

Weekly

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## Primary Amebic Meningoencephalitis — Arizona, Florida, and Texas, 2007

Primary amebic meningoencephalitis (PAM) is a rare but nearly always fatal disease caused by infection with Naegleria fowleri, a thermophilic, free-living ameba found in freshwater environments (1,2). Infection results from water containing N. fowleri entering the nose, followed by migration of the amebae to the brain via the olfactory nerve. In 2007, six cases of PAM in the United States were reported to CDC; all six patients died. This report summarizes the investigations of the cases, which occurred in three southern tier states (Arizona, Florida, and Texas) during June-September and presents preliminary results from a review of PAM cases during 1937-2007. Because deaths from PAM often prompt heightened concern about the disease among the public, an updated and consistent approach to N. fowleri risk reduction messages, diagnosis and treatment, case reporting, and environmental sampling is needed.

### **Case Reports**

**Arizona.** An adolescent boy aged 14 years was hospitalized September 16, 2007, with possible meningitis. His symptoms had begun September 14 with severe headache, stiff neck, and fever. *N. fowleri* was detected in cerebrospinal fluid (CSF). The youth died from PAM on September 17. He had been swimming in a northeastern Arizona lake on September 8 and was observed diving and splashing in shallow water. The water temperature on September 8 was 86.3°F (30.2°C) and the air temperature was 108.0°F (42.2°C).

**Florida.** On June 8, 2007, an adolescent boy aged 14 years was admitted to an emergency department (ED). His symptoms had begun June 6 with a sensation of ear pressure and progressed to severe headache and occasional vomiting the next day. On the day of admission, the youth was unable to walk and was found apneic and pulseless by paramedics. He died shortly after arriving at the ED. A diagno-

sis of PAM was confirmed by examination of postmortem brain tissue on September 7. The youth had access to multiple drainage ditches and canals and to an apartment swimming pool during the 2 weeks before onset of symptoms; no location was conclusively identified as the source of exposure.

On August 6, 2007, a boy aged 11 years was admitted to a hospital with possible bacterial meningitis, headache, fever, nausea, vomiting, and confusion. His symptoms had begun 4 days earlier on August 2, 2007, with headache and a faint rash. Motile amebae, later identified as *N. fowleri*, were found in CSF samples collected August 7. The same day, the patient was treated with amphotericin B, epinephrine, mannitol, fluconazole, ceftriaxone, azithromycin, and rifampin; however, the boy died August 8. The probable source of exposure was swimming and wakeboarding at a local lake on July 28. On that date, the air temperature was 91.0°F (32.8°C); water temperature was unknown.

On September 2, 2007, a boy aged 10 years was evaluated in a local ED for headache, body aches, high fever, nausea, vomiting, and fainting