



# MMWR™

## Morbidity and Mortality Weekly Report

Weekly

June 30, 2006 / Vol. 55 / No. 25

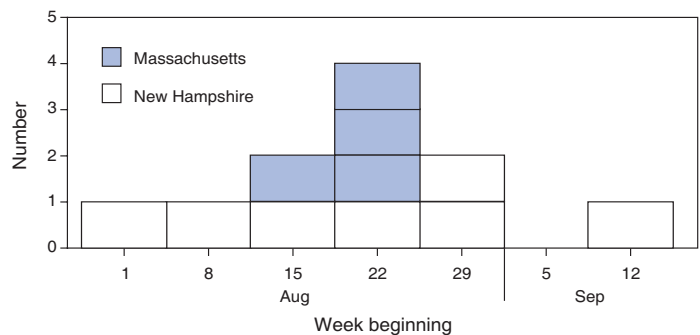
### Eastern Equine Encephalitis — New Hampshire and Massachusetts, August–September 2005

During August–September 2005, the New Hampshire Department of Health and Human Services reported seven cases of human eastern equine encephalitis virus (EEEV) disease, the first laboratory-confirmed, locally acquired cases of human EEEV disease reported from New Hampshire in 41 years of national surveillance. Also during August–September 2005, the Massachusetts Department of Public Health reported four cases of human EEEV disease, five times the annual average of 0.8 cases reported from Massachusetts during the preceding 10 years. Four of the 11 patients from New Hampshire and Massachusetts died. EEEV is transmitted in marshes and swamps in an enzootic bird-mosquito-bird cycle primarily by the mosquito *Culiseta melanura*. Bridge mosquito vectors (e.g., *Coquillettidia perturbans*, *Aedes vexans*, or *Aedes sollicitans*) transmit EEEV to humans and other mammals (1,2). This report summarizes the investigations of cases in New Hampshire and Massachusetts conducted by the two state health departments and CDC. The findings underscore the importance of surveillance for, and diagnostic consideration of, arboviral encephalitis in the United States and promotion of preventive measures such as local mosquito control and use of insect repellent.

A case of EEEV disease was defined as meningitis or encephalitis that occurred during July 1–September 30, 2005, in a resident of New Hampshire or Massachusetts with 1) anti-EEEV IgM antibody in cerebrospinal fluid (CSF) or 2) elevated anti-EEEV IgM antibody by IgM antibody capture enzyme-linked immunosorbent assay (MAC-ELISA) and neutralizing antibodies to EEEV by plaque-reduction neutralization test (PRNT) in serum. Interviews were conducted with patients, family members, or friends; medical records were reviewed; and homes and other potential mosquito-exposure sites were mapped and evaluated for the presence of mosquito-breeding sites.

Symptom onset occurred from the week beginning August 1 through the week beginning September 12 (Figure 1). Median age of the patients was 45 years (range: 3 months to 85 years); six (55%) were male. All 11 patients were hospitalized; four (36%) died (Table). Before hospitalization, three patients (27%) had symptoms lasting <1 day, and eight patients (73%) had symptoms lasting 2–15 days. Five patients, including the four who died, visited health-care providers for evaluation of nonspecific symptoms before being hospitalized with encephalitis or meningitis. Nine patients (82%) had encephalitis marked by altered mental status; of these, three had acute neurologic symptoms that required hospitalization on the same day, and the other six had neurologic symptoms after a prodrome of nonspecific systemic symptoms. Two

**FIGURE 1. Number (N = 11) of cases of eastern equine encephalitis virus disease, by week — New Hampshire and Massachusetts, August–September 2005**



#### INSIDE

- 700 Travel-Associated Dengue — United States, 2005
- 702 Human Salmonellosis Associated with Animal-Derived Pet Treats — United States and Canada, 2005
- 705 Notice to Readers
- 706 QuickStats

The *MMWR* series of publications is published by the Coordinating Center for Health Information and Service, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

**Suggested Citation:** Centers for Disease Control and Prevention. [Article title]. *MMWR* 2006;55:[inclusive page numbers].

#### Centers for Disease Control and Prevention

Julie L. Gerberding, MD, MPH  
*Director*

Tanja Popovic, MD, PhD  
*(Acting) Chief Science Officer*  
*Associate Director for Science*

Steven L. Solomon, MD  
*Director, Coordinating Center for Health Information and Service*

Jay M. Bernhardt, PhD, MPH  
*Director, National Center for Health Marketing*

Judith R. Aguilar  
*(Acting) Director, Division of Health Information Dissemination (Proposed)*

#### Editorial and Production Staff

Mary Lou Lindegren, MD  
*Editor, MMWR Series*

Frederic E. Shaw, MD, JD  
*Guest Editor, MMWR Series*

Suzanne M. Hewitt, MPA  
*Managing Editor, MMWR Series*

Douglas W. Weatherwax  
*(Acting) Lead Technical Writer-Editor*

Catherine H. Bricker, MS  
Jude C. Rutledge  
*Writers-Editors*

Beverly J. Holland  
*Lead Visual Information Specialist*

Lynda G. Cupell  
Malbea A. LaPete  
*Visual Information Specialists*

Quang M. Doan, MBA  
Erica R. Shaver  
*Information Technology Specialists*

#### Editorial Board

William L. Roper, MD, MPH, Chapel Hill, NC, Chairman

Virginia A. Caine, MD, Indianapolis, IN

David W. Fleming, MD, Seattle, WA

William E. Halperin, MD, DrPH, MPH, Newark, NJ

Margaret A. Hamburg, MD, Washington, DC

King K. Holmes, MD, PhD, Seattle, WA

Deborah Holtzman, PhD, Atlanta, GA

John K. Iglehart, Bethesda, MD

Dennis G. Maki, MD, Madison, WI

Sue Mallonee, MPH, Oklahoma City, OK

Stanley A. Plotkin, MD, Doylestown, PA

Patricia Quinlisk, MD, MPH, Des Moines, IA

Patrick L. Remington, MD, MPH, Madison, WI

Barbara K. Rimer, DrPH, Chapel Hill, NC

John V. Rullan, MD, MPH, San Juan, PR

Anne Schuchat, MD, Atlanta, GA

Dixie E. Snider, MD, MPH, Atlanta, GA

John W. Ward, MD, Atlanta, GA

(29%) had meningitis without altered mental status. Of 10 patients who had CSF samples collected, all had pleocytosis (range: 77–1,468 leukocytes/ $\mu$ L). EEEV was isolated from the cerebral cortex of one deceased patient who underwent autopsy. Serum samples from 26 family members or friends of patients in New Hampshire were tested for anti-EEEV IgM; none had IgM present in serum collected within 2 months of patient symptom onset.

Seven patients resided in three counties (Hillsborough, Merrimack, and Rockingham) in southeastern New Hampshire, and four resided in one county (Plymouth) in southeastern Massachusetts (Figure 2). All the patients worked or socialized in areas near swamps, cranberry bogs, or other wetlands capable of supporting production of bridge mosquito populations and both epizootic and enzootic transmission. In addition, all patients lived in wooded areas within a half mile of a swamp or cranberry bog and had potential outdoor exposure at dawn or dusk during the 2 weeks preceding illness onset. Information regarding insect repellent use was collected from six patients by direct or parental interview; one reported always using repellent, two reported occasional repellent use, and three reported never using repellent.

In New Hampshire and Massachusetts, mosquito pools (i.e., collections of 50 mosquitoes sorted by species and sex) were homogenized and tested for the presence of EEEV by reverse transcription–polymerase chain reaction (RT-PCR). The New Hampshire Department of Health and Human Services tested 3,938 mosquito pools and determined that 15 (0.4%) pools from four counties were EEEV positive: 10 *Culiseta morsitans*, two *Culiseta melanura*, one *Coquillettidia perturbans*, one *Culex pipiens*, and one *Aedes cinereus*. The Massachusetts Department of Public Health tested 8,136 mosquito pools and determined that 45 (0.6%) pools from six counties were EEEV positive: 41 *Culiseta melanura*, two *Coquillettidia perturbans*, one *Culex pipiens-restuans*, and one *Ochlerotatus japonicus japonicus*.

Specimens from animals suspected of having EEEV disease were submitted to the two state health departments and, if accepted, tested by RT-PCR, MAC-ELISA, or PRNT. In New Hampshire, 241 wild birds were tested, and 52 were EEEV positive; 33 veterinary animals were tested, and 16 animals (nine horses, four alpacas, two emus, and one llama) in seven counties were EEEV positive. In Massachusetts, wild birds were not tested; of 13 veterinary animals tested, five animals (four horses and one emu) in four counties were EEEV positive.

**Reported by:** JW Stull, VMD, EA Talbot, MD, S MacRae, MS, JT Montero, MD, New Hampshire Dept of Health and Human Svcs. B Matyas, MD, F Cantor, DVM, R Konomi, PhD, A DeMaria, Massachusetts Dept of Public Health. EB Hayes, MD, TL Smith, MD, RS Nasci, PhD, JJ Sejvar, MD, DR O'Leary, DVM, GL Campbell, MD, AJ Noga, MS, RS Lanciotti, PhD, Div of Vector-Borne Infectious

**TABLE. Demographic, clinical, and laboratory characteristics for patients (N = 11) with eastern equine encephalitis virus disease, by state — New Hampshire and Massachusetts, August–September 2005**

