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Human Paragonimiasis After Eating Raw or Undercooked Crayfish — Missouri, July 2006–September 2010

Paragonimiasis is a parasitic disease caused by *Paragonimus* trematodes, commonly known as lung flukes. Humans become infected by eating raw or undercooked crayfish (also known as crawfish and crawdads) or freshwater crabs that harbor the parasites. Paragonimiasis most frequently involves the lungs, but can affect other organs, including the brain and skin. In North America, *Paragonimus kellicotti* causes infections among dogs, cats, and wild carnivores, but rarely infects humans (*1*). Paragonimiasis is not a nationally notifiable condition. In September 2009, physicians from the Washington University School of Medicine (WUSM) in St. Louis published details of three paragonimiasis cases diagnosed since July 2006 in persons who had eaten raw crayfish from rivers in Missouri (*2*), prompting the Missouri Department of Health and Senior Services (MDHSS), CDC, and WUSM to collaborate in paragonimiasis surveillance and prevention. During September 2009–September 2010, six additional cases were diagnosed in Missouri. These nine patients, aged 10–32 years, had fever, cough, pleural effusion, and eosinophilia. All had eaten raw or undercooked crayfish from rivers in Missouri while on canoeing or camping trips within 4 months of illness onset. Health-care providers should consider paragonimiasis when examining patients with unexplained fever, cough, eosinophilia, and pleural effusion or other chest radiographic abnormalities and should ask those patients whether they have eaten raw or undercooked crayfish.

The WUSM article (*2*) and reports of two paragonimiasis cases in October 2009 prompted MDHSS, the Missouri Department of Natural Resources, and the Missouri Division of Tourism to distribute posters warning against eating raw or undercooked crayfish to campers and canoe outfitters in November 2009. After the sixth case was reported in April 2010, MDHSS issued a health advisory on April 30 to enhance health-care provider awareness about paragonimiasis and to request voluntary reporting of cases. MDHSS developed an investigation form and revised the Missouri Health Surveillance Information System for reporting of paragonimiasis. In May, WUSM issued a press release to publicize the series of six cases, resulting in an additional patient (patient 7) seeking evaluation in June, 10 months after illness onset and after having undergone multiple diagnostic tests and failed treatments. In September, a medical center in northwest Missouri reported the other two cases.

Clinical information and exposure histories were collected through medical record review and interviews of patients and the parents of a patient by attending physicians. Sputum, stool, pleural effusion, and lung biopsies, if available, were examined microscopically for *Paragonimus* parasites or eggs. Serum samples were tested for *Paragonimus* antibodies by enzyme-linked immunosorbent assay (ELISA) at a commercial laboratory or by immunoblot assay at CDC. Seven patients lived in Missouri and two in Illinois (Table). All nine patients had eaten raw or undercooked crayfish directly taken from rivers in Missouri (i.e., Current, Jacks Fork, Huzzah, Little Niangua, and Meramec) while canoeing or camping within the months of May–August during 2006–2010. Among the eight adults, seven had eaten raw crayfish during group canoe trips, and the other had eaten undercooked crayfish while camping. Seven adults had eaten raw or undercooked crayfish after alcohol consumption; two had eaten raw crayfish on dares. The child had eaten a small raw crayfish while camping to demonstrate outdoor survival skills to other children.

INSIDE

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TABLE. Characteristics of nine patients with paragonimiasis — Missouri, July 2006–September 2010

Patient	Age (yrs)	Sex	Crayfish ingestion		Incubation period (wks)	Onset to diagnosis (wks)	Basis of diagnosis
			Date	Source river			
1	31	Male	Jun 2006	Jacks Fork and Current	2	3	Clinical history and findings, and response to therapy; IB negative
2	26	Female	Jul 2007	Meramec	2	12	ELISA positive
3	32	Male	Aug 2007	Current	3	12	ELISA positive
4	28	Male	Jun 2009	Huzzah	8	12	ELISA positive; IB negative
5	10	Male	May 2009	Current	16	3	Clinical history and findings, and response to therapy; IB negative
6	20	Male	Jun 2009	Jacks Fork	12	36	IB positive
7	22	Male	Aug 2009	Jacks Fork	6	40	Sputum cytology, IB positive
8	18	Male	Jun 2010	Jacks Fork	3	10	IB positive
9	27	Male	Aug 2009	Little Niangua	12	45	Bronchoalveolar lavage fluid cytology, IB positive

Abbreviations: ELISA = enzyme-linked immunosorbent assay; IB = immunoblot assay.

Illness onset ranged from 2–16 weeks after crayfish ingestion. Common signs and symptoms were fever (100%), cough (100%), weight loss (56%), malaise (56%), chest pain (44%), dyspnea (44%), myalgia (44%), and night sweats (44%). Cough was not among the earliest indicators for patients 1, 4, and 7. Patient 1 experienced fever and headache 3 weeks before the onset of mild nonproductive cough. Two patients (patients 4 and 7) experienced upper-abdominal pain 6–8 weeks after crayfish ingestion. Patient 4 underwent emergency cholecystectomy for suspected acute cholecystitis, but his resected gall bladder was normal. Patient 7 experienced acute chest pain 2 weeks after experiencing abdominal pain. In addition, patient 8 experienced bilateral spontaneous pneumothoraces 3 weeks after the onset of fever, dyspnea, and nonproductive cough. These clinical manifestations likely were caused by *P. kellicotti* migration through the diaphragm into the pleural space and lungs.

During routine clinical care, all patients received a presumptive diagnosis of paragonimiasis 3–45 weeks after illness onset. All had eosinophilia (range: 850–3,900 eosinophils/mm^3; eosinophil percentage:

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7%–40%) and pleural effusion. Pleural effusions were analyzed for six patients. Five patients had eosinophilic pleural effusion, defined as a pleural effusion with ≥10% eosinophils (eosinophil percentage: 44%–90%; normal: ≤3%). Other chest radiologic abnormalities included pulmonary nodules (four patients), pericardial effusion (three patients), pulmonary infiltrates (three patients), and pneumothorax (one patient). Extrapulmonary complications included migratory skin nodules (four patients), cardiac tamponade (one patient), and cerebral lesions (one patient) associated with blurred vision.

P. kellicotti eggs were identified in sputum or bronchoalveolar lavage fluid from two patients 40–45 weeks after illness onset. *Paragonimus* antibodies were positive by ELISA or immunoblot for seven patients (Table). Among seven patients (patients 1 and 4–9) whose serum samples were tested for *Paragonimus* antibodies by immunoblot, three (patients 1, 4, and 5) tested negative in two consecutive serum samples collected ≥1 month apart. An acute serum from patient 4 was tested by ELISA; the result was positive. Patients 1 and 5 were diagnosed on the basis of their clinical histories and findings and response to therapy.

All patients were treated with 75 mg praziquantel per kilogram of body weight in 3 divided doses for 2–3 days. Their symptoms promptly improved. All symptoms, eosinophilia, and radiographic abnormalities resolved within 1–3 months of treatment.

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Editorial Note

During 1965–2007, only six other cases of nonimported paragonimiasis were reported in the United States, occurring in Colorado, Iowa, Michigan, Missouri, and Oklahoma. Among those six patients, five had eaten crayfish (*3*–*8*). This report of nine cases recently identified in Missouri highlights the need for increased awareness of this underrecognized disease and public education to prevent it.

What is already known on this topic?

Paragonimiasis, a rare parasitic disease in the United States, is caused by *Paragonimus* trematodes (lung flukes) that infect humans who eat raw or undercooked crayfish or freshwater crabs that harbor the parasites.

What is added by this report?

During July 2006–September 2010, nine cases of paragonimiasis were identified by physicians within 4 months of illness onset in patients who had eaten raw or undercooked crayfish from rivers in Missouri while canoeing or camping.

What are the implications for public health practice?

Efforts are needed to educate the public, especially persons involved in recreation along streams and rivers, to avoid eating uncooked crayfish. Healthcare providers should consider paragonimiasis in patients who have eaten raw or undercooked crayfish and have unexplained fever, cough, eosinophilia, and pleural effusion or other chest radiographic abnormalities.

The life cycle of *P. kellicotti* requires two intermediate hosts. The first intermediate host is a snail (e.g., *Pomatiopsis lapidaria*), and the second is crayfish, principally *Cambarus* spp. (*1*). After humans eat raw or undercooked crayfish that harbor *P. kellicotti*, the parasite penetrates through the intestinal wall into the peritoneal cavity, then through the diaphragm into the pleural space and lungs, and can migrate to other organs, including the brain and skin. Eggs laid in lungs are excreted in sputum, or swallowed and passed with stool. *Paragonimus* species are endemic in Africa, the Americas, and Asia, but the distribution of *P. kellicotti* is still being determined (*1*).

Behavioral factors that led patients in this report to eat raw or undercooked crayfish included alcohol consumption, dares, and demonstration of survival skills. Eight of the nine patients were males. Although crayfish commonly is regarded as food in survival situations, persons who learn or practice survival skills should be cautioned that eating raw or undercooked crayfish carries a risk for paragonimiasis and other diseases (*9*). Owners and customers of campgrounds and canoe rental businesses should be alerted to thoroughly cook crayfish before eating. The Food and

Drug Administration advises cooking shellfish to an internal temperature of 145°F (63°C).*

Early symptoms of paragonimiasis include diarrhea, abdominal pain, and fever, which can occur 2–15 days after eating infected crayfish. Later manifestations include fever, cough, hemoptysis, and chest radiographic abnormalities, which occur when the parasite migrates to lungs. Migration of the parasite to the brain can cause severe complications, including vision loss. Eosinophilia in blood or pleural effusion is a supportive laboratory finding.

Definitive paragonimiasis diagnosis classically is based on viewing *Paragonimus* eggs or parasites in tissues or bodily fluids by microscope, although the eggs typically are not present until 2–3 months after infection. *P. kellicotti* eggs were evident in sputum, bronchoalveolar lavage fluid, pleural effusion or biopsies, or lung biopsies in previous reports and in two cases described in this report; the intervals from illness onset to parasitologic diagnosis ranged from 1 month to 5 years (*4*–*9*). Serologic testing is an important tool for diagnosing infections with *Paragonimus westermani*, a related fluke, but experience with its use in *P. kellicotti* infection is limited. ELISA is easier to perform, but might not provide positive results until the *P. kellicotti* infection has progressed 4–24 months (*1*). CDC's immunoblot assay targets antibodies directed against *P. westermani* antigens and is highly sensitive (96%) and specific (99%) for *P. westermani* infection (*10*). Although existing serologic methods using *P. westermani* antigens might be less sensitive for early detection of *P. kellicotti* infection, a positive result is useful in confirming the diagnosis. Immunoblot assay was positive as early as 10 weeks after illness onset in one case described in this report.

Health-care providers should consider paragonimiasis and inquire about ingestion of raw or undercooked crayfish among patients with unexplained fever, cough, eosinophilia, and pleural effusion or other chest radiographic abnormalities. Empiric treatment with praziquantel is warranted for patients with signs and symptoms consistent with paragonimiasis and a history of eating raw or undercooked crayfish, regardless of serology results, particularly with an illness of <3 months duration.†

*Additional guidelines for selecting and serving fresh and frozen seafood safely are available at http://www.fda.gov/food/resourcesforyou/consumers/ucm077331.htm.

†Additional information about paragonimiasis is available from CDC at http://www.dpd.cdc.gov/dpdx/html/paragonimiasis.htm.

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Nonpolio Enterovirus and Human Parechovirus Surveillance — United States, 2006–2008

Enteroviruses, members of the *Picornaviridae* family, are common viruses associated with clinical manifestations ranging from mild respiratory symptoms to serious conditions, including aseptic meningitis, encephalitis, neonatal sepsis, and acute flaccid paralysis. Approximately 100 serotypes of nonpolio enteroviruses have been recognized (*1*), and some viruses previously classified as enteroviruses, namely echovirus 22 and 23, recently have been reclassified as human parechoviruses (HPeVs), a different genus within the *Picornaviridae* family. This report describes trends in nonpolio enterovirus and HPeV detections during 2006–2008, based on data from two laboratory-based surveillance systems, the National Enterovirus Surveillance System (NESS) and, for the first time, the National Respiratory and Enteric Virus Surveillance System (NREVSS). As in previous years, approximately 70% of detections occurred during July–October, the peak enterovirus season. The five most common enterovirus serotypes (coxsackievirus B1 [CVB1], echovirus 6, echovirus 9, echovirus 18, and coxsackievirus A9) accounted for 54% of total serotyped detections. During 2006–2008, southern states reported the most serotyped enterovirus detections, followed by midwestern states, western states, and the northeastern states. In 2007 and 2008, CVB1 was the predominant serotype detected, accounting for 24% and 19% of overall detections, respectively. In 2007, CVB1 was implicated in an outbreak of serious neonatal infections in the United States (*2*). Understanding trends in enterovirus and HPeV circulation can help clinicians decide when to test for these infections. Also, more timely reporting of data could help public health officials recognize outbreaks associated with these viruses.

NESS, initiated in 1961, is a passive, voluntary surveillance system that monitors laboratory detections of enteroviruses in the United States. Participating laboratories are encouraged to report enterovirus detections by serotype, specimen type, collection date, age of patient, and sex of patient to CDC monthly. Enterovirus serotyping is performed by sequencing the genome region encoding the VP1 capsid protein by immunofluorescence using type-specific monoclonal antibodies, or by neutralization with type-specific polyclonal antisera.

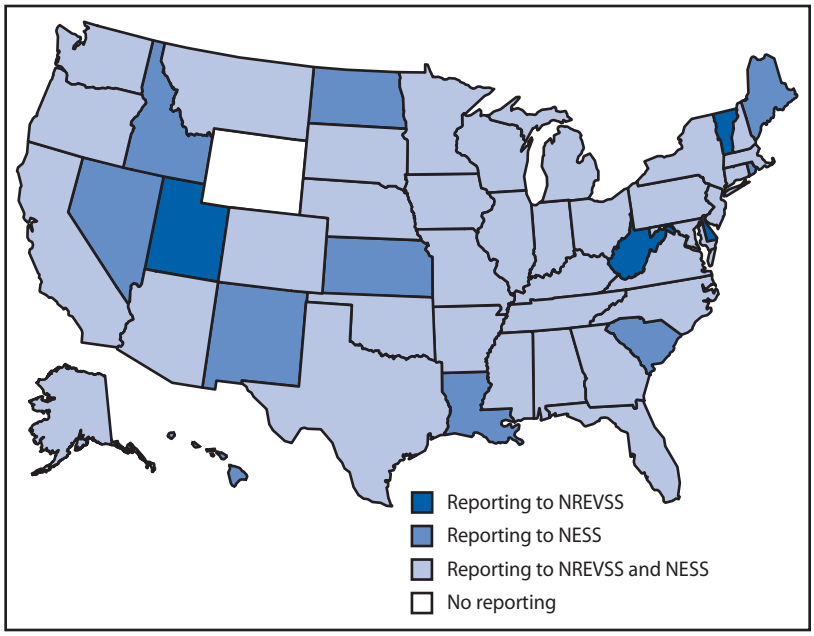
NREVSS is a passive, voluntary, laboratory-based surveillance system that tracks temporal and geographic trends in the circulation of respiratory and enteric pathogens. NREVSS began collecting enterovirus reports in July 2007. It collects the number of enterovirus tests and the proportion that are positive, by specimen site and collection date; no serotyping, demographic data, or clinical data are reported. All participating laboratories that reported at least one enterovirus-positive specimen were included in this analysis. Enteroviruses were detected by cell culture or nucleic acid detection (polymerase chain reaction).

During 2006–2008, enterovirus and HPeV detections were reported from 49 states through one or both of these surveillance systems during the years specified (Figure 1). A total of 20 laboratories (including 18 public health laboratories, one private reference laboratory, and CDC's Picornavirus Laboratory) reported results to NESS. Public health and private laboratories without the capacity to serotype send specimens to CDC Picornavirus Laboratory for serotyping. A total of 1,632 enterovirus or HPeV detections were reported to NESS during this period (920 from public health laboratories, 661 from the one reference laboratory, and 51 from CDC's Picornavirus Laboratory). Of these detections, 1,103 (68%) were reported during July–October. The age of patients for whom age was known (1,415 [87%]) ranged from <1 month to 79 years, with a mean age of 9 years and a median age of 2 years. Children aged ≤1 year accounted for 660 (47%) of these 1,415 enterovirus or HPeV detections for which the age of patient was known. Cerebral spinal fluid was the most common source for detections, accounting for 743 (51%) of the 1,468 reports of known specimen type, followed by 324 (22%) detections from throat-nasopharyngeal specimens, 268 (17%) from stool-rectal swabs, and 133 (10%) from tissue specimens.

Enterovirus or HPeV serotypes were specified for 1,171 (72%) NESS reports. By region,* southern states had the most serotyped detections reported,

* *Midwest:* Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Ohio, and Wisconsin; *Northeast:* Massachusetts, New Jersey, and New York; *South:* Florida, Georgia, Kentucky, Louisiana, Maryland, North Carolina, Oklahoma, and Tennessee; *West:* Alaska, Arizona, California, Colorado, Hawaii, Nevada, New Mexico, Oregon, Utah, and Washington.

FIGURE 1. Method of reporting enterovirus detections, by state — National Enterovirus Surveillance System (NESS) and National Respiratory and Enteric Virus Surveillance System (NREVSS), United States, 2006–2008



accounting for 418 of 1,167 (36%) reports for which state information was provided, followed by 373 (32%) detections from midwestern states, 222 (19%) from western states, and 154 (13%) from northeastern states. The five most common enterovirus serotypes accounted for 54% of total detections with a known serotype in 2006–2008 (Table). Overall, during 2006–2008, CVB1 was the most commonly detected enterovirus identified in 235 (17%) of 1,171 specimens tested (Table). In 2007, CVB1 was detected in 22 mostly southern and western states; two states reported 70 (51%) of 137 detections. In 2008, CVB1 was detected in 10 states; one state reported 15 (34%) of 44 detections. During 2006–2008, three public health laboratories and CDC's Picornavirus Laboratory reported a total of 21 HPeV type 1 (HPeV1) detections. HPeV1 was one of the 15 most common enteroviruses reported during the surveillance period but was detected in <2% of specimens (Table). During the surveillance period, only 14 cases of enterovirus 71 (EV71), a virus that has caused widespread outbreaks of hand, foot, and mouth disease in several Asian countries (*3*), were reported to NESS, and it was not included as one of the 15 most common serotypes reported.

During July 2007–December 2008, a total of 3,192 (3%) of the 108,798 reports sent to NREVSS were positive for enterovirus. One hundred laboratories reported testing for enteroviruses to NREVSS. During this period, the highest proportion of detections was reported during July–October (Figure 2). The proportion of enterovirus-positive specimens was similar across regions.

