was mixed with heroin or cocaine, sold as a street drug, and used as an injection. During April 4, 2005–March 28, 2007, the CDC/DEA surveillance system identified 1,013 NPF-related deaths (Table). The monthly incidence of NPF deaths peaked in June 2006 at 150 cases and decreased to one death in February 2007 and one death in March 2007 (Figure 1). Among the 984 decedents whose sex and age were known, 577 (58.6%) were aged 35–54 years (Figure 2), and 788 (80.1%) were male. Among the 984 decedents whose race/ethnicity were known, 545 (55.4%) were white, 392 (39.8%) were black, and 41 (4.2%) were Hispanic.

In response to the NPF-related deaths, public health agencies formed task forces; alerted health-care providers, law enforcement, and drug users; and intensified community outreach to drug users (including hiring additional outreach workers). In some areas, outreach activities included training drug users and others in overdose prevention and cardiopulmonary resuscitation and providing "take-home" parenteral or intranasal naloxone, an antagonist used to reverse opioid overdoses (*5*). Law enforcement agencies (e.g., DEA and local and state police) responded by identifying and arresting sellers of NPF, seizing NPF, and closing NPF production facilities, including one in Toluca, Mexico, in May 2006. In April 2007, DEA began regulating access to N-phenethyl-4-piperidone, a chemical used to manufacture NPF (*1*).

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TABLE. Number of reported nonpharmaceutical fentanyl-related deaths, by jurisdiction — CDC/Drug Enforcement Administration surveillance system, United States, April 4, 2005–March 28, 2007

State	Jurisdiction	Deaths meeting case definition*
Delaware	Entire state	19
Illinois	Cook County	349
Michigan	Wayne County	230
Missouri	City of St. Louis, St. Louis County	60†
New Jersey	Entire state	86
Pennsylvania	Philadelphia	269
Total		**1,013**

* Deaths in which 1) fentanyl caused or contributed to the death, 2) no evidence was found of the involvement of pharmaceutical fentanyl products, and 3) toxicology testing confirmed fentanyl in the body, in unused drugs of the decedent, or in a specimen from a person with whom the decedent shared drugs.

† City of St. Louis (21 deaths); St. Louis County (39 deaths).

FIGURE 1. Number of reported deaths (N = 1,013) related to nonpharmaceutical fentanyl (NPF), by month of death — CDC/Drug Enforcement Administration (DEA) surveillance system, United States, April 2005–April 2007

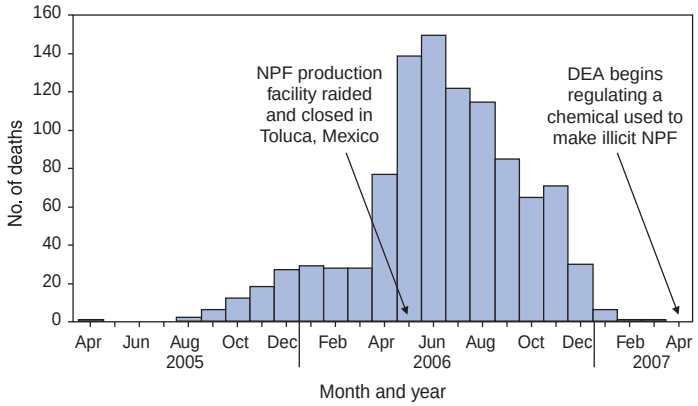
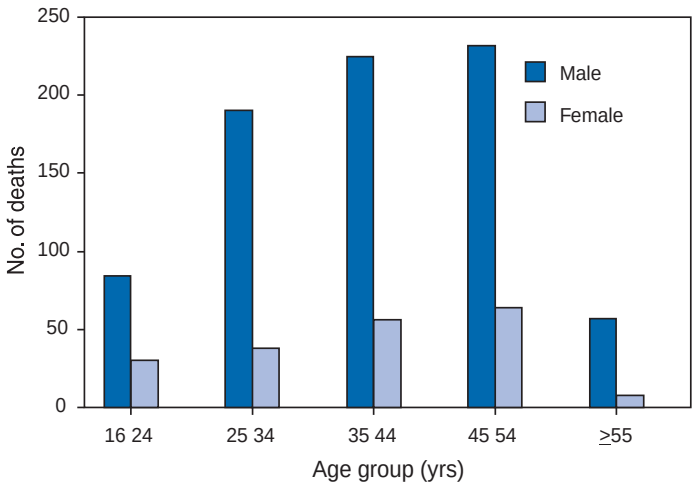


FIGURE 2. Number of reported nonpharmaceutical fentanyl-related deaths (n = 984*), by sex and age group — CDC/Drug Enforcement Administration surveillance system, United States, April 4, 2005–March 28, 2007



* Data not available for 29 deaths.

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Editorial Note: The findings in this report indicate that, during April 4, 2005–March 28, 2007, a total of 1,013 deaths in six jurisdictions were attributed to NPF, making this the largest NPF epidemic ever reported. An earlier epidemic in the 1980s resulted in at least 110 fatal overdoses caused by 10 different fentanyl analogs (*3*). The NPF epidemic described in this report was multifocal, with the largest numbers of deaths occurring in metropolitan Chicago, Detroit, and Philadelphia. In addition to the NPF-related deaths identified by the CDC/DEA surveillance system, other NPF-related deaths were reported in suburban and rural areas of Illinois, Michigan, and Pennsylvania and in Kentucky, Maine, Maryland, Massachusetts, New Hampshire, Ohio, and Virginia during the same period (*1*).

The pattern of NPF overdoses likely was related to illicit drug distribution networks. For example, the NPF used in Chicago and Detroit is believed to have come from clandestine production at a site in Mexico (*1*). However, why active surveillance in other areas with high rates of heroin use (e.g., New York City) did not find NPF-related deaths is unknown.

The NPF epidemic described in this report was part of a larger pattern of drug overdoses and poisonings in the affected jurisdictions. For example, in 2006, in Wayne County, Michigan, fentanyl contributed to 195 (32.4%) of 602 deaths resulting from drug use (C. Schmidt, MD, Wayne County Medical Examiner's Office, personal communication, 2007). Although the number of NPF-related deaths identified by the CDC/DEA surveillance system declined substantially in 2007, the relative ease of illicit production and low cost of NPF compared with heroin suggest that future epidemics of NPF overdoses are likely to occur (*3*).

Nationally, drug overdoses and deaths are well documented among users of heroin and other illicit drugs (*5*). In the United States, from 1999 to 2005, the age-adjusted death rate from unintentional drug poisoning (primarily overdoses associated with pharmaceutical and/or nonpharmaceutical drugs) increased 87.5%, from 4.0 to 7.5 per 100,000 population; the corresponding number of deaths increased from 11,155 to 22,448, including a substantial increase in the number of deaths attributed to poisoning with opioid prescription medications (*6–8*).

The findings in this report are subject to at least four limitations. First, the number of NPF-related deaths was likely

underreported because 1) the surveillance system captured events from participating medical examiners in only six jurisdictions and 2) for some participating medical examiners, not all NPF-related deaths were included. For example, the surveillance system identified 86 NPF-related deaths from New Jersey. However, a later review of New Jersey medical examiner reports found an additional 92 NPF-related deaths in 2006 that had not been recorded by the surveillance system. Second, for fatal drug overdoses, interpretation of toxicology findings and medical examiner determination of cause of death have not been standardized (*2*). Third, some pharmaceutical fentanyl-related deaths might have been misclassified as NPF-related deaths because no evidence of pharmaceutical fentanyl use was found and because testing cannot determine whether fentanyl found in body fluids came from NPF or pharmaceutical fentanyl. Finally, in addition to fentanyl, some decedents had consumed other drugs and/or alcohol that might have contributed to their deaths.

The fentanyl outbreak described in this report suggests a need to improve methods for identifying and reporting of drug-related deaths to detect increases in drug overdoses and enable prompt response by law enforcement (e.g., seizing implicated drugs) and by public health agencies (e.g., providing intensified outreach) (*9*). The findings further support 1) development of national standards to guide toxicologic testing and cause-of-death determination in drug overdoses and poisonings; 2) establishment of professional norms, modeled on those for attempted suicide, to refer drug overdose survivors for drug addiction treatment and education regarding overdose prevention; and 3) expansion of public health programs to help drug users obtain addiction treatment, understand overdose risks, and learn strategies for avoiding and responding to overdoses (*10*).

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Use of Mass Tdap Vaccination to Control an Outbreak of Pertussis in a High School — Cook County, Illinois, September 2006–January 2007

On September 6, 2006, the Cook County Department of Public Health (CCDPH) was notified that a local high school student aged 17 years had pertussis. During September 2006–January 2007, 36 pertussis cases directly linked to the high school were identified. Because *Bordetella pertussis* immunity from childhood vaccinations wanes over time, outbreaks of pertussis can periodically occur among students and staff at middle and high schools. School settings facilitate transmission of pertussis, disrupting school and community activities and putting vulnerable populations, such as unvaccinated infants, at risk (*1–4*). A pertussis booster vaccine suitable for adolescents and adults became available in the United States in 2005, when two new tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccines were licensed for persons aged 10–18 years and 11–64 years, respectively. In 2006, the Advisory Committee on Immunization Practices (ACIP) recommended that all adolescents and adults receive a one-time Tdap booster vaccination (*5,6*). This report summarizes strategies used to control the pertussis outbreak in Cook County, Illinois, including efforts to increase Tdap vaccination coverage. Despite multiple communications recommending Tdap vaccination and implementation of a cough exclusion policy during the pertussis outbreak, student vaccination rates did not increase substantially until a school-based Tdap vaccination clinic was implemented. Because persons at risk for pertussis might not seek vaccination from their usual health-care provider, even during an outbreak, local health departments might consider early implementation of a cough exclusion policy and on-site Tdap vaccination clinic as control measures.

At the time of the pertussis outbreak, the high school in Cook County had 4,154 students and 651 staff members on two campuses. The index patient at the school was a symptomatic student epidemiologically linked to the primary

patient, involving a younger sibling who had cough onset August 10 and was confirmed to have pertussis by polymerase chain reaction (PCR). Both cases were reported to the school by the siblings' physician on September 6. On the day the index case was reported, CCDPH responded by sending a letter to parents of 12th-grade students and to teachers at the high school, urging them to seek medical care for any cough illness consistent with pertussis. The letters also recommended that eligible persons receive Tdap vaccination. An informational letter and a copy of the parent letter were faxed to 31 physician practices identified by school nurses as providing medical care for students at the school. The physician letter reviewed the recent ACIP recommendations for Tdap vaccine administration to adolescents and adults, and included guidelines for diagnosis, treatment, and chemoprophylaxis. A separate letter with similar information was given to staff members to take to their physicians.

For this outbreak, all four probable cases met standard CDC clinical criteria (i.e., a cough illness lasting at least 2 weeks with one of the following: paroxysms of coughing, inspiratory "whoop," or post-tussive vomiting, without other apparent cause, as reported by a health professional). The 32 confirmed cases had either 1) laboratory confirmation by a positive PCR test result for *B. pertussis* from a nasopharyngeal specimen, or 2) an epidemiologic link to a laboratory-confirmed case (*4*). At the time of this outbreak, the Illinois Department of Public Health laboratory used a single-tier PCR test for laboratory confirmation of pertussis cases; culture was not performed.

By October 31, approximately 6 weeks into the outbreak, 10 cases of pertussis had been diagnosed at the high school. At that point, active surveillance for cough illness was begun. On November 1, the 31 physician offices were telephoned by CCDPH to ensure physicians had Tdap vaccine on hand, were aware of plans to exclude students for cough illness, and that those students would need a note from a physician for clearance to return to school. An update letter regarding the outbreak also was faxed to the physician offices. A notice was sent to all parents and faculty on Friday, November 3, stating that students and staff with "persistent cough in the absence of an apparent cause" would be excluded from school and extracurricular activities until they could be evaluated by a physician. This notification emphasized the importance of all eligible students and staff members receiving Tdap vaccination. Teachers were responsible for identifying students exhibiting symptoms and sending them to school nurses to determine whether further medical assessment and exclusion were warranted. Students were given a form to be completed by their physician and then submitted to the school nurses as documentation.

During the first week the policy was in force (November 6–10), 159 students (3.8% of the student body) were excluded from school for cough illness. The number of students with cough illness arriving at school in subsequent weeks declined substantially.