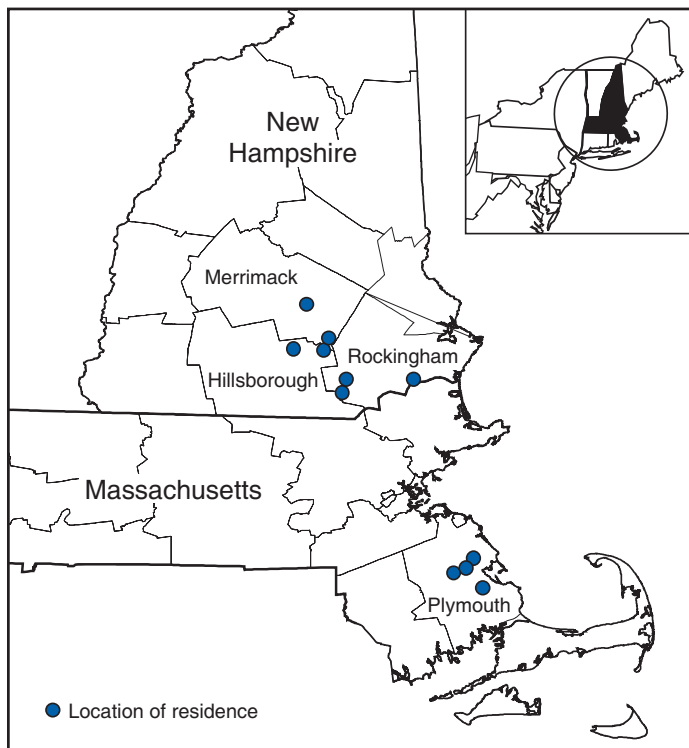
Characteristic	New Hampshire							Massachusetts			
	1*	2	3	4	5	6	7	8	9	10	11
Age group (yrs)	40–60	20–40	20–40	0–5	40–60	≥60	40–60	0–5	0–5	≥60	≥60
Syndromet	E	M	E	E	M	E	E	E	E	E	E
<b>Prodromal signs and symptoms</b>											
Fever	+	+	+	+	+	+	+	+	+	+	+
Headache	–	+	+	+	+	–	+	+	–	–	+
Weakness	+	+	+	+	+	+	+	–	–	–	–
Fatigue	+	–	+	+	+	+	+	+	+	–	–
Myalgias	–	+	+	+	–	–	+	–	–	–	–
Nausea/Vomiting/Anorexia	+	+	+	–	+	–	+	–	+	–	–
Prodrome duration (days)	~15	4	4	<1	9	8	11	<1	2	<1	2
<b>Complications</b>											
Seizures	–	–	+	+	–	+	–	+	+	–	–
Coma	+	–	+	+	–	+	+	+	+	+	+
<b>Discharge disposition</b>											
Lumbar puncture (days since onset)	Home	Home	Died	Rehab	Home	Died	Home	Died	Home	Rehab	Died
White blood cells (cells/ $\mu$ L) <sup>§</sup>	15	3	4	2	10	Not performed	10	3	2	1	3
Differential (%S/%L/%M) <sup>¶</sup>	94	201	988	411	743	—	106	847	193	77	1468
Glucose (mg/dL)	33/43/24	12/68/20	58/25/17	79/4/17	75/16/9	—	59/0/41	85/3/12	39/19/41	78/17/0	94/1/5
Protein (mg/dL)	62	84	80	92	63	—	136	104	51	53	70
	74	63	167	38	86	—	73	73	74	120	169

\* Patient number.

† E = encephalitis; M = meningitis.

§ After laboratory examination of cerebrospinal fluid.

¶ S = segmented neutrophils; L = lymphocytes; M = mononuclear cells.

**FIGURE 2. Location of residences of persons (N = 11) with eastern equine encephalitis virus disease, by county — New Hampshire and Massachusetts, August–September 2005**

*Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed); RN Plotinsky, MD, S Schumacher, MD, EC Farnon, MD, EIS officers, CDC.*

**Editorial Note:** EEEV causes sporadic human disease in areas where the virus is endemic. Of the four lineages of EEEV, Group I is endemic in North America and the Caribbean and causes the majority of human disease; the other three groups (IIA, IIB, and III) cause primarily equine illness in Central and South America. For 2005, a total of 21 confirmed or probable cases of human EEEV disease\* were reported to CDC, compared with 41 during 2000–2004,† an average of 8.2 cases per year. States reporting the highest annual average number of cases of EEEV disease during 2000–2004 were Florida (1.4 cases) and Michigan (1.2), followed by Georgia, Massachusetts, North Carolina, and South Carolina (0.8 each). Although few cases have been reported, EEEV disease can have severe health and economic consequences. The fatality rate has been estimated at 35%–75% (1–4), and eastern equine encephalitis can result in long-term neurologic sequelae, which, in one study, were projected to result in lifetime disease-related expenses of \$3 million per patient (5).

EEEV disease occurs near habitats suitable for breeding enzootic and bridge vectors and where avian amplifying hosts are abundant. A serosurvey of residents in towns with cases of EEEV disease during a 1959 New Jersey outbreak revealed an EEEV antibody seroprevalence of 2%–6% and a ratio of apparent to inapparent infections ranging from 1:16 to 1:32 (mean: 1:23) (6). Measures to control EEEV disease and other mosquito-borne diseases have focused on mosquito-control

\* New Hampshire (seven cases), Florida (five), Massachusetts (four), Alabama (two), Georgia (one), Louisiana (one), and South Carolina (one).

† 2000 (three cases), 2001 (nine), 2002 (nine), 2003 (15), 2004 (five).

programs and public education regarding personal protection against mosquito bites. Massachusetts has local mosquito-control districts that routinely collect and submit mosquito pools to the state public health laboratory for testing. New Hampshire has no statewide testing program, but 16 towns and cities in 2005 funded their own mosquito surveillance and sent mosquito pools to the state for testing. In response to the 2005 outbreak, New Hampshire 1) began a public education campaign; 2) heightened human, equine, and avian surveillance for EEEV disease; and 3) trapped mosquitoes around patient residences and other potential exposure sites. In addition, the New Hampshire House of Representatives passed a bill that establishes a mosquito-control fund to assist towns, cities, and mosquito-control districts and a task force to facilitate a coordinated local, regional, and state response to arboviral disease.<sup>§</sup> Massachusetts is continuing its ongoing mosquito surveillance and public education campaigns.

Patients with aseptic meningitis or encephalitis in areas that support EEEV transmission should be tested for EEEV disease, and health-care providers should alert their state health departments when human or veterinary EEEV disease is suspected. Public health practitioners should advise the public to avoid EEEV disease and other mosquito-borne diseases by using personal protective measures (e.g., regular use of insect repellents containing DEET, picaridin, or oil of lemon eucalyptus [7]; wearing long-sleeved shirts and pants when outdoors; and avoiding outdoor exposure during periods when mosquitoes are most actively biting, usually from dusk to dawn). Communities in which risk for transmission of EEEV has been demonstrated should consider establishing mosquito surveillance and control programs.

#### References

1. Calisher CH. Medically important arboviruses of the United States and Canada. *Clin Microbiol Rev* 1994;7:89–116.
2. Morris CD. Eastern equine encephalitis. In: Monath TP, ed. *The arboviruses: epidemiology and ecology*. Vol. 3. Boca Raton, FL: CRC Press; 1988:1–20.
3. Deresiewicz RL, Thaler SJ, Hsu L, Zamani AA. Clinical and neuro-radiographic manifestations of eastern equine encephalitis. *N Engl J Med* 1997;336:1867–74.
4. Przelomski MM, O'Rourke E, Grady GF, Berardi VP, Markley HG. Eastern equine encephalitis in Massachusetts: a report of 16 cases, 1970–1984. *Neurology* 1988;38:736–9.
5. Villari P, Spielman A, Komar N, McDowell M, Timperi RJ. The economic burden imposed by a residual case of eastern encephalitis. *Am J Trop Med Hyg* 1995;52:8–13.
6. Goldfield M, Welsh JN, Taylor BF. The 1959 outbreak of eastern encephalitis in New Jersey. The inapparent infection:disease ratio. *Am J Epidemiol* 1968;87:32–8.
7. CDC. Updated information regarding insect repellents: April 18, 2006. Atlanta, GA: US Department of Health and Human Services, CDC; 2006. Available at <http://www.cdc.gov/ncidod/dvbid/westnile/repellentupdates.htm>.

<sup>§</sup> HB 1464-FN-A-LOCAL, available at <http://www.gencourt.state.nh.us/legislation/2006/hb1464.html>.

## Travel-Associated Dengue — United States, 2005

Dengue is a mosquito-transmitted, acute viral disease caused by any of four dengue virus serotypes (DEN-1, DEN-2, DEN-3, or DEN-4). Dengue is endemic in most tropical and subtropical areas of the world and has occurred among U.S. residents returning from travel to such areas (1,2). In collaboration with state health departments, CDC maintains a passive surveillance system for travel-associated dengue among U.S. residents. Suspected dengue in travelers is reported to state health departments, which forward specimens to CDC for diagnostic testing.\* A case of travel-associated dengue is defined as laboratory-diagnosed dengue in a resident of one of the 50 states or the District of Columbia (DC) who traveled to a dengue-endemic area outside the United States or DC any time during the 14 days before symptom onset. This report summarizes information regarding 96 travel-associated dengue cases, including one fatality, among U.S. residents during 2005. Travelers to tropical areas can reduce their risk for dengue by using mosquito repellent and avoiding exposure to mosquitoes. Health-care providers should consider dengue in the differential diagnosis of febrile illness in patients who have returned recently from dengue-endemic areas.

Serum samples from 199 travelers with suspected dengue on the basis of clinical symptoms (3) during 2005 were submitted to CDC from 30 states. Of these 199 patients, 78 (39%) received a laboratory diagnosis of dengue, 51 (26%) were classified as indeterminate because a convalescent-phase sample for serologic testing was unavailable, and 70 (35%) did not have dengue. Of the 78 patients with dengue, 70 (90%) had elevated anti-dengue IgM antibodies, and eight (10%) had a dengue virus identified in serum by either polymerase chain reaction or viral isolation. Eighteen additional patients (12 from Florida, five from Texas, and one from New Mexico) had elevated anti-dengue IgM antibodies identified by commercial laboratories and also received a diagnosis of dengue (Table).

Of the 96 total patients with a dengue diagnosis, 53 (55%) were female. The median age of the 83 patients for whom age was reported was 43 years (range: <1–84 years). Travel destinations of 73 (76%) patients were identified. Thirty-two (44%) reported travel to Mexico during the 2 weeks before illness onset, 19 (26%) to Central America, 16 (22%) to the Caribbean, and six (8%) to Asia.

Clinical symptoms were reported for 24 (25%) patients. Six had at least one hemorrhagic symptom (e.g., epistaxis, hematemesis, hematuria, hemoptysis, petechia, or purpura). Of the 96 patients, 17 (18%) were reported to have been

\* Some cases are confirmed by commercial laboratories and reported to CDC by state health departments without requests for further diagnostic testing.