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Editorial Note

The findings in this report are consistent with previous trends regarding the most commonly detected enterovirus serotypes (*4*). During 2006–2008, CVB1 became the predominant enterovirus serotype identified, found in several states, and concentrated in a few. Common clinical presentations of CVB1 include aseptic meningitis, myocarditis, pleurodynia, and hand, foot, and mouth disease. CVB1 generally shows an epidemic pattern of circulation with irregular intervals of increased circulation usually lasting 2–3 years (*4*). During 1970–2005, CVB1 accounted for approximately 2% of reports with known serotype, with an increase of CVB1 observed in the early 1990s and then again in the early 2000s (*4*). In 2007, increased detections of CVB1 reported to NESS led to an investigation that identified severe neonatal disease and deaths associated with CVB1 infection in multiple states (*2,5*).

Since 1997, EV71 has caused widespread outbreaks of hand, foot, and mouth disease in several Asian countries (*3*). A small proportion of cases have resulted in encephalitis and death. In the United States, small clusters of serious disease were detected during 2003–2005 (*6*). Although there was an increase in reported EV71 detections in the United States during 2006–2008, EV71 detections were uncommon.

HPeV1 usually has been associated with mild gastrointestinal and respiratory symptoms, meningitis, and neonatal sepsis (*7*). HPeV1 was one of the 15 most common detections during 2006–2008; no other HPeV types were reported during that period. HPeV cannot be detected by EV-specific assays. CDC's Picornavirus Laboratory has performed the majority of HPeV typing reported to NESS but has worked with clinical and state laboratories to enhance their HPeV diagnostic and molecular typing assays

TABLE. Distribution of the 15 most commonly reported nonpolio enterovirus and parechovirus serotypes, by rank and year — National Enterovirus Surveillance System, United States, 2006–2008

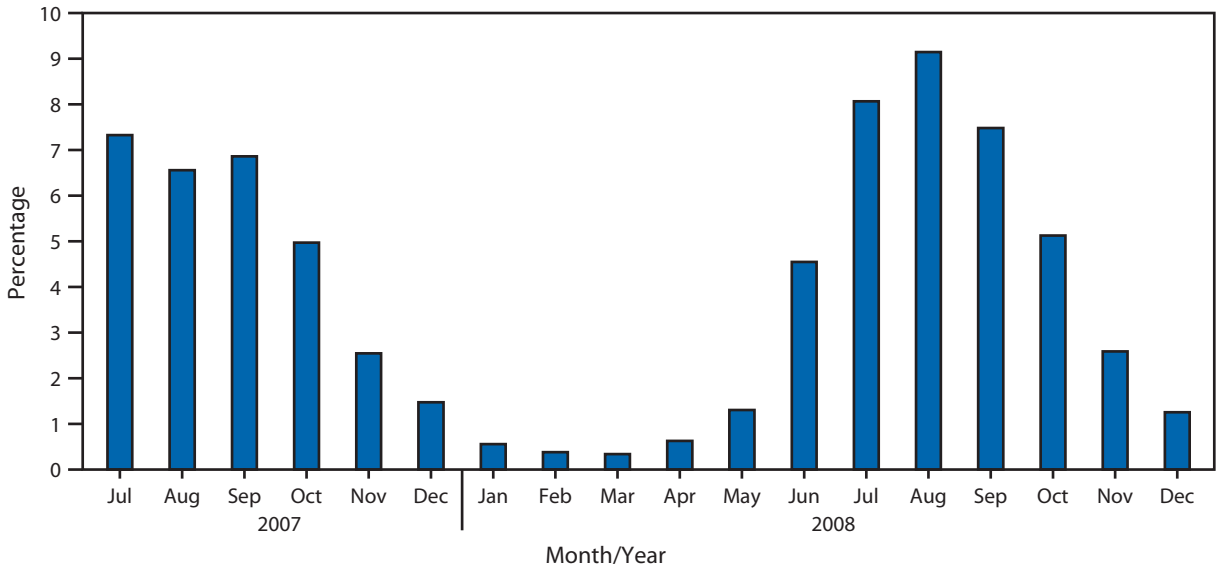
	2006 (n = 353)		2007 (n = 582)		2008 (n = 236)		2006–2008 (N = 1,171)	
Rank	Serotype	%	Serotype	%	Serotype	%	Serotype	%
1	Echovirus 6	15.3	Coxsackievirus B1	23.6	Coxsackievirus B1	18.6	Coxsackievirus B1	16.5
2	Echovirus 9	13.0	Echovirus 18	12.9	Echovirus 30	17.0	Echovirus 6	10.7
3	Coxsackievirus A9	11.9	Echovirus 9	10.5	Echovirus 6	11.9	Echovirus 9	10.7
4	Coxsackievirus B5	9.6	Coxsackievirus B4	10.0	Echovirus 9	7.6	Echovirus 18	8.8
5	Coxsackievirus B3	9.1	Echovirus 11	8.4	Echovirus 11	6.4	Coxsackievirus A9	7.5
6	Coxsackievirus B2	7.1	Echovirus 6	7.4	Coxsackievirus A9	5.9	Coxsackievirus B4	6.7
7	Coxsackievirus B4	4.5	Coxsackievirus A9	5.5	Echovirus 18	5.1	Echovirus 11	5.8
8	Echovirus 18	4.5	Coxsackievirus B3	3.9	Coxsackievirus A16	4.2	Coxsackievirus B3	5.4
9	Coxsackievirus B1	3.7	Coxsackievirus B5	2.4	Coxsackievirus B3	3.4	Echovirus 30	4.5
10	Echovirus 7	3.4	Echovirus 25	1.9	Human parechovirus 1	2.1	Coxsackievirus B5	4.4
11	Echovirus 30	2.8	Coxsackievirus B2	1.9	Echovirus 31	2.1	Coxsackievirus B2	3.4
12	Human parechovirus 1	1.9	Human parechovirus 1	1.6	Enterovirus 71	2.1	Echovirus 25	1.8
13	Enterovirus 71	1.9	Echovirus 7	1.2	Coxsackievirus B2	1.7	Human parechovirus 1	1.8
14	Echovirus 25	1.7	Echovirus 5	1.0	Coxsackievirus B4	1.7	Echovirus 7	1.7
15	Coxsackievirus A10	1.4	Echovirus 30	0.9	Echovirus 25	1.7	Coxsackievirus A16	1.7
Total		**91.8**		**93.1**		**91.5**		**91.5**

(*8*) to improve detections and enhance parechovirus surveillance.

The findings in this report are subject to at least four limitations. First, enteroviral infections other than poliovirus infections are not nationally notifiable in the United States. NESS is a passive system that relies on voluntary participation from laboratories, so findings are not necessarily representative of national or regional enterovirus activity. Although there might be more reports emanating from one state or region, it might not represent an increased burden of disease in that state or region. Second, the findings are limited by the lack of clinical information; however, most detections likely represent serious disease because cerebral spinal fluid was the most common source of detection. Third, most testing is performed during the summer months; circulation during other parts of the year might go undetected. Finally, although monthly NESS reporting is encouraged, not all participating laboratories submit timely data, which can delay accurate reporting.

NESS could be improved with more regular reporting by current laboratories and by increasing the number of participating laboratories. NREVSS provides enterovirus activity over a wider geographic area because more laboratories participate in the

FIGURE 2. Percentage of specimens testing positive for enterovirus, by month of report — National Respiratory and Enteric Virus Surveillance System (NREVSS), United States, July 2007–December 2008



What is already known on this topic?

Approximately 100 serotypes of nonpolio enteroviruses have been recognized and are associated with mild to serious conditions, including aseptic meningitis, encephalitis, neonatal sepsis, and acute flaccid paralysis, especially during the summer and fall months.

What is added by this report?

During 2006–2008, the five most frequently detected enteroviruses were coxsackievirus B1 (CVB1), echovirus 6, echovirus 9, echovirus 18, and coxsackievirus A9; these accounted for 54% of total known serotyped detections during that period. In 2007 and 2008, CVB1 became the predominant serotype detected, accounting for 24% and 19% of overall detections, respectively.

What are the implications for public health practice?

Understanding trends in enterovirus and human parechovirus circulation can help clinicians decide when to test for these infections and can guide public health officials to recognize outbreaks associated with these viruses, as was the case with an outbreak of serious neonatal infections associated with CVB1 in 2007.

system, but it does not provide serotype or demographic information. The combined systems provide the best available data on enterovirus circulation in the United States.

Since July 2009, a simplified, Internet-based NESS system has allowed participating laboratories to easily input enterovirus detection data and to analyze national and state-based trends in enterovirus surveillance, by serotype. Additional information about this system is available by e-mail (ness@cdc.gov).

Acknowledgments

The findings in this report are based, in part, on contributions by staff members of participating NREVSS laboratories and state virology laboratories reporting to NESS.

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Progress Toward Poliomyelitis Eradication — India, January 2009–October 2010

India is one of only four countries (including Afghanistan, Nigeria, and Pakistan) where wild poliovirus (WPV) transmission has never been interrupted (*1*). Historically, WPV transmission in India has centered largely in Uttar Pradesh and Bihar, two states with low routine vaccination coverage, large migrant and remote populations, and lower relative vaccine effectiveness than other areas of the country (*2–4*). However, during a 9-month period from November 2009 to August 2010, no WPV type 1 (WPV1) cases were reported in Uttar Pradesh or Bihar. This report summarizes the substantial progress made in India toward polio eradication during January 2009–October 2010, according to data reported as of December 4, and updates previous reports (*2,4*). During January–October 2010, only 40 WPV cases were confirmed in India, a 94% decrease from the 626 WPV cases confirmed during the same period in 2009; the decrease likely resulted, in large part, from the introduction of bivalent oral poliovirus vaccine types 1 and 3 (bOPV). Increasingly important contributors to WPV transmission are large migrant subpopulations; surveys have indicated that up to 11% of children aged <5 years in these subpopulations were missed during supplementary immunization activities (SIAs). Interruption of all WPV transmission in India will require maintaining high levels of immunity in Uttar Pradesh and Bihar and additional efforts directed toward children in migrant subpopulations that are not vaccinated as readily during SIAs.

Immunization Activities

Using population-based survey data, India estimated nationwide routine coverage with 3 doses of oral poliovirus vaccine (OPV) at 66% among children aged 12–23 months during 2007–2008, the most recent years for which coverage data were available (*5*). Routine coverage estimates in Bihar (53%) and Uttar Pradesh (40%) were among the lowest in the country (*5*).

SIAs* conducted in India during 2009–2010 (Figures 1 and 2) included two national immunization days (NIDs) each year. In addition, seven subnational immunization days (SNIDs) and four large-scale (multidistrict) mop-up† activities were conducted during 2009, and five SNIDs and three large-scale mop-ups were conducted during January–October 2010 (Figure 1). After introduction of bOPV in January 2010, six SIAs were conducted using bOPV.

In 2010, SIA monitoring data§ indicated >99% coverage among children aged <2 years in Bihar and >97% in Uttar Pradesh. After enhanced efforts during 2009–2010 to identify specific areas in other states where migrant populations resided, directed surveys conducted with specific migrant subpopulations (e.g., construction laborers, nomads, and brick kiln workers) after SIA rounds indicated that 3%–11% of children aged <5 years had been missed. In Uttar Pradesh during 2010, surveys after SIAs indicated that, on average, 4.1% of children in the migrant subpopulations, compared with 2.2% missed among children aged <5 years in the general population.

WPV Surveillance

Acute flaccid paralysis (AFP) surveillance. The national nonpolio AFP rate,¶ a measure of surveillance system sensitivity, was 11.4 per 100,000 children aged <15 years in 2009 and 11.1 per 100,000 (annualized) during January–October 2010. The highest state-level nonpolio AFP rates were in Bihar (33.9) and Uttar Pradesh (22.8) in 2010. Adequate stool specimen collection** in India was 83% in 2009 and 84% during January–October 2010.

Environmental surveillance. Wastewater testing for poliovirus began in Mumbai in January 2001 and in Delhi in May 2010. Although WPV was isolated frequently from samples taken in Mumbai in previous years, no WPV was detected in Mumbai wastewater

* SIAs are mass campaigns conducted over a period of multiple days in which 1 dose of OPV is administered to all children aged <5 years, regardless of vaccination history. Surveillance data analysis determines the geographic extent of campaigns (i.e., national or subnational).

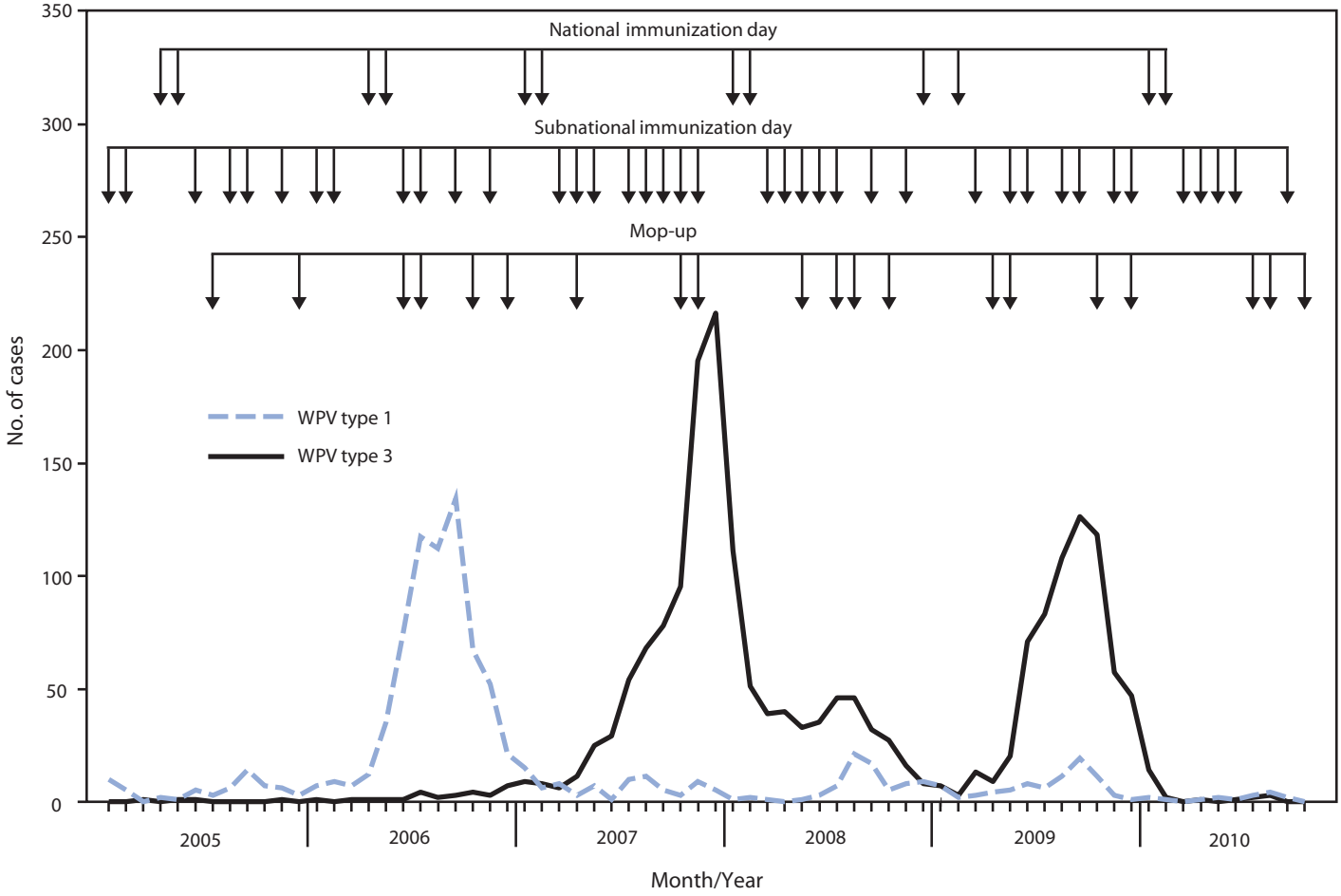
† Mop-up rounds are intensive house-to-house SIAs conducted in a limited area (groups of districts) with evidence of recent transmission.

§ SIA monitoring data are obtained from systematic surveys conducted after every SIA in high-risk areas to identify children aged <5 years who were missed with vaccination.

¶ The nonpolio AFP rate is the number of AFP cases not caused by WPV per 100,000 children aged <15 years. India's operational target for each district is two or more AFP cases per 100,000.

** The percentage of reported AFP cases with two stool specimens collected within 14 days of paralysis onset (target: ≥80%).

FIGURE 1. Number of wild poliovirus (WPV) cases, by type, month of onset, and type of supplementary immunization activity — India, January 2005–October 2010



in 2010. Environmental testing during May–August 2010 detected both WPV1 and WPV type 3 (WPV3) in wastewater at Delhi sites. Genetic analysis has suggested WPV circulation within Delhi was linked to 2009 WPV1 and WPV3 Bihar isolates. No WPV has been detected in environmental samples since mid-August.