Several of the larger physician practices sent direct mailings to the parents of their patients who were students at the school, urging that those children be brought in for Tdap vaccination. Over time, however, these practices and others reported that few students from the school had come to their offices for vaccination. In addition, a national shortage of the adult formulation of Tdap proved to be a substantial barrier to school faculty seeking vaccination. On November 16, CCDPH asked that school administrators anonymously survey 11th- and 12th-grade students and school staff members via e-mail to obtain a rough estimate of Tdap vaccination coverage. The overall response rate was 63.3%. The survey indicated that approximately 30% of students and 17% of staff members had been vaccinated.

Sixteen additional pertussis cases (three probable and 13 laboratory confirmed) at the school were diagnosed during November 6–December 1. During September 6–November 22, CCDPH and school administrators sent a series of 11 letters* to parents urging Tdap vaccination, but many persons at risk for exposure failed to obtain Tdap vaccinations. Faced with ongoing transmission within the school, CCDPH elected to hold a voluntary Tdap vaccination clinic at the school. The clinic was held December 5–8, immediately before a 2-week winter break. Students and staff members were eligible to receive Tdap vaccination if they had not received a Td-containing vaccination (i.e., tetanus and diphtheria toxoids) in the preceding 2 years. Students were required to present a signed parental consent form. Over the 4-day period, 1,084 students (26.1% of the student body) and 416 staff members (63.9% of all staff members) received Tdap. Cook County government incurred all costs of the student vaccination clinic. CCDPH staff vaccinated the students, and local medical practices sent nurses and donated supplies to vaccinate the high school staff on-site, using Tdap vaccine provided by CCDPH.

During December 5–8, all students were required to submit documentation of their Tdap immunization status, including date of vaccination. However, Tdap vaccination was

* All letters to parents urged vaccination and contained an update about the outbreak. Later letters discussed the need for the cough exclusion policy, and the results of the survey showing that few persons at risk were receiving vaccination. The letters were faxed and e-mailed. Parents quickly responded to the letters with details about the vaccination clinics once those were distributed. A separate survey conducted by CDC after the outbreak indicated that parents thought they had received sufficient information.

not required for school attendance, and students were not excluded from school if they did not receive vaccination. School nurses entered the vaccination information into an electronic database managed by the school. CCDPH then reviewed the data to evaluate the effect of public health recommendations on vaccination rates. The overall pre-outbreak Tdap vaccination rate among students was 16.4%. Tdap coverage after the mass vaccination clinic ranged from 65.0% among 10th-grade students to 71.0% among 9th-grade students (Table, Figure). At the end of the vaccination campaign, 1,331 students (32% of the student body) had not received Tdap vaccination. Of students who did not receive vaccination, 558 (42%) were not eligible because they had received Td-containing vaccine within the preceding 2 years. The majority (81%) of those students were in the 9th- or 10th-grade classes. An additional 66 students were exempted from vaccination for various reasons. Ultimately, 707 (20%) of eligible students did not receive vaccination. The final two cases of pertussis were diagnosed on December 12 and December 19 in students who received Tdap at the school clinic. Both students had onset of illness 5 days after vaccination, which likely indicated that the infections occurred before immunity had developed.

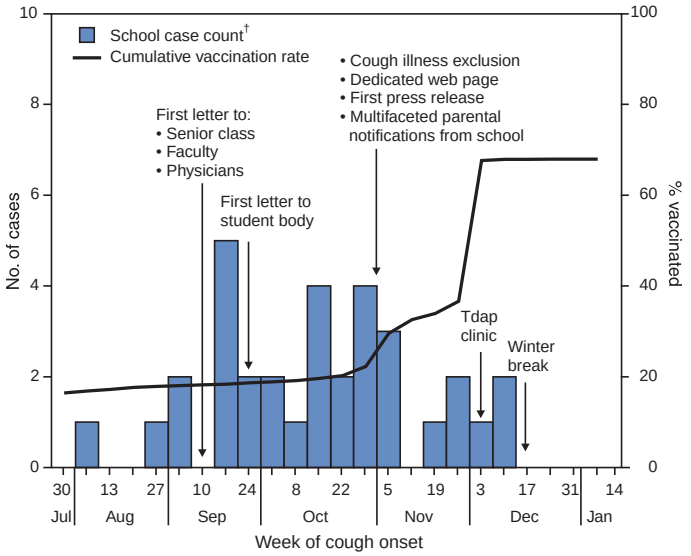
In all, 36 cases were identified in 33 students, one teacher, and two family members. None of the persons with pertussis required hospitalization. Of the 36 cases, four (11.1%) were probable, 29 (80.6%) were confirmed by PCR, and three (8.3%) were confirmed by epidemiologic link. Among confirmed cases, mean time to diagnosis after cough onset was 18.3 days (range: 1–58 days) before the cough exclusion policy was implemented, and 4.6 days (range: 1–14 days) after the policy was implemented ($p<0.001$, unpaired t-test). Overall, the 36 persons who became ill included four of 1,050 9th-grade students (attack rate [AR] = 0.4%), 12 of 1,030 10th-grade students (AR = 1.2%), 12 of 1,055 11th-grade students (AR = 1.1%), seven of 1,018 12th-grade students (AR = 0.7%), and one of 651 staff members (AR = 0.2%).

TABLE. Percentage of high school students who received Tdap* vaccination, by grade and pertussis outbreak phase — Cook County, Illinois, 2006

Phase	Grade 9th (n = 1,050)	10th (n = 1,030)	11th (n = 1,055)	12th (n = 1,018)	Overall (N = 4,153)
Pre-outbreak	46.9†	2.1	7.1	8.9	**16.4**
Notification	51.0	9.7	12.8	15.1	**22.2**
Cough-exclusion	56.9	27.9	30.0	31.5	**36.6**
Tdap clinic	70.5	64.1	66.4	68.7	**67.4**
Post-outbreak	71.0	65.0	67.0	68.8	**68.0**

* Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis.
† At the Cook County high school, Tdap vaccination coverage before the outbreak was much greater among 9th-grade students (46.9%) than among students in higher grades (10th grade = 2.1%, 11th grade = 7.1%, and 12th grade = 8.9%) because the vaccine was available at the time 9th-grade students were receiving physicals for high school. Illinois requires tetanus and diphtheria toxoids (Td) vaccination for entry to high school.

FIGURE. Number of pertussis cases and Tdap* vaccination coverage among high school students, by week of cough onset — Cook County, Illinois, 2006



* Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis.
† Includes one nonjurisdictional case residing outside of Cook County.

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Editorial Note: Because a pertussis vaccine suitable for adolescents and adults was not available until 2005, pertussis outbreak control measures historically relied on rapid identification of cases for treatment and chemoprophylaxis of close contacts (*4*). In the Cook County outbreak, pertussis spread quickly to all grades within the high school, making this control strategy difficult to implement; only seven (19.4%) of the 36 cases had a clear epidemiologic link to another case.

Strict enforcement of exclusion for cough illness was likely an important factor in controlling the outbreak. This measure limited exposure to persons with respiratory illness within the school, encouraged timely medical evaluation and treatment of cases, and promoted prompt administration of chemoprophylactics to close contacts. The time between cough onset and diagnosis for cases was reduced significantly after implementation of the policy. The exclusion measure began on November 6, after 10 cases had been reported. Additional study is needed to evaluate the point when application of more aggressive control measures, such

as exclusion for cough illness or mass Tdap vaccination clinics, might be warranted to control an outbreak.

Public health messages alone, particularly regarding the need for vaccination during the outbreak, had some effect on student vaccination rates. During the first 13 weeks after the first notices to parents and area physicians from CCDPH, Tdap vaccination coverage increased 5.8%. Before the on-site clinic at the school, Tdap vaccination coverage of students overall did not exceed 50%, even after the strict cough exclusion policy was adopted. After the on-site vaccination clinic, coverage increased another 30.8%. Which barriers prevented an earlier, more substantial increase in Tdap vaccination rates is unclear; however, the convenience of an on-site school clinic versus scheduling an appointment in a private physician's office might have played a role. Another barrier was the limited supply of Tdap vaccine for adults.

Additionally, physician concern about the 5- and 10-year intervals recommended between Td-containing vaccines might have contributed to less compliance with vaccination early on in the outbreak. Tdap is recommended 5 years after Td vaccination in adolescents and after 10 years for adults. Shorter intervals between administration of vaccine doses containing tetanus and diphtheria toxoids have been associated with moderate to severe local reactions. However, clinicians may administer Tdap at an interval as short as 2 years from the last Td vaccination during outbreaks or other instances when risk for infection is a concern (*5,6*). CCDPH initially received many calls from area physicians requesting a reference for administering Tdap within a shorter interval and outside of typical prescribing practices. In response, CCDPH faxed portions of relevant reports (*5,6*) to those physicians.

Although the effect of the Tdap vaccination clinic in shortening the duration of the outbreak is unclear, this experience shows that school-based Tdap vaccination clinics can quickly achieve high coverage during a pertussis outbreak. More experience with large Tdap vaccination clinics as part of the response to school pertussis outbreaks is needed to develop new recommendations for outbreak control. Preventing outbreaks of pertussis by increasing routine Tdap vaccination rates remains an important public health goal. As an initial step to prevent pertussis outbreaks, health-care providers, public health officials, and schools should promote routine Tdap vaccination before outbreaks occur.

Acknowledgments

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Brief Report

Lymphocytic Choriomeningitis Virus Transmitted Through Solid Organ Transplantation — Massachusetts, 2008

Lymphocytic choriomeningitis virus (LCMV) is a rodent-borne arenavirus found worldwide. House mice (*Mus musculus*) are the natural reservoir, but LCMV also can infect other wild, pet, and laboratory rodents (e.g., rats, mice, guinea pigs, and hamsters). Humans can be infected through exposure to rodent excreta. Person-to-person transmission has occurred only through maternal-fetal transmission and solid organ transplantation (*1–3*). LCMV infection in humans can be asymptomatic or cause a spectrum of illness ranging from isolated fever to meningitis and encephalitis. Overall case fatality is <1%. Fetal infections can result in congenital abnormalities or death. Immunosuppressed patients, such as organ transplant recipients, can develop fatal hemorrhagic fever–like disease. Transmission of LCMV and an LCMV-like arenavirus via organ transplantation has been documented in three previous clusters (*1,2*). Of 11 recipients described in those clusters, 10 died of multisystem organ failure, with LCMV-associated hepatitis as a prominent feature. The surviving patient was treated with ribavirin (an antiviral with in vitro activity against LCMV) and reduction of immunosuppressive therapy. On April 15, 2008, an organ procurement organization (OPO) notified CDC of severe illness in two kidney transplant recipients from a common donor; at the time of notification, one of the recipients had died. Samples from the donor and both recipients were tested at CDC; on April 22, test results revealed evidence of acute LCMV infection in the donor and both recipients. This report summarizes the results of the subsequent public health investigation.

Organ Donor

The organ donor was a man aged 49 years with a history of alcohol abuse who was hospitalized in early March 2008 after a seizure. On admission, he was awake but confused and had a fever of 101.9°F (38.8°C). Chest radiography, lumbar puncture, and blood cultures were performed. The chest radiograph showed no evidence of pneumonia. Cerebrospinal fluid (CSF) contained 478 white blood cells/mm^3 (96% lymphocytes), one red blood cell/mm^3, 161 mg/dL protein, and 60 mg/dL glucose. The patient was treated empirically for possible herpes simplex encephalitis and bacterial meningitis with acyclovir, ceftriaxone, and vancomycin. Gram stain and culture for bacterial pathogens and herpes simplex virus-1/2 polymerase chain reaction (PCR) were negative in CSF. Blood cultures grew methicillin-resistant *Staphylococcus aureus* in one of four bottles. Two days later, on March 9, the patient experienced cardiac arrest; he was resuscitated but never regained consciousness. Nonsurvivable anoxic brain injury was determined, and life support was withdrawn.

Standard serologic donor screening tests showed no evidence of active infection with human immunodeficiency virus (HIV), hepatitis B and C viruses (HBV and HCV), human T-lymphotropic virus, and syphilis. In addition, HIV, HBV, and HCV nucleic acid tests were negative. An autopsy was not performed. After the donor met OPO criteria for organ donation and consent was obtained from the family, two kidneys were recovered for transplantation on March 13. No other organs or tissues were recovered for transplantation. On April 22, archived serum collected the day before death tested positive for anti-LCMV immunoglobulin M (IgM) and immunoglobulin G (IgG) antibodies by enzyme-linked immunosorbent assay (ELISA).