TABLE. Suspected and laboratory-diagnosed cases of travel-associated dengue, by state — United States, 2005

State	Cases		Travel history, if known, of persons with laboratory-diagnosed dengue (no. of cases and serotype, if known)
	Suspected	Laboratory diagnosed	
Arizona	3	1	India
California	8	4	Mexico (two cases), unknown (two cases, one with DEN-4)
Connecticut	1	1	Unknown
Florida	14	12	Unknown
Georgia	11	3	Costa Rica (one case with DEN-1), Dominican Republic, unknown
Hawaii	20	2	Unknown
Idaho	1	0	—
Illinois	3	1	Costa Rica
Indiana	1	0	—
Kansas	1	0	—
Kentucky	1	0	—
Louisiana	2	0	—
Maryland	1	0	—
Massachusetts	24	6	India (two cases, one with DEN-3), Puerto Rico (three cases), unknown
Michigan	1	0	—
Minnesota	7	0	—
Montana	2	0	—
North Carolina	7	0	—
Nebraska	1	1	El Salvador
New Mexico	1	1	Costa Rica
New York	45	23	Dominican Republic (four cases, one with DEN-4), Nicaragua (11 cases), Puerto Rico (three cases), Singapore (one case with DEN-2), Thailand (two cases), unknown (two cases)
Ohio	1	1	Unknown
Oregon	8	1	Caribbean
Pennsylvania	1	0	—
Texas*	39	36	Belize, Costa Rica, Mexico† (30 cases, two with DEN-2), Nicaragua (two cases), Puerto Rico, St. Croix
Utah	2	1	Unknown (one case with DEN-2)
Vermont	1	0	—
Virginia	2	1	Puerto Rico
Washington	5	0	—
Wisconsin	3	1	Puerto Rico
<b>Total</b>	<b>217</b>	<b>96</b>	—

\*Not including Texas residents with suspected and laboratory-diagnosed dengue who acquired their infections through autochthonous transmission during a 2005 dengue outbreak in south Texas.

†Includes travel-associated suspected and laboratory-diagnosed dengue cases identified in 2005 by the Border Infectious Disease Surveillance program.

hospitalized, including one who died. This rare travel-associated dengue fatality occurred in a woman aged 28 years in otherwise good health who had recently returned from a week in Mexico.

**Reported by:** A Ayala, MPH, A Rivera, MS, M Johansson, J Muñoz, PhD, Div of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed); M Ramos, MD, H Mohammed, PhD, EIS officers, CDC.

**Editorial Note:** Dengue viruses are transmitted to humans by certain species of *Aedes* mosquitoes. The majority of U.S. residents who contract dengue become infected during travel to tropical and subtropical areas outside of the 50 states and DC, although autochthonous transmission has been documented in Texas (4,5) and Hawaii (6). Nearly as many cases of travel-associated dengue were identified in 2005 (96 cases) as were identified during the preceding 5 years combined (98 cases) (1,2). The incidences of dengue and dengue hemorrhagic fever (DHF) are increasing in the tropical areas of

the world, including in the Western hemisphere (7). Waning support for mosquito-control programs (i.e., less funding for vector control), urbanization in the tropics, increasing human populations, and increased use of nonbiodegradable products (i.e., which can hold fresh rain water and provide places for mosquitoes to lay eggs) have all contributed to the recent resurgence of dengue (7). In 2005, outbreaks of dengue and DHF were reported from several areas in the Americas, including Mexico, Puerto Rico, the U.S. Virgin Islands, Guadeloupe, Martinique, Belize, El Salvador, Costa Rica, Nicaragua, Ecuador, Venezuela, and Brazil.†

The incubation period for dengue ranges from 3 to 14 days. Dengue virus infection can be asymptomatic or cause illness ranging from mild, undifferentiated fever to severe disease that

† Data from International Society for Infectious Diseases (ProMED-mail, the Program for Monitoring Emerging Diseases, available at <http://www.promedmail.org>) and CDC (Epidemic Information Exchange [Epi-X], available at <http://www.cdc.gov/epix>).

includes hemorrhage and shock (8). DHF is characterized by fever, minor or major bleeding manifestations, thrombocytopenia ( $\leq 100,000$  platelets/ $\mu\text{L}$ ), and evidence of increased vascular permeability (e.g., hemoconcentration [hematocrit  $\geq 20\%$  higher than baseline], pleural or abdominal effusions, or hypoproteinemia) (6). Dengue shock syndrome (DSS) also can occur; DSS is DHF with signs of circulatory failure, including narrow pulse pressure ( $\leq 20$  mm Hg), hypotension, or shock and has a case-fatality rate of approximately 10% (9). However, with early diagnosis and appropriate treatment, the case-fatality rate can be reduced to less than 1% (10). Aspirin and other nonsteroidal antiinflammatory drugs are contraindicated for patients with dengue because of their anticoagulant properties.

The findings in this report are subject to at least two limitations. First, these data are likely subject to underreporting because the surveillance system is passive (i.e., relies on health-care providers to report infections), and dengue is not a nationally notifiable disease in the United States. Second, travel histories and clinical information were not available for all cases, and the available data might not be representative of all persons with travel-associated dengue.

Persons traveling to areas where dengue is endemic should avoid exposure to mosquitoes by using repellents, wearing protective clothing, and remaining in well-screened or air-conditioned areas. Preventing travel-associated dengue not only benefits the traveler but also helps prevent introduction of dengue virus into areas of the United States (primarily the southeastern states) where vector mosquitoes might transmit the virus indigenously. No vaccine is available for preventing dengue infection. Health-care providers should consider dengue in the differential diagnosis of patients who have fever and a history of travel to tropical areas any time during the 2 weeks before symptom onset.

To diagnose dengue, health-care providers should obtain from the patient both an acute-phase (0–5 days after symptom onset) serum sample for directly detecting dengue virus and a convalescent-phase serum sample for detecting anti-dengue antibody, preferably obtained 1–2 weeks after the first sample.<sup>§</sup> Serum samples obtained for viral identification and serologic diagnosis can be sent through state or territorial health departments to CDC's Dengue Branch, Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, 1324 Calle Cañada, San Juan, Puerto Rico 00920-3860; telephone, 787-706-2399; fax, 787-706-2496. Serum samples should be accompanied by a summary of clinical and

epidemiologic information, including date of disease onset, date of sample collection, and detailed recent travel history. Additional information regarding dengue case reporting and instructions for specimen shipping are available at <http://www.cdc.gov/ncidod/dvbid/dengue/dengue-hcp.htm>.

#### Acknowledgments

This report is based, in part, on data contributed by state and local health departments and technical assistance from P Collins, Div of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed), CDC.

#### References

1. CDC. Travel-associated dengue infections—United States, 2001–2004. *MMWR* 2005;54:556–8.
2. CDC. Imported dengue—United States, 1999 and 2000. *MMWR* 2002;51:281–3.
3. CDC. Case definitions for infectious conditions under public health surveillance. *MMWR* 1997;46(No. RR-10).
4. CDC. Underdiagnosis of dengue—Laredo, Texas, 1999. *MMWR* 2001;50:57–9.
5. Abell A, Taylor R, Robinson L, Duran H, et al. Dengue outbreak investigation—Texas, 2005. Presented May 2, 2006, at the annual United States–Mexico Border Health Association meeting, in Monterrey, Nuevo Leon, Mexico.
6. Effler PV, Pang L, Kitsutani P, et al. Dengue fever, Hawaii, 2001–2002. *Emerg Infect Dis* 2005;11:742–9.
7. Gubler DJ. Dengue and dengue hemorrhagic fever: its history and resurgence as a global public health problem. In: Gubler DJ, Kuno G, eds. *Dengue and dengue hemorrhagic fever* [Chapter 1]. Wallingford, United Kingdom: CABI International; 1997:1–22.
8. World Health Organization. *Dengue haemorrhagic fever: diagnosis, treatment, prevention and control*. 2nd ed. Geneva, Switzerland: World Health Organization; 1997.
9. Tassniyom S, Vasanawathana S, Chirawatkul A, Rojanasuphot S. Failure of high-dose methylprednisolone in established dengue shock syndrome: a placebo-controlled, double-blind study. *Pediatrics* 1993;92:111–5.
10. Kalayanoarooj S, Nimmannitya S, eds. Overview: dengue/dengue hemorrhagic fever [Chapter 1]. In: *Guidelines for dengue hemorrhagic fever case management*. Bangkok, Thailand: Queen Sirikit National Institute of Child Health; 2004:1–18.

## Human Salmonellosis Associated with Animal-Derived Pet Treats — United States and Canada, 2005

During 2004–2005, contact with *Salmonella*-contaminated pet treats of beef and seafood origin resulted in nine culture-confirmed human *Salmonella* Thompson infections in western Canada and the state of Washington. This is the third published report (1,2) of an outbreak of human illness associated with pet treats in North America and the first to describe such an outbreak in the United States. This report highlights the investigation of the outbreak by U.S. and Canadian pub-

<sup>§</sup> Although serologic testing can detect diagnostic levels of anti-dengue IgM antibody reliably for approximately 30 days after symptom onset (and for 2–3 months in some cases), the optimum timing for a convalescent-phase sample is 1–2 weeks after the first sample.

lic health officials and provides recommendations for reducing the risk that *Salmonella*-contaminated pet treats pose to humans. Public health practitioners should consider pet treats a potential source for *Salmonella* transmission.

## Case Reports

**Case 1.** In February 2005, a man aged 26 years in Alberta, Canada, sought medical care because of diarrheal illness. Stool culture yielded *S. Thompson*. The patient reportedly had fed his dog beef pet treats a few days before the onset of his illness. The dog was asymptomatic. A package of the same brand of pet treats fed to the dog was purchased and submitted for testing. The treats yielded *S. Thompson*, *S. Cerro*, and *S. Meleagridis*. The *S. Thompson* isolates from the patient and the treats were indistinguishable (i.e., defined as the outbreak strain) by pulsed-field gel electrophoresis (PFGE) using *Xba*I. The treats were packaged and distributed by a British Columbia (BC) manufacturing plant, but plant records were inadequate to determine where the treats had been produced.