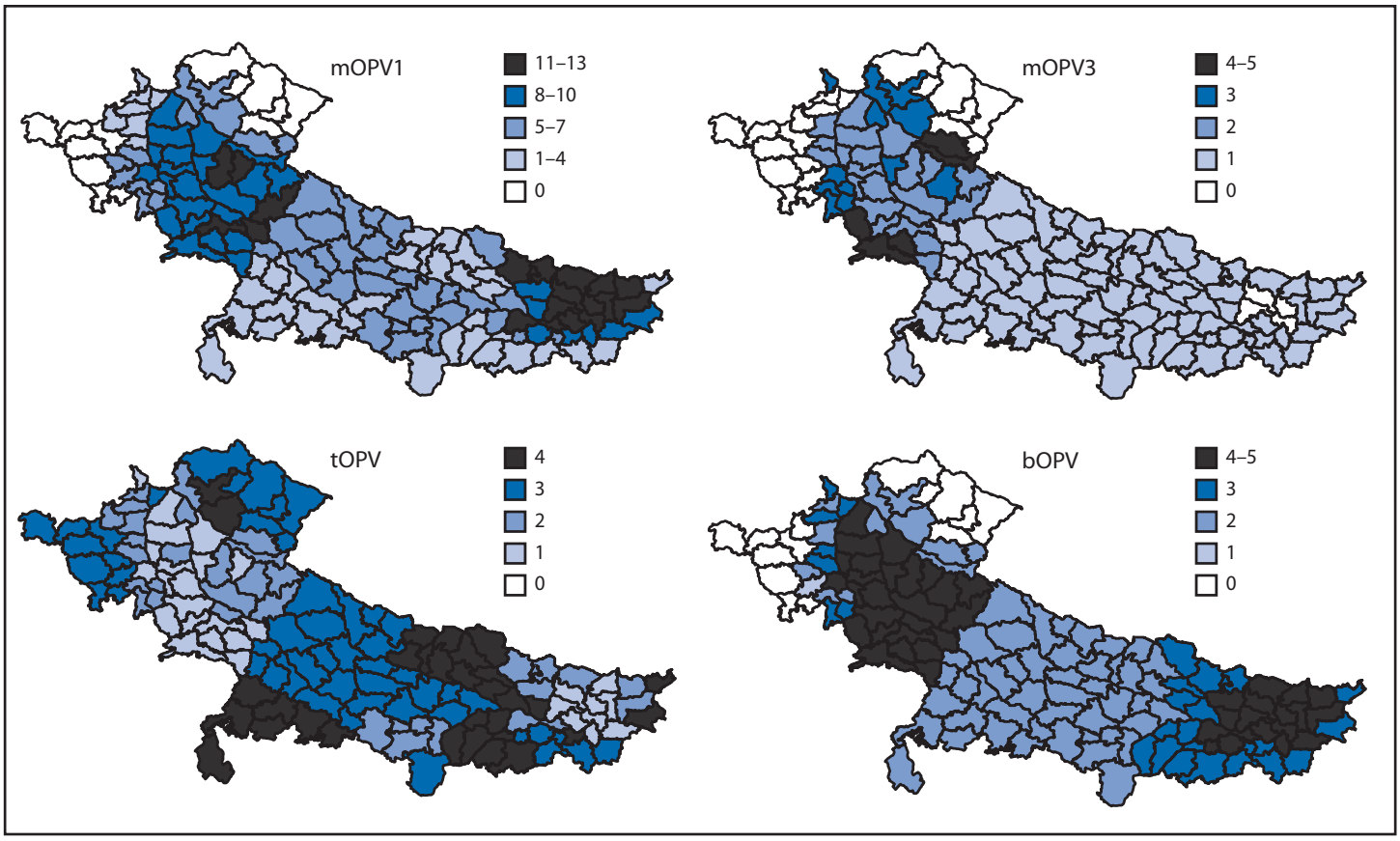
Laboratory network. During January–October 2010, >90% of stool specimens submitted for virus isolation had laboratory results reported within 14 days of specimen receipt. The mean interval from onset of paralysis and confirmation of WPV isolation was 24 days.[††]

WPV Epidemiology

During all of 2009, a total of 741 WPV cases were reported in India from 56 districts in nine states of 35 states/union territories in India (Figure 3). During January–October 2010, a total of 40 WPV cases had been reported from 17 districts in seven states, a 94% decrease from the 626 WPV cases from 52 districts in nine states during the same reporting period in 2009. Among the 40 WPV cases reported in 2010, 28 (70%) occurred in children aged <2 years. Six (15%) of the 40 children had received 1–3 OPV doses, eight (20%) had received 4–7 doses, and 25 (63%) had received >7 doses; one child had unknown vaccination status. In Uttar Pradesh and Bihar, 19 cases had been reported from 10 districts; all of these patients had received >7 OPV doses. According to data reported as of December 4, 2010, during January–October 2010, a total of 17 WPV1 and 23 WPV3 cases were confirmed, representing a 78% decrease from 76 WPV1 cases and a 96% decrease from 550 WPV3 cases confirmed during the same period in 2009.

[††] The eight polio laboratories in India processed 100,102 stool specimens during 2009 and 91,952 stool specimens during January–October 2010.

FIGURE 2. Number of supplementary immunization activity (SIA)* rounds, by vaccine used and district — Uttar Pradesh, Bihar, and surrounding areas, India, January 2009–October 2010



Abbreviations: mOPV1 = monovalent oral poliovirus vaccine type 1; mOPV3 = monovalent oral poliovirus vaccine type 3; tOPV = trivalent oral poliovirus vaccine; bOPV = bivalent oral poliovirus vaccine.

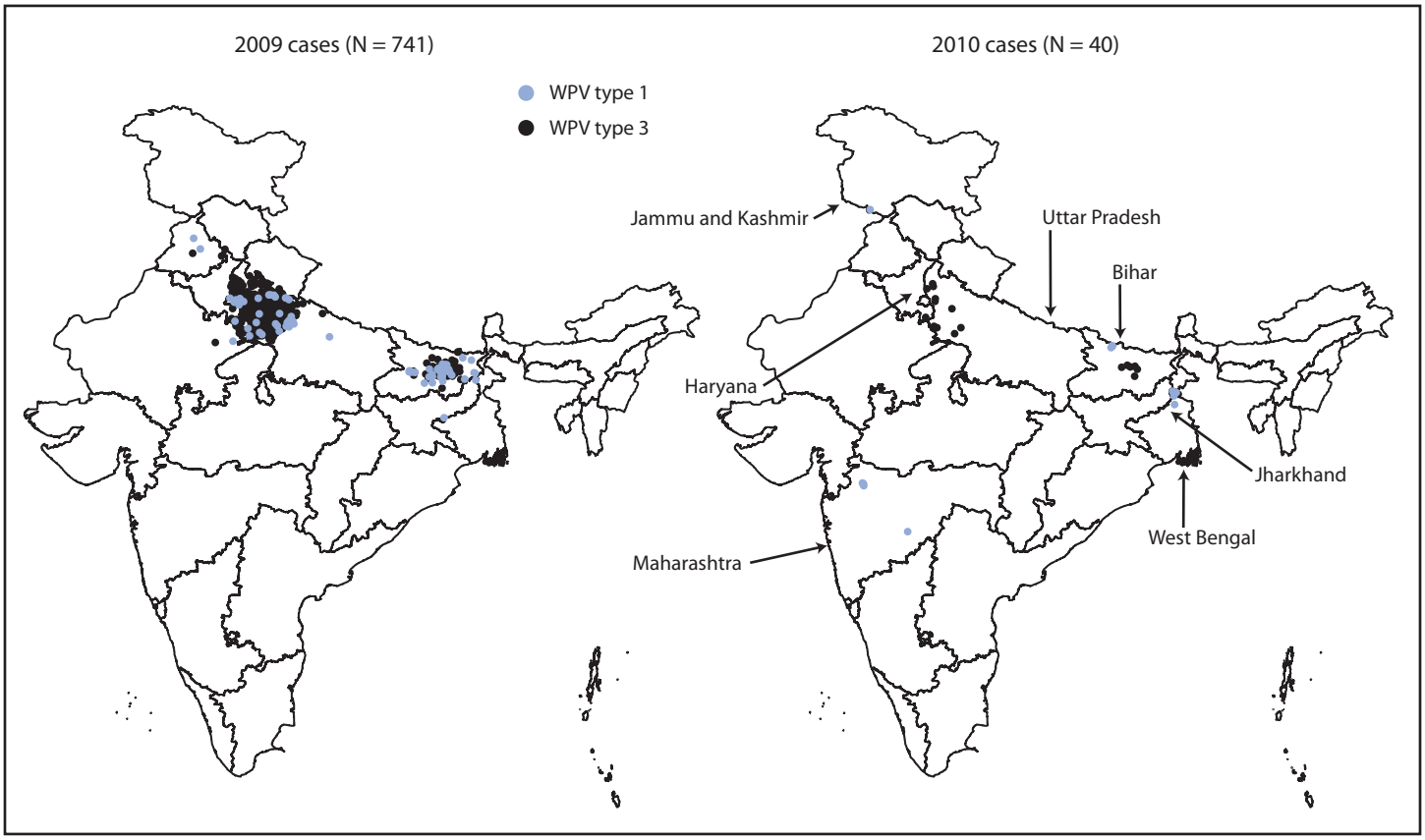
* SIAs are mass campaigns conducted over a period of multiple days in which 1 dose of oral polio vaccine is administered to all children aged <5 years, regardless of vaccination history. Surveillance data analysis determines the geographic extent of campaigns (i.e., national or subnational).

WPV1. In 2009, a total of 80 WPV1 cases were reported (including one case with both WPV1 and WPV3 isolated) from 35 districts in six states. During January–October 2010, a total of 17 WPV1 cases were reported from seven districts in five states. WPV1 isolates related to 2009 Bihar WPV1 strains have been isolated from AFP patients with onset of paralysis during January–October 2010 in West Bengal (five patients), Jharkhand (three), and Maharashtra (five). In addition, WPV1 strains circulating in Bihar during 2009 were associated with a WPV1 case in Jammu and Kashmir in 2010 after importation into Punjab in 2009. The most recent WPV1 case in India had onset on September 21 in West Bengal.

The last confirmed WPV1 case in Uttar Pradesh was in a patient with onset of paralysis on November 13, 2009. In Bihar, no WPV1 cases were reported from October 30, 2009, to August 7, 2010. Subsequently, three cases have been reported in a single Bihar district bordering Nepal (Champaran East), with onset in the most recent case on September 1. The recent Bihar outbreak began after an outbreak was identified in Nepal in May 2010 immediately across the border from Champaran East; WPV1 isolates from both areas are related to WPV1 strains circulating in Bihar during 2009.

WPV3. In 2009, a total of 661 WPV3 cases were reported from 47 districts in eight states; 569 (86%) were from Uttar Pradesh, and 79 (12%) were from Bihar. During January–October 2010, a total of 23 cases were reported from 12 districts in five states, compared with 550 cases from 43 districts in seven states during the same 10-month period in 2009. Of the 23 cases reported during January–October 2010, 10 (43%) were from Uttar Pradesh, six (26%) from Bihar, four (17%) from Jharkhand, two (9%) from West Bengal, and one (4%) from Haryana. The most recent WPV3 case in India had onset on August 31 in Jharkhand.

FIGURE 3. Wild poliovirus (WPV) cases, by type — India, 2009 and 2010*



* Data of December 4, 2010.

Reported by

Ministry of Health and Family Welfare, Government of India. National Polio Surveillance Project, World Health Organization, India; Regional Poliovirus Laboratory Network, Immunization and Vaccine Development Dept, World Health Organization Regional Office for South-East Asia. Div of Viral Diseases and Global Immunization Div, National Center for Immunization and Respiratory Diseases; CV Cardemil, MD, EIS Officer, CDC

Editorial Note

During 2009–2010, India made substantial progress toward polio eradication. The absence of reported WPV1 cases in Uttar Pradesh and Bihar for 9 months during November 2009–August 2010 was unprecedented; Uttar Pradesh has remained free of detected WPV cases since April 2010. For the first 10 months of 2010, the total number of WPV cases in India reached a new low at 40, compared with 626 cases during the same reporting period in 2009.

The introduction of bOPV in SIAs beginning in January 2010 likely contributed substantially to the simultaneous reduction in WPV1 and WPV3 cases. Previous SIAs were conducted predominantly using monovalent oral poliovirus vaccine type 1 (mOPV1) and occasionally monovalent oral poliovirus vaccine type 3 (mOPV3); trivalent oral poliovirus vaccine (tOPV) was used less often because higher type-specific seroconversion per dose has been observed with mOPV formulations than with tOPV (*3*,*6*). A recent clinical trial demonstrated the superiority of bOPV compared with tOPV and noninferiority compared with mOPV1 and mOPV3 (*7*). Once supplies became available, bOPV became the predominant formulation used in SIAs. Preliminary data from August 2010 seroprevalence studies among infants aged 6–7 months in high-risk areas of Uttar Pradesh and Bihar indicate that, after bOPV introduction, seroprevalence against WPV3 increased and high levels of seroprevalence against WPV1 were maintained (Enterovirus Research Center, Mumbai, India, unpublished data, 2010).

Appropriately targeted environmental surveillance can be more sensitive in detecting low-level WPV circulation than AFP surveillance (*8*). WPV was last detected in sewage in Mumbai in May 2009 and in Delhi in mid-August 2010, where sewage sampling was initiated in May of this year. The recent lack of detection of WPV in any samples is encouraging; however, sewage sampling in India still is restricted to these two major metropolitan areas.

Despite India's gains in 2010, the risk remains for WPV circulation and reintroduction among migrant populations and residents of high-risk areas in western Uttar Pradesh and central Bihar, primarily because of high population density, weak routine immunization, and suboptimal hygiene and sanitation. Families of certain migrant subpopulations (e.g., construction laborers, nomads, and brick kiln workers) that move regularly to and from Uttar Pradesh and Bihar have higher proportions of undervaccinated children than the general population, according to 2010 directed surveys of these subpopulations and supported by reported vaccination rates among nonpolio AFP case patients.

The risk for persistence of low-level, undetected, WPV transmission among Uttar Pradesh or Bihar residents, or among migrant subpopulations, is a concern. All WPV1 isolates from India and Nepal in 2010 are genetically linked to strains detected in central Bihar in 2009, and the 2010 WPV1 outbreak in Tajikistan was linked to WPV1 from Uttar Pradesh in 2009 (*9*). OPV-vaccinated children with serologic immunity can excrete WPV, which might contribute to transmission despite high OPV coverage in SIAs (*6,10*). Moreover, transmission has continued in some areas with recent outbreaks (Maharashtra and West Bengal). WPV could spread to other parts of India with relatively low population immunity months after the last observed case in the outbreak area.

The current high season for polio in India has passed with historically low incidence of WPV cases. Successful interruption of all residual WPV transmission in India will require maintaining high levels of immunity in Uttar Pradesh and Bihar through SIAs and programs to strengthen routine vaccination, along with continued mop-ups to control outbreaks in areas where WPV was reintroduced. SIAs planned for 2011 represent an opportunity to interrupt transmission, provided that high coverage during SIAs is maintained, immediate large-scale mop-ups are conducted in response to any new WPV detected, and focus is continued on vigorous vaccination of migrant subpopulations.

What is already known on this topic?

India is one of four countries (including Afghanistan, Nigeria, and Pakistan) where wild poliovirus (WPV) remains endemic; most cases in India in the past have been reported in Uttar Pradesh and Bihar, two states with low routine vaccination coverage, lower vaccine effectiveness than elsewhere, and large migrant subpopulations that require frequent supplementary immunization activities (SIAs) to control WPV transmission.

What is added by this report?

As of December 4, during January–October 2010, a total of 40 WPV cases had been confirmed in 2010, a 94% decrease from the 626 WPV cases during the same 10-month period in 2009; this progress likely resulted in large part from the introduction of bivalent oral poliovirus vaccine types 1 and 3 (bOPV) in SIAs.

What are the implications for public health practice?

Despite the progress in India, the risk for persistent WPV transmission remains, particularly in migrant subpopulations and among residents of Uttar Pradesh and Bihar. To interrupt all WPV transmission, India is taking steps to strengthen routine vaccination and SIA coverage, implement immediate, large-scale mop-ups in response to new cases, target migrant subpopulations, and maintain high levels of immunity in Uttar Pradesh and Bihar.

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Update: Outbreak of Cholera — Haiti, 2010

On December 8, 2010, this report was posted as an MMWR *Dispatch on the* MMWR *website (http://www.cdc.gov/mmwr).*

The first cholera outbreak in Haiti in at least a century was confirmed by the Haitian National Public Health Laboratory on October 21, 2010 (*1*). Surveillance data through December 3, provided by the Haitian Ministry of Public Health and Population (MSPP), indicated that the outbreak had spread nationwide and that cases of cholera and cholera-associated hospitalizations and deaths had climbed rapidly in November. As of December 3, MSPP reported 91,770 cases of cholera from all 10 departments and the capital city of Port-au-Prince; 43,243 (47.1%) patients had been hospitalized, and 2,071 (2.3%) had died. A rapid mortality assessment in Artibonite Department found that deaths occurred as rapidly as 2 hours after symptom onset and identified important gaps in access to life-saving treatments, including oral rehydration solution (ORS). Urgent activities are under way, and additional efforts are imperative to reduce cholera mortality by expanding access to cholera treatment and to reduce cholera transmission by improving access to safe water and adequate sanitation.

A nationwide cholera surveillance system has been established in Haiti. Hospitals and clinics send daily case counts to local MSPP officials; aggregate data are sent on to department-level officials and then to central government officials. A case of cholera is defined as profuse, acute, watery diarrhea in a resident of a department in which at least one case of cholera has been laboratory-confirmed by isolation of *Vibrio cholerae* from culture of a stool specimen. A hospitalized case occurs in a patient admitted to a health facility (i.e., a hospital or cholera treatment site) for at least one night. A cholera death is the death of a person with illness that meets the case definition for cholera. Any cholera death that occurs in a health facility, regardless of whether the decedent was admitted overnight, is considered a cholera hospital death. MSPP posts daily and cumulative tallies of cholera reports on a public website; tallies are stratified by department and age group (aged <5 years and all ages).* Since November 16, nonhospitalized cases have been posted in addition to hospitalized cases.

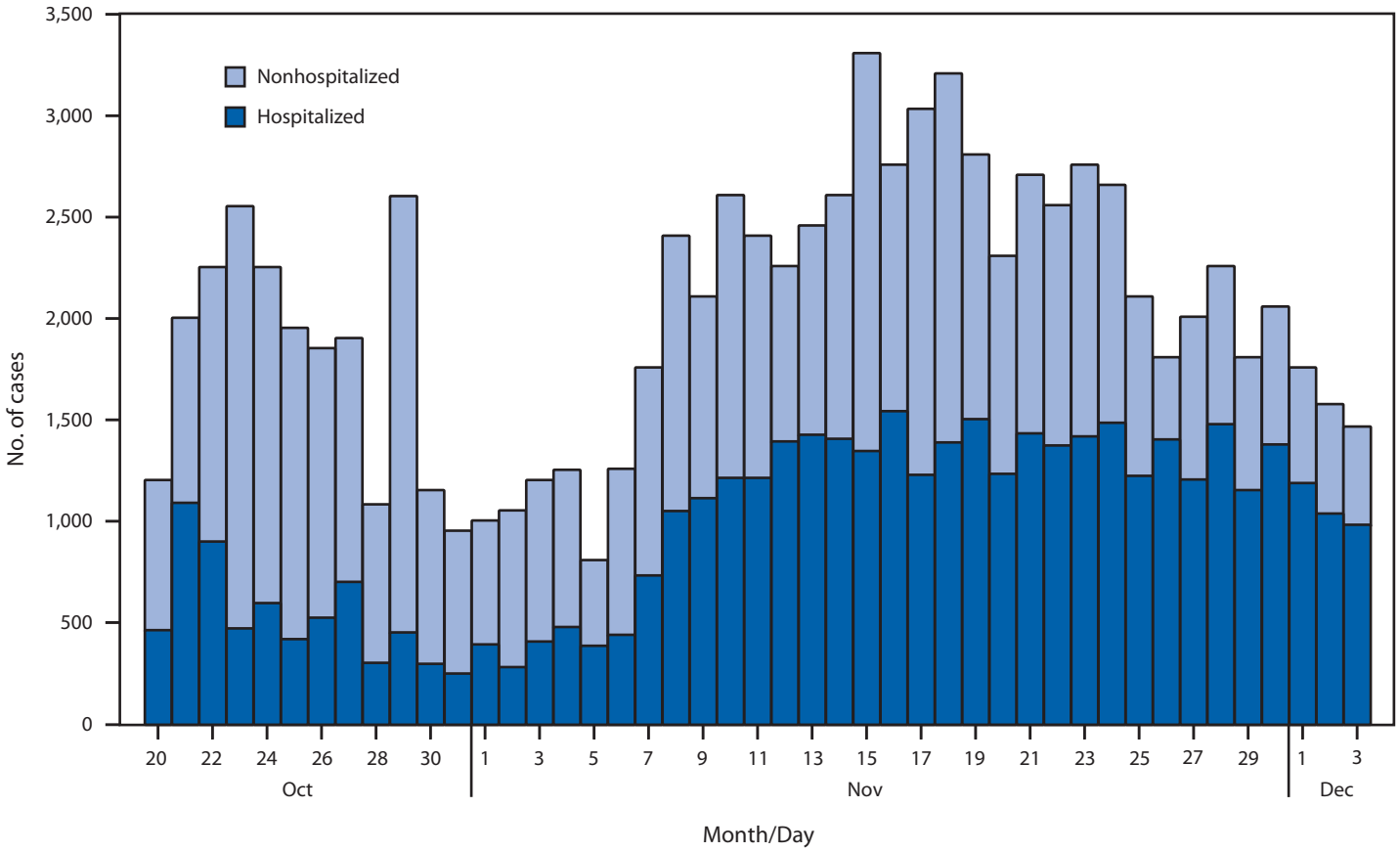
All 10 departments and the capital city of Port-au-Prince have reported laboratory-confirmed cases of cholera. As of December 3, a total of 91,770 cases had been reported nationwide, and 43,243 (47.1%) patients had been hospitalized (Figure 1). The largest number of cases (42,596 [46.4%]) were reported from Artibonite Department, which comprises approximately 16% of the Haiti population (*2*) and is the department where cases were first laboratory-confirmed (Figure 2). As of December 3, of 2,071 deaths, 1,437 (69.4%) had occurred in hospitals. A total of 82,599 (90.0%) cases, 39,435 (91.2%) hospitalizations, and 1,908 (92.1%) deaths had occurred among persons aged ≥5 years.