Kidney Recipient A

Kidney recipient A was a woman aged 70 years with end-stage renal disease caused by nephrotic syndrome; she received a kidney transplant from the donor in mid-March. She was readmitted 3 weeks posttransplant with lethargy and anorexia; she developed low-grade fever and shock, followed by hepatic insufficiency and multisystem organ failure. She died 4 weeks posttransplant. On April 22, archived whole blood collected on the day of death had evidence of acute LCMV infection by PCR and virus isolation. Multiple autopsy specimens, including liver, kidney, and spleen, stained positive for LCMV antigens by immunohistochemistry.

Kidney Recipient B

Kidney recipient B was a man aged 57 years with end-stage renal disease caused by hypertension; he received a kidney transplant from the donor in mid-March. He was readmitted 2 weeks posttransplant with fever and developed multisystem organ failure with severe hepatitis. His immunosuppressive medications were discontinued, he was given 1 dose of intravenous immunoglobulin, and ribavirin was started after acute LCMV infection was confirmed on April 22 (6 weeks posttransplant), when his serum tested positive for anti-LCMV IgM by ELISA. The serum also tested positive for LCMV by virus isolation, and a liver biopsy was positive for LCMV antigens by immunohistochemistry. Whole blood tested positive for LCMV by PCR, and the sequence was an exact match to the fragment amplified from the first kidney recipient. The patient had severe coagulopathy and developed multiple bacteremias in addition to LCMV viremia. He died 10 weeks posttransplant despite intensive supportive care.

Public Health Investigation

Results of laboratory testing indicated that the donor was the source of LCMV infection. The subsequent public health investigation included an assessment of the donor's potential sites of exposure to rodents, medical record review, and dissemination of educational information about LCMV to the general, medical, and public health communities. No test for LCMV infection is approved by the Food and Drug Administration for organ donor screening. In addition to LCMV, other pathogens have been transmitted by organ transplantation with fatal results; in some of these clusters, the donors have been asymptomatic. However, donors with aseptic meningitis or encephalitis pose a recognizable risk for transmitting infections that might be fatal to recipients. Risks and benefits to potential transplant recipients in offering and accepting organs from such donors should be considered carefully.

Health-care providers should consider LCMV infection in patients with aseptic meningitis and encephalitis and in organ transplant recipients with unexplained fever, hepatitis, or multisystem organ failure. Transplant centers and OPOs should be aware of the risk for organ transplant-transmitted infections, report poor outcomes promptly, and initiate appropriate testing.

Persons with rodent contact should be aware of LCMV and take measures to prevent infection. Clinicians should ask about history of rodent contact in patients with aseptic meningitis.

Specific guidelines for rodent control are available at http://www.cdc.gov/rodents. Additional information about LCMV and its prevention is available at http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/lcmv.htm. Information regarding organ donation is available at http://www.optn.org/about/donation.

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West Nile Virus Update — United States, January 1–July 22, 2008

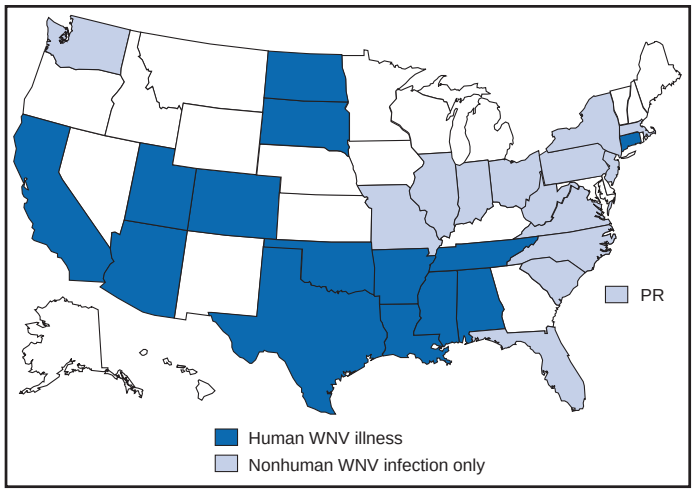
This report summarizes 2008 West Nile virus (WNV) surveillance data reported to CDC through ArboNET as of 3 a.m. Mountain Daylight Time, July 22, 2008. A total of 14 states have reported 43 cases of human WNV illness to CDC (Figure, Table). A total of 26 (54%) cases for which such data were available occurred in males; median age of patients was 46 years (range: 12–80 years). Dates of illness onset ranged from January 17 to July 10; none of the cases were fatal.

A total of eight presumptive West Nile viremic blood donors (PVDs) have been reported to ArboNET during 2008. Of these, four were reported from California, three from Louisiana, and one from Kentucky. Of the eight PVDs, one person (aged 47 years) subsequently had West Nile fever.

In addition, 368 dead corvids and 79 other dead birds with WNV infection have been reported in eight states during 2008. WNV infections have been reported in horses in eight states and Puerto Rico, in one squirrel in California, and in one unidentified animal species in Puerto Rico. WNV seroconversions have been reported in 38 sentinel chicken flocks in three states (Arizona, California, and Florida) and Puerto Rico. A total of 975 WNV-positive mosquito pools have been reported from 19 states and New York City.

Additional information about national WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and at http://westnilemaps.usgs.gov.

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2008*



* As of July 22, 2008.

TABLE. Number of human cases of West Nile virus (WNV) illness, by state — United States, 2008*

State	Neuroinvasive disease†	West Nile fever§	Other clinical/ unspecified¶	Total reported to CDC**	Deaths
Alabama	0	1	0	**1**	0
Arizona	1	0	0	**1**	0
Arkansas	2	0	0	**2**	0
California	4	2	0	**6**	0
Colorado	1	1	0	**2**	0
Connecticut	0	1	0	**1**	0
Louisiana	0	2	0	**2**	0
Mississippi	5	4	0	**9**	0
North Dakota	0	5	0	**5**	0
Oklahoma	1	2	0	**3**	0
South Dakota	0	3	0	**3**	0
Tennessee	0	1	0	**1**	0
Texas	2	4	0	**6**	0
Utah	0	1	0	**1**	0
Total	**16**	**27**	**0**	**43**	**0**

* As of July 22, 2008.
† Cases with neurologic manifestations (i.e., West Nile meningitis, West Nile encephalitis, and West Nile myelitis).
§ Cases with no evidence of neuroinvasion.
¶ Illnesses for which sufficient clinical information was not provided.
** Total number of human cases of WNV illness reported to ArboNET by state and local health departments.

Michael B. Gregg, M.D. — 1930–2008

Michael B. Gregg, M.D., a retired *MMWR* Editor, died on July 9, 2008, in Brattleboro, Vermont. He was 78. Although he was widely accomplished in epidemiology and public health, Dr. Gregg was best known for his service as Editor of *MMWR* for 21 years, and for his editorship of the widely read textbook, *Field Epidemiology*.

As *MMWR* Editor during 1967–1988, Dr. Gregg strengthened the publication's ability to provide accurate and timely public health information to health-care and public health professionals and oversaw expansion of *MMWR* to accommodate a widening scope of public health topics (*1*). In 1981, Dr. Gregg made the decision to publish a report in *MMWR* about a cluster of five cases of a then-rare disease, *Pneumocystis carinii* pneumonia, among previously healthy young men in Los Angeles, California. The report appeared in the June 5, 1981 issue of *MMWR* (*2*). The accompanying Editorial Note said the case histories suggested a "cellular-immune dysfunction related to a common exposure" and a "disease acquired through sexual contact." Later, the report was recognized as the harbinger of what later became known as the HIV/AIDS epidemic (*3*). Other benchmarks during Dr. Gregg's *MMWR* editorship included citation of *MMWR* reports in *Index Medicus* and increased accessibility to *MMWR* articles through reproduction by the Massachusetts Medical Society and collaborative reprinting in the *Journal of the American Medical Association*, practices that continue today.

Dr. Gregg joined CDC, then known as the Communicable Disease Center, in 1966 as Chief Epidemic Intelligence Service Officer (EISO) under Alexander Langmuir. At CDC he held a series of leadership positions until his retirement in 1990 as Acting Director of the Epidemiology Program Office. He was author of approximately 80 publications and book chapters, and his textbook, *Field Epidemiology*, now near publication in its third edition, has remained a standard in the discipline. Among his enduring legacies was his influence on hundreds of young EISOs, many of whom later served in key positions in medicine, epidemiology, and public health. Dr. Gregg was known for his skill at imbuing each incoming class of EISOs with an understanding of applied epidemiology and especially the epidemic investigation. He is remembered by his students as a mentor who was kind, polite, and gentlemanly, but also direct in imparting his high expectations of excellence.

Michael B. Gregg, M.D.

Photo/CDC

Dr. Gregg was born in Paris, France, in 1930 and was educated at Stanford University and Western Reserve University School of Medicine. He completed a residency in internal medicine at Columbia Presbyterian Hospital in New York City before entering the Public Health Service in 1959, and first served at the National Institutes of Health Rocky Mountain Laboratory. After further training in infectious diseases and work in Lahore, Pakistan, he began his career at CDC. During his years at CDC, he served as CDC's unofficial poet laureate, and he was an avid jazz drummer. He is survived by his wife Lila, three daughters, two brothers, a sister, seven grandchildren, and many nieces and nephews.

A memorial service will be held at 2 p.m. on August 3 at Guilford Community Church in Guilford, Vermont. Contributions in the memory of Dr. Gregg can be made to the Epidemic Intelligence Service Association fund in care of the CDC Foundation at http://www.cdcfoundation.org, or by mail at The CDC Foundation, 55 Park Place, Suite 400, Atlanta, GA 30303.

References

1. CDC. Michael B. Gregg, M.D., in honor of 21 years' service as Editor, *MMWR*. MMWR 1989;38:15.
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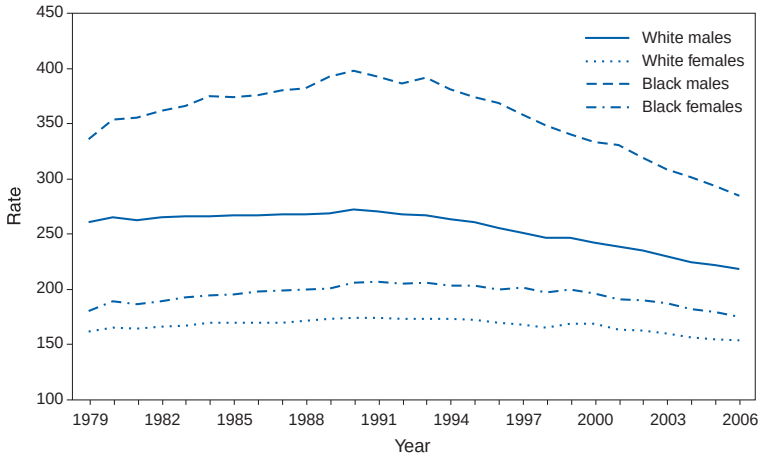
QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Age-Adjusted Death Rates* for Cancer, by Race and Sex — United States, 1979–2006†



* Per 100,000 U.S. standard population.
† Data for 2006 are preliminary.

The age-adjusted death rate for cancer continued to decline for both white and black populations from 2005 to 2006. Rates peaked in 1990 and from 1990 to 2006 declined 19.9% for white males, 11.7% for white females, 28.4% for black males, and 14.9% for black females.