**Case 2.** In February 2005, a woman aged 37 years in BC sought medical care because of diarrheal illness. Stool culture yielded *S. Thompson*. The patient reportedly had fed her dog salmon pet treats a few days before the onset of her illness. The dog also had a diarrheal illness, but specimens were not collected. The remaining pet treats were collected from the patient's house for testing. The treats yielded *S. Thompson*. Isolates of *S. Thompson* from the patient and treats were indistinguishable from each other and from the outbreak strain by PFGE. The salmon treats originated from a Washington manufacturing plant. The treats were imported into Canada, labeled, and distributed for sale in BC and Alberta by the same BC manufacturing plant identified in case 1.

**Case 3.** In March 2005, a woman aged 81 years in Washington sought medical care because of diarrheal illness, fever, and vomiting. The patient was hospitalized. Stool culture yielded *S. Thompson* indistinguishable from the outbreak strain by PFGE. The patient had purchased and fed beef pet treats to her dog before the onset of her illness. The patient reported frequent contact with her dog but reported no recent illness in the dog. The remaining treats were collected from the patient's house for testing. The treats yielded *S. Thompson* indistinguishable from the outbreak strain by PFGE. The treats originated from and were packaged by the Washington manufacturing plant that was the source of the treats in case 2.

**Additional cases.** In 2004 and 2005, six additional human cases of *S. Thompson* (three in BC, two in Washington, and one in Alberta), with isolates indistinguishable by PFGE from the outbreak strain, were identified by PulseNet

USA and PulseNet Canada (national molecular subtyping networks for foodborne disease surveillance). Five of the six additional patients were interviewed. Three (60%) of them had handled pet treats from the Washington or BC manufacturing plants. The two other patients had pet dogs. Stool culture from an asymptomatic dog yielded *S. Thompson* indistinguishable from the outbreak strain by PFGE.

## Source Investigation

The BC and Washington manufacturing plants were investigated by authorities. Both manufacturers processed frozen, raw beef and salmon into pet treats for cats and dogs by thawing the materials, cutting them into the desired shapes and sizes, dehydrating them, and then packaging the finished products for distribution. The manufacturers in BC and Washington received frozen, raw beef parts from slaughterhouses in Canada and the United States, respectively. The Washington manufacturer also received frozen, raw salmon from a Washington seafood company. Although the pet treats were dehydrated at the BC and Washington plants, the dehydration temperatures were not high enough to kill bacteria that might have been present. No processing step, such as irradiation, that would destroy *Salmonella* and other bacteria was used during the processing. Production code dates, lot numbers, and location of plants were not recorded on the finished product packaging. No labels instructing pet owners to wash their hands after handling the product were provided. The BC manufacturing plant received some of its processed beef treats and all of its processed salmon treats from the Washington manufacturing plant.

Cultures of salmon and beef pet treats manufactured at the Washington plant and collected at the BC plant by Canadian authorities, and cultures of salmon treats collected at the Washington plant by U.S. authorities, yielded *S. Thompson* indistinguishable by PFGE from the outbreak strain. The salmon treats contained up to 80,000 colony-forming units of *Salmonella* per gram. Pet treats from the BC and Washington plants also contained other *Salmonella* serotypes, including *S. Montevideo*, *S. Newport*, *S. Give*, *S. Meleagridis*, *S. Cerro*, *S. Muenster*, *S. Agona*, and *S. Anatum*. Both manufacturing companies issued voluntary recalls of the implicated products in June 2005.

**Reported by:** L Crowe, Calgary Health Region, Calgary; L Chui, PhD, Alberta Provincial Laboratory for Public Health (Microbiology); D Everett, Alberta Ministry of Health and Wellness. S Brisdon, L Gustafson, MD, Fraser Health Authority, Surrey; E Galanis, MD, L McIntyre, L MacDougall, MSc, L Wilcott, A Paccagnella, British Columbia Centre for Disease Control. D MacDonald, MHSc, A Ellis, DVM, Public Health Agency of Canada. A Drake, MPH, J Koepsell, MS, C DeBolt, MPH, S McKeirnan, MPH, J Duchin, MD, Public

Health Seattle & King County, Seattle; R Baer, MPH, M Leslie, DVM, Washington State Dept of Health. ML Collins, JM Johnson, DE Farmer, CE Keys, H Ekperigin, DVM, PhD, Food and Drug Admin. F Angulo, DVM, PhD, Div of Foodborne, Bacterial and Mycotic Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (proposed); RE Colindres, MD, EIS Officer, CDC.

**Editorial Note:** In 2004, a total of 5,085 laboratory-confirmed cases of human *Salmonella* infections were reported in Canada, and 35,661 laboratory-confirmed cases were reported in the United States (3,4). Studies in the United States have demonstrated that for each laboratory-confirmed case of *Salmonella* infection, 38 *Salmonella* infections occur in the community, indicating that more than 1 million persons in Canada and the United States might be infected with *Salmonella* each year (5). Although salmonellosis generally is a self-limiting infection, it can result in serious illness in more vulnerable populations, such as the very young, older adults, and immunocompromised persons.

Most human *Salmonella* infections are acquired by handling or consuming contaminated food products, particularly foods of animal origin. Infections also are acquired by direct and indirect contact with farm animals, reptiles, chicks, and, occasionally, pets. Infected animals usually shed *Salmonella* organisms in their feces. Humans can become infected when they place contaminated food, hands, or other objects in their mouths; therefore, hand washing after contact with animals is an effective way to prevent *Salmonella* infection.

This report describes an outbreak of nine culture-confirmed cases of human *S. Thompson* infection associated with handling animal-derived pet treats in Washington and western Canada. Because laboratory-confirmed cases of *Salmonella* represent only a small proportion of cases in the community (5), this outbreak might have involved hundreds of infections. In recent years, an increasing variety of animal by-products, such as pig ears, have become available for purchase as animal-derived pet treats. Animal-derived pet treats have been associated with previous outbreaks of human *Salmonella* infection in Canada. In 1999, contaminated pig ear pet treats were confirmed as the source of an outbreak of human *S. Infantis* in several provinces (1,6). In 2002, contaminated pet treats imported from Texas were associated with human *S. Newport* infections in Calgary, Alberta (2). The *S. Infantis* isolates from the patients in Canada and from the pet treats in the United States were indistinguishable by PFGE. Follow-up investigations of those outbreaks indicated that pet treats are frequently contaminated with *Salmonella* organisms. In Canada, after the 1999 outbreak, *Salmonella* organisms were isolated from 48 (51%) of 94 samples of pig ear pet treats purchased from retail stores in Alberta (2). In the United States, *Salmonella* organisms, including *S. Infantis*, were isolated from

65 (41%) of 158 samples of pig ear and other animal-derived pet treats purchased from retail stores during 1999–2000 (7).

Detecting and controlling the transmission of *Salmonella* organisms through pet treats poses several challenges (8). Animal-derived pet treats often are contaminated with salmonellae, and the dehydration procedure used to make pet treats might not be effective at eliminating the organism. Aside from direct contact with contaminated pet treats, transmission of salmonellae to humans might also occur indirectly through infection in pets. Pets consuming contaminated treats might become colonized with salmonellae but remain asymptomatic, thus becoming unrecognized sources of contamination in the household. Young children, older adults, or immunocompromised persons in such households might have a higher risk for severe illness from *Salmonella* infection.

In Canada, pet treats are not regulated, but the Canadian Food Inspection Agency has used the Animal Health Act\* to encourage product recalls. The Public Health Agency of Canada and the Pet Industry Joint Advisory Council are collaborating to improve the safety of these products.

In the United States, pet treats are regulated by the Food and Drug Administration (FDA). *Salmonella*-contaminated pet treats are considered adulterated under the Federal Food, Drug, and Cosmetic (FDC) Act.† After the 1999 Canadian outbreak, FDA encouraged manufacturers to take voluntary steps to ensure the absence of salmonellae in pet treats. In addition, the American Pet Products Manufacturers Association published *Guidelines for the Manufacturing of Natural Part Treats for Pets* to educate its members about contamination risks (9). In 2004, FDA initiated annual nationwide testing of pet treats for salmonellae. Because results of this testing have shown that the prevalence of *Salmonella* organisms in pet treats in the United States has not decreased, FDA plans to broaden its use of enforcement actions to ensure compliance with the FDC Act.

Pet treat manufacturers, retailers, health-care providers, public health authorities, veterinarians, and consumers should be aware of the potential for animal-derived pet treats to serve as a source of *Salmonella*-related illness in humans. Public health authorities should routinely consider this possibility during their investigations of cases or outbreaks of human salmonellosis. In response to the public health hazard described in this and other reports, CDC and the Public Health Agency of Canada have issued recommendations (Box) to reduce the risk for transmission of salmonellae to humans from contaminated animal-derived pet treats.

\* Available at <http://www.fda.gov/opacom/laws/fdcact/fdcact4.htm>.

† Available at <http://www.inspection.gc.ca/english/animal/heasan/heasane.shtml>.



**BOX. Recommendations to reduce the risk for transmission of *Salmonella* organisms to humans from contaminated animal-derived pet treats**

- Persons should always wash their hands thoroughly with soap and water after handling animal-derived pet treats.
- Persons at increased risk for infection or serious complications of salmonellosis (e.g., children aged <5 years, older adults, and immunocompromised persons) should avoid contact with animal-derived pet treats.
- Pet store owners, health-care providers, veterinarians, and pet treat manufacturers should provide information to pet owners about the potential health risks of animal-derived pet treats and salmonellosis prevention.
- Pet treat manufacturers should implement a step (e.g., heat treatment or irradiation) that destroys *Salmonella* and other bacteria during the processing of pet treats and should provide labels containing production information.