Nationwide, during November 27–December 3, the median daily number of deaths was 41 (range: 18–64). As of December 3, the overall case-fatality ratio (CFR) (cumulative deaths divided by cumulative cases) was 2.3%. The hospital CFR (cumulative hospital deaths divided by cumulative hospitalized cases) was 3.3%. The daily nationwide hospital CFR has varied; however, simple linear regression indicates decreases in the rolling 7-day hospital CFR in Artibonite ($p<0.001$) and in all other departments combined ($p<0.001$) (Figure 3). In Artibonite Department, the rolling 7-day hospital CFR decreased from a high of 4.2% on November 9 to a low of 1.4% on December 1 (Figure 3).

A rapid assessment of mortality from cholera among persons aged ≥5 years was conducted in Artibonite Department during November 12–16. Teams visited homes of 22 cholera decedents identified through records in two hospitals. Family members were interviewed about decedents' use of ORS and other health-care services. Family and community members were asked about other cholera deaths in the community, resulting in identification of an additional 65 decedents, whose families also were interviewed. Among the total of 87 cholera decedents identified, 58 (67%) were male; eight (9.2%) were aged 5–18 years, and 79 (90.8%) were aged 19–100 years. Of the 87 deaths, 48 (55%) occurred in a hospital or other health facility, and 39 (45%) occurred in the community. For those who died in the community, median time to death from onset of symptoms was 12 hours

*Available at http://mspp.gouv.ht/site/index.php?option=com_content&view=article&id=57&itemid=1.

FIGURE 1. Reported number of new cases of cholera (N = 91,770), by hospitalization status — Haiti, October 20–December 3, 2010*



* Because of time delays in reporting, case counts for the most recently reported days likely are underestimated.

(range: 2 hours–8 days). Only nine (23%) of the 39 persons who died in the community received ORS. Sixteen (41%) of the 39 had sought health care; eight died en route to a health facility, and eight died after discharge. When asked to cite reasons for not seeking health care, family members in 10 cases did not think the ill person had cholera; family members in seven cases reported difficulty getting to a health facility (including transport at night), and family members in six cases did not see the need to seek care.

Reported by

Ministry of Public Health and Population, Haiti. Pan American Health Organization. CDC.

Editorial Note

Surveillance data show that from October 21 to December 3, cholera spread rapidly across Haiti. Although decreasing, the hospital CFR of 3.3% remains high. Improvements in receipt of appropriate care in health facilities might be reflected in the decreasing hospital CFR. However, when cholera is recognized early and appropriate rehydration treatment is initiated rapidly, a CFR <1% can be achieved among patients who have sought care (*3*). The outbreak strain of cholera has been identified as a "hybrid" strain of the El Tor biotype and the classic toxin type; the classic toxin might be associated with more severe illness, and the El Tor biotype is associated with longer persistence in the environment (*4,5*).† Underlying poor nutritional status and other comorbidities also are likely to contribute to disease severity in Haiti (*6,7*). In 2008, only 63% of Haiti's population had access to an improved drinking water source,§ and only 17% had access to adequate sanitation (*8*). The lack of safe water and sanitation

† Most toxigenic cholera strains circulating in the world today are biotype El Tor with some variant of the classic toxin.

§ Defined as 1) a piped household water connection located inside the user's dwelling, plot, or yard; 2) public taps or standpipes; 3) tube wells or boreholes; 4) protected dug wells; 5)protected springs; or 6) rainwater collection.

What is already known on this topic?

Cholera is marked by profuse, acute, watery diarrhea that can lead to rapid dehydration and death; case-fatality ratios can be reduced to <1% with early recognition and appropriate rehydration. For at least a century, no cholera outbreak had occurred in Haiti.

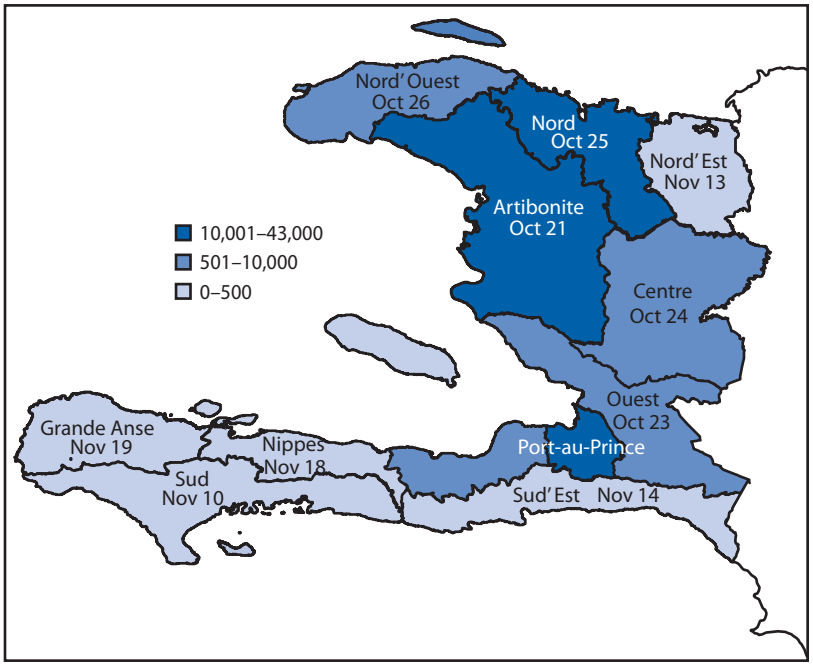
What is added by this report?

As of December 3, a total of 91,770 cases of cholera had been reported in Haiti from all 10 departments and the city of Port-au-Prince, including 43,243 hospitalizations and 2,071 deaths; the case-fatality ratio was 2.3% overall and 3.3% among persons hospitalized. A mortality assessment of 87 decedents indicated that some deaths occurred within 2 hours after symptom onset and important gaps exist in access to life-saving rehydration.

What are the implications for public health practice?

The potential exists to prevent many cholera deaths in Haiti; to do so, urgent efforts are needed to recognize affected patients early, provide ready access to oral rehydration solution, and provide access to more advanced care at cholera treatment centers as needed. Short-term and long-term measures to improve water and sanitation in Haiti also are necessary.

FIGURE 2. Cumulative number of cases of cholera reported overall* and date of first laboratory-confirmed case, by department and in Port-au-Prince†—National Cholera Monitoring System, Haiti, December 3, 2010



* Artibonite 42,596; Port-au-Prince 12,566; Nord 10,436; Nord'Ouest 9,735; Centre 9,527; Ouest 4,899; Sud 419; Nord' Est 341; Grande Anse 205; Sud' Est 76; Nippes 34.

† Includes the following communes: Carrefour, Cite Soleil, Delmas, Kenscoff, Petion Ville, Port-au-Prince, and Tabarre.

infrastructure in Haiti and the devastation caused by the January 2010 earthquake have created conditions favorable for the rapid spread of cholera across the country.

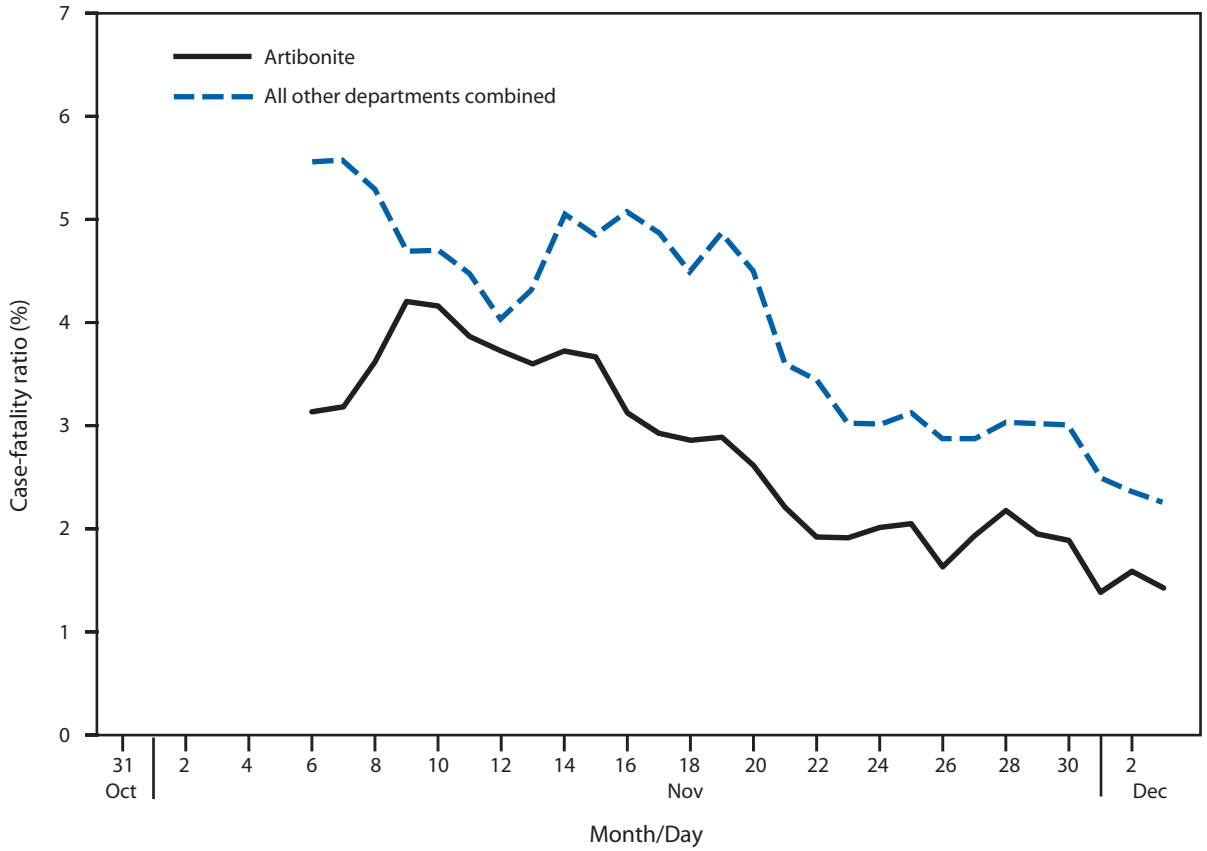
A cholera epidemic in the Western Hemisphere began in 1991 and lasted for nearly a decade, spreading across Central and South America in countries that, like Haiti, were previously unexposed to cholera and thus lacked population immunity (*9*). Peru experienced the highest cholera incidence and mortality among affected countries. During the first 6 full epidemiologic weeks of the cholera epidemic in Peru, 19,431 hospitalizations (87.5 per 100,000 population) and 368 cholera deaths (1.7 per 100,000) were reported (*10*). By comparison, during the first 6 full weeks of the Haiti outbreak, 39,010 hospitalizations (393 per 100,000 population) and 1,882 cholera deaths (19.0 per 100,000) were reported. Thus, early rates of reported hospitalizations and deaths in Haiti were substantially higher than those in Peru (rate ratios: 4.5 and 11.5, respectively). In fact, the death rate during 6 weeks of the outbreak in Haiti (19.0 per 100,000) exceeded the death rate observed during the first 48 weeks of the Peru epidemic (13.1 per 100,000).¶

Urgent measures are being taken to expand access to treatment that will mitigate cholera morbidity and mortality; improvements in water quality and sanitation also are necessary to reduce transmission. Because cholera can progress quickly to severe dehydration, shock, and death, rapid rehydration is the mainstay of cholera treatment. In the mortality assessment presented in this report, only nine of 39 cholera decedents who died outside of health facilities had received ORS, and eight died en route to care. Early access to ORS in homes, in communities (e.g., at specially designated ORS sites), and at health facilities can slow disease progression, reduce the need for hospitalization, and reduce mortality. Because cholera can lead to death rapidly, ideally all persons at risk for cholera should be within 1 hour of a location where they can receive ORS and should have access to more advanced care at specially designated cholera treatment centers.

MSPP, the U.S. government, and multiple other governmental and nongovernmental entities have worked rapidly under challenging circumstances to

¶ Cholera death total for Peru in 1991 derived from data available at http://www.paho.org/english/sha/epibul_95-98/be971cho.htm. Peru population estimate for death rate calculations available at http://ais.paho.org/phip/viz/basicindicatorbrowaser.asp.

FIGURE 3. Rolling 7-day hospital case-fatality ratio* for Artibonite and all other departments — Haiti, October 31–December 3, 2010



* Case-fatality ratio calculated as new hospital deaths divided by new hospitalizations during the 7-day period ending on that date.

establish, staff, and supply cholera treatment sites. To expand treatment options further, the United States is developing cholera treatment sites within health facilities supported by the President's Emergency Plan for AIDS Relief (PEPFAR). In addition, CDC, MSPP, and the International Centre for Diarrhoeal Disease Research, Bangladesh, have developed a train-the-trainer program** in which health workers educated in cholera treatment and clinical management techniques are providing clinical training to health workers across the country. Ensuring sufficient supplies and staffing for cholera treatment sites during the evolving cholera outbreak will be challenging, and ensuring appropriate care will require systematic assessments of cholera treatment sites.

Short-term and long-term efforts also are needed to prevent cholera transmission. In the short-term, products for household water chlorination and safe water storage must be made available to all households and health facilities, including in communities not yet affected by cholera. Hand washing with soap and safe sanitation behaviors, including latrine use, need to be reinforced, and soap should be made more widely available. Safe food-handling practices, in homes and in open markets, ought to be encouraged. Although much work has been done by MSPP and its partners to improve access to safe drinking water and adequate sanitation in the areas of Haiti hardest hit by the January 2010 earthquake, additional activities are needed to ensure long-term access. In the coming months, certain efforts will be critical for reducing cholera transmission and mortality: 1) sustaining and improving drinking water chlorination; 2) improving access to safe drinking water sources; 3) enhancing water, sanitation, and hygiene education activities; and 4) ensuring appropriate sanitation measures in cholera treatment centers to prevent contamination of the environment.

** Information available at http://www.cdc.gov/haiticholera/training/hcp_materials.htm.

The findings in this report are subject to at least four limitations. First, cholera cases and deaths, particularly those not evaluated or occurring in health facilities, likely are underreported, and how reporting might differ among facilities and age groups is not well understood. Second, the mortality assessment was conducted in one area of Artibonite Department, and sampling was not systematic; as such, demographic characteristics, circumstances of illness, and location of death might not be representative of all deaths in the country. Third, family member responses in the mortality assessment might not have provided an accurate account of the decedent's perceptions or experiences. Finally, population estimates used to calculate rates for cholera morbidity and mortality are uncertain, particularly because of the mortality caused by the earthquake in Haiti.

Despite strong responses from MSPP and governments and nongovernmental agencies, the size and speed of this cholera outbreak, combined with the lack of safe water and sanitation infrastructure in Haiti, indicate that further action is urgently needed to reduce cholera transmission and mortality. All parties should extend their periods of involvement and redouble their efforts to support efforts in Haiti to reduce the burden of this disease.

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Notice to Readers

Update: Vol. 47, No. 9

In the report, "Human Exposure to *Brucella abortus* Strain RB51 — Kansas, 1997," the sixth paragraph of the Editorial Note (page 174) mentioned efforts by CDC's Special Bacteriology Reference Laboratory to develop a polymerase chain reaction assay for detection of human RB51 infection. However, currently no validated routine test is available to monitor infections associated with exposure to the RB51 vaccine strain. Exposure to RB51 does not elicit a measurable antibody response; therefore, serology cannot provide an indicator of infection. Persons seeking assistance in identifying *Brucella* spp. or serologic monitoring of exposed persons should contact their state health departments or the CDC Bacterial Special Pathogens Branch at telephone 404-639-1711.

Postexposure prophylaxis is recommended for persons at high risk. A high-risk exposure is defined as 1) having direct personal exposure to *Brucella* (e.g., sniffing bacteriologic cultures, direct skin contact, pipetting by mouth, inoculation, or spraying into the eyes, nose, or mouth), 2) performing work on an open bench (i.e., outside of biosafety level 3 containment equipment) with an open culture plate containing a *Brucella* isolate or being in close proximity to such work (e.g., across an open bench top or within 5 feet), or 3) presence in the laboratory during any procedure conducted on a *Brucella* isolate that might result in generation of aerosolized organisms and inhalational exposure (e.g., vortexing or catalase testing).