SOURCE: Heron MP, Hoyert DL, Xu JQ, Scott C, Tejada-Vera B. Deaths: preliminary data for 2006. Natl Vital Stat Rep 2008;56(16). Available at http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_16.pdf and http://www.cdc.gov/nchs/data/statab/hist001r.pdf.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending July 19, 2008 (29th 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	—	5	0	32	20	19	16	20	
infant	—	38	2	85	97	85	87	76	
other (wound & unspecified)	—	6	1	27	48	31	30	33	
Brucellosis	—	41	3	131	121	120	114	104	
Chancroid	—	23	1	23	33	17	30	54	
Cholera	—	—	0	7	9	8	6	2	
Cyclosporiasis§	1	69	7	92	137	543	160	75	FL (1)
Diphtheria	—	—	—	—	—	—	—	1	
Domestic arboviral diseases§,¶:									
California serogroup	—	5	5	53	67	80	112	108	
eastern equine	—	1	1	4	8	21	6	14	
Powassan	—	—	0	7	1	1	1	—	
St. Louis	—	3	1	9	10	13	12	41	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,**:									
Ehrlichia chaffeensis	20	116	19	828	578	506	338	321	ME (1), OH (1), MN (3), DE (1), MD (9), GA (1), FL (1), TN (3)
Ehrlichia ewingii	1	1	—	—	—	—	—	—	MN (1)
Anaplasma phagocytophilum	12	88	24	834	646	786	537	362	ME (2), MN (10)
undetermined	—	3	8	337	231	112	59	44	
Haemophilus influenzae,†† invasive disease (age <5 yrs):									
serotype b	—	17	0	22	29	9	19	32	
nonserotype b	—	94	2	199	175	135	135	117	
unknown serotype	2	128	3	180	179	217	177	227	NC (1), FL (1)
Hansen disease§	—	36	2	101	66	87	105	95	
Hantavirus pulmonary syndrome§	—	7	1	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal§	1	75	6	292	288	221	200	178	WA (1)
Hepatitis C viral, acute	11	405	16	849	766	652	720	1,102	NC (8), TX (1), WA (2)
HIV infection, pediatric (age <13 yrs)§§	—	—	4	—	—	380	436	504	
Influenza-associated pediatric mortality§,¶¶	1	87	1	77	43	45	—	N	WA (1)
Listeriosis	3	273	21	808	884	896	753	696	NY (1), VA (1), GA (1)
Measles***	—	123	2	43	55	66	37	56	
Meningococcal disease, invasive†††:									
A, C, Y, & W-135	1	164	3	324	318	297	—	—	VA (1)
serogroup B	2	101	3	167	193	156	—	—	MN (1), GA (1)
other serogroup	—	20	0	35	32	27	—	—	
unknown serogroup	3	381	9	550	651	765	—	—	NY (1), OH (1), VA (1)
Mumps	—	248	14	799	6,584	314	258	231	
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§	—	4	0	12	21	16	12	12	
Q fever§,§§§ total:	1	55	3	171	169	136	70	71	
acute	—	49	—	—	—	—	—	—	
chronic	1	6	—	—	—	—	—	—	OH (1)
Rabies, human	—	—	0	1	3	2	7	2	
Rubella¶¶¶	—	9	0	12	11	11	10	7	
Rubella, congenital syndrome	—	—	—	—	1	1	—	1	

—: 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. Eighty-five cases occurring during the 2007–08 influenza season have been reported.

*** No measles cases were reported for the current week.

††† Data for meningococcal disease (all serogroups) are available in Table II.

§§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.

¶¶¶ No rubella cases were reported for the current week.

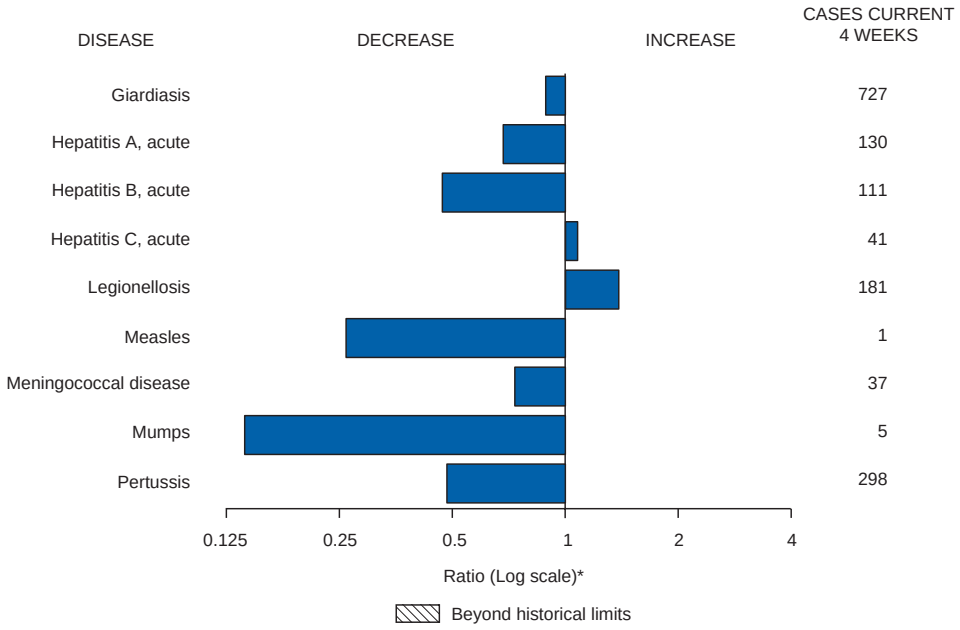
**** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending July 19, 2008 (29th 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.)
SARS-CoV§,****	—	—	—	—	—	—	—	8	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	—	86	1	132	125	129	132	161	
Syphilis, congenital (age <1 yr)	—	97	8	429	349	329	353	413	
Tetanus	1	5	1	27	41	27	34	20	PA (1)
Toxic-shock syndrome (staphylococcal)§	—	37	2	92	101	90	95	133	
Trichinellosis	—	4	0	5	15	16	5	6	
Tularemia	—	40	5	137	95	154	134	129	
Typhoid fever	2	187	8	434	353	324	322	356	NE (1), MD (1)
Vancomycin-intermediate *Staphylococcus aureus*§	—	5	0	28	6	2	—	N	
Vancomycin-resistant *Staphylococcus aureus*§	—	—	—	2	1	3	1	N	
Vibriosis (noncholera *Vibrio* species infections)§	5	104	6	447	N	N	N	N	MD (1), NC (1), AZ (1), WA (2)
Yellow fever	—	—	—	—	—	—	—	—	

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.
**** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.
* 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 July19, 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.