SOURCES: CDC and the Public Health Agency of Canada

**References**

1. Laboratory Centre for Disease Control, Public Health Agency of Canada. Human health risk from exposure to natural dog treats. *Can Commun Dis Rep* 2000;26:41–2.
2. Pitout JDD, Reisbig MD, Mulvey M, et al. Association between handling of pet treats and infection with *Salmonella enterica* serotype Newport expressing the AmpC  $\beta$ -Lactamase, CMY-2. *J Clin Microbiol* 2003;39:538–42.
3. Centre for Infectious Disease Prevention and Control. Notifiable Diseases Reporting System. Ottawa, Canada: Public Health Agency of Canada, Centre for Infectious Disease Prevention and Control; 2006. Available at [http://dsol-smed.phac-aspc.gc.ca/dsol-smed/ndis/index\\_e.html](http://dsol-smed.phac-aspc.gc.ca/dsol-smed/ndis/index_e.html).
4. CDC. *Salmonella* surveillance: annual summary, 2004. Atlanta, GA: US Department of Health and Human Services, CDC; 2005.
5. Voetsch AC, Van Gilder TJ, Angulo FJ, et al. FoodNet estimate of the burden of illness caused by nontyphoidal *Salmonella* infections in the United States. *Clin Infect Dis* 2004; 38: S127–34.
6. Clark C, Cunningham J, Ahmed R, et al. Characterization of *Salmonella* associated with pig ear dog treats in Canada. *J Clin Microbiol* 2001;39:3962–8.
7. White DG, Datta A, McDermott P, et al. Antimicrobial susceptibility and genetic relatedness of *Salmonella* serovars isolated from animal-derived dog treats in the USA. *J Antimicro Chem* 2003;52:860–3.
8. Finlay R, Reid-Smith R, Weese JS. Human health implications of *Salmonella*-contaminated natural pet treats and raw pet food. *Clin Infect Dis* 2006;42:686–91.
9. American Pet Products Manufacturers Association, Inc. Guidelines for the manufacturing of natural part treats for pets. Greenwich, CT: American Pet Products Manufacturers Association, Inc.; 2006. Available at [http://www.appma.org/lawlibrary\\_article.asp?topic=20](http://www.appma.org/lawlibrary_article.asp?topic=20).

Notice to Readers

**Publication of Surgeon General's Report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke***

The Surgeon General's report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke* (1), was released on June 27, 2006. The report is an evaluation and synthesis of evidence regarding the health effects of exposure to second-hand smoke. An update of the 1986 report, *The Health Consequences of Involuntary Smoking*, the report also adds information regarding secondhand smoke to the smoking and health database developed for the 2004 report, *The Health Consequences of Smoking*; the database is available at <http://www.cdc.gov/tobacco>.

The six major conclusions of the latest report are as follows:

1. Secondhand smoke causes premature death and disease in children and in adults who do not smoke.
2. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children.
3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer.
4. The scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke.
5. Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces despite substantial progress in tobacco control.
6. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposures of nonsmokers to secondhand smoke.

Copies of the full report (stock no. 017-024-01685-3) can be purchased from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954; via telephone, 866-512-1800; or at <http://bookstore.gpo.gov>. The full report, the executive summary, and the consumer-oriented publication, *The Health Consequences of Secondhand Smoke — What It Means To You*, also can be downloaded at <http://www.cdc.gov/tobacco>. Single, free copies of these three publications can be ordered at [http://apps.nccd.cdc.gov/osh\\_pub\\_catalog](http://apps.nccd.cdc.gov/osh_pub_catalog).

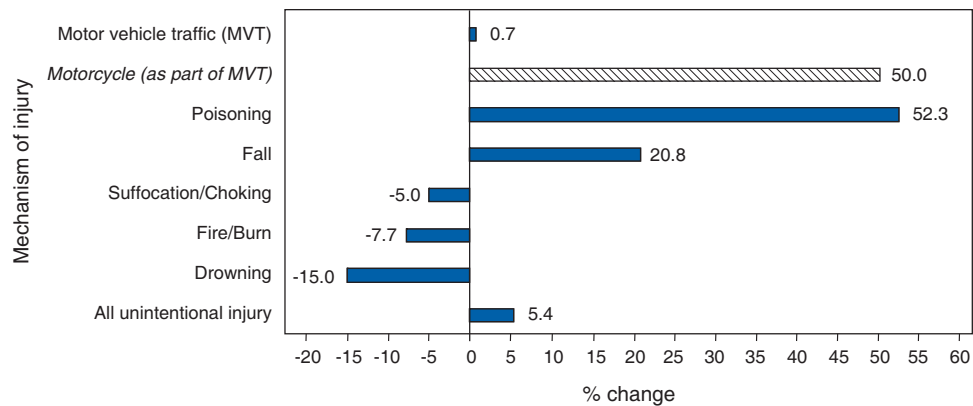
**Reference**

1. US Department of Health and Human Services. The health consequences of involuntary exposure to tobacco smoke: a report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, CDC; 2006.

## QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

### Percentage Change in Death Rates for the Leading Causes of Unintentional Injury, by Mechanism of Injury — United States, 1999–2003



During 1999–2003, unintentional injury mortality increased 5.4%. Increases in mortality rates from motor vehicle traffic, poisoning, and fall exceeded declines in mortality rates from suffocation/choking, fire/burn, and drowning. The 0.7% increase in the motor vehicle injury rate resulted from a 50.0% increase in motorcycle-related injury.

**SOURCE:** National Vital Statistics System (NVSS), 1999–2003. NVSS injury mortality data are available from WISQARS™ (Web-based Injury Statistics Query and Reporting System) at <http://www.cdc.gov/ncipc/wisqars>.

**TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending June 24, 2006 (25th Week)\***

Disease	Current week	Cum 2006	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2005	2004	2003	2002	2001	
Anthrax	—	1	0	—	—	—	2	23	
Botulism:									
foodborne	—	1	0	19	16	20	28	39	
infant	—	32	2	90	87	76	69	97	
other (wound & unspecified)	—	22	0	33	30	33	21	19	
Brucellosis	4	47	3	122	114	104	125	136	NC (1), CA (3)
Chancroid	2	18	1	17	30	54	67	38	NY (1), VA (1)
Cholera	—	2	0	11	5	2	2	3	
Cyclosporiasis§	2	29	12	734	171	75	156	147	FL (2)
Diphtheria	—	—	0	—	—	1	1	2	
Domestic arboviral diseases§§:									
California serogroup	—	—	2	78	112	108	164	128	
eastern equine	—	—	0	21	6	14	10	9	
Powassan	—	—	0	1	1	—	1	N	
St. Louis	—	—	0	10	12	41	28	79	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis§:									
human granulocytic	9	48	13	790	537	362	511	261	NY (2), MN (6), MO (1)
human monocytic	3	75	8	522	338	321	216	142	NY (1), MN (1), MO (1)
human (other & unspecified)	—	15	3	122	59	44	23	6	
<i>Haemophilus influenzae</i> **									
invasive disease (age <5 yrs):									
serotype b	—	3	0	9	19	32	34	—	
nonserotype b	—	43	2	135	135	117	144	—	
unknown serotype	4	89	2	217	177	227	153	—	NY (2), TN (1), UT (1)
Hansen disease§	1	28	2	88	105	95	96	79	FL (1)
Hantavirus pulmonary syndrome§	1	9	1	29	24	26	19	8	ID (1)
Hemolytic uremic syndrome, postdiarrheal§	2	53	5	221	200	178	216	202	OH (1), TN (1)
Hepatitis C viral, acute	9	375	32	771	713	1,102	1,835	3,976	CT (1), PA (1), MN (1), AL (4), OK (1), OR (1)
HIV infection, pediatric (age <13 yrs)§††	—	52	6	380	436	504	420	543	
Influenza-associated pediatric mortality§§,¶¶	1	32	0	48	—	N	N	N	MI (1)
Listeriosis	4	213	14	892	753	696	665	613	MO (1), FL (2), CA (1)
Measles***	1	23	2	65	37	56	44	116	NY (1)
Meningococcal disease,††† invasive:									
A, C, Y, & W-135	1	124	5	297	—	—	—	—	MN (1)
serogroup B	3	75	3	157	—	—	—	—	OH (1), MN (1), VA (1)
other serogroup	—	12	1	27	—	—	—	—	
Mumps	48	4,344	4	314	258	231	270	266	NY (3), OH (3), IN (3), IA (1), MO (3), SD (5), KS (17), VA (3), WV (3), AL (2), TX (1), WY (1), CA (2), PR (1)
Plague	—	1	0	8	3	1	2	2	
Poliomyelitis, paralytic	—	—	—	1	—	—	—	—	
Psittacosis§	—	9	0	19	12	12	18	25	
Q fever§	1	57	2	139	70	71	61	26	CA (1)
Rabies, human	—	1	—	2	7	2	3	1	
Rubella	—	4	1	11	10	7	18	23	
Rubella, congenital syndrome	—	1	—	1	—	1	1	3	
SARS-CoV§§	—	—	—	—	—	8	N	N	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	—	59	2	129	132	161	118	77	
<i>Streptococcus pneumoniae</i> ,§									
invasive disease (age <5 yrs)	10	566	12	1,257	1,162	845	513	498	NY (2), IN (2), MN (4), TX (2)
Syphilis, congenital (age <1 yr)	—	97	8	361	353	413	412	441	
Tetanus	—	9	1	27	34	20	25	37	
Toxic-shock syndrome (other than streptococcal)§	—	45	2	96	95	133	109	127	
Trichinellosis	1	6	0	19	5	6	14	22	UT (1)
Tularemia§	2	20	4	154	134	129	90	129	KS (1), CA (1)
Typhoid fever	—	114	6	324	322	356	321	368	
Vancomycin-intermediate <i>Staphylococcus aureus</i> §	—	2	—	2	—	N	N	N	
Vancomycin-resistant <i>Staphylococcus aureus</i> §	—	—	—	4	1	N	N	N	
Yellow fever	—	—	—	—	—	—	1	—	

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

\* Incidence data for reporting years 2005 and 2006 are provisional, whereas data for 2001, 2002, 2003, and 2004 are finalized.

† Calculated by summing the incidence counts for the current week, the two weeks preceding the current week, and the two weeks following the current week, for a total of 5 preceding years. Additional information is available at <http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf>.

§ Not notifiable in all states.

¶ Includes both neuroinvasive and non-neuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNET Surveillance).

\*\* 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, STD and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Data for HIV/AIDS are available in Table IV quarterly.

§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.

¶¶ Of the 41 cases reported since October 2, 2005 (week 40), only 37 occurred during the current 2005–06 season.