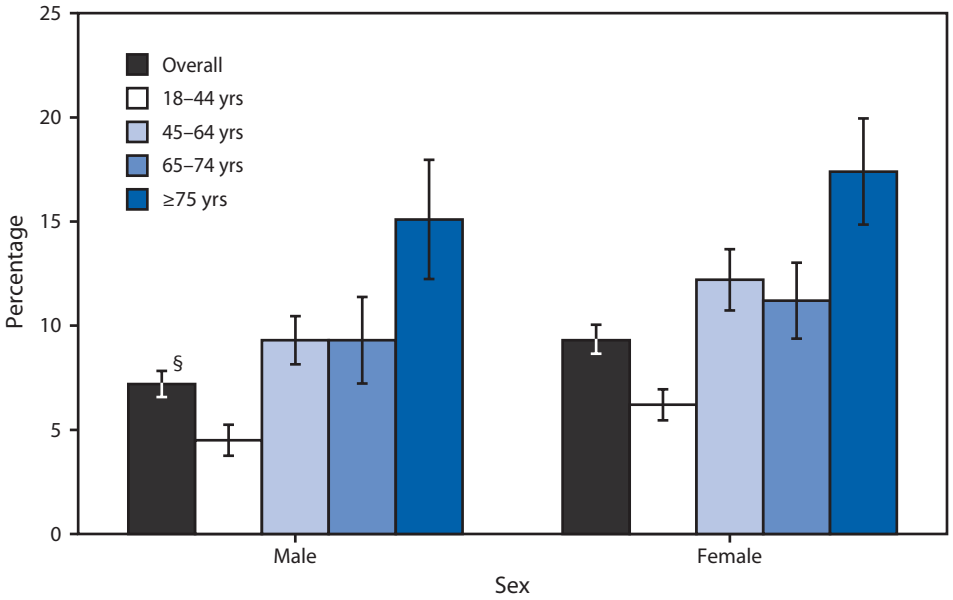
Errata: Vol. 59, No. 32

In the "Final 2009 Reports of Nationally Notifiable Infectious Diseases," on page 1027, in "Table 2. Reported cases of notifiable diseases, by geographic division and area — United States, 2009," the AIDS heading should read "**HIV diagnoses**." On page 1030, under "Coccidioidomycosis," the United States total should read "**12,926**," and the totals for Pacific and California should read "**2,488**."

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Adults Aged ≥18 Years Who Reported Vision Trouble,* by Sex and Age Group — National Health Interview Survey, 2009†



* Based on responses to the following questions: "Do you have any trouble seeing, even when wearing glasses or contact lenses?" and "Are you blind or unable to see at all?" For this analysis, "any trouble seeing" and "blind" were combined into one category.
† Estimates are based on household interviews of a sample of the civilian, noninstitutionalized U.S. population and are derived from the National Health Interview Survey sample adult component.
§ 95% confidence interval.

In 2009, women (9.3%) were more likely than men (7.2%) to report vision trouble. Among both men and women, adults aged ≥75 years were most likely to report vision trouble, and adults aged 18–44 years were least likely to report vision trouble. Within each sex, rates of reported vision trouble were similar for persons aged 45–64 years and 65–74 years.

Source: National Health Interview Survey, 2009 data. Available at http://www.cdc.gov/nchs/nhis.htm.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending December 4, 2010 (48th week)*

Disease	Current week	Cum 2010	5-year weekly average†	Total cases reported for previous years 2009	2008	2007	2006	2005	States reporting cases during current week (No.)
Anthrax	—	—	0	1	—	1	1	—	
Botulism, total	1	93	3	118	145	144	165	135	
foodborne	—	6	0	10	17	32	20	19	
infant	1	66	2	83	109	85	97	85	WA (1)
other (wound and unspecified)	—	21	1	25	19	27	48	31	
Brucellosis	—	114	2	115	80	131	121	120	
Chancroid	—	35	1	28	25	23	33	17	
Cholera	—	5	0	10	5	7	9	8	
Cyclosporiasis§	—	166	1	141	139	93	137	543	
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases§,¶:									
California serogroup virus disease	—	65	0	55	62	55	67	80	
Eastern equine encephalitis virus disease	—	10	—	4	4	4	8	21	
Powassan virus disease	—	5	0	6	2	7	1	1	
St. Louis encephalitis virus disease	—	8	0	12	13	9	10	13	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Haemophilus influenzae,** invasive disease (age <5 yrs):									
serotype b	—	14	0	35	30	22	29	9	
nonserotype b	1	139	3	236	244	199	175	135	OK (1)
unknown serotype	4	232	3	178	163	180	179	217	FL (3), OK (1)
Hansen disease§	—	56	2	103	80	101	66	87	
Hantavirus pulmonary syndrome§	—	17	1	20	18	32	40	26	
Hemolytic uremic syndrome, postdiarrheal§	2	208	4	242	330	292	288	221	TN (1), OK (1)
HIV infection, pediatric (age <13 yrs)††	—	—	3	—	—	—	—	380	
Influenza-associated pediatric mortality§,§§	—	58	4	358	90	77	43	45	
Listeriosis	7	713	17	851	759	808	884	896	NY (1), MD (1), WV (1), OK (2), CO (1), WA (1)
Measles¶¶	1	59	0	71	140	43	55	66	CA (1)
Meningococcal disease, invasive***:									
A, C, Y, and W-135	—	215	6	301	330	325	318	297	
serogroup B	—	99	3	174	188	167	193	156	
other serogroup	—	8	0	23	38	35	32	27	
unknown serogroup	6	373	10	482	616	550	651	765	PA (1), GA (1), FL (1), CO (1), OR (1), CA (1)
Mumps	1	2,477	37	1,991	454	800	6,584	314	OH (1)
Novel influenza A virus infections†††	—	3	0	43,774	2	4	NN	NN	
Plague	—	2	—	8	3	7	17	8	
Poliomyelitis, paralytic	—	—	—	1	—	—	—	1	
Polio virus Infection, nonparalytic§	—	—	—	—	—	—	NN	NN	
Psittacosis§	—	4	0	9	8	12	21	16	
Q fever, total§,§§§	1	111	1	114	120	171	169	136	
acute	1	85	1	94	106	—	—	—	CA (1)
chronic	—	26	0	20	14	—	—	—	
Rabies, human	—	1	0	4	2	1	3	2	
Rubella¶¶¶	—	6	0	3	16	12	11	11	
Rubella, congenital syndrome	—	—	—	2	—	—	1	1	
SARS-CoV§,****	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	—	149	2	161	157	132	125	129	
Syphilis, congenital (age <1 yr)††††	—	194	7	423	431	430	349	329	
Tetanus	—	7	1	18	19	28	41	27	
Toxic-shock syndrome (staphylococcal)§	2	72	1	74	71	92	101	90	GA (1), CA (1)
Trichinellosis	—	5	0	13	39	5	15	16	
Tularemia	2	101	1	93	123	137	95	154	CA (2)
Typhoid fever	5	381	4	397	449	434	353	324	MD (1), VA (1), NC (1), FL (1), CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	2	84	1	78	63	37	6	2	NY (2)
Vancomycin-resistant *Staphylococcus aureus*§	—	1	—	1	—	2	1	3	
Vibriosis (noncholera *Vibrio* species infections)§	4	716	5	789	588	549	NN	NN	FL (2), CA (1), HI (1)
Viral hemorrhagic fever§§§	—	1	—	NN	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table I footnotes on next page.

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending December 4, 2010 (48th week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable Cum: Cumulative year-to-date counts.

* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf.

† 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/ncphi/disss/nndss/phs/files/5yearweeklyaverage.pdf.

§ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table except starting in 2007 for the domestic arboviral diseases, STD data, TB data, and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/ncphi/disss/nndss/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.

** 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. Since October 3, 2010, one influenza-associated pediatric death occurred during the 2010–11 influenza season. Since August 30, 2009, a total of 282 influenza-associated pediatric deaths occurring during the 2009–10 influenza season have been reported.

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

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

††† CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC. The three cases of novel influenza A virus infection reported to CDC during 2010 were identified as swine influenza A (H3N2) virus and are unrelated to the 2009 pandemic influenza A (H1N1) virus. Total case counts for 2009 were provided by the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD).

§§§ In 2009, 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.

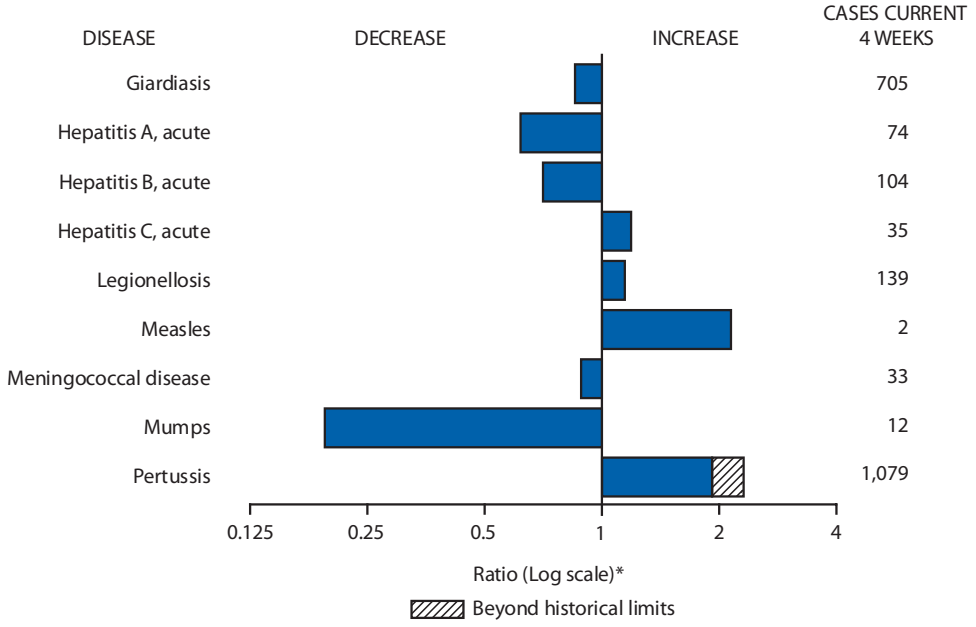
¶¶¶ No rubella cases were reported for the current week.

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

†††† Updated weekly from reports to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

§§§§ There was one case of viral hemorrhagic fever reported during week 12. The one case report was confirmed as lassa fever. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals December 4, 2010, with historical data



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

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	*Chlamydia trachomatis* infection					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max		
United States	11,987	23,850	26,342	1,112,919	1,151,894	64	120	342	7,123	6,917
New England	731	759	1,396	37,043	37,042	2	7	77	425	432
Connecticut	122	198	736	9,389	10,594	—	0	71	71	38
Maine†	—	49	69	1,996	2,250	—	1	7	74	47
Massachusetts	408	399	695	19,020	17,717	—	3	8	148	169
New Hampshire	60	43	114	2,283	1,971	—	1	5	51	79
Rhode Island†	118	64	120	3,206	3,394	—	0	2	13	22
Vermont†	23	23	51	1,149	1,116	2	1	5	68	77
Mid. Atlantic	1,895	3,375	5,027	158,925	146,305	5	15	38	785	778
New Jersey	519	516	691	24,908	22,686	—	1	4	36	51
New York (Upstate)	826	687	2,530	32,372	29,124	5	3	16	202	202
New York City	—	1,213	2,738	57,635	54,555	—	2	5	93	80
Pennsylvania	550	933	1,092	44,010	39,940	—	8	26	454	445
E.N. Central	721	3,486	4,127	161,641	184,912	6	30	122	1,903	1,628
Illinois	11	761	1,225	35,060	56,746	—	4	21	265	149
Indiana	—	372	797	17,664	20,521	—	3	10	143	269
Michigan	460	923	1,419	44,444	42,908	1	5	18	300	270
Ohio	143	981	1,085	44,932	45,161	5	7	24	431	363
Wisconsin	107	424	512	19,541	19,576	—	9	57	764	577
W.N. Central	189	1,360	1,565	62,928	65,826	9	22	83	1,241	1,050
Iowa	15	202	270	9,479	8,842	—	4	24	316	198
Kansas	28	189	235	8,814	9,905	4	2	9	130	100
Minnesota	—	282	340	12,259	13,387	—	0	16	98	321
Missouri	116	503	616	23,774	24,105	2	4	30	357	177
Nebraska†	—	93	237	4,198	5,081	2	2	26	222	114
North Dakota	9	30	89	1,532	1,734	1	0	18	31	12
South Dakota	21	62	77	2,872	2,772	—	2	6	87	128
S. Atlantic	3,762	4,736	5,681	223,144	233,333	16	18	51	940	1,069
Delaware	99	84	220	4,094	4,364	—	0	2	7	10
District of Columbia	—	91	177	4,387	6,258	—	0	1	5	7
Florida	700	1,469	1,737	68,802	68,203	12	7	19	357	430
Georgia	221	622	1,229	29,717	37,533	3	5	31	279	322
Maryland†	677	453	1,031	21,448	21,090	—	1	3	33	41
North Carolina	686	765	1,562	37,241	38,231	—	0	12	73	108
South Carolina†	590	524	748	25,294	25,055	—	1	8	82	58
Virginia†	721	596	902	28,599	29,188	1	2	8	88	77
West Virginia	68	73	117	3,562	3,411	—	0	3	16	16
E.S. Central	437	1,746	2,414	80,542	86,741	1	4	19	304	216
Alabama†	—	495	757	23,968	24,418	—	2	13	150	62
Kentucky	337	264	614	13,395	12,174	—	1	6	79	62
Mississippi	—	377	780	17,518	22,252	—	0	3	22	18
Tennessee†	100	573	747	25,661	27,897	1	1	5	53	74
W.S. Central	1,347	3,016	4,582	147,448	149,303	2	7	39	405	533
Arkansas†	286	268	392	11,452	13,457	—	0	3	31	54
Louisiana	210	286	1,731	15,385	25,516	—	1	6	60	53
Oklahoma	—	261	1,374	13,728	13,147	2	1	8	80	120
Texas†	851	2,222	3,194	106,883	97,183	—	4	30	234	306
Mountain	931	1,455	1,912	70,019	73,891	2	10	29	518	535
Arizona	321	515	713	24,290	23,823	—	1	3	35	33
Colorado	185	359	560	16,009	18,401	1	2	8	129	133
Idaho†	82	69	200	3,654	3,516	1	2	7	89	90
Montana†	—	60	82	2,733	2,780	—	1	4	46	53
Nevada†	159	172	337	8,545	9,286	—	0	6	31	25
New Mexico†	184	162	453	7,411	8,505	—	2	12	113	140
Utah	—	121	176	5,630	5,730	—	1	5	59	39
Wyoming†	—	36	79	1,747	1,850	—	0	2	16	22
Pacific	1,974	3,658	5,350	171,229	174,541	21	12	28	602	676
Alaska	—	113	148	5,224	4,804	—	0	1	5	6
California	1,397	2,806	4,406	131,258	133,700	14	8	18	353	408
Hawaii	1	112	158	5,361	5,657	—	0	1	1	1
Oregon	282	212	468	10,500	10,423	1	3	13	166	179
Washington	294	399	500	18,886	19,957	6	1	8	77	82
Territories										
American Samoa	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	7	31	259	327	—	0	0	—	—
Puerto Rico	—	92	265	4,950	6,765	N	0	0	N	N
U.S. Virgin Islands	—	11	29	323	469	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for HIV/AIDS, AIDS and TB, when available, are displayed in Table IV, which appears quarterly.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever†					Dengue Hemorrhagic Fever§				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max		
United States	—	6	36	459	NN	—	0	2	5	NN
New England	—	0	3	8	NN	—	0	0	—	NN
Connecticut	—	0	0	—	NN	—	0	0	—	NN
Maine¶	—	0	2	5	NN	—	0	0	—	NN
Massachusetts	—	0	0	—	NN	—	0	0	—	NN
New Hampshire	—	0	0	—	NN	—	0	0	—	NN
Rhode Island¶	—	0	0	—	NN	—	0	0	—	NN
Vermont¶	—	0	1	3	NN	—	0	0	—	NN
Mid. Atlantic	—	2	12	132	NN	—	0	1	1	NN
New Jersey	—	0	0	—	NN	—	0	0	—	NN
New York (Upstate)	—	0	0	—	NN	—	0	0	—	NN
New York City	—	1	12	115	NN	—	0	1	1	NN
Pennsylvania	—	0	2	17	NN	—	0	0	—	NN
E.N. Central	—	0	5	41	NN	—	0	1	1	NN
Illinois	—	0	0	—	NN	—	0	0	—	NN
Indiana	—	0	2	11	NN	—	0	0	—	NN
Michigan	—	0	2	9	NN	—	0	0	—	NN
Ohio	—	0	2	16	NN	—	0	0	—	NN
Wisconsin	—	0	2	5	NN	—	0	1	1	NN
W.N. Central	—	0	2	17	NN	—	0	0	—	NN
Iowa	—	0	1	2	NN	—	0	0	—	NN
Kansas	—	0	1	1	NN	—	0	0	—	NN
Minnesota	—	0	2	13	NN	—	0	0	—	NN
Missouri	—	0	0	—	NN	—	0	0	—	NN
Nebraska¶	—	0	0	—	NN	—	0	0	—	NN
North Dakota	—	0	1	1	NN	—	0	0	—	NN
South Dakota	—	0	0	—	NN	—	0	0	—	NN
S. Atlantic	—	2	17	213	NN	—	0	1	2	NN
Delaware	—	0	0	—	NN	—	0	0	—	NN
District of Columbia	—	0	0	—	NN	—	0	0	—	NN
Florida	—	2	14	174	NN	—	0	1	2	NN
Georgia	—	0	2	11	NN	—	0	0	—	NN
Maryland¶	—	0	0	—	NN	—	0	0	—	NN
North Carolina	—	0	1	4	NN	—	0	0	—	NN
South Carolina¶	—	0	3	10	NN	—	0	0	—	NN
Virginia¶	—	0	3	12	NN	—	0	0	—	NN
West Virginia	—	0	1	2	NN	—	0	0	—	NN
E.S. Central	—	0	2	5	NN	—	0	0	—	NN
Alabama¶	—	0	2	2	NN	—	0	0	—	NN
Kentucky	—	0	1	1	NN	—	0	0	—	NN
Mississippi	—	0	1	1	NN	—	0	0	—	NN
Tennessee¶	—	0	1	1	NN	—	0	0	—	NN
W.S. Central	—	0	1	4	NN	—	0	1	1	NN
Arkansas¶	—	0	0	—	NN	—	0	1	1	NN
Louisiana	—	0	0	—	NN	—	0	0	—	NN
Oklahoma	—	0	1	4	NN	—	0	0	—	NN
Texas¶	—	0	0	—	NN	—	0	0	—	NN
Mountain	—	0	2	16	NN	—	0	0	—	NN
Arizona	—	0	1	6	NN	—	0	0	—	NN
Colorado	—	0	0	—	NN	—	0	0	—	NN
Idaho¶	—	0	1	2	NN	—	0	0	—	NN
Montana¶	—	0	1	3	NN	—	0	0	—	NN
Nevada¶	—	0	1	4	NN	—	0	0	—	NN
New Mexico¶	—	0	1	1	NN	—	0	0	—	NN
Utah	—	0	0	—	NN	—	0	0	—	NN
Wyoming¶	—	0	0	—	NN	—	0	0	—	NN
Pacific	—	0	5	23	NN	—	0	0	—	NN
Alaska	—	0	0	—	NN	—	0	0	—	NN
California	—	0	5	11	NN	—	0	0	—	NN
Hawaii	—	0	0	—	NN	—	0	0	—	NN
Oregon	—	0	0	—	NN	—	0	0	—	NN
Washington	—	0	2	12	NN	—	0	0	—	NN
Territories										
American Samoa	—	0	0	—	NN	—	0	0	—	NN
C.N.M.I.	—	—	—	—	NN	—	—	—	—	NN
Guam	—	0	0	—	NN	—	0	0	—	NN
Puerto Rico	—	109	535	9,692	NN	—	0	3	37	NN
U.S. Virgin Islands	—	0	0	—	NN	—	0	0	—	NN