Notifiable Disease Data Team and 122 Cities Mortality Data Team

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Chlamydia†					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	9,695	21,589	28,892	573,781	598,534	56	126	341	3,678	4,219	64	88	975	2,030	1,962
New England	279	682	1,516	19,246	19,053	—	0	1	1	2	2	5	17	139	148
Connecticut	180	210	1,093	5,478	5,550	N	0	0	N	N	—	0	15	15	42
Maine§	—	48	67	1,336	1,420	N	0	0	N	N	—	0	5	12	15
Massachusetts	—	319	660	9,520	8,698	N	0	0	N	N	—	2	11	48	49
New Hampshire	33	39	73	1,072	1,106	—	0	1	1	2	—	1	4	34	23
Rhode Island§	51	56	98	1,553	1,715	—	0	0	—	—	—	0	3	4	5
Vermont§	15	17	44	287	564	N	0	0	N	N	2	1	4	26	14
Mid. Atlantic	1,988	2,774	5,011	79,723	78,364	—	0	0	—	—	14	13	120	282	244
New Jersey	215	409	524	10,577	11,933	N	0	0	N	N	—	0	8	10	11
New York (Upstate)	665	561	2,177	15,139	14,153	N	0	0	N	N	11	4	20	90	62
New York City	681	980	3,140	31,568	28,234	N	0	0	N	N	—	2	8	42	37
Pennsylvania	427	801	1,033	22,439	24,044	N	0	0	N	N	3	6	103	140	134
E.N. Central	957	3,551	4,433	94,069	99,056	—	1	3	27	17	10	23	134	516	447
Illinois	8	1,014	1,711	25,391	28,607	N	0	0	N	N	—	2	13	43	52
Indiana	203	390	656	11,254	11,641	N	0	0	N	N	—	3	41	86	29
Michigan	521	771	1,223	24,641	21,308	—	0	2	20	12	2	5	11	115	78
Ohio	126	881	1,530	22,909	26,600	—	0	1	7	5	8	6	60	130	100
Wisconsin	99	372	615	9,874	10,900	N	0	0	N	N	—	7	60	142	188
W.N. Central	572	1,228	1,694	34,434	34,584	—	0	77	—	6	17	17	125	346	313
Iowa	—	160	229	4,249	4,819	N	0	0	N	N	2	4	61	76	83
Kansas	166	163	529	5,063	4,482	N	0	0	N	N	—	1	15	23	37
Minnesota	4	265	373	6,938	7,369	—	0	77	—	—	10	5	34	97	55
Missouri	348	468	574	13,331	12,693	—	0	1	—	6	1	3	14	74	51
Nebraska§	—	92	247	2,426	2,909	N	0	0	N	N	3	2	24	49	21
North Dakota	—	33	65	900	951	N	0	0	N	N	—	0	51	2	2
South Dakota	54	53	81	1,527	1,361	N	0	0	N	N	1	1	16	25	64
S. Atlantic	2,989	3,950	7,609	106,162	116,249	—	0	1	—	3	10	18	65	379	412
Delaware	102	64	150	2,064	1,927	—	0	0	—	—	—	0	4	7	3
District of Columbia	126	129	216	4,010	3,239	—	0	1	—	1	—	0	2	3	1
Florida	1,148	1,307	1,556	38,057	29,557	N	0	0	N	N	4	9	35	177	182
Georgia	2	618	1,338	5,617	23,077	N	0	0	N	N	4	4	14	115	93
Maryland§	383	469	683	12,417	11,353	—	0	1	—	2	1	0	3	3	16
North Carolina	—	198	4,783	10,305	15,952	N	0	0	N	N	1	0	18	16	44
South Carolina§	661	472	3,063	15,051	15,274	N	0	0	N	N	—	1	15	23	33
Virginia§	555	508	1,062	16,993	14,131	N	0	0	N	N	—	1	6	27	36
West Virginia	12	59	96	1,648	1,739	N	0	0	N	N	—	0	5	8	4
E.S. Central	938	1,541	2,394	43,554	45,858	—	0	0	—	—	2	4	64	62	96
Alabama§	—	477	605	12,114	14,005	N	0	0	N	N	2	1	14	24	27
Kentucky	225	227	361	6,220	4,186	N	0	0	N	N	—	1	40	12	31
Mississippi	275	358	1,048	10,399	12,357	N	0	0	N	N	—	0	11	6	20
Tennessee§	438	514	715	14,821	15,310	N	0	0	N	N	—	1	18	20	18
W.S. Central	1,434	2,712	4,426	77,665	66,340	—	0	1	1	1	2	5	37	77	103
Arkansas§	316	239	455	7,899	4,922	N	0	0	N	N	—	1	8	14	14
Louisiana	—	369	646	7,909	10,803	—	0	1	1	1	—	0	4	4	29
Oklahoma	137	231	416	6,229	6,987	N	0	0	N	N	2	1	11	22	17
Texas§	981	1,829	3,923	55,628	43,628	N	0	0	N	N	—	3	28	37	43
Mountain	341	1,387	1,836	31,519	40,556	56	90	170	2,497	2,627	7	10	567	191	152
Arizona	86	475	679	10,880	13,530	56	88	168	2,446	2,544	1	1	4	22	22
Colorado	60	292	488	5,309	9,646	N	0	0	N	N	5	2	26	48	37
Idaho§	—	60	259	2,072	1,936	N	0	0	N	N	1	2	71	31	9
Montana§	—	49	363	1,496	1,538	N	0	0	N	N	—	1	7	26	18
Nevada§	—	183	416	5,152	5,293	—	1	7	32	35	—	0	6	8	5
New Mexico§	—	138	561	3,252	5,039	—	0	3	14	16	—	2	9	29	46
Utah	195	119	209	3,347	2,883	—	0	7	4	31	—	2	484	19	5
Wyoming§	—	5	34	11	691	—	0	1	1	1	—	0	8	8	10
Pacific	197	3,365	4,676	87,409	98,474	—	30	217	1,152	1,563	—	2	20	38	47
Alaska	67	94	129	2,550	2,714	N	0	0	N	N	—	0	2	1	1
California	—	2,837	4,115	76,389	76,703	—	30	217	1,152	1,563	—	0	0	—	—
Hawaii	—	110	152	2,812	3,171	N	0	0	N	N	—	0	4	1	—
Oregon§	130	189	402	5,545	5,304	N	0	0	N	N	—	2	16	36	46
Washington	—	29	498	113	10,582	N	0	0	N	N	—	0	0	—	—
American Samoa	—	0	22	73	73	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	9	26	103	472	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	115	612	3,848	4,177	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	7	21	339	111	—	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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	259	299	1,158	7,641	8,209	2,978	6,322	8,913	161,292	191,838	17	46	173	1,520	1,475
New England	9	24	58	625	625	52	97	227	2,729	3,060	—	3	12	98	109
Connecticut	—	6	18	144	165	38	48	199	1,204	1,137	—	0	9	21	27
Maine§	8	4	10	71	79	—	2	7	50	69	—	0	3	8	7
Massachusetts	—	10	27	254	268	—	45	127	1,201	1,494	—	2	5	49	56
New Hampshire	—	1	4	51	10	—	2	6	64	87	—	0	2	6	12
Rhode Island§	1	1	15	42	31	12	7	13	194	237	—	0	2	7	6
Vermont§	—	3	9	63	72	2	1	5	16	36	—	0	3	7	1
Mid. Atlantic	39	61	131	1,449	1,475	500	623	1,028	17,744	19,955	4	10	31	302	285
New Jersey	—	7	15	132	207	94	112	174	2,997	3,398	—	1	7	42	45
New York (Upstate)	23	23	111	549	493	133	129	545	3,379	3,375	—	3	22	90	76
New York City	3	16	29	400	457	169	176	523	5,388	5,956	—	1	6	51	58
Pennsylvania	13	14	29	368	318	104	227	394	5,980	7,226	4	4	9	119	106
E.N. Central	16	47	96	1,147	1,351	321	1,335	1,638	33,040	39,964	—	8	28	231	223
Illinois	—	12	34	270	429	4	377	589	8,245	10,427	—	2	7	64	73
Indiana	N	0	0	N	N	82	158	296	4,553	4,849	—	1	20	47	31
Michigan	4	11	21	263	334	184	301	657	9,140	8,805	—	0	3	13	18
Ohio	11	16	36	425	364	34	341	685	8,337	12,153	—	2	6	86	65
Wisconsin	1	9	26	189	224	17	119	214	2,765	3,730	—	1	4	21	36
W.N. Central	84	27	621	833	498	196	325	440	8,796	11,022	—	3	24	120	81
Iowa	1	5	24	145	107	—	30	56	683	1,083	—	0	1	2	1
Kansas	2	3	11	54	68	47	43	130	1,237	1,253	—	0	4	12	9
Minnesota	68	0	575	259	6	6	62	92	1,583	1,901	—	0	21	32	30
Missouri	11	9	23	221	213	134	168	235	4,423	5,778	—	1	6	49	29
Nebraska§	2	4	8	103	57	—	25	51	667	808	—	0	3	18	11
North Dakota	—	0	36	14	10	—	2	7	48	60	—	0	2	7	1
South Dakota	—	1	6	37	37	9	5	11	155	139	—	0	0	—	—
S. Atlantic	35	53	102	1,178	1,428	1,010	1,444	3,072	36,330	44,100	7	11	29	340	377
Delaware	—	1	6	23	21	23	22	44	638	771	1	0	1	5	5
District of Columbia	1	1	5	22	38	49	48	104	1,476	1,300	—	0	1	5	1
Florida	25	24	47	625	617	385	474	564	12,981	12,352	5	3	10	112	100
Georgia	—	11	29	259	306	1	233	561	2,107	9,394	—	3	8	88	72
Maryland§	5	1	18	9	127	107	123	237	3,366	3,449	—	0	3	2	57
North Carolina	N	0	0	N	N	—	133	1,949	4,378	7,529	1	1	9	44	41
South Carolina§	4	3	7	63	41	251	190	833	5,504	5,529	—	1	7	31	34
Virginia§	—	8	39	152	259	189	143	486	5,489	3,274	—	1	6	41	52
West Virginia	—	0	8	25	19	5	16	34	391	502	—	0	3	12	15
E.S. Central	4	9	23	213	251	320	567	945	15,751	17,631	—	3	8	82	82
Alabama§	1	5	11	117	127	—	192	287	4,834	6,038	—	0	2	15	20
Kentucky	N	0	0	N	N	98	86	161	2,438	1,581	—	0	1	2	4
Mississippi	N	0	0	N	N	96	131	401	3,834	4,627	—	0	2	11	6
Tennessee§	3	4	16	96	124	126	169	261	4,645	5,385	—	2	6	54	52
W.S. Central	5	7	41	127	173	463	1,008	1,355	26,314	27,469	2	2	29	71	64
Arkansas§	1	3	11	63	69	105	82	167	2,565	2,303	—	0	3	5	6
Louisiana	—	1	14	13	48	—	176	297	3,586	6,291	—	0	2	3	3
Oklahoma	4	3	35	51	56	69	91	171	2,352	2,627	2	1	21	58	50
Texas§	N	0	0	N	N	289	649	1,102	17,811	16,248	—	0	3	5	5
Mountain	47	30	68	680	769	96	236	330	5,630	7,502	2	5	14	195	163
Arizona	1	3	11	60	100	16	78	130	1,626	2,819	—	2	11	88	63
Colorado	16	11	26	259	248	68	60	91	1,648	1,844	2	1	4	37	41
Idaho§	5	3	19	75	70	—	4	19	90	129	—	0	4	10	4
Montana§	5	2	8	37	45	—	1	48	47	47	—	0	1	2	—
Nevada§	4	3	6	58	73	—	44	130	1,289	1,297	—	0	1	11	7
New Mexico§	—	2	5	45	66	—	28	104	640	882	—	0	4	20	26
Utah	16	6	32	132	146	12	11	36	290	443	—	1	6	27	19
Wyoming§	—	1	3	14	21	—	0	4	—	41	—	0	1	—	3
Pacific	20	57	185	1,389	1,639	20	625	809	14,958	21,135	2	2	7	81	91
Alaska	4	2	5	42	34	15	10	24	277	291	—	0	4	12	6
California	—	37	91	934	1,122	—	552	683	13,681	17,734	—	0	3	15	36
Hawaii	—	1	5	17	45	—	11	22	291	376	—	0	2	14	6
Oregon§	8	9	19	224	217	5	23	63	692	618	2	1	4	37	42
Washington	8	9	87	172	221	—	4	97	17	2,116	—	0	3	3	1
American Samoa	—	0	0	—	—	—	0	1	3	3	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	2	—	1	12	45	70	—	0	1	—	—
Puerto Rico	—	2	31	52	160	—	5	23	141	178	—	0	0	—	2
U.S. Virgin Islands	—	0	0	—	—	—	2	6	64	26	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.
† 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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Hepatitis (viral, acute), by type† A: Current week	A: Previous 52 weeks Med	A: Previous 52 weeks Max	A: Cum 2008	A: Cum 2007	B: Current week	B: Previous 52 weeks Med	B: Previous 52 weeks Max	B: Cum 2008	B: Cum 2007	Legionellosis: Current week	Legionellosis: Previous 52 weeks Med	Legionellosis: Previous 52 weeks Max	Legionellosis: Cum 2008	Legionellosis: Cum 2007
United States	24	53	171	1,375	1,528	32	74	259	1,765	2,369	61	51	117	1,115	1,092
New England	—	3	7	63	63	—	1	6	35	67	1	3	14	55	61
Connecticut	—	0	3	14	9	—	0	6	10	24	—	1	4	15	14