\*\*\* The one measles case reported for the current week was indigenous.

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







**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2006, and June 25, 2005 (25th Week)\***

Reporting area	Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max		
<b>United States</b>	179	229	2,153	2,834	4,955	20	25	125	485	574
<b>New England</b>	—	46	780	188	789	3	1	12	28	26
Connecticut	—	9	753	95	59	3	0	10	7	—
Maine	—	2	26	35	42	—	0	1	3	2
Massachusetts	—	7	205	11	648	—	0	3	13	18
New Hampshire	—	5	21	38	32	—	0	1	4	3
Rhode Island	—	0	12	—	3	—	0	8	—	2
Vermont†	—	1	5	9	5	—	0	1	1	1
<b>Mid. Atlantic</b>	146	131	1,176	1,854	2,728	—	5	15	72	160
New Jersey	—	20	312	300	1,218	—	1	7	13	36
New York (Upstate)	131	74	1,150	927	545	—	1	11	11	23
New York City	—	2	33	—	113	—	3	8	36	83
Pennsylvania	15	34	376	627	852	—	1	2	12	18
<b>E.N. Central</b>	—	9	160	139	543	—	3	8	47	62
Illinois	—	0	13	—	45	—	1	5	12	33
Indiana	—	0	4	3	4	—	0	3	6	3
Michigan	—	1	7	10	5	—	0	2	8	12
Ohio	—	1	5	17	22	—	1	3	16	9
Wisconsin	—	9	145	109	467	—	0	3	5	5
<b>W.N. Central</b>	12	9	98	90	132	1	0	32	22	27
Iowa	—	1	8	13	36	—	0	1	1	4
Kansas	—	0	2	3	2	—	0	1	—	2
Minnesota	10	6	96	62	89	—	0	30	14	11
Missouri	2	0	2	6	5	—	0	2	3	10
Nebraska†	—	0	2	5	—	1	0	2	2	—
North Dakota	—	0	3	—	—	—	0	1	1	—
South Dakota	—	0	1	1	—	—	0	1	1	—
<b>S. Atlantic</b>	14	27	124	445	671	4	7	16	153	111
Delaware	2	8	37	181	268	—	0	1	4	1
District of Columbia	—	0	2	8	3	—	0	2	—	2
Florida	—	1	5	14	11	1	1	6	24	18
Georgia	—	0	1	—	2	—	1	6	48	22
Maryland†	9	15	87	196	306	—	1	9	35	39
North Carolina	—	0	5	9	22	—	0	8	11	14
South Carolina†	—	0	3	4	8	—	0	2	4	3
Virginia†	3	3	22	33	50	3	1	9	26	11
West Virginia	—	0	44	—	1	—	0	2	1	1
<b>E.S. Central</b>	1	0	4	3	10	—	0	3	12	11
Alabama†	—	0	1	—	—	—	0	2	7	3
Kentucky	—	0	2	—	1	—	0	2	1	4
Mississippi	—	0	0	—	—	—	0	1	2	—
Tennessee†	1	0	4	3	9	—	0	2	2	4
<b>W.S. Central</b>	—	0	5	3	41	—	2	31	31	43
Arkansas	—	0	1	—	2	—	0	2	1	3
Louisiana	—	0	0	—	3	—	0	1	—	2
Oklahoma	—	0	0	—	—	—	0	6	2	2
Texas†	—	0	5	3	36	—	1	29	28	36
<b>Mountain</b>	—	0	4	4	3	—	0	9	18	27
Arizona	—	0	4	2	—	—	0	9	4	5
Colorado	—	0	0	—	—	—	0	2	6	14
Idaho†	—	0	1	—	1	—	0	0	—	—
Montana	—	0	0	—	—	—	0	1	1	—
Nevada†	—	0	2	—	—	—	0	1	—	2
New Mexico†	—	0	1	—	—	—	0	1	—	1
Utah	—	0	1	2	1	—	0	2	7	4
Wyoming	—	0	1	—	1	—	0	1	—	1
<b>Pacific</b>	6	3	19	108	38	12	4	10	102	107
Alaska	—	0	1	—	2	4	0	2	14	3
California	6	3	19	107	26	6	2	10	68	81
Hawaii	N	0	0	N	N	—	0	1	—	10
Oregon†	—	0	3	1	9	—	0	2	6	3
Washington	—	0	3	—	1	2	0	5	14	10
American Samoa	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	—	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2005 and 2006 are provisional.

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





TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2006, and June 25, 2005 (25th Week)\*

Reporting area	Rabies, animal					Rocky Mountain spotted fever					Salmonellosis				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	74	108	192	2,562	2,942	37	35	246	561	453	533	751	2,291	13,395	15,246
<b>New England</b>	9	12	26	279	351	—	0	2	1	2	2	34	165	678	905
Connecticut	4	3	13	72	79	—	0	0	—	—	—	4	157	157	184
Maine	—	1	5	35	31	N	0	0	N	N	—	2	7	34	86
Massachusetts	2	4	17	130	199	—	0	2	1	1	1	19	41	391	494
New Hampshire	—	0	3	6	4	—	0	1	—	—	—	2	12	45	70
Rhode Island	—	0	4	1	11	—	0	2	—	1	1	0	17	37	31
Vermont†	3	1	7	35	27	—	0	0	—	—	—	1	10	14	40
<b>Mid. Atlantic</b>	17	19	46	497	424	—	1	7	17	32	44	75	272	1,487	1,878
New Jersey	N	0	0	N	N	—	0	3	—	10	—	11	41	191	361
New York (Upstate)	17	11	24	224	223	—	0	1	1	—	27	22	233	388	442
New York City	—	0	3	—	14	—	0	2	4	4	—	23	44	388	473
Pennsylvania	—	8	35	273	187	—	1	5	12	18	17	28	61	520	602
<b>E.N. Central</b>	9	2	9	39	99	1	0	7	9	13	56	92	219	1,841	2,262
Illinois	—	0	4	—	16	—	0	4	1	6	—	26	53	403	877
Indiana	—	0	3	6	4	1	0	1	2	—	24	11	69	248	196
Michigan	3	1	4	21	9	—	0	1	—	2	11	17	35	355	391
Ohio	6	0	2	12	70	—	0	3	6	4	21	25	52	521	449
Wisconsin	N	0	2	N	N	—	0	1	—	1	—	15	44	314	349
<b>W.N. Central</b>	8	5	15	117	166	5	2	12	72	55	46	44	89	941	991
Iowa	—	0	2	16	—	—	0	2	—	1	1	7	18	145	160
Kansas	—	1	5	34	48	1	0	1	2	2	7	7	17	135	140
Minnesota	4	1	5	17	33	—	0	1	1	—	23	10	30	229	232
Missouri	4	1	6	16	26	4	2	12	64	49	13	15	40	297	288
Nebraska†	—	0	0	—	—	—	0	2	5	—	2	4	12	83	90
North Dakota	—	0	7	13	11	—	0	1	—	—	—	0	46	4	14
South Dakota	—	1	4	21	48	—	0	1	—	3	—	3	9	48	67
<b>S. Atlantic</b>	20	36	97	922	1,122	25	17	94	373	249	164	252	514	3,497	3,942
Delaware	—	0	0	—	—	—	0	2	5	2	1	2	9	34	38
District of Columbia	—	0	0	—	—	—	0	1	—	—	2	1	7	29	20
Florida	—	0	25	78	201	1	0	3	12	9	82	95	230	1,535	1,446
Georgia	—	2	42	85	144	—	1	7	21	44	24	30	87	532	571
Maryland†	—	8	14	154	176	—	1	6	18	19	5	11	39	206	278
North Carolina	9	8	20	185	243	23	6	87	295	142	33	32	114	540	536
South Carolina†	—	3	11	70	101	—	1	6	4	20	9	20	73	290	623
Virginia†	11	10	27	301	237	1	2	10	17	10	8	19	66	293	371
West Virginia	—	1	13	49	20	—	0	2	1	3	—	3	19	38	59
<b>E.S. Central</b>	5	5	16	171	66	4	5	24	62	60	29	53	115	815	889
Alabama†	1	1	7	37	37	2	0	9	18	16	14	14	41	323	215
Kentucky	—	0	5	7	7	—	0	1	—	—	1	8	27	152	144
Mississippi	—	0	1	—	—	—	0	3	—	2	—	10	62	94	213
Tennessee†	4	2	11	127	22	2	3	18	44	42	14	14	41	246	317
<b>W.S. Central</b>	2	14	34	385	510	—	1	161	19	23	61	80	922	1,286	1,389
Arkansas	1	0	3	18	18	—	0	32	16	12	13	13	43	325	272
Louisiana	—	0	0	—	—	—	0	1	—	5	—	9	43	145	321
Oklahoma	1	1	9	31	50	—	0	154	1	5	11	7	48	149	145
Texas†	—	12	29	336	442	—	0	8	2	1	37	45	839	667	651
<b>Mountain</b>	1	4	16	66	124	2	0	6	6	18	19	48	110	858	913
Arizona	—	2	11	55	97	—	0	6	2	12	—	13	67	197	263
Colorado	—	0	2	—	11	—	0	1	—	1	—	12	45	271	209
Idaho†	—	0	12	—	—	—	0	2	—	1	5	2	8	56	75
Montana	—	0	3	7	—	—	0	0	—	1	5	2	16	66	37
Nevada†	—	0	2	—	1	—	0	0	—	—	—	3	8	48	83
New Mexico†	—	0	1	—	3	—	0	1	—	2	—	3	13	56	103
Utah	1	0	5	3	—	2	0	0	2	—	5	5	30	132	122
Wyoming	—	0	2	1	12	—	0	1	2	1	4	1	12	32	21
<b>Pacific</b>	3	3	15	86	80	—	0	1	2	1	112	102	426	1,992	2,077
Alaska	—	0	4	13	1	—	0	0	—	—	2	1	7	37	22
California	3	3	15	71	77	—	0	1	2	—	95	84	292	1,497	1,578
Hawaii	—	0	0	—	—	—	0	0	—	—	2	5	15	100	123
Oregon†	—	0	1	2	2	—	0	1	—	1	1	7	25	175	181
Washington	U	0	0	U	U	N	0	0	N	N	12	9	124	183	173
American Samoa	U	0	0	U	U	U	0	0	U	U	U	1	2	U	1
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—	—	0	4	—	18
Puerto Rico	1	2	6	53	40	N	0	0	N	N	4	7	35	59	242
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2005 and 2006 are provisional.