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for HIV/AIDS, AIDS and TB, when available, are displayed in Table IV, which appears quarterly.
† Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage, other clinical, and unknown case classifications.
§ DHF includes cases that meet criteria for dengue shock syndrome (DSS), a more severe form of DHF.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	Ehrlichia chaffeensis					*Anaplasma phagocytophilum*					Undetermined				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	3	8	181	574	900	10	11	309	747	899	—	1	35	98	164
New England	—	0	2	6	52	—	1	8	81	261	—	0	2	8	2
Connecticut	—	0	0	—	—	—	0	5	25	17	—	0	2	6	—
Maine§	—	0	1	4	5	—	0	2	16	14	—	0	0	—	—
Massachusetts	—	0	0	—	9	—	0	2	—	97	—	0	0	—	—
New Hampshire	—	0	1	2	4	—	0	3	16	19	—	0	1	2	1
Rhode Island§	—	0	1	—	33	—	0	7	24	114	—	0	0	—	1
Vermont§	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	1	1	15	50	189	10	3	17	206	303	—	0	2	4	44
New Jersey	—	0	2	—	100	—	0	1	1	70	—	0	0	—	—
New York (Upstate)	1	0	15	29	53	10	3	17	202	222	—	0	1	4	6
New York City	—	0	3	20	10	—	0	1	3	9	—	0	0	—	1
Pennsylvania	—	0	1	1	26	—	0	1	—	2	—	0	1	—	37
E.N. Central	—	0	4	32	84	—	4	39	365	277	—	1	7	61	71
Illinois	—	0	2	12	33	—	0	2	7	6	—	0	2	3	3
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	3	28	36
Michigan	—	0	1	2	6	—	0	0	—	—	—	0	1	4	—
Ohio	—	0	3	6	13	—	0	1	2	1	—	0	0	—	2
Wisconsin	—	0	1	12	32	—	4	39	356	270	—	0	4	26	30
W.N. Central	—	1	13	123	153	—	0	261	14	35	—	0	30	11	20
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	1	6	6	—	0	0	—	1	—	0	0	—	—
Minnesota	—	0	6	—	2	—	0	261	—	29	—	0	30	—	7
Missouri	—	1	13	115	143	—	0	3	14	4	—	0	3	11	13
Nebraska§	—	0	1	2	2	—	0	0	—	1	—	0	0	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	—	4	19	247	255	—	1	7	57	17	—	0	2	7	2
Delaware	—	0	3	17	22	—	0	1	4	2	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	—	0	2	8	12	—	0	1	3	3	—	0	0	—	—
Georgia	—	0	4	22	18	—	0	1	2	1	—	0	1	1	—
Maryland§	—	0	3	24	42	—	0	2	15	4	—	0	2	3	—
North Carolina	—	2	13	100	61	—	0	4	21	3	—	0	0	—	—
South Carolina§	—	0	2	3	12	—	0	1	1	—	—	0	0	—	—
Virginia§	—	1	13	72	87	—	0	2	11	4	—	0	1	3	2
West Virginia	—	0	1	1	1	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	1	10	85	134	—	0	2	18	3	—	0	1	6	24
Alabama§	—	0	3	11	9	—	0	2	7	1	—	0	0	—	—
Kentucky	—	0	2	16	12	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	3	6	—	0	1	1	—	—	0	0	—	—
Tennessee§	—	0	6	55	107	—	0	2	10	2	—	0	1	6	24
W.S. Central	2	0	141	30	30	—	0	23	6	1	—	0	1	1	—
Arkansas§	2	0	34	11	4	—	0	6	3	—	—	0	0	—	—
Louisiana	—	0	1	1	—	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	105	15	24	—	0	16	2	1	—	0	0	—	—
Texas§	—	0	2	3	2	—	0	1	1	—	—	0	1	1	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	0	—	1
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	0	—	1
Colorado	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Idaho§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Nevada§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	1	3	—	0	0	—	2	—	0	1	—	—
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
California	—	0	1	1	3	—	0	0	—	2	—	0	1	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	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 reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for HIV/AIDS, AIDS and TB, when available, are displayed in Table IV, which appears quarterly.
† Cumulative total *E. ewingii* cases reported for year 2010 = 10.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	200	341	666	16,460	17,749	2,918	5,565	6,382	260,808	279,857	45	59	171	2,664	2,629
New England	10	31	54	1,458	1,641	183	102	196	4,981	4,616	3	3	21	171	179
Connecticut	—	5	13	236	273	116	39	169	2,151	2,220	3	0	15	43	48
Maine§	6	4	12	215	200	—	3	11	136	128	—	0	2	11	19
Massachusetts	—	13	24	637	707	62	46	81	2,234	1,812	—	2	8	86	86
New Hampshire	1	3	8	135	190	4	3	7	147	105	—	0	2	11	12
Rhode Island§	—	1	7	60	60	1	5	14	266	307	—	0	2	11	9
Vermont§	3	4	10	175	211	—	0	17	47	44	—	0	1	9	5
Mid. Atlantic	46	63	103	2,956	3,211	397	688	1,157	33,636	29,313	7	11	34	531	536
New Jersey	—	6	14	293	404	129	112	176	5,503	4,470	—	2	7	84	118
New York (Upstate)	27	22	84	1,094	1,239	110	104	422	5,367	5,380	6	3	20	148	145
New York City	8	17	33	855	774	—	230	528	11,058	10,246	—	2	6	102	68
Pennsylvania	11	14	27	714	794	158	249	366	11,708	9,217	1	4	9	197	205
E.N. Central	25	54	83	2,640	2,731	240	942	1,260	44,428	59,011	5	10	20	443	413
Illinois	—	12	26	532	576	8	186	366	8,357	18,795	—	3	9	136	155
Indiana	—	5	14	207	285	—	99	222	4,999	6,481	—	1	6	75	75
Michigan	3	13	25	629	620	142	249	471	12,283	13,904	—	0	3	32	24
Ohio	21	16	29	806	764	64	318	380	14,424	14,963	5	2	6	110	91
Wisconsin	1	8	32	466	486	26	93	155	4,365	4,868	—	2	5	90	68
W.N. Central	13	24	165	1,321	1,751	55	280	357	13,106	13,905	6	3	24	154	151
Iowa	1	5	11	267	276	7	33	57	1,620	1,570	—	0	1	1	—
Kansas	1	4	10	199	152	7	37	62	1,813	2,367	—	0	2	15	13
Minnesota	—	0	135	136	539	—	38	62	1,734	2,155	—	0	17	25	54
Missouri	5	8	26	404	487	41	137	178	6,430	6,066	3	1	6	79	56
Nebraska§	6	4	9	207	162	—	20	50	995	1,293	3	0	2	24	22
North Dakota	—	0	7	29	25	—	2	11	102	133	—	0	4	10	6
South Dakota	—	1	7	79	110	—	8	19	412	321	—	0	0	—	—
S. Atlantic	42	71	143	3,389	3,463	1,052	1,348	1,787	64,705	69,777	15	14	27	696	712
Delaware	—	0	5	30	25	17	18	48	916	891	—	0	1	5	4
District of Columbia	—	1	5	35	70	—	33	66	1,647	2,446	—	0	1	4	5
Florida	34	39	87	1,973	1,800	242	392	493	18,581	19,537	8	3	9	177	207
Georgia	—	9	51	485	701	79	211	421	9,888	12,829	2	3	9	162	139
Maryland§	2	5	11	246	264	206	132	237	6,276	5,748	3	1	6	63	81
North Carolina	N	0	0	N	N	222	246	596	12,473	12,950	1	2	9	114	97
South Carolina§	—	2	9	124	102	129	152	232	7,450	7,846	—	2	7	72	70
Virginia§	3	9	36	451	449	144	152	265	6,947	7,081	—	2	4	72	82
West Virginia	3	0	6	45	52	13	10	26	527	449	1	0	5	27	27
E.S. Central	5	6	15	265	386	98	465	697	21,901	24,893	—	3	12	156	153
Alabama§	5	4	11	208	185	—	146	217	6,976	7,041	—	0	3	24	36
Kentucky	N	0	0	N	N	77	72	142	3,475	3,517	—	1	2	32	19
Mississippi	N	0	0	N	N	—	110	216	5,036	6,890	—	0	2	11	8
Tennessee§	—	1	9	57	201	21	137	194	6,414	7,445	—	2	10	89	90
W.S. Central	3	8	16	355	482	402	830	1,303	40,080	43,639	5	2	20	123	116
Arkansas§	2	2	7	125	141	82	77	133	3,510	4,197	—	0	3	16	20
Louisiana	1	3	9	167	188	93	86	508	4,461	8,300	—	0	4	24	20
Oklahoma	—	2	7	63	153	—	78	359	4,041	4,166	5	1	15	75	72
Texas§	N	0	0	N	N	227	582	964	28,068	26,976	—	0	2	8	4
Mountain	10	30	50	1,509	1,556	139	180	262	8,332	8,663	4	5	15	269	229
Arizona	—	3	8	146	194	43	63	109	2,864	2,904	—	2	10	97	75
Colorado	7	13	27	652	468	28	53	95	2,482	2,606	2	1	5	77	63
Idaho§	2	4	9	191	196	13	2	7	121	98	1	0	2	18	4
Montana§	—	2	7	97	127	—	2	6	95	73	—	0	1	2	1
Nevada§	1	1	11	96	102	28	29	94	1,485	1,590	1	0	2	9	18
New Mexico§	—	2	5	92	110	27	20	41	981	998	—	1	5	39	33
Utah	—	4	11	199	295	—	5	15	275	324	—	0	4	21	32
Wyoming§	—	1	5	36	64	—	0	4	29	70	—	0	2	6	3
Pacific	46	53	133	2,567	2,528	352	606	815	29,639	26,040	—	2	21	121	140
Alaska	—	2	6	88	106	—	24	37	1,128	908	—	0	2	20	20
California	32	33	61	1,592	1,657	294	497	691	24,366	21,392	—	0	18	22	40
Hawaii	—	0	4	33	20	4	14	25	693	592	—	0	2	9	28
Oregon	2	9	20	441	381	9	19	42	928	1,016	—	1	5	64	49
Washington	12	8	75	413	364	45	52	80	2,524	2,132	—	0	4	6	3
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	2	3	—	0	4	30	19	—	0	0	—	—
Puerto Rico	—	1	8	65	147	—	6	14	274	216	—	0	1	1	4
U.S. Virgin Islands	—	0	0	—	—	—	2	7	78	114	—	0	0	—	—