Maine§	—	0	1	4	1	—	0	2	9	3	1	0	2	2	1
Massachusetts	—	1	5	27	31	—	0	3	8	27	—	1	3	11	21
New Hampshire	—	0	2	5	10	—	0	1	4	4	—	0	2	8	1
Rhode Island§	—	0	2	11	8	—	0	3	3	8	—	0	5	15	20
Vermont§	—	0	1	2	4	—	0	1	1	1	—	0	2	4	4
Mid. Atlantic	4	6	18	139	238	—	9	18	205	304	33	15	37	318	312
New Jersey	—	1	6	22	71	—	2	7	36	90	—	1	13	21	40
New York (Upstate)	3	1	6	36	40	—	2	7	37	46	15	4	16	109	85
New York City	—	2	7	44	81	—	2	5	45	69	—	2	11	29	68
Pennsylvania	1	1	6	37	46	—	3	7	87	99	18	6	21	159	119
E.N. Central	—	6	16	177	174	2	7	18	199	274	20	11	35	252	241
Illinois	—	2	10	56	72	—	1	6	41	91	—	1	16	19	50
Indiana	—	0	4	8	4	—	0	8	23	26	—	1	7	19	25
Michigan	—	2	7	69	41	—	2	6	65	68	7	3	11	76	81
Ohio	—	1	5	27	37	2	2	7	64	73	13	4	17	134	75
Wisconsin	—	0	2	17	20	—	0	1	6	16	—	0	5	4	10
W.N. Central	10	5	29	185	99	1	2	9	56	67	1	2	8	60	55
Iowa	2	1	7	78	25	—	0	2	8	13	—	0	2	8	7
Kansas	—	0	3	9	3	—	0	1	4	6	—	0	1	1	6
Minnesota	6	0	23	26	46	—	0	5	4	13	—	0	4	8	11
Missouri	2	1	3	31	12	—	1	4	35	24	—	1	4	28	23
Nebraska§	—	1	5	39	8	1	0	1	5	8	1	0	4	14	5
North Dakota	—	0	2	—	—	—	0	1	—	—	—	0	2	—	—
South Dakota	—	0	1	2	5	—	0	2	—	3	—	0	1	1	3
S. Atlantic	2	8	17	175	255	13	16	60	430	571	4	7	28	157	206
Delaware	—	0	1	4	3	—	0	3	7	10	—	0	2	5	6
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	1	6	8
Florida	1	3	8	80	75	8	6	12	181	195	3	3	10	76	76
Georgia	—	1	3	25	43	3	3	8	67	78	—	1	3	13	22
Maryland§	1	0	3	3	45	2	0	6	4	63	1	0	5	3	37
North Carolina	—	0	9	35	29	—	0	17	50	75	—	0	7	11	24
South Carolina§	—	0	4	6	5	—	1	6	35	38	—	0	2	5	9
Virginia§	—	1	5	19	51	—	2	16	57	83	—	1	6	30	21
West Virginia	—	0	2	3	4	—	1	30	29	29	—	0	3	8	3
E.S. Central	—	2	9	42	55	1	7	13	182	198	—	2	10	68	54
Alabama§	—	0	4	5	10	—	2	5	49	72	—	0	1	8	6
Kentucky	—	0	2	14	9	—	2	5	53	35	—	1	3	33	25
Mississippi	—	0	2	4	6	—	0	3	18	22	—	0	1	1	—
Tennessee§	—	1	6	19	30	1	2	8	62	69	—	1	5	26	23
W.S. Central	6	5	55	133	121	10	17	131	367	479	—	2	23	33	51
Arkansas§	—	0	1	4	8	—	1	3	19	43	—	0	2	6	6
Louisiana	—	0	3	4	17	—	1	4	20	59	—	0	2	—	2
Oklahoma	3	0	7	7	3	3	2	37	53	26	—	0	3	3	2
Texas§	3	5	53	118	93	7	11	107	275	351	—	1	18	24	41
Mountain	2	4	10	118	140	4	3	10	111	130	2	2	5	42	50
Arizona	1	2	6	56	100	—	1	4	29	57	1	1	5	13	12
Colorado	1	0	3	24	17	1	0	3	15	20	—	0	2	3	11
Idaho§	—	0	3	15	2	—	0	2	6	7	—	0	1	2	4
Montana§	—	0	2	—	4	—	0	1	—	—	—	0	1	2	3
Nevada§	—	0	2	5	7	2	1	3	27	29	—	0	2	6	6
New Mexico§	—	0	3	14	5	—	0	2	8	9	—	0	1	3	6
Utah	—	0	2	2	3	1	0	5	23	4	1	0	3	13	5
Wyoming§	—	0	1	2	2	—	0	1	3	4	—	0	0	—	3
Pacific	—	12	51	343	383	1	8	30	180	279	—	4	18	130	62
Alaska	—	0	1	2	2	—	0	2	8	4	—	0	1	1	—
California	—	10	42	284	342	—	5	19	122	203	—	3	14	100	48
Hawaii	—	0	1	4	5	—	0	2	3	8	—	0	1	4	1
Oregon§	—	1	3	20	13	—	1	3	23	36	—	0	2	10	4
Washington	—	1	7	33	21	1	1	9	24	28	—	0	3	15	9
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	12	46	—	1	5	22	44	—	0	1	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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serogroups				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	545	341	1,555	7,268	13,548	9	22	136	443	624	6	19	52	666	680
New England	5	53	523	941	4,644	1	1	35	25	33	—	0	3	17	34
Connecticut	—	0	193	—	2,069	—	0	27	6	1	—	0	1	1	6
Maine§	—	4	61	70	74	—	0	2	—	4	—	0	1	3	5
Massachusetts	—	16	252	486	1,878	—	0	2	14	21	—	0	3	13	16
New Hampshire	2	11	58	321	552	—	0	1	1	7	—	0	0	—	3
Rhode Island§	—	0	77	—	2	—	0	8	—	—	—	0	1	—	1
Vermont§	3	2	12	64	69	1	0	2	4	—	—	0	1	—	3
Mid. Atlantic	421	170	662	4,871	5,076	—	5	18	95	176	1	2	6	74	83
New Jersey	—	36	160	876	1,934	—	0	7	—	32	—	0	1	3	10
New York (Upstate)	324	63	453	1,583	1,086	—	1	8	15	33	1	0	3	21	25
New York City	—	1	27	5	187	—	3	9	62	95	—	0	2	17	17
Pennsylvania	97	55	293	2,407	1,869	—	1	4	18	16	—	1	5	33	31
E.N. Central	2	6	154	73	1,374	—	2	7	72	76	1	3	9	106	102
Illinois	—	0	13	12	100	—	1	6	28	38	—	1	3	32	41
Indiana	—	0	7	10	17	—	0	2	4	5	—	0	4	17	15
Michigan	2	1	5	24	23	—	0	2	10	9	—	0	2	17	16
Ohio	—	0	4	12	9	—	0	3	20	13	1	1	4	31	24
Wisconsin	—	2	132	15	1,225	—	0	3	10	11	—	0	2	9	6
W.N. Central	51	3	740	321	213	2	0	9	33	22	1	2	8	64	42
Iowa	—	1	7	21	82	—	0	1	2	2	—	0	3	12	10
Kansas	—	0	1	1	8	—	0	1	3	1	—	0	1	1	2
Minnesota	51	0	731	280	114	2	0	8	16	11	1	0	7	19	10
Missouri	—	0	3	14	5	—	0	4	6	3	—	0	3	21	13
Nebraska§	—	0	1	3	4	—	0	2	6	4	—	0	2	9	2
North Dakota	—	0	9	1	—	—	0	2	—	—	—	0	1	1	2
South Dakota	—	0	1	1	—	—	0	0	—	1	—	0	1	1	3
S. Atlantic	62	51	221	863	2,116	3	4	15	100	131	3	3	7	100	103
Delaware	14	12	35	436	401	—	0	1	1	3	—	0	1	1	1
District of Columbia	6	2	8	75	74	—	0	1	1	2	—	0	0	—	—
Florida	3	1	4	27	6	—	1	7	27	24	—	1	3	39	37
Georgia	4	0	2	7	7	—	1	3	24	21	1	0	3	14	10
Maryland§	28	9	136	71	1,203	1	0	5	5	34	—	0	2	4	18
North Carolina	2	0	8	7	21	1	0	7	16	13	—	0	4	9	14
South Carolina§	—	0	4	8	14	—	0	1	4	5	—	0	3	15	10
Virginia§	5	12	68	212	373	1	1	7	22	29	2	0	2	15	13
West Virginia	—	1	9	20	17	—	0	1	—	—	—	0	1	3	—
E.S. Central	3	1	5	28	30	—	0	3	10	21	—	1	6	37	36
Alabama§	—	0	3	9	9	—	0	1	3	3	—	0	2	5	7
Kentucky	—	0	1	1	2	—	0	1	3	4	—	0	2	7	7
Mississippi	—	0	1	1	—	—	0	1	1	1	—	0	2	9	10
Tennessee§	3	0	3	17	19	—	0	2	3	13	—	0	3	16	12
W.S. Central	—	1	11	25	40	—	1	64	16	54	—	2	13	65	71
Arkansas§	—	0	1	—	—	—	0	1	—	—	—	0	1	6	8
Louisiana	—	0	0	—	2	—	0	1	—	13	—	0	3	12	23
Oklahoma	—	0	1	—	—	—	0	4	2	5	—	0	5	10	14
Texas§	—	1	10	25	38	—	1	60	14	36	—	1	7	37	26
Mountain	1	0	3	17	18	1	1	5	15	33	—	1	4	36	47
Arizona	—	0	1	2	—	—	0	1	5	6	—	0	2	5	11
Colorado	1	0	1	3	—	—	0	2	3	12	—	0	2	9	16
Idaho§	—	0	2	5	5	—	0	2	—	—	—	0	2	2	4
Montana§	—	0	2	2	1	—	0	0	—	3	—	0	1	4	1
Nevada§	—	0	2	2	6	—	0	3	4	2	—	0	2	6	3
New Mexico§	—	0	1	2	4	—	0	1	1	1	—	0	1	5	2
Utah	—	0	1	—	1	1	0	1	2	9	—	0	2	3	8
Wyoming§	—	0	1	1	1	—	0	0	—	—	—	0	1	2	2
Pacific	—	4	8	129	37	2	3	10	77	78	—	4	17	167	162
Alaska	—	0	2	3	2	—	0	2	3	2	—	0	2	3	1
California	—	3	7	108	32	—	2	8	59	52	—	3	17	121	117
Hawaii	N	0	0	N	N	—	0	1	2	2	—	0	2	1	5
Oregon§	—	0	4	18	3	—	0	2	4	12	—	1	3	23	24
Washington	—	0	7	—	—	2	0	3	9	10	—	0	5	19	15
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	1	1	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	2	—	0	1	2	6
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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	96	145	849	3,698	5,202	45	83	177	2,087	3,243	53	29	195	651	953
New England	—	22	49	374	802	1	7	20	178	301	—	0	2	1	7
Connecticut	—	0	5	—	45	—	3	17	96	123	—	0	0	—	—
Maine†	—	1	5	16	43	—	1	5	28	46	N	0	0	N	N
Massachusetts	—	17	34	315	651	N	0	0	N	N	—	0	2	1	7
New Hampshire	—	1	5	16	38	1	1	4	21	28	—	0	1	—	—
Rhode Island†	—	1	25	21	4	N	0	0	N	N	—	0	0	—	—
Vermont†	—	0	6	6	21	—	2	5	33	104	—	0	0	—	—
Mid. Atlantic	19	20	43	417	696	20	20	32	566	552	2	1	5	31	43
New Jersey	—	1	9	3	118	—	0	0	—	—	—	0	2	2	16
New York (Upstate)	14	6	23	176	334	20	9	20	253	264	1	0	2	9	3
New York City	—	2	7	34	75	—	0	2	10	30	—	0	2	10	16
Pennsylvania	5	7	23	204	169	—	10	23	303	258	1	0	2	10	8
E.N. Central	10	20	190	699	954	5	3	43	50	68	1	1	4	15	31
Illinois	—	3	8	69	103	—	0	0	32	30	—	0	3	2	20
Indiana	—	0	12	23	31	—	0	1	2	6	—	0	1	2	4
Michigan	1	4	16	101	155	3	1	32	28	38	—	0	1	2	3
Ohio	9	6	176	467	423	2	1	11	20	24	1	0	4	9	4
Wisconsin	—	2	9	39	242	N	0	0	N	N	—	0	1	—	—
W.N. Central	8	11	142	342	360	2	4	13	79	153	5	4	34	160	204
Iowa	—	1	5	32	109	—	0	3	9	18	—	0	5	1	13
Kansas	—	1	5	25	61	—	0	7	—	79	—	0	2	—	9
Minnesota	6	0	131	110	59	1	0	7	27	11	—	0	4	—	1
Missouri	1	2	18	124	54	1	0	5	22	21	4	3	25	149	170
Nebraska†	1	1	12	43	27	—	0	0	—	—	1	0	3	8	8
North Dakota	—	0	5	1	3	—	0	8	14	11	—	0	0	—	—
South Dakota	—	0	2	7	47	—	0	2	7	13	—	0	1	2	3
S. Atlantic	22	14	50	351	545	12	35	94	929	1,270	33	8	109	217	425
Delaware	—	0	2	6	7	—	0	0	—	—	—	0	2	7	10
District of Columbia	—	0	1	2	7	—	0	0	—	—	—	0	2	6	2
Florida	17	3	9	121	132	—	0	77	77	128	1	0	4	8	7
Georgia	—	0	3	21	28	—	6	37	187	142	4	0	6	24	45
Maryland†	1	0	6	6	67	—	0	18	12	225	4	0	6	6	31
North Carolina	1	0	38	77	180	11	9	16	272	277	23	0	96	107	247
South Carolina†	—	2	22	57	49	—	0	0	—	46	—	1	4	16	30
Virginia†	3	2	11	57	64	—	12	27	321	413	1	1	8	40	51
West Virginia	—	0	12	4	11	1	0	11	60	39	—	0	3	3	2
E.S. Central	6	7	31	134	193	3	2	7	71	90	3	4	16	111	153
Alabama†	1	1	6	20	45	—	0	0	—	—	—	1	10	32	40
Kentucky	—	1	5	27	13	3	0	3	21	10	—	0	1	—	4
Mississippi	1	3	29	54	74	—	0	1	2	—	—	0	3	4	10
Tennessee†	4	1	4	33	61	—	2	6	48	80	3	2	11	75	99
W.S. Central	18	19	198	447	580	—	8	40	62	617	8	2	153	101	65
Arkansas†	1	1	11	38	122	—	1	6	36	17	—	0	15	13	14
Louisiana	—	0	2	3	13	—	0	2	—	3	—	0	2	2	3
Oklahoma	5	0	26	19	3	—	0	32	25	45	8	0	132	80	34
Texas†	12	17	179	387	442	—	0	34	1	552	—	0	8	6	14
Mountain	5	19	37	471	631	2	1	8	32	30	—	0	2	12	22
Arizona	1	3	10	113	152	N	0	0	N	N	—	0	2	6	4
Colorado	2	4	13	81	171	—	0	0	—	—	—	0	2	—	—
Idaho†	1	0	4	19	26	—	0	4	—	—	—	0	1	—	3
Montana†	—	0	11	59	31	2	0	3	3	6	—	0	1	2	1
Nevada†	—	0	7	17	25	—	0	2	3	5	—	0	0	—	—
New Mexico†	—	1	7	26	41	—	0	3	18	6	—	0	1	1	4
Utah	1	6	27	150	170	—	0	2	2	6	—	0	0	—	—