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

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2006, and June 25, 2005 (25th Week)\***

Reporting area	Shiga toxin-producing <i>E. coli</i> (STEC) <sup>†</sup>					Shigellosis					Streptococcal disease, invasive, group A				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	38	52	297	598	850	113	284	1,013	4,093	5,740	55	86	283	2,676	2,650
<b>New England</b>	1	3	16	46	77	—	5	29	114	114	3	5	9	111	162
Connecticut	—	0	15	15	21	—	0	23	23	23	U	0	3	U	64
Maine	—	0	5	—	14	—	0	3	2	5	—	0	2	10	6
Massachusetts	—	1	7	25	29	—	4	11	79	69	2	3	6	72	68
New Hampshire	—	0	2	5	5	—	0	4	4	4	—	0	3	18	8
Rhode Island	1	0	2	1	2	—	0	6	4	7	—	0	3	3	7
Vermont <sup>§</sup>	—	0	2	2	6	—	0	4	2	6	1	0	2	8	9
<b>Mid. Atlantic</b>	12	5	107	42	96	7	17	72	271	538	6	13	43	447	574
New Jersey	—	1	7	—	25	—	4	15	58	153	—	1	6	13	117
New York (Upstate)	—	2	103	20	35	6	4	60	101	122	3	4	32	180	170
New York City	—	0	3	9	6	—	5	14	75	227	—	2	11	63	114
Pennsylvania	—	1	8	—	30	1	2	48	37	36	3	5	13	191	173
<b>E.N. Central</b>	3	10	38	144	161	12	20	96	402	423	7	16	42	524	574
Illinois	—	1	10	15	40	—	7	26	108	109	—	4	10	110	196
Indiana	—	1	7	19	24	7	1	56	68	41	6	2	11	74	55
Michigan	—	1	8	26	29	1	3	10	83	127	1	3	11	141	138
Ohio	3	2	14	49	40	4	3	11	83	32	—	4	19	166	122
Wisconsin	—	3	15	35	28	—	3	10	60	114	—	1	4	33	63
<b>W.N. Central</b>	6	7	35	95	115	12	44	78	604	468	18	5	57	210	163
Iowa	1	1	10	31	28	1	1	7	22	39	N	0	0	N	N
Kansas	—	0	4	—	15	1	4	20	43	32	—	1	5	38	26
Minnesota	4	3	19	56	18	2	2	8	41	31	18	0	52	101	58
Missouri	3	2	7	48	29	8	23	70	412	312	—	1	5	40	43
Nebraska <sup>§</sup>	1	1	5	15	19	—	2	11	39	37	—	0	4	18	15
North Dakota	—	0	15	—	1	—	0	2	4	2	—	0	5	7	5
South Dakota	—	0	5	6	5	—	2	17	43	15	—	0	3	6	16
<b>S. Atlantic</b>	9	7	39	103	143	47	52	122	1,145	845	15	21	42	654	505
Delaware	—	0	2	1	—	—	0	2	—	5	—	0	2	7	—
District of Columbia	—	0	1	—	—	—	0	2	6	8	1	0	2	9	6
Florida	4	1	29	42	55	35	26	66	532	401	5	5	12	139	132
Georgia	—	0	6	—	17	9	14	34	392	223	5	4	16	150	103
Maryland <sup>§</sup>	2	1	5	12	21	1	2	8	38	27	1	3	12	117	99
North Carolina	2	1	11	33	19	1	2	22	91	84	—	1	26	93	79
South Carolina <sup>§</sup>	—	0	2	4	3	—	2	9	59	50	2	0	6	40	26
Virginia <sup>§</sup>	—	1	8	—	27	1	2	9	27	47	—	2	11	80	47
West Virginia	—	0	2	—	1	—	0	1	—	—	1	0	6	19	13
<b>E.S. Central</b>	2	2	11	36	44	7	14	35	295	696	1	3	11	122	109
Alabama <sup>§</sup>	—	0	3	7	12	4	3	14	87	145	N	0	0	N	N
Kentucky	—	1	8	15	11	2	7	23	135	104	—	0	5	28	23
Mississippi	—	0	2	—	2	—	1	6	26	41	—	0	0	—	—
Tennessee <sup>§</sup>	—	1	4	27	19	1	3	13	47	406	1	3	9	94	86
<b>W.S. Central</b>	—	1	52	8	34	6	49	596	404	1,610	4	7	58	215	159
Arkansas	—	0	2	3	4	1	1	7	36	28	—	0	5	18	8
Louisiana	—	0	2	—	12	—	2	11	43	63	—	0	2	7	4
Oklahoma	—	0	8	5	7	5	6	286	48	369	2	2	14	63	67
Texas <sup>§</sup>	2	1	44	29	11	—	39	308	277	1,150	2	4	43	127	80
<b>Mountain</b>	2	5	15	51	89	1	17	47	265	272	1	10	78	349	350
Arizona	—	0	4	16	10	—	9	29	131	133	—	4	57	180	157
Colorado	—	1	6	16	25	—	3	18	47	40	—	3	8	83	113
Idaho <sup>§</sup>	—	1	7	15	15	—	0	4	5	5	—	0	2	6	2
Montana	—	0	2	—	3	—	0	1	3	4	—	0	0	—	—
Nevada <sup>§</sup>	—	0	3	7	11	—	1	8	26	27	—	0	6	—	1
New Mexico <sup>§</sup>	—	0	3	3	7	—	2	9	27	44	—	1	7	31	42
Utah	—	1	7	15	16	1	1	4	25	19	1	1	6	46	33
Wyoming	2	0	3	7	2	—	0	1	1	—	—	0	1	3	2
<b>Pacific</b>	3	7	55	73	91	21	38	148	593	774	—	2	9	44	54
Alaska	—	0	2	—	5	—	0	2	6	10	—	0	0	—	—
California	3	4	18	50	39	21	32	104	445	670	—	0	0	—	—
Hawaii	—	0	4	4	3	—	0	4	17	13	—	2	9	44	54
Oregon <sup>§</sup>	—	2	47	26	32	—	1	31	64	38	N	0	0	N	N
Washington	—	2	32	19	12	—	2	43	61	43	N	0	0	N	N
American Samoa	U	0	0	U	U	U	0	2	U	3	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	3	—	9	—	0	0	—	—
Puerto Rico	—	0	1	—	—	—	0	2	2	1	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2005 and 2006 are provisional.

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

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

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2006, and June 25, 2005 (25th Week)\***

Reporting area	Rabies, animal				Rocky Mountain spotted fever				Salmonellosis						
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	29	50	334	1,518	1,597	103	166	334	3,774	3,959	506	804	3,204	25,400	15,563
<b>New England</b>	—	1	24	13	140	7	4	17	95	102	19	45	144	882	3,270
Connecticut	U	0	7	U	59	—	0	11	19	20	U	10	58	U	930
Maine	N	0	0	N	N	1	0	2	8	1	—	5	20	151	206
Massachusetts	—	0	6	—	66	5	2	5	57	70	—	15	54	92	1,440
New Hampshire	—	0	0	—	—	1	0	2	6	6	—	6	23	181	160
Rhode Island	—	0	11	4	7	—	0	6	3	5	—	0	0	—	—
Vermont†	—	0	2	9	8	—	0	1	2	—	19	10	50	458	534
<b>Mid. Atlantic</b>	2	3	15	92	143	9	21	35	526	490	53	102	183	2,909	2,939
New Jersey	N	0	0	N	N	—	2	7	79	68	—	0	0	—	—
New York (Upstate)	1	1	10	32	58	3	2	14	77	32	—	0	0	—	—
New York City	U	0	0	U	U	6	10	22	256	309	—	0	0	—	—
Pennsylvania	1	2	9	60	85	—	5	9	114	81	53	102	183	2,909	2,939
<b>E.N. Central</b>	9	11	41	369	391	18	18	38	398	425	169	213	577	9,473	3,625
Illinois	—	1	3	11	15	4	9	23	197	240	—	1	5	12	53
Indiana	9	2	21	99	120	—	1	4	31	34	N	0	347	N	70
Michigan	—	0	4	15	27	7	1	19	44	35	39	102	174	2,867	2,334
Ohio	—	6	32	244	229	6	4	11	104	101	130	72	421	6,174	884
Wisconsin	N	0	0	N	N	1	1	3	22	15	—	10	41	420	284
<b>W.N. Central</b>	—	1	191	28	27	5	4	9	111	132	10	20	84	910	211
Iowa	N	0	0	N	N	—	0	3	8	4	N	0	0	N	N
Kansas	N	0	0	N	N	1	0	2	12	11	—	0	0	—	—
Minnesota	—	0	191	—	—	—	1	3	14	40	—	0	0	—	—
Missouri	—	1	3	28	22	4	3	8	76	74	10	15	82	854	134
Nebraska†	—	0	0	—	2	—	0	1	1	3	—	0	0	—	—
North Dakota	—	0	1	—	—	—	0	1	—	—	—	0	25	25	10
South Dakota	—	0	0	—	3	—	0	1	—	—	—	1	12	31	67
<b>S. Atlantic</b>	17	24	53	787	649	22	43	186	911	916	75	90	860	2,681	1,190
Delaware	—	0	2	—	1	—	0	2	12	6	—	1	5	41	20
District of Columbia	—	0	3	19	12	1	2	9	52	56	—	0	5	19	16
Florida	11	13	36	423	342	8	14	29	340	356	—	0	0	—	—
Georgia	1	8	22	266	220	1	9	147	108	144	—	0	0	—	—
Maryland†	—	0	0	—	—	3	6	19	152	154	—	0	0	—	—
North Carolina	N	0	0	N	N	8	5	17	146	109	—	0	0	—	—
South Carolina†	—	0	0	—	—	1	1	7	36	30	—	17	50	653	307
Virginia†	N	0	0	N	N	—	2	12	64	59	63	25	812	1,009	217
West Virginia	5	1	14	79	74	—	0	1	1	2	12	25	70	959	630
<b>E.S. Central</b>	1	3	13	116	118	6	10	20	277	219	4	0	70	31	1
Alabama†	N	0	0	N	N	—	3	12	113	83	4	0	70	31	1
Kentucky	—	0	5	23	21	—	1	8	32	17	N	0	0	N	N
Mississippi	—	0	0	—	1	—	0	5	21	25	—	0	0	—	—
Tennessee†	1	2	13	93	96	6	4	11	111	94	N	0	0	N	N
<b>W.S. Central</b>	—	1	9	55	94	25	24	39	637	598	173	211	1,757	6,901	2,629
Arkansas	—	0	3	7	12	—	1	6	36	26	18	5	110	442	—
Louisiana	—	1	7	48	82	8	4	17	72	124	—	0	17	90	105
Oklahoma	N	0	0	N	N	1	1	6	35	20	—	0	0	—	—
Texas†	N	0	0	N	N	16	17	29	494	428	155	204	1,647	6,369	2,524
<b>Mountain</b>	—	1	27	58	35	3	7	17	181	207	3	47	136	1,613	1,698
Arizona	N	0	0	N	N	3	3	13	89	69	—	0	0	—	—
Colorado	N	0	0	N	N	—	1	3	17	22	—	30	76	826	1,154
Idaho†	N	0	0	N	N	—	0	1	2	18	—	0	0	—	—
Montana	—	0	1	—	—	—	0	1	1	5	—	0	0	—	—
Nevada†	—	0	27	4	2	—	1	12	43	58	—	0	2	4	—
New Mexico†	—	0	1	1	—	—	1	5	27	28	1	3	32	238	146
Utah	—	0	8	24	15	—	0	1	2	7	2	10	55	517	353
Wyoming	—	0	3	29	18	—	0	0	—	—	—	0	8	28	45
<b>Pacific</b>	—	0	0	—	—	8	33	47	638	870	—	0	0	—	—
Alaska	—	0	0	—	—	—	0	4	5	4	—	0	0	—	—
California	N	0	0	N	N	2	27	42	520	783	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	2	10	3	N	0	0	N	N
Oregon†	N	0	0	N	N	1	0	6	9	16	N	0	0	N	N
Washington	N	0	0	N	N	5	2	11	94	64	N	0	0	N	N
American Samoa	—	0	0	—	—	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	—	0	0	—	—	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	3	—	2	12	—	364
Puerto Rico	N	0	0	N	N	—	3	16	54	102	—	8	47	139	403
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable.