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* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for HIV/AIDS, AIDS and TB, when available, are displayed in Table IV, which appears quarterly.
† 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 December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	23	30	69	1,420	1,823	28	63	204	2,854	2,997	7	14	44	753	699
New England	—	2	5	85	103	—	1	5	48	51	—	1	4	39	63
Connecticut	—	0	3	27	18	—	0	2	19	15	—	0	4	27	50
Maine†	—	0	1	7	1	—	0	2	13	15	—	0	0	—	2
Massachusetts	—	1	5	41	67	—	0	2	8	17	—	0	1	10	10
New Hampshire	—	0	1	2	7	—	0	2	6	4	N	0	0	N	N
Rhode Island†	—	0	4	8	8	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	0	—	2	—	0	1	2	—	—	0	1	2	1
Mid. Atlantic	3	4	10	193	252	2	5	10	260	308	1	2	6	102	94
New Jersey	—	0	3	14	61	—	1	5	66	91	—	0	2	14	7
New York (Upstate)	2	1	4	57	44	2	1	6	51	47	—	1	4	56	44
New York City	—	1	5	70	83	—	2	4	77	67	—	0	1	1	5
Pennsylvania	1	1	4	52	64	—	1	5	66	103	1	0	3	31	38
E.N. Central	2	4	9	200	275	1	9	17	425	404	1	2	8	109	84
Illinois	—	1	3	44	122	—	1	5	80	114	—	0	1	2	4
Indiana	—	0	2	17	16	—	1	5	50	68	—	0	2	21	19
Michigan	1	1	5	67	71	1	3	6	116	118	1	1	5	70	32
Ohio	1	1	5	46	35	—	2	6	85	82	—	0	1	8	26
Wisconsin	—	0	3	26	31	—	2	8	94	22	—	0	2	8	3
W.N. Central	—	1	13	74	111	1	2	15	110	131	—	0	11	24	22
Iowa	—	0	3	11	35	—	0	2	13	34	—	0	1	—	10
Kansas	—	0	3	12	12	—	0	2	8	6	—	0	2	3	1
Minnesota	—	0	12	15	19	—	0	13	8	24	—	0	9	12	6
Missouri	—	0	2	23	21	1	1	3	68	43	—	0	1	7	—
Nebraska†	—	0	4	12	20	—	0	2	12	21	—	0	1	2	3
North Dakota	—	0	1	—	1	—	0	0	—	—	—	0	1	—	1
South Dakota	—	0	1	1	3	—	0	1	1	3	—	0	0	—	1
S. Atlantic	3	7	14	321	399	8	17	40	811	819	3	4	7	162	163
Delaware	—	0	1	7	4	—	0	2	23	31	U	0	0	U	U
District of Columbia	—	0	1	1	1	—	0	1	3	10	—	0	1	2	1
Florida	2	3	7	132	162	5	6	11	278	272	2	1	5	54	48
Georgia	—	1	3	35	48	1	3	7	138	136	—	0	2	9	31
Maryland†	—	0	3	23	45	—	1	6	70	69	1	0	3	26	22
North Carolina	—	0	5	45	36	—	1	16	91	99	—	1	3	40	22
South Carolina†	—	0	3	22	60	—	1	4	53	53	—	0	1	1	1
Virginia†	1	1	6	48	38	2	2	14	93	88	—	0	2	13	10
West Virginia	—	0	5	8	5	—	0	14	62	61	—	0	5	17	28
E.S. Central	2	1	3	41	39	5	7	13	334	318	—	3	8	143	98
Alabama†	2	0	1	8	11	—	1	4	61	82	—	0	1	6	8
Kentucky	—	0	3	19	10	—	2	8	121	83	—	2	6	99	59
Mississippi	—	0	1	2	8	—	1	3	34	31	U	0	0	U	U
Tennessee†	—	0	2	12	10	5	2	8	118	122	—	1	4	38	31
W.S. Central	5	3	19	134	181	8	9	109	456	534	2	1	14	69	54
Arkansas†	—	0	1	2	11	—	0	4	41	61	—	0	0	—	2
Louisiana	—	0	2	12	6	—	1	4	45	66	—	0	1	9	8
Oklahoma	—	0	3	1	6	2	2	19	89	98	2	0	12	30	12
Texas†	5	2	18	119	158	6	5	87	281	309	—	0	3	30	32
Mountain	—	3	8	135	151	1	3	8	128	123	—	1	5	50	49
Arizona	—	1	5	60	63	—	1	2	30	40	U	0	0	U	U
Colorado	—	1	3	34	47	—	0	5	40	25	—	0	1	12	26
Idaho†	—	0	2	7	5	—	0	1	6	11	—	0	2	9	6
Montana†	—	0	1	4	6	—	0	1	1	1	—	0	1	2	1
Nevada†	—	0	2	14	13	1	1	3	38	31	—	0	1	6	4
New Mexico†	—	0	1	5	8	—	0	1	5	6	—	0	2	11	6
Utah	—	0	1	8	7	—	0	1	5	5	—	0	2	10	6
Wyoming†	—	0	3	3	2	—	0	1	3	4	—	0	0	—	—
Pacific	8	5	17	237	312	2	6	20	282	309	—	1	6	55	72
Alaska	—	0	1	3	2	—	0	1	3	4	U	0	0	U	U
California	8	4	16	195	247	2	4	17	198	219	—	0	4	22	38
Hawaii	—	0	2	4	8	—	0	1	3	6	U	0	0	U	U
Oregon	—	0	2	17	16	—	1	3	35	40	—	0	3	14	17
Washington	—	0	2	18	39	—	1	4	43	40	—	0	6	19	15
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	6	18	6	—	1	6	40	54	—	1	7	35	48
Puerto Rico	—	0	2	13	21	—	0	2	18	32	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for HIV/AIDS, AIDS and TB, when available, are displayed in Table IV, which appears quarterly.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	41	57	114	2,951	3,259	130	403	2,336	25,873	35,247	16	27	89	1,357	1,290
New England	2	3	15	217	186	28	119	478	7,632	12,070	—	2	4	65	56
Connecticut	2	0	6	49	51	—	41	204	2,539	4,077	—	0	1	1	5
Maine†	—	0	4	12	8	25	11	76	673	854	—	0	1	5	2
Massachusetts	—	1	8	103	88	—	37	206	2,763	5,144	—	1	3	45	36
New Hampshire	—	0	5	21	13	1	23	67	1,178	1,373	—	0	2	4	4
Rhode Island†	—	0	4	23	19	—	1	40	149	228	—	0	1	7	5
Vermont†	—	0	2	9	7	2	4	27	330	394	—	0	1	3	4
Mid. Atlantic	16	14	44	810	1,136	59	177	726	11,868	15,351	2	7	17	368	382
New Jersey	—	2	11	93	210	—	46	212	3,100	4,879	—	0	4	1	95
New York (Upstate)	9	5	19	271	336	38	52	577	2,745	3,862	2	1	6	70	45
New York City	—	2	14	140	220	—	1	14	67	1,020	—	4	14	242	190
Pennsylvania	7	5	18	306	370	21	82	383	5,956	5,590	—	1	3	55	52
E.N. Central	8	11	41	653	688	7	14	270	2,298	2,920	1	3	9	137	163
Illinois	—	1	15	120	125	—	1	17	123	136	—	1	7	51	68
Indiana	—	2	6	102	60	—	1	7	69	81	—	0	2	8	23
Michigan	1	3	20	165	159	—	1	13	91	99	—	0	4	29	28
Ohio	7	4	15	220	270	7	0	5	34	55	1	0	5	39	35
Wisconsin	—	0	11	46	74	—	12	243	1,981	2,549	—	0	1	10	9
W.N. Central	1	1	19	104	114	—	2	1,395	115	261	—	1	11	67	64
Iowa	—	0	1	—	23	—	1	10	80	106	—	0	2	13	10
Kansas	—	0	2	11	7	—	0	1	6	18	—	0	2	11	8
Minnesota	—	0	16	35	12	—	0	1,380	—	128	—	0	11	3	24
Missouri	—	0	4	33	57	—	0	1	1	3	—	0	3	21	12
Nebraska†	—	0	2	9	12	—	0	2	9	5	—	0	2	15	8
North Dakota	1	0	1	7	1	—	0	15	18	—	—	0	1	1	1
South Dakota	—	0	2	9	2	—	0	1	1	1	—	0	2	3	1
S. Atlantic	6	10	27	505	556	33	59	175	3,594	4,180	3	7	42	390	341
Delaware	1	0	3	16	19	2	11	32	600	950	—	0	1	2	5
District of Columbia	—	0	4	15	23	—	0	4	27	61	—	0	2	9	17
Florida	4	3	9	163	175	3	2	10	97	105	3	2	7	123	84
Georgia	—	1	4	52	58	—	0	2	11	40	—	0	5	45	66
Maryland†	1	2	6	108	143	9	24	100	1,553	1,976	—	1	22	93	75
North Carolina	—	0	7	53	58	—	1	9	80	93	—	0	13	47	30
South Carolina†	—	0	2	10	12	—	0	3	28	41	—	0	1	4	5
Virginia†	—	1	8	74	59	19	18	79	1,077	750	—	1	5	64	57
West Virginia	—	0	3	14	9	—	0	32	121	164	—	0	2	3	2
E.S. Central	1	2	10	124	137	—	1	4	44	36	1	0	3	30	31
Alabama†	—	0	2	18	17	—	0	1	2	3	—	0	1	9	9
Kentucky	—	0	4	26	52	—	0	1	5	1	1	0	3	7	9
Mississippi	—	0	3	10	4	—	0	0	—	—	—	0	2	2	4
Tennessee†	1	1	6	70	64	—	0	4	37	32	—	0	2	12	9
W.S. Central	2	3	14	139	123	—	2	44	94	216	—	1	31	77	64
Arkansas†	1	0	2	15	8	—	0	0	—	—	—	0	1	2	5
Louisiana	—	0	3	8	14	—	0	1	2	—	—	0	1	5	6
Oklahoma	—	0	4	13	6	—	0	2	—	—	—	0	1	5	1
Texas†	1	2	10	103	95	—	2	42	92	216	—	1	30	65	52
Mountain	1	3	10	155	138	—	0	3	24	54	1	1	4	58	47
Arizona	—	1	6	59	43	—	0	1	2	6	—	0	2	22	10
Colorado	—	0	5	32	27	—	0	1	3	1	1	0	3	21	26
Idaho†	1	0	1	7	7	—	0	2	7	15	—	0	1	3	2
Montana†	—	0	1	4	7	—	0	1	4	3	—	0	1	2	5
Nevada†	—	0	2	19	13	—	0	1	1	12	—	0	1	6	—
New Mexico†	—	0	2	9	9	—	0	2	5	5	—	0	1	1	—
Utah	—	0	2	20	28	—	0	1	2	9	—	0	1	3	4
Wyoming†	—	0	2	5	4	—	0	1	—	3	—	0	0	—	—
Pacific	4	5	19	244	181	3	4	11	204	159	8	3	19	165	142
Alaska	—	0	2	2	1	—	0	1	6	7	—	0	1	3	2
California	4	4	19	204	140	3	3	9	136	100	4	2	13	112	107
Hawaii	—	0	1	1	1	N	0	0	N	N	—	0	1	1	1
Oregon	—	0	3	14	16	—	1	4	49	37	—	0	3	14	11
Washington	—	0	4	23	23	—	0	3	13	15	4	0	5	35	21
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	2	N	0	0	N	N	—	0	2	4	5
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Meningococcal disease, invasive† All groups					Pertussis					Rabies, animal				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	6	15	43	695	881	353	373	1,756	18,586	14,235	41	64	143	3,102	4,822
New England	—	0	3	18	33	1	8	23	449	596	—	4	15	211	321
Connecticut	—	0	2	3	6	—	1	8	106	53	—	0	14	59	132
Maine§	—	0	1	4	4	1	1	5	45	80	—	1	4	58	51
Massachusetts	—	0	2	6	15	—	5	14	239	337	—	0	0	—	—
New Hampshire	—	0	0	—	3	—	0	2	18	73	—	0	5	13	32
Rhode Island§	—	0	0	—	4	—	0	9	26	42	—	0	4	31	43
Vermont§	—	0	1	5	1	—	0	4	15	11	—	1	3	50	63
Mid. Atlantic	1	1	4	68	101	87	29	72	1,583	1,116	17	19	41	984	535
New Jersey	—	0	2	17	17	—	3	9	132	230	—	0	0	—	—
New York (Upstate)	—	0	3	11	23	69	10	27	576	214	6	9	19	474	415
New York City	—	0	2	16	17	—	0	9	78	88	—	2	12	120	20
Pennsylvania	1	0	2	24	44	18	11	54	797	584	11	8	24	390	100
E.N. Central	—	2	9	118	159	87	90	174	4,657	2,951	—	2	27	223	218
Illinois	—	0	3	19	44	—	15	29	778	603	—	1	11	114	82
Indiana	—	0	3	24	34	—	9	26	504	359	—	0	0	—	25
Michigan	—	0	3	21	20	7	27	55	1,305	809	—	1	5	64	65
Ohio	—	1	2	31	40	80	28	71	1,626	1,015	—	0	12	45	46
Wisconsin	—	0	3	23	21	—	8	21	444	165	—	0	0	—	—
W.N. Central	—	1	5	49	80	24	32	627	2,186	2,052	1	4	16	243	371
Iowa	—	0	3	9	13	—	11	26	545	221	—	0	3	26	32
Kansas	—	0	2	7	13	—	3	9	150	233	—	1	4	59	73
Minnesota	—	0	2	2	13	—	0	601	698	421	—	0	9	26	60
Missouri	—	0	4	24	26	23	8	43	508	969	—	1	6	66	65
Nebraska§	—	0	2	5	10	1	4	13	207	133	1	1	4	51	77
North Dakota	—	0	1	2	1	—	0	30	50	29	—	0	7	15	11
South Dakota	—	0	1	—	4	—	0	5	28	46	—	0	0	—	53
S. Atlantic	2	2	7	126	157	30	29	78	1,475	1,527	22	21	73	1,026	2,014
Delaware	—	0	1	2	2	—	0	4	14	13	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	1	7	6	—	0	0	—	—
Florida	1	1	5	57	50	10	5	28	300	486	—	0	60	72	161
Georgia	1	0	2	13	30	1	3	18	220	217	—	0	8	—	387
Maryland§	—	0	1	8	10	1	3	8	124	140	5	6	14	344	368
North Carolina	—	0	2	15	31	—	0	32	124	192	—	0	7	—	453
South Carolina§	—	0	1	10	11	9	5	19	328	247	—	0	0	—	—
Virginia§	—	0	2	19	17	6	5	15	241	195	15	10	25	534	531
West Virginia	—	0	2	2	6	3	1	21	117	31	2	1	7	76	114
E.S. Central	—	1	3	39	33	6	15	34	690	761	—	3	7	139	136
Alabama§	—	0	1	7	10	—	4	8	179	288	—	1	4	49	—
Kentucky	—	0	2	17	6	—	5	14	232	216	—	0	4	21	45
Mississippi	—	0	1	5	3	2	1	8	71	74	—	0	1	1	4
Tennessee§	—	0	2	10	14	4	4	11	208	183	—	1	4	68	87
W.S. Central	—	1	9	79	86	57	56	753	2,669	3,059	1	0	30	69	881
Arkansas§	—	0	1	6	9	—	3	29	159	329	—	0	7	28	38
Louisiana	—	0	4	12	18	—	1	3	36	144	—	0	0	—	—
Oklahoma	—	0	7	15	14	23	0	41	89	75	1	0	30	41	32
Texas§	—	1	7	46	45	34	48	681	2,385	2,511	—	0	7	—	811
Mountain	1	1	6	51	60	27	27	92	1,465	933	—	1	8	80	103
Arizona	—	0	2	13	13	—	7	16	379	250	—	0	5	—	—
Colorado	1	0	4	20	21	25	4	86	437	208	—	0	0	—	—
Idaho§	—	0	1	5	7	1	3	19	182	89	—	0	2	11	8
Montana§	—	0	1	1	5	—	1	12	82	56	—	0	3	17	25
Nevada§	—	0	1	8	4	—	0	7	32	24	—	0	2	8	6
New Mexico§	—	0	1	3	3	1	2	11	128	72	—	0	2	13	26
Utah	—	0	1	1	2	—	4	13	215	212	—	0	2	10	13
Wyoming§	—	0	0	—	5	—	0	2	10	22	—	0	4	21	25
Pacific	2	3	16	147	172	34	43	209	3,412	1,240	—	3	12	127	243
Alaska	—	0	1	1	6	—	0	6	38	55	—	0	2	12	12
California	1	2	13	98	108	17	28	181	2,625	646	—	2	12	102	220
Hawaii	—	0	1	1	5	—	0	6	42	43	—	0	0	—	—
Oregon	1	1	2	31	40	1	6	16	303	243	—	0	2	13	11
Washington	—	0	7	16	13	16	5	38	404	253	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	2	—	0	0	—	—
Puerto Rico	—	0	0	—	1	—	0	1	3	1	—	1	3	40	39
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†					Shigellosis				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	560	906	1,724	47,644	45,263	47	84	209	4,436	4,290	170	277	527	12,844	14,450
New England	3	32	476	2,115	2,070	—	2	52	187	286	—	4	66	295	327
Connecticut	—	0	460	460	430	—	0	52	52	67	—	0	61	61	43
Maine§	2	2	7	121	116	—	0	3	19	19	—	0	1	8	5
Massachusetts	—	23	54	1,164	1,082	—	1	8	77	102	—	4	16	202	230
New Hampshire	—	3	10	156	251	—	0	2	20	35	—	0	1	12	21
Rhode Island§	—	2	17	140	131	—	0	1	2	38	—	0	3	11	23
Vermont§	1	1	5	74	60	—	0	2	17	25	—	0	1	1	5
Mid. Atlantic	29	95	219	5,392	5,155	5	9	31	499	407	4	34	53	1,461	2,631
New Jersey	—	18	57	997	1,060	—	1	7	74	99	—	6	16	315	562
New York (Upstate)	16	25	78	1,342	1,220	4	3	13	190	141	3	4	19	212	207
New York City	—	25	56	1,270	1,198	—	1	7	77	56	—	5	14	278	430
Pennsylvania	13	31	82	1,783	1,677	1	3	13	158	111	1	14	34	656	1,432
E.N. Central	27	88	245	5,039	4,877	—	9	39	692	689	4	27	238	1,555	2,377
Illinois	—	28	114	1,693	1,393	—	2	9	121	164	—	9	228	760	577
Indiana	—	11	62	622	586	—	1	9	67	93	—	1	5	38	68
Michigan	3	15	48	864	913	—	2	16	149	130	1	5	9	227	214
Ohio	24	24	47	1,246	1,337	—	3	11	136	124	3	6	23	289	1,040
Wisconsin	—	10	45	614	648	—	3	17	219	178	—	4	21	241	478
W.N. Central	25	45	98	2,327	2,481	5	11	39	617	703	14	44	88	1,932	1,143
Iowa	5	9	34	499	378	—	2	16	165	154	—	1	5	47	51
Kansas	2	8	19	420	378	2	1	6	70	54	—	5	14	252	187
Minnesota	—	0	32	178	529	—	0	13	31	204	—	0	3	14	74
Missouri	18	13	44	784	618	2	4	27	231	133	14	39	75	1,557	792
Nebraska§	—	4	13	237	330	1	1	6	71	83	—	1	10	55	31
North Dakota	—	0	39	50	64	—	0	10	17	8	—	0	5	—	4
South Dakota	—	3	15	159	184	—	0	4	32	67	—	0	2	7	4
S. Atlantic	233	268	609	14,799	13,392	19	13	30	698	632	39	46	127	2,507	2,229
Delaware	1	3	11	169	136	—	0	2	6	13	—	0	5	39	142
District of Columbia	—	1	6	70	94	—	0	1	5	2	—	0	4	25	24
Florida	108	121	227	5,915	6,137	10	4	13	231	163	25	18	53	1,064	436
Georgia	40	41	132	2,618	2,263	—	1	15	103	68	7	14	39	725	619
Maryland§	17	16	54	978	751	3	2	9	97	88	1	3	8	124	353
North Carolina	18	30	208	2,259	1,698	3	1	10	89	105	—	3	36	229	351
South Carolina§	31	20	98	1,564	1,121	—	0	2	20	32	1	1	5	62	118
Virginia§	11	18	68	1,056	985	3	2	15	126	132	4	2	15	136	177
West Virginia	7	2	16	170	207	—	0	4	21	29	1	0	66	103	9
E.S. Central	46	53	177	3,725	2,935	1	4	22	258	204	3	13	40	701	762
Alabama§	9	19	52	992	877	—	1	4	51	45	2	3	14	200	147
Kentucky	14	10	31	548	426	—	1	6	68	67	1	3	28	212	209
Mississippi	10	17	67	1,175	876	—	0	12	30	6	—	1	4	51	47
Tennessee§	13	14	53	1,010	756	1	2	7	109	86	—	5	14	238	359
W.S. Central	36	104	547	5,685	5,555	1	5	68	275	294	71	52	251	2,533	2,720
Arkansas§	7	12	43	742	584	1	1	5	47	43	2	1	9	73	293
Louisiana	8	19	49	1,175	1,137	—	0	2	19	23	—	5	13	256	168
Oklahoma	8	12	46	638	580	—	0	27	40	32	2	6	96	250	267
Texas§	13	51	477	3,130	3,254	—	3	41	169	196	67	41	144	1,954	1,992
Mountain	17	48	105	2,577	2,849	2	10	34	595	546	5	15	32	751	1,085
Arizona	1	17	42	878	1,018	—	1	11	82	65	2	8	18	409	778
Colorado	9	10	24	547	580	—	3	21	209	163	2	2	6	94	92
Idaho§	4	3	9	156	165	1	2	7	101	88	—	0	3	23	8
Montana§	2	2	7	84	103	1	1	5	40	35	—	0	1	6	11
Nevada§	1	4	22	277	239	—	0	5	30	34	1	1	6	47	66
New Mexico§	—	6	18	309	347	—	1	5	41	36	—	2	10	132	103
Utah	—	5	17	287	305	—	1	7	77	110	—	1	4	40	23
Wyoming§	—	1	5	39	92	—	0	2	15	15	—	0	0	—	4
Pacific	144	117	299	5,985	5,949	14	10	46	615	529	30	21	64	1,109	1,176
Alaska	—	1	5	78	64	—	0	1	2	1	—	0	2	1	4
California	107	84	227	4,525	4,450	6	6	35	279	248	25	17	51	924	944
Hawaii	5	4	14	210	314	—	0	4	18	11	1	0	3	22	41
Oregon	1	8	48	487	408	1	2	15	113	78	—	1	5	57	51
Washington	31	14	61	685	713	7	2	19	203	191	4	1	20	105	136
Territories															
American Samoa	—	0	1	2	—	—	0	0	—	—	—	1	1	4	3
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	7	11	—	0	0	—	—	—	0	1	1	13
Puerto Rico	5	11	39	467	521	—	0	0	—	—	—	0	1	5	14
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† 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 December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Spotted Fever Rickettsiosis (including RMSF)†									
	Confirmed					Probable				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max		
United States	1	2	12	155	143	8	23	421	1,450	1,226
New England	—	0	0	—	2	—	0	1	3	11
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine§	—	0	0	—	—	—	0	1	2	5
Massachusetts	—	0	0	—	1	—	0	1	—	6
New Hampshire	—	0	0	—	—	—	0	1	1	—
Rhode Island§	—	0	0	—	—	—	0	0	—	—
Vermont§	—	0	0	—	1	—	0	0	—	—
Mid. Atlantic	—	0	2	16	12	1	1	4	59	95
New Jersey	—	0	0	—	2	—	0	2	—	60
New York (Upstate)	—	0	1	2	—	1	0	3	18	14
New York City	—	0	1	1	1	—	0	4	28	7
Pennsylvania	—	0	2	13	9	—	0	1	13	14
E.N. Central	—	0	1	4	9	—	1	9	91	81
Illinois	—	0	1	2	1	—	0	5	33	48
Indiana	—	0	1	2	3	—	0	5	43	10
Michigan	—	0	0	—	4	—	0	1	1	1
Ohio	—	0	0	—	—	—	0	2	13	18
Wisconsin	—	0	0	—	1	—	0	1	1	4
W.N. Central	—	0	4	18	19	—	4	21	309	253
Iowa	—	0	0	—	1	—	0	1	4	4
Kansas	—	0	1	2	1	—	0	0	—	—
Minnesota	—	0	1	—	2	—	0	1	—	2
Missouri	—	0	4	14	7	—	4	20	301	243
Nebraska§	—	0	1	2	8	—	0	1	3	4
North Dakota	—	0	0	—	—	—	0	1	1	—
South Dakota	—	0	0	—	—	—	0	0	—	—
S. Atlantic	1	1	9	82	66	1	8	60	485	372
Delaware	—	0	1	1	—	—	0	3	20	18
District of Columbia	—	0	1	1	—	—	0	1	—	—
Florida	—	0	1	4	—	—	0	2	11	7
Georgia	1	1	6	57	52	—	0	0	—	—
Maryland§	—	0	1	3	3	—	1	5	53	37
North Carolina	—	0	3	11	7	1	2	48	253	242
South Carolina§	—	0	1	1	3	—	0	2	18	15
Virginia§	—	0	2	4	1	—	2	12	130	51
West Virginia	—	0	0	—	—	—	0	0	—	2
E.S. Central	—	0	3	19	9	—	5	29	380	252
Alabama§	—	0	1	5	3	—	1	8	75	61
Kentucky	—	0	2	6	1	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	3	15	9
Tennessee§	—	0	2	8	5	—	4	20	290	182
W.S. Central	—	0	3	6	9	6	1	408	111	138
Arkansas§	—	0	2	2	—	6	0	110	64	70
Louisiana	—	0	0	—	—	—	0	1	2	2
Oklahoma	—	0	3	3	7	—	0	287	26	46
Texas§	—	0	1	1	2	—	0	11	19	20
Mountain	—	0	1	2	16	—	0	2	12	24
Arizona	—	0	1	—	10	—	0	1	2	12
Colorado	—	0	0	—	1	—	0	1	1	—
Idaho§	—	0	0	—	—	—	0	1	5	1
Montana§	—	0	1	2	4	—	0	1	1	6
Nevada§	—	0	0	—	—	—	0	0	—	1
New Mexico§	—	0	0	—	—	—	0	1	1	1
Utah	—	0	0	—	—	—	0	1	1	1
Wyoming§	—	0	0	—	1	—	0	1	1	2
Pacific	—	0	2	8	1	—	0	0	—	—
Alaska	N	0	0	N	N	N	0	0	N	N
California	—	0	2	7	1	—	0	0	—	—
Hawaii	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	1	1	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—
Territories										
American Samoa	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	N	0	0	N	N	N	0	0	N	N
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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† Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by *Rickettsia rickettsii*, is the most common and well-known spotted fever.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	*Streptococcus pneumoniae*,† invasive disease										Syphilis, primary and secondary				
	All ages					Age <5									
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	310	247	495	13,057	2,736	39	44	156	1,999	2,212	79	242	413	11,390	12,905
New England	30	9	99	706	50	2	1	24	90	71	4	9	22	428	299
Connecticut	23	0	91	336	—	1	0	22	28	—	2	1	10	87	53
Maine§	2	2	6	110	19	—	0	1	10	8	—	0	3	23	3
Massachusetts	—	1	5	58	3	—	1	4	40	44	—	5	15	257	214
New Hampshire	—	0	7	59	—	—	0	1	3	11	—	0	2	22	14
Rhode Island§	—	0	36	69	15	—	0	3	3	4	2	0	4	37	15
Vermont§	5	1	6	74	13	1	0	1	6	4	—	0	2	2	—
Mid. Atlantic	28	26	56	1,268	189	15	7	48	341	278	12	33	46	1,550	1,635
New Jersey	—	1	8	96	—	—	1	5	50	60	6	4	12	219	207
New York (Upstate)	6	3	12	150	80	6	2	19	111	123	1	2	11	123	112
New York City	16	9	31	563	16	9	2	24	126	80	—	18	31	861	997
Pennsylvania	6	9	22	459	93	—	1	5	54	15	5	7	16	347	319
E.N. Central	56	49	98	2,658	622	2	7	18	328	382	1	27	49	1,248	1,438
Illinois	—	2	7	95	—	—	2	5	87	68	—	8	26	431	697
Indiana	—	7	24	482	235	—	1	6	41	77	—	3	14	158	144
Michigan	4	12	27	630	25	—	1	6	75	72	—	4	12	196	217
Ohio	46	21	49	1,114	362	2	2	6	91	126	1	9	18	423	338
Wisconsin	6	6	22	337	—	—	1	4	34	39	—	1	3	40	42
W.N. Central	11	10	182	699	168	1	2	12	122	172	1	6	18	315	286
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	3	16	21
Kansas	2	2	7	99	52	—	0	2	14	18	—	0	3	18	31
Minnesota	—	0	179	287	43	—	0	10	44	81	1	2	9	131	65
Missouri	4	2	10	113	62	—	1	3	39	44	—	3	9	140	160
Nebraska§	5	2	7	124	2	1	0	2	15	14	—	0	1	6	5
North Dakota	—	0	11	60	7	—	0	1	2	5	—	0	0	—	4
South Dakota	—	0	3	16	2	—	0	2	8	10	—	0	1	4	—
S. Atlantic	68	52	144	2,963	1,236	9	9	28	495	538	27	57	218	2,786	3,118
Delaware	—	0	3	37	18	—	0	0	—	3	—	0	1	4	27
District of Columbia	—	0	4	24	20	—	0	2	7	5	—	2	21	145	161
Florida	39	23	89	1,340	702	7	3	18	182	187	1	21	44	1,009	965
Georgia	10	11	28	511	395	2	3	12	143	158	4	12	167	600	751
Maryland§	9	7	31	457	4	—	1	6	48	76	3	6	14	284	282
North Carolina	—	0	0	—	—	—	0	0	—	—	10	7	22	332	532
South Carolina§	9	6	25	430	—	—	1	4	46	46	2	2	7	137	114
Virginia§	—	1	4	49	—	—	1	4	47	44	7	4	22	270	282
West Virginia	1	2	21	115	97	—	0	4	22	19	—	0	2	5	4
E.S. Central	26	21	50	1,175	248	—	2	8	114	139	—	16	39	782	1,046
Alabama§	—	0	0	—	—	—	0	0	—	—	—	5	11	220	401
Kentucky	5	3	16	181	70	—	0	2	13	8	—	2	13	120	62
Mississippi	—	1	6	51	51	—	0	2	11	25	—	4	17	200	201
Tennessee§	21	18	44	943	127	—	2	6	90	106	—	5	17	242	382
W.S. Central	51	28	91	1,697	111	5	5	41	263	323	21	37	63	1,772	2,602
Arkansas§	1	3	9	150	51	—	0	3	16	39	2	3	12	162	262
Louisiana	1	2	8	99	60	—	0	3	25	29	3	8	28	396	709
Oklahoma	2	1	5	44	—	2	1	5	44	55	—	1	7	77	86
Texas§	47	23	83	1,404	—	3	3	34	178	200	16	24	34	1,137	1,545
Mountain	37	29	82	1,626	109	4	4	12	214	280	2	10	25	475	495
Arizona	12	11	51	705	—	2	2	7	90	115	—	3	8	148	219
Colorado	22	10	20	517	—	2	1	4	63	45	—	3	8	127	91
Idaho§	1	0	2	16	—	—	0	2	9	9	—	0	1	2	3
Montana§	1	0	2	21	—	—	0	1	3	—	—	0	2	3	4
Nevada§	1	2	4	75	38	—	0	1	5	7	—	1	9	111	88
New Mexico§	—	2	9	139	—	—	0	4	16	36	2	1	4	48	58
Utah	—	2	9	142	59	—	0	3	25	66	—	1	4	36	29
Wyoming§	—	0	1	11	12	—	0	1	3	2	—	0	0	—	3
Pacific	3	5	14	265	3	1	0	7	32	29	11	42	61	2,034	1,986
Alaska	—	2	9	102	—	—	0	5	19	19	—	0	1	1	—
California	3	3	12	163	—	1	0	2	13	—	6	36	54	1,750	1,774
Hawaii	—	0	0	—	3	—	0	0	—	10	—	0	4	32	33
Oregon	—	0	0	—	—	—	0	0	—	—	1	1	7	59	49
Washington	—	0	0	—	—	—	0	0	—	—	4	4	11	192	130
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	4	15	202	200
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Includes drug resistant and susceptible cases of invasive *Streptococcus pneumoniae* disease among children <5 years and among all ages. Case definition: Isolation of *S. pneumoniae* from a normally sterile body site (e.g., blood or cerebrospinal fluid).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 4, 2010, and December 5, 2009 (48th week)*