Wyoming†	—	0	2	6	15	—	0	4	6	7	—	0	2	3	10
Pacific	8	19	303	463	441	—	4	10	88	132	1	0	1	3	3
Alaska	8	1	29	58	32	—	0	4	12	36	N	0	0	N	N
California	—	8	129	174	258	—	3	8	73	91	—	0	1	1	1
Hawaii	—	0	2	4	14	—	0	0	—	—	N	0	0	N	N
Oregon†	—	2	14	75	54	—	0	1	3	5	1	0	1	2	2
Washington	—	5	169	152	83	—	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	4	33	30	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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†					Shigellosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	493	830	2,110	18,210	21,316	77	79	247	1,990	1,946	260	401	1,227	9,368	8,476
New England	3	23	253	932	1,421	2	4	19	93	177	2	3	24	99	160
Connecticut	—	0	224	224	431	—	0	15	15	71	—	0	22	22	44
Maine§	1	2	14	69	62	1	0	4	6	17	2	0	1	6	13
Massachusetts	—	15	60	494	739	—	2	7	46	70	—	2	7	61	91
New Hampshire	—	3	10	57	90	—	0	5	13	10	—	0	1	1	4
Rhode Island§	—	1	13	44	51	—	0	3	7	3	—	0	9	7	6
Vermont§	2	1	7	44	48	1	0	3	6	6	—	0	1	2	2
Mid. Atlantic	78	90	212	2,237	2,966	17	8	192	392	225	10	29	81	1,128	352
New Jersey	—	16	48	314	646	—	1	6	7	59	—	6	30	283	70
New York (Upstate)	41	25	73	645	699	11	4	188	300	67	9	7	36	368	61
New York City	6	23	48	549	654	—	1	5	27	25	—	9	35	410	124
Pennsylvania	31	30	83	729	967	6	2	11	58	74	1	2	65	67	97
E.N. Central	21	90	197	2,255	3,149	9	11	36	256	248	75	73	145	1,741	1,249
Illinois	—	24	58	600	1,215	—	1	13	22	41	—	18	37	442	304
Indiana	—	9	52	268	291	—	1	12	22	25	—	10	83	423	36
Michigan	7	17	43	423	465	1	2	12	63	38	1	2	7	48	37
Ohio	14	27	65	687	659	7	2	17	87	63	44	21	104	570	486
Wisconsin	—	14	37	277	519	1	3	16	62	81	30	9	39	258	386
W.N. Central	46	51	106	1,314	1,391	22	13	39	335	299	26	21	57	488	1,198
Iowa	1	8	18	203	252	—	2	13	65	64	—	2	10	73	44
Kansas	3	7	18	159	211	2	0	3	16	29	—	0	2	8	17
Minnesota	25	13	73	384	330	9	3	22	95	93	13	4	25	150	136
Missouri	15	14	29	342	366	7	3	12	88	53	12	9	37	149	892
Nebraska§	2	5	13	137	122	4	2	6	45	35	1	0	3	1	12
North Dakota	—	0	35	23	18	—	0	20	2	6	—	0	15	32	3
South Dakota	—	2	11	66	92	—	1	5	24	19	—	1	10	75	94
S. Atlantic	211	243	442	4,509	5,021	10	12	40	292	302	27	72	149	1,761	2,628
Delaware	4	2	8	73	78	—	0	2	7	10	—	0	2	8	6
District of Columbia	—	1	4	29	32	1	0	1	7	—	—	0	3	7	11
Florida	132	100	181	2,214	1,971	2	2	18	90	73	15	22	75	514	1,443
Georgia	25	37	86	793	817	1	1	7	41	37	5	26	49	702	936
Maryland§	22	9	44	90	400	3	1	5	14	42	—	1	7	8	53
North Carolina	18	19	228	458	653	3	1	24	39	46	3	1	12	60	40
South Carolina§	6	20	52	405	421	—	0	3	20	6	3	8	32	369	54
Virginia§	4	18	49	368	569	—	3	9	59	82	1	4	14	86	78
West Virginia	—	4	25	79	80	—	0	3	15	6	—	0	61	7	7
E.S. Central	36	61	144	1,261	1,447	5	5	21	131	123	22	50	178	1,114	837
Alabama§	12	16	50	346	377	—	1	17	37	44	3	12	43	257	311
Kentucky	10	9	21	199	277	3	1	12	28	36	2	7	35	186	185
Mississippi	1	17	57	369	391	—	0	2	4	3	1	16	112	236	242
Tennessee§	13	16	34	347	402	2	3	12	62	40	16	13	32	435	99
W.S. Central	51	98	894	1,790	1,841	3	5	25	112	141	80	58	748	1,984	1,035
Arkansas§	34	13	50	308	279	—	1	4	23	23	11	3	27	264	52
Louisiana	—	7	44	80	399	—	0	1	—	8	—	4	17	78	306
Oklahoma	17	12	72	317	199	1	0	14	17	14	4	2	32	60	55
Texas§	—	58	794	1,085	964	2	3	11	72	96	65	43	702	1,582	622
Mountain	30	57	98	1,541	1,320	5	9	42	217	248	17	18	40	400	416
Arizona	17	19	35	472	443	2	1	8	39	60	9	10	30	190	211
Colorado	6	11	43	407	300	1	2	17	66	54	3	2	6	48	60
Idaho§	3	3	13	94	68	2	2	16	45	47	—	0	2	5	9
Montana§	1	2	10	49	46	—	0	3	15	—	—	0	1	3	14
Nevada§	—	5	13	117	137	—	0	3	13	17	4	3	13	116	17
New Mexico§	—	6	28	228	137	—	1	5	18	22	—	1	6	23	63
Utah	3	5	17	152	144	—	1	9	17	36	1	1	5	12	16
Wyoming§	—	1	5	22	45	—	0	2	4	12	—	0	2	3	26
Pacific	17	109	399	2,371	2,760	4	9	40	162	183	1	30	79	653	601
Alaska	1	1	5	27	49	—	0	1	4	—	—	0	1	—	7
California	—	77	286	1,715	2,071	—	5	34	91	104	—	27	61	564	484
Hawaii	—	5	14	116	139	—	0	5	6	19	—	1	43	22	16
Oregon§	1	6	16	214	183	1	1	11	21	22	1	1	5	30	36
Washington	15	12	103	299	318	3	2	13	40	38	—	2	20	37	58
American Samoa	—	0	1	1	—	—	0	0	—	—	—	0	1	1	3
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	8	11	—	0	0	—	—	—	0	3	14	10
Puerto Rico	—	11	55	213	458	—	0	1	2	—	—	0	2	6	19
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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Streptococcal disease, invasive, group A					*Streptococcus pneumoniae*, invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max		
United States	54	89	259	3,372	3,525	13	36	166	955	1,084
New England	1	6	33	262	281	—	2	14	48	87
Connecticut	—	0	28	78	83	—	0	11	—	11
Maine§	1	0	3	19	21	—	0	1	1	1
Massachusetts	—	3	8	125	139	—	1	5	37	57
New Hampshire	—	0	2	17	21	—	0	1	7	8
Rhode Island§	—	0	7	13	2	—	0	1	2	8
Vermont§	—	0	2	10	15	—	0	1	1	2
Mid. Atlantic	12	16	43	703	683	1	4	19	117	195
New Jersey	—	3	9	108	128	—	1	6	21	40
New York (Upstate)	8	6	17	242	207	1	2	14	63	66
New York City	—	3	10	122	168	—	1	12	33	89
Pennsylvania	4	5	16	231	180	N	0	0	N	N
E.N. Central	3	18	64	740	711	—	6	23	209	197
Illinois	—	5	16	185	214	—	1	6	46	47
Indiana	—	2	11	93	81	—	0	14	23	12
Michigan	1	3	10	115	149	—	1	5	50	56
Ohio	2	5	14	201	171	—	1	5	36	41
Wisconsin	—	2	43	146	96	—	1	9	54	41
W.N. Central	3	4	39	268	230	1	2	16	81	56
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	2	0	6	35	26	—	0	3	12	—
Minnesota	—	0	35	121	111	1	0	13	30	35
Missouri	1	2	10	63	61	—	1	2	24	15
Nebraska§	—	0	3	26	15	—	0	3	6	5
North Dakota	—	0	5	9	11	—	0	2	4	1
South Dakota	—	0	2	14	6	—	0	1	5	—
S. Atlantic	18	18	34	562	815	4	5	13	113	186
Delaware	—	0	2	6	6	—	0	0	—	—
District of Columbia	—	0	2	14	16	—	0	1	1	2
Florida	7	6	11	163	181	2	1	4	40	37
Georgia	4	5	10	141	157	1	1	5	11	41
Maryland§	4	0	6	4	144	1	0	4	1	47
North Carolina	3	2	10	92	110	N	0	0	N	N
South Carolina§	—	1	5	38	76	—	1	4	31	23
Virginia§	—	3	12	82	105	—	0	6	24	31
West Virginia	—	0	3	22	20	—	0	1	5	5
E.S. Central	1	4	9	110	142	2	2	11	65	56
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	—	0	3	22	31	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	16	5
Tennessee§	1	3	7	88	111	2	2	9	49	51
W.S. Central	13	7	85	285	199	4	5	66	152	147
Arkansas§	—	0	2	4	16	—	0	2	4	9
Louisiana	—	0	1	3	14	—	0	2	2	26
Oklahoma	2	1	19	74	48	—	1	7	47	33
Texas§	11	5	65	204	121	4	3	58	99	79
Mountain	3	11	22	362	379	1	5	12	160	149
Arizona	2	4	9	136	140	1	2	8	81	70
Colorado	1	2	8	99	97	—	1	4	44	31
Idaho§	—	0	2	11	8	—	0	1	3	2
Montana§	N	0	0	N	N	—	0	1	3	1
Nevada§	—	0	2	6	2	N	0	0	N	N
New Mexico§	—	2	7	66	65	—	0	3	13	27
Utah	—	1	5	39	62	—	0	3	15	18
Wyoming§	—	0	2	5	5	—	0	1	1	—
Pacific	—	2	10	80	85	—	0	2	10	11
Alaska	—	0	3	21	15	N	0	0	N	N
California	—	0	0	—	—	N	0	0	N	N
Hawaii	—	2	10	59	70	—	0	2	10	11
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	30	4	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	3	—	7	—	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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	*Streptococcus pneumoniae*, invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Age <5 years									
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	9	50	264	1,567	1,634	4	9	43	259	314	116	228	351	6,003	5,784
New England	—	1	41	30	85	—	0	8	5	12	2	6	14	160	137
Connecticut	—	0	37	—	51	—	0	7	—	4	1	0	6	12	17
Maine§	—	0	2	13	9	—	0	1	1	1	—	0	2	8	2
Massachusetts	—	0	0	—	—	—	0	0	—	2	—	4	11	124	81
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	3	9	16
Rhode Island§	—	0	3	7	14	—	0	1	2	3	1	0	3	6	19
Vermont§	—	0	2	10	11	—	0	1	2	2	—	0	5	1	2
Mid. Atlantic	2	3	10	135	94	—	0	2	16	22	22	32	45	937	872
New Jersey	—	0	0	—	—	—	0	0	—	—	2	4	10	113	109
New York (Upstate)	1	1	4	37	30	—	0	2	5	8	4	3	13	83	77
New York City	—	0	5	39	—	—	0	0	—	—	16	17	30	587	535
Pennsylvania	1	1	8	59	64	—	0	2	11	14	—	5	12	154	151
E.N. Central	4	13	50	440	440	—	2	14	73	71	17	16	31	463	470
Illinois	—	2	15	57	79	—	0	6	14	25	—	5	19	79	252
Indiana	—	2	28	134	98	—	0	11	17	12	4	2	6	77	23
Michigan	—	0	2	10	1	—	0	1	2	1	6	2	17	122	62
Ohio	4	7	15	239	262	—	1	4	40	33	7	4	13	158	97
Wisconsin	—	0	0	—	—	—	0	0	—	—	—	1	4	27	36
W.N. Central	—	3	106	108	114	—	0	9	8	23	2	8	15	213	169
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	10	10
Kansas	—	1	5	47	61	—	0	1	3	4	—	0	5	17	9
Minnesota	—	0	105	—	1	—	0	9	—	15	—	1	5	53	36
Missouri	—	1	8	61	43	—	0	1	2	—	2	5	10	130	108
Nebraska§	—	0	0	—	2	—	0	0	—	—	—	0	1	3	3
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	2	—	7	—	0	1	3	4	—	0	3	—	3
S. Atlantic	3	20	41	648	687	4	4	10	112	148	31	50	215	1,323	1,260
Delaware	—	0	1	3	5	—	0	1	—	1	—	0	4	8	6
District of Columbia	—	0	3	12	12	—	0	0	—	1	2	2	11	66	105
Florida	3	11	26	361	382	2	2	6	74	77	6	18	34	505	417
Georgia	—	7	19	211	243	2	1	6	32	61	—	10	175	205	203
Maryland§	—	0	0	—	1	—	0	0	—	—	7	6	14	177	163
North Carolina	N	0	0	N	N	N	0	0	N	N	9	6	18	171	192
South Carolina§	—	0	0	—	—	—	0	0	—	—	1	2	5	47	53
Virginia§	N	0	0	N	N	N	0	0	N	N	6	5	17	144	115
West Virginia	—	1	7	61	44	—	0	2	6	8	—	0	0	—	6
E.S. Central	—	5	14	161	132	—	1	4	32	20	12	20	31	579	442