Cum: Cumulative year-to-date counts.

Med: Median.

Max: Maximum.

\* Incidence data for reporting years 2005 and 2006 are provisional.

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

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 24, 2006, and June 25, 2005 (25th Week)\***

Reporting area	West Nile virus disease <sup>†</sup>									
	Neuroinvasive					Non-neuroinvasive				
	Current week	Previous 52 weeks		Cum 2006	Cum 2005	Current week	Previous 52 weeks		Cum 2006	Cum 2005
		Med	Max				Med	Max		
<b>United States</b>	—	1	155	4	15	—	0	203	—	45
<b>New England</b>	—	0	3	—	—	—	0	2	—	—
Connecticut	—	0	2	—	—	—	0	1	—	—
Maine	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	3	—	—	—	0	1	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island	—	0	1	—	—	—	0	0	—	—
Vermont <sup>§</sup>	—	0	0	—	—	—	0	0	—	—
<b>Mid. Atlantic</b>	—	0	10	—	—	—	0	4	—	—
New Jersey	—	0	1	—	—	—	0	2	—	—
New York (Upstate)	—	0	7	—	—	—	0	2	—	—
New York City	—	0	2	—	—	—	0	2	—	—
Pennsylvania	—	0	3	—	—	—	0	2	—	—
<b>E.N. Central</b>	—	0	39	—	2	—	0	18	—	—
Illinois	—	0	25	—	—	—	0	16	—	—
Indiana	—	0	2	—	1	—	0	1	—	—
Michigan	—	0	14	—	—	—	0	3	—	—
Ohio	—	0	9	—	1	—	0	4	—	—
Wisconsin	—	0	3	—	—	—	0	2	—	—
<b>W.N. Central</b>	—	0	26	—	2	—	0	80	—	7
Iowa	—	0	3	—	—	—	0	5	—	—
Kansas	—	0	3	—	—	N	0	3	N	N
Minnesota	—	0	5	—	—	—	0	5	—	—
Missouri	—	0	4	—	1	—	0	3	—	—
Nebraska <sup>§</sup>	—	0	9	—	—	—	0	24	—	1
North Dakota	—	0	4	—	—	—	0	15	—	1
South Dakota	—	0	7	—	1	—	0	33	—	5
<b>S. Atlantic</b>	—	0	6	—	—	—	0	4	—	1
Delaware	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	1	—	—	—	0	1	—	—
Florida	—	0	2	—	—	—	0	4	—	—
Georgia	—	0	3	—	—	—	0	3	—	1
Maryland <sup>§</sup>	—	0	2	—	—	—	0	1	—	—
North Carolina	—	0	1	—	—	—	0	1	—	—
South Carolina <sup>§</sup>	—	0	1	—	—	—	0	0	—	—
Virginia <sup>§</sup>	—	0	0	—	—	—	0	1	—	—
West Virginia	—	0	0	—	—	N	0	0	N	N
<b>E.S. Central</b>	—	0	10	1	1	—	0	5	—	2
Alabama <sup>§</sup>	—	0	1	—	—	—	0	2	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	9	1	1	—	0	5	—	2
Tennessee <sup>§</sup>	—	0	3	—	—	—	0	1	—	—
<b>W.S. Central</b>	—	0	32	2	4	—	0	22	—	6
Arkansas	—	0	3	—	—	—	0	2	—	2
Louisiana	—	0	20	—	—	—	0	9	—	2
Oklahoma	—	0	6	—	—	—	0	3	—	—
Texas <sup>§</sup>	—	0	16	2	4	—	0	13	—	2
<b>Mountain</b>	—	0	16	1	3	—	0	39	—	11
Arizona	—	0	8	—	2	—	0	8	—	1
Colorado	—	0	5	1	—	—	0	13	—	8
Idaho <sup>§</sup>	—	0	2	—	—	—	0	3	—	—
Montana	—	0	3	—	—	—	0	9	—	—
Nevada <sup>§</sup>	—	0	3	—	—	—	0	8	—	1
New Mexico <sup>§</sup>	—	0	3	—	1	—	0	4	—	1
Utah	—	0	6	—	—	—	0	8	—	—
Wyoming	—	0	2	—	—	—	0	1	—	—
<b>Pacific</b>	—	0	50	—	3	—	0	90	—	18
Alaska	—	0	0	—	—	—	0	0	—	—
California	—	0	50	—	3	—	0	89	—	18
Hawaii	—	0	0	—	—	—	0	0	—	—
Oregon <sup>§</sup>	—	0	1	—	—	—	0	2	—	—
Washington	—	0	0	—	—	—	0	0	—	—
American Samoa	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	0	0	U	U	U	0	0	U	U
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

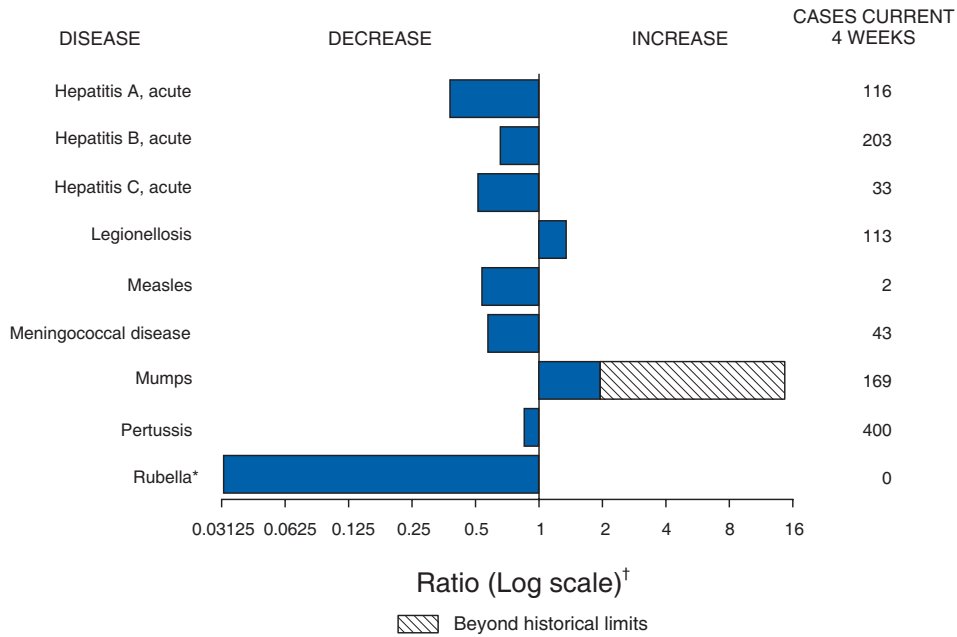
\* Incidence data for reporting years 2005 and 2006 are provisional.

<sup>†</sup> Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

<sup>§</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).



**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals June 24, 2006, with historical data**



\* No rubella cases were reported for the current 4-week period yielding a ratio for week 25 of zero (0).

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

**Notifiable Disease Morbidity and 122 Cities Mortality Data Team**

Patsy A. Hall

Deborah A. Adams

Rosaline Dhara

Willie J. Anderson

Vernitta Love

Lenee Blanton

Pearl C. Sharp

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format. To receive an electronic copy each week, send an e-mail message to [listserv@listserv.cdc.gov](mailto:listserv@listserv.cdc.gov). The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's Internet server at <http://www.cdc.gov/mmwr> or from CDC's file transfer protocol server at <ftp://ftp.cdc.gov/pub/publications/mmwr>. Paper copy subscriptions are available through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Data are compiled in the National Center for Public Health Informatics, Division of Integrated Surveillance Systems and Services. Address all inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop E-90, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333 or to [www.mmwrq@cdc.gov](mailto:www.mmwrq@cdc.gov).

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of these sites. URL addresses listed in *MMWR* were current as of the date of publication.