Reporting area	Varicella (chickenpox)§					West Nile virus disease†: Neuroinvasive					West Nile virus disease†: Nonneuroinvasive¶				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	261	292	550	13,227	19,250	—	0	70	595	384	—	1	52	377	334
New England	11	14	36	699	1,027	—	0	3	13	—	—	0	1	2	—
Connecticut	2	6	20	288	468	—	0	2	6	—	—	0	1	1	—
Maine§	—	4	15	213	228	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	1	2	4	—	0	2	6	—	—	0	1	1	—
New Hampshire	—	2	8	114	191	—	0	1	1	—	—	0	0	—	—
Rhode Island§	—	1	12	32	39	—	0	0	—	—	—	0	0	—	—
Vermont§	9	0	10	50	97	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	38	33	62	1,513	1,937	—	0	19	125	9	—	0	13	62	1
New Jersey	—	8	30	498	442	—	0	3	15	3	—	0	6	15	—
New York (Upstate)	N	0	0	N	N	—	0	9	57	3	—	0	7	30	1
New York City	—	0	0	—	—	—	0	7	32	3	—	0	4	8	—
Pennsylvania	38	22	39	1,015	1,495	—	0	3	21	—	—	0	3	9	—
E.N. Central	74	100	176	4,434	6,076	—	0	14	75	9	—	0	7	28	4
Illinois	5	22	45	1,108	1,514	—	0	10	41	5	—	0	4	15	—
Indiana§	15	6	35	389	421	—	0	2	5	2	—	0	2	6	2
Michigan	22	31	62	1,338	1,782	—	0	6	25	1	—	0	1	4	—
Ohio	27	29	56	1,264	1,805	—	0	1	4	—	—	0	1	1	2
Wisconsin	5	6	22	335	554	—	0	0	—	1	—	0	1	2	—
W.N. Central	15	15	32	762	1,220	—	0	7	28	26	—	0	11	68	75
Iowa	N	0	0	N	N	—	0	1	2	—	—	0	2	4	5
Kansas§	—	4	22	228	528	—	0	1	3	4	—	0	2	10	9
Minnesota	—	0	0	—	—	—	0	1	4	1	—	0	3	4	3
Missouri	15	7	23	442	557	—	0	1	3	4	—	0	0	—	1
Nebraska§	N	0	0	N	N	—	0	3	10	11	—	0	7	27	41
North Dakota	—	0	9	37	83	—	0	2	2	—	—	0	2	7	1
South Dakota	—	1	7	55	52	—	0	2	4	6	—	0	3	16	15
S. Atlantic	39	34	100	1,985	2,443	—	0	4	33	16	—	0	4	21	2
Delaware§	—	0	3	24	12	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	4	18	30	—	0	1	1	2	—	0	1	1	—
Florida§	25	15	57	946	1,077	—	0	2	8	2	—	0	1	3	1
Georgia	N	0	0	N	N	—	0	1	4	4	—	0	3	8	—
Maryland§	N	0	0	N	N	—	0	3	16	—	—	0	2	7	1
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina§	—	0	35	75	123	—	0	1	1	3	—	0	0	—	—
Virginia§	8	11	34	495	723	—	0	1	3	5	—	0	1	2	—
West Virginia	6	8	26	427	478	—	0	0	—	—	—	0	0	—	—
E.S. Central	4	5	22	278	519	—	0	1	8	36	—	0	3	11	27
Alabama§	4	5	22	271	514	—	0	1	1	—	—	0	1	2	—
Kentucky	N	0	0	N	N	—	0	1	2	3	—	0	1	1	—
Mississippi	—	0	2	7	5	—	0	1	3	29	—	0	2	6	22
Tennessee§	N	0	0	N	N	—	0	1	2	4	—	0	2	2	5
W.S. Central	69	45	285	2,562	4,644	—	0	15	97	117	—	0	3	19	35
Arkansas§	—	2	32	129	465	—	0	3	6	6	—	0	1	1	—
Louisiana	—	2	5	80	129	—	0	3	14	10	—	0	1	6	11
Oklahoma	N	0	0	N	N	—	0	0	—	8	—	0	0	—	2
Texas§	69	39	272	2,353	4,050	—	0	15	77	93	—	0	2	12	22
Mountain	9	20	36	927	1,290	—	0	18	151	77	—	0	15	127	123
Arizona	—	0	0	—	—	—	0	13	103	12	—	0	9	58	8
Colorado§	8	8	18	379	497	—	0	5	26	36	—	0	11	55	67
Idaho§	N	0	0	N	N	—	0	0	—	9	—	0	1	3	29
Montana§	—	3	17	182	161	—	0	0	—	2	—	0	0	—	3
Nevada§	N	0	0	N	N	—	0	0	—	7	—	0	1	2	5
New Mexico§	1	1	8	92	113	—	0	5	19	6	—	0	2	4	2
Utah	—	5	17	260	519	—	0	1	1	1	—	0	1	1	1
Wyoming§	—	0	3	14	—	—	0	1	2	4	—	0	1	4	8
Pacific	2	1	6	67	94	—	0	7	65	94	—	0	5	39	67
Alaska	—	0	5	37	55	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	7	64	67	—	0	5	38	45
Hawaii	2	0	6	30	39	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	0	—	1	—	0	0	—	10
Washington	N	0	0	N	N	—	0	1	1	26	—	0	1	1	12
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	15	30	—	0	0	—	—	—	0	0	—	—
Puerto Rico	1	9	30	518	488	—	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 reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for HIV/AIDS, AIDS and TB, when available, are displayed in Table IV, which appears quarterly.
† 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.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).
¶ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/ncphi/disss/nndss/phs/infdis.htm.

TABLE III. Deaths in 122 U.S. cities,* week ending December 4, 2010 (48th week)

Reporting area	All causes, by age (years)						P&I†
	All Ages	≥65	45–64	25–44	1–24	<1	Total
New England	638	455	136	35	7	5	62
Boston, MA	152	96	44	8	2	2	14
Bridgeport, CT	26	23	2	1	—	—	3
Cambridge, MA	31	26	5	—	—	—	2
Fall River, MA	41	36	4	1	—	—	3
Hartford, CT	66	46	13	4	2	1	9
Lowell, MA	22	11	5	5	—	1	3
Lynn, MA	14	11	2	1	—	—	1
New Bedford, MA	34	24	9	1	—	—	2
New Haven, CT	50	31	13	5	—	1	4
Providence, RI	83	62	17	3	1	—	7
Somerville, MA	4	2	1	1	—	—	—
Springfield, MA	16	9	4	2	1	—	4
Waterbury, CT	28	23	5	—	—	—	2
Worcester, MA	71	55	12	3	1	—	8
Mid. Atlantic	2,028	1,433	426	110	32	25	97
Albany, NY	49	35	13	1	—	—	1
Allentown, PA	27	24	3	—	—	—	1
Buffalo, NY	69	45	15	4	4	1	4
Camden, NJ	3	2	1	—	—	—	—
Elizabeth, NJ	17	13	4	—	—	—	1
Erie, PA	63	49	13	—	—	1	9
Jersey City, NJ	28	18	5	4	1	—	2
New York City, NY	961	697	203	40	11	9	41
Newark, NJ	29	13	8	7	1	—	—
Paterson, NJ	27	19	4	3	—	1	3
Philadelphia, PA	364	233	77	32	11	11	9
Pittsburgh, PA§	37	26	9	1	—	1	5
Reading, PA	36	27	6	2	—	—	1
Rochester, NY	81	56	16	6	3	—	4
Schenectady, NY	27	19	8	—	—	—	2
Scranton, PA	26	23	3	—	—	—	—
Syracuse, NY	103	80	20	1	1	1	10
Trenton, NJ	48	29	14	5	—	—	2
Utica, NY	13	12	1	—	—	—	—
Yonkers, NY	20	13	3	4	—	—	2
E.N. Central	2,139	1,482	472	113	38	34	131
Akron, OH	79	56	15	5	1	2	3
Canton, OH	28	22	4	2	—	—	2
Chicago, IL	207	131	57	15	4	—	13
Cincinnati, OH	99	62	19	12	2	4	5
Cleveland, OH	295	206	70	15	3	1	15
Columbus, OH	219	150	52	8	4	5	14
Dayton, OH	164	115	44	4	—	1	12
Detroit, MI	194	114	59	13	7	1	10
Evansville, IN	51	39	9	2	—	1	5
Fort Wayne, IN	76	56	14	2	3	1	—
Gary, IN	7	4	2	—	1	—	—
Grand Rapids, MI	50	38	8	1	2	1	1
Indianapolis, IN	170	128	28	6	—	8	12
Lansing, MI	72	56	11	3	1	1	4
Milwaukee, WI	108	70	26	6	5	1	9
Peoria, IL	59	43	11	2	2	1	4
Rockford, IL	71	47	17	7	—	—	8
South Bend, IN	74	53	12	4	2	3	5
Toledo, OH	59	43	7	6	1	2	6
Youngstown, OH	57	49	7	—	—	1	3
W.N. Central	697	456	179	32	16	12	48
Des Moines, IA	12	11	1	—	—	—	—
Duluth, MN	31	29	1	1	—	—	5
Kansas City, KS	45	22	21	1	1	—	5
Kansas City, MO	106	69	32	3	1	1	5
Lincoln, NE	49	36	11	1	1	—	2
Minneapolis, MN	76	47	20	3	4	2	5
Omaha, NE	96	71	19	4	1	1	11
St. Louis, MO	135	70	39	12	7	5	8
St. Paul, MN	61	44	13	3	—	1	3
Wichita, KS	86	57	22	4	1	2	4
S. Atlantic	1,375	907	334	85	25	24	86
Atlanta, GA	147	107	29	7	3	1	7
Baltimore, MD	172	97	54	13	5	3	12
Charlotte, NC	156	103	34	13	2	4	14
Jacksonville, FL	167	117	35	11	2	2	11
Miami, FL	113	70	30	7	5	1	3
Norfolk, VA	56	36	15	4	—	1	2
Richmond, VA	48	32	11	5	—	—	5
Savannah, GA	59	43	13	1	1	1	6
St. Petersburg, FL	57	44	11	1	1	—	3
Tampa, FL	276	177	70	17	4	8	15
Washington, D.C.	104	66	28	6	1	3	7
Wilmington, DE	20	15	4	—	1	—	1
E.S. Central	945	611	222	55	29	27	73
Birmingham, AL	229	146	54	11	9	8	16
Chattanooga, TN	76	53	13	7	—	3	6
Knoxville, TN	121	79	34	6	1	1	9
Lexington, KY	61	42	16	1	2	—	5
Memphis, TN	186	118	44	13	7	4	14
Mobile, AL	91	60	21	6	1	3	7
Montgomery, AL	28	21	4	1	1	1	7
Nashville, TN	153	92	36	10	8	7	9
W.S. Central	1,393	905	334	89	33	31	79
Austin, TX	115	71	32	7	5	—	7
Baton Rouge, LA	80	47	15	13	—	5	—
Corpus Christi, TX	65	43	17	1	4	—	8
Dallas, TX	303	180	83	22	9	8	17
El Paso, TX	111	86	19	4	1	1	1
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	89	56	18	3	5	7	6
Little Rock, AR	79	49	24	4	1	1	—
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	295	205	58	21	5	6	23
Shreveport, LA	89	55	28	4	1	1	6
Tulsa, OK	167	113	40	10	2	2	11
Mountain	1,205	798	280	73	32	22	66
Albuquerque, NM	148	98	38	6	5	1	9
Boise, ID	76	54	10	8	4	—	5
Colorado Springs, CO	85	54	19	9	1	2	1
Denver, CO	76	41	27	4	1	3	1
Las Vegas, NV	235	167	52	10	4	2	11
Ogden, UT	42	29	10	2	—	1	2
Phoenix, AZ	192	115	49	15	8	5	12
Pueblo, CO	42	33	5	2	2	—	4
Salt Lake City, UT	149	100	34	5	4	6	10
Tucson, AZ	160	107	36	12	3	2	11
Pacific	1,879	1,328	397	87	35	32	154
Berkeley, CA	17	10	6	—	—	1	—
Fresno, CA	158	113	33	8	2	2	22
Glendale, CA	38	30	8	—	—	—	2
Honolulu, HI	79	60	12	4	—	3	8
Long Beach, CA	47	33	11	—	2	1	6
Los Angeles, CA	296	195	68	18	7	8	32
Pasadena, CA	32	25	3	2	1	1	5
Portland, OR	107	84	16	5	1	1	6
Sacramento, CA	303	210	70	11	8	4	28
San Diego, CA	27	20	6	1	—	—	2
San Francisco, CA	118	74	31	6	4	3	8
San Jose, CA	244	185	46	7	3	3	14
Santa Cruz, CA	44	34	8	1	1	—	2
Seattle, WA	132	82	31	13	2	4	2
Spokane, WA	84	65	13	4	1	1	7
Tacoma, WA	153	108	35	7	3	—	10
Total¶	**12,299**	**8,375**	**2,780**	**679**	**247**	**212**	**796**

U: Unavailable. —: No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

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