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	235	180
Kentucky	—	1	4	44	17	—	0	2	8	2	1	1	7	49	36
Mississippi	—	0	5	1	34	—	0	0	—	—	—	3	15	77	59
Tennessee§	—	3	12	116	81	—	1	3	24	18	11	8	14	218	167
W.S. Central	—	1	5	26	52	—	0	2	8	7	26	39	62	1,072	948
Arkansas§	—	0	2	9	1	—	0	1	3	2	6	2	19	87	68
Louisiana	—	0	5	17	51	—	0	2	5	5	—	9	22	189	252
Oklahoma	N	0	0	N	N	N	0	0	N	N	—	1	5	44	36
Texas§	—	0	0	—	—	—	0	0	—	—	20	26	49	752	592
Mountain	—	1	6	19	30	—	0	2	4	9	1	9	29	204	238
Arizona	—	0	0	—	—	—	0	0	—	—	—	5	21	78	123
Colorado	—	0	0	—	—	—	0	0	—	—	1	1	7	64	27
Idaho§	N	0	0	N	N	N	0	0	N	N	—	0	1	2	1
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	3	—	1
Nevada§	N	0	0	N	N	N	0	0	N	N	—	2	6	43	53
New Mexico§	—	0	1	1	—	—	0	0	—	—	—	1	3	17	24
Utah	—	0	6	18	19	—	0	2	4	8	—	0	2	—	8
Wyoming§	—	0	1	—	11	—	0	1	—	1	—	0	1	—	1
Pacific	—	0	0	—	—	—	0	1	1	2	3	40	71	1,052	1,248
Alaska	N	0	0	N	N	N	0	0	N	N	—	0	1	—	5
California	N	0	0	N	N	N	0	0	N	N	—	37	59	929	1,157
Hawaii	—	0	0	—	—	—	0	1	1	2	—	0	2	11	5
Oregon§	N	0	0	N	N	N	0	0	N	N	—	0	2	9	9
Washington	N	0	0	N	N	N	0	0	N	N	3	3	13	103	72
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	—	—	—	3	10	90	77
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 July 19, 2008, and July 21, 2007 (29th Week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	187	653	1,660	17,654	26,210	—	1	143	16	157	—	2	307	27	356
New England	1	15	68	321	1,617	—	0	2	—	—	—	0	2	1	—
Connecticut	—	0	38	—	921	—	0	1	—	—	—	0	1	1	—
Maine¶	—	0	26	—	208	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	2	—	—	—	0	2	—	—
New Hampshire	—	5	18	142	221	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Vermont¶	1	6	17	179	267	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	32	58	117	1,469	3,200	—	0	3	—	1	—	0	3	—	2
New Jersey	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
New York (Upstate)	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
New York City	N	0	0	N	N	—	0	3	—	—	—	0	3	—	—
Pennsylvania	32	58	117	1,469	3,200	—	0	1	—	1	—	0	1	—	2
E.N. Central	35	164	378	4,258	7,529	—	0	19	—	10	—	0	12	—	4
Illinois	1	13	124	641	660	—	0	14	—	7	—	0	8	—	3
Indiana	—	0	222	—	—	—	0	4	—	—	—	0	2	—	—
Michigan	16	63	154	1,838	2,839	—	0	5	—	1	—	0	1	—	—
Ohio	18	55	128	1,532	3,241	—	0	4	—	1	—	0	3	—	1
Wisconsin	—	7	32	247	789	—	0	2	—	1	—	0	2	—	—
W.N. Central	26	21	145	747	1,113	—	0	41	—	40	—	0	118	8	125
Iowa	N	0	0	N	N	—	0	4	—	1	—	0	3	—	2
Kansas	2	6	36	240	409	—	0	3	—	3	—	0	7	—	1
Minnesota	—	0	0	—	—	—	0	9	—	9	—	0	12	—	6
Missouri	24	11	47	439	640	—	0	8	—	2	—	0	3	—	3
Nebraska¶	N	0	0	N	N	—	0	5	—	2	—	0	16	—	28
North Dakota	—	0	140	48	—	—	0	11	—	8	—	0	49	5	49
South Dakota	—	0	5	20	64	—	0	7	—	15	—	0	32	3	36
S. Atlantic	18	89	162	2,795	3,379	—	0	12	—	5	—	0	6	—	4
Delaware	—	1	6	31	25	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	3	17	21	—	0	0	—	—	—	0	0	—	—
Florida	10	29	87	1,116	773	—	0	1	—	2	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	8	—	1	—	0	5	—	2
Maryland¶	N	0	0	N	N	—	0	2	—	—	—	0	2	—	—
North Carolina	N	0	0	N	N	—	0	1	—	1	—	0	2	—	—
South Carolina¶	—	16	66	545	694	—	0	2	—	—	—	0	1	—	2
Virginia¶	—	21	73	639	1,140	—	0	1	—	1	—	0	1	—	—
West Virginia	8	15	66	447	726	—	0	0	—	—	—	0	0	—	—
E.S. Central	1	18	101	822	329	—	0	11	5	15	—	0	14	6	13
Alabama¶	1	18	101	813	328	—	0	2	—	6	—	0	1	1	1
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	2	9	1	—	0	7	5	8	—	0	12	4	12
Tennessee¶	N	0	0	N	N	—	0	1	—	1	—	0	2	1	—
W.S. Central	57	181	886	5,919	7,195	—	0	36	5	16	—	0	19	8	10
Arkansas¶	27	10	42	393	502	—	0	5	2	3	—	0	2	—	—
Louisiana	—	1	7	27	89	—	0	5	—	—	—	0	3	2	—
Oklahoma	N	0	0	N	N	—	0	11	1	1	—	0	8	2	1
Texas¶	30	166	852	5,499	6,604	—	0	19	2	12	—	0	11	4	9
Mountain	12	40	105	1,276	1,805	—	0	36	2	31	—	0	148	2	125
Arizona	—	0	0	—	—	—	0	8	1	12	—	0	10	—	4
Colorado	10	17	43	567	697	—	0	17	1	8	—	0	67	1	68
Idaho¶	N	0	0	N	N	—	0	3	—	1	—	0	22	—	23
Montana¶	—	6	27	204	278	—	0	10	—	1	—	0	30	—	4
Nevada¶	N	0	0	N	N	—	0	1	—	—	—	0	3	—	1
New Mexico¶	—	4	22	131	287	—	0	8	—	5	—	0	6	—	1
Utah	2	9	55	369	525	—	0	8	—	1	—	0	9	1	3
Wyoming¶	—	0	9	5	18	—	0	8	—	3	—	0	34	—	21
Pacific	5	1	7	47	43	—	0	18	4	39	—	0	23	2	73
Alaska	5	1	4	40	25	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	18	4	38	—	0	20	2	68
Hawaii	—	0	6	7	18	—	0	0	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	3	—	1	—	0	4	—	5
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	17	55	184	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	10	37	268	458	—	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 July 19, 2008 (29th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
New England	521	382	95	23	14	7	42
Boston, MA	118	81	27	6	2	2	6
Bridgeport, CT	35	23	7	3	2	—	3
Cambridge, MA	14	14	—	—	—	—	4
Fall River, MA	24	19	4	1	—	—	3
Hartford, CT	55	40	12	1	—	2	9
Lowell, MA	19	16	3	—	—	—	—
Lynn, MA	11	9	1	1	—	—	1
New Bedford, MA	38	32	4	1	1	—	4
New Haven, CT	U	U	U	U	U	U	U
Providence, RI	73	43	19	5	4	2	6
Somerville, MA	5	4	1	—	—	—	—
Springfield, MA	42	30	9	2	1	—	3
Waterbury, CT	31	27	2	1	1	—	1
Worcester, MA	56	44	6	2	3	1	2
Mid. Atlantic	1,868	1,236	409	144	42	36	85
Albany, NY	55	33	18	1	2	1	1
Allentown, PA	15	10	5	—	—	—	1
Buffalo, NY	58	37	14	5	2	—	1
Camden, NJ	26	18	3	1	2	2	1
Elizabeth, NJ	16	9	6	1	—	—	1
Erie, PA	53	41	5	6	—	1	5
Jersey City, NJ	16	11	5	—	—	—	1
New York City, NY	1,000	686	198	81	21	13	41
Newark, NJ	72	27	25	9	4	7	4
Paterson, NJ	13	5	3	—	2	3	—
Philadelphia, PA	166	85	54	20	3	4	6
Pittsburgh, PA§	32	19	9	2	1	1	5
Reading, PA	29	22	5	1	1	—	2
Rochester, NY	127	93	24	6	1	3	8
Schenectady, NY	13	8	4	1	—	—	—
Scranton, PA	27	22	5	—	—	—	1
Syracuse, NY	102	77	17	5	3	—	7
Trenton, NJ	26	15	6	4	—	1	—
Utica, NY	12	11	1	—	—	—	—
Yonkers, NY	10	7	2	1	—	—	—
E.N. Central	2,158	1,395	541	120	55	47	156
Akron, OH	58	35	19	1	1	2	2
Canton, OH	35	23	10	2	—	—	4
Chicago, IL	364	197	108	34	14	11	28
Cincinnati, OH	101	68	20	5	5	3	19
Cleveland, OH	230	164	48	12	4	2	5
Columbus, OH	237	156	56	9	6	10	17
Dayton, OH	147	116	23	6	2	—	12
Detroit, MI	165	89	53	14	5	4	6
Evansville, IN	58	42	15	—	1	—	4
Fort Wayne, IN	66	48	18	—	—	—	3
Gary, IN	17	6	5	2	3	1	1
Grand Rapids, MI	58	37	13	4	2	2	4
Indianapolis, IN	183	120	46	11	4	2	14
Lansing, MI	60	46	10	3	1	—	8
Milwaukee, WI	104	63	30	6	2	3	11
Peoria, IL	44	28	12	1	1	2	5
Rockford, IL	48	32	11	3	1	1	1
South Bend, IN	47	33	8	4	2	—	1
Toledo, OH	68	43	20	1	1	3	6
Youngstown, OH	68	49	16	2	—	1	5
W.N. Central	575	364	140	36	17	18	40
Des Moines, IA	U	U	U	U	U	U	U
Duluth, MN	27	23	3	—	—	1	—
Kansas City, KS	33	17	11	4	1	—	7
Kansas City, MO	100	64	19	8	3	6	8
Lincoln, NE	42	34	7	1	—	—	2
Minneapolis, MN	61	36	18	3	1	3	3
Omaha, NE	71	47	17	4	2	1	7
St. Louis, MO	118	62	38	10	5	3	6
St. Paul, MN	44	28	12	—	—	4	3
Wichita, KS	79	53	15	6	5	—	4
S. Atlantic	1,013	598	292	65	22	34	47
Atlanta, GA	87	45	29	6	3	4	2
Baltimore, MD	162	75	64	13	5	5	19
Charlotte, NC	U	U	U	U	U	U	U
Jacksonville, FL	161	93	50	12	3	3	1
Miami, FL	76	51	14	8	2	1	1
Norfolk, VA	52	34	11	2	—	5	—
Richmond, VA	59	36	15	4	2	2	3
Savannah, GA	42	31	6	1	2	2	2
St. Petersburg, FL	60	35	16	2	1	6	2
Tampa, FL	228	144	58	16	4	5	16
Washington, D.C.	72	45	24	1	—	1	1
Wilmington, DE	14	9	5	—	—	—	—
E.S. Central	853	549	207	68	18	11	52
Birmingham, AL	169	109	39	13	5	3	12
Chattanooga, TN	89	54	26	8	1	—	4
Knoxville, TN	119	79	28	8	3	1	4
Lexington, KY	57	38	17	2	—	—	2
Memphis, TN	165	95	38	23	6	3	12
Mobile, AL	65	45	15	4	—	1	5
Montgomery, AL	43	31	9	2	—	1	2
Nashville, TN	146	98	35	8	3	2	11
W.S. Central	1,595	902	446	150	51	43	78
Austin, TX	74	41	23	7	3	—	4
Baton Rouge, LA	98	43	25	20	10	—	—
Corpus Christi, TX	53	37	16	—	—	—	3
Dallas, TX	208	112	61	16	8	8	11
El Paso, TX	93	56	26	6	2	3	1
Fort Worth, TX	144	88	32	18	2	4	11
Houston, TX	440	232	139	42	16	11	22
Little Rock, AR	80	51	15	3	6	5	4
New Orleans, LA¶	U	U	U	U	U	U	U
San Antonio, TX	199	119	54	17	3	6	6
Shreveport, LA	86	50	21	13	—	2	8
Tulsa, OK	120	73	34	8	1	4	8
Mountain	791	552	159	48	22	10	61
Albuquerque, NM	U	U	U	U	U	U	U
Boise, ID	47	32	8	3	2	2	1
Colorado Springs, CO	72	55	15	2	—	—	2
Denver, CO	67	42	14	6	4	1	9
Las Vegas, NV	273	187	59	16	8	3	15
Ogden, UT	31	23	5	3	—	—	4
Phoenix, AZ	U	U	U	U	U	U	U
Pueblo, CO	24	14	8	2	—	—	1
Salt Lake City, UT	105	69	17	12	4	3	8
Tucson, AZ	172	130	33	4	4	1	21
Pacific	1,727	1,191	359	109	30	38	134
Berkeley, CA	11	7	2	2	—	—	1
Fresno, CA	106	76	21	4	3	2	4
Glendale, CA	41	24	10	4	—	3	7
Honolulu, HI	52	38	7	6	—	1	3
Long Beach, CA	68	46	13	5	3	1	10
Los Angeles, CA	231	145	56	19	5	6	24
Pasadena, CA	19	12	7	—	—	—	—
Portland, OR	159	108	39	8	3	1	5
Sacramento, CA	193	141	37	9	3	3	16
San Diego, CA	169	121	29	9	2	8	18
San Francisco, CA	115	74	25	12	1	3	13
San Jose, CA	225	170	37	12	2	4	17
Santa Cruz, CA	25	16	7	2	—	—	2
Seattle, WA	131	83	33	6	5	4	8
Spokane, WA	67	53	12	1	1	—	4
Tacoma, WA	115	77	24	10	2	2	2
Total	11,101**	7,169	2,648	763	271	244	695

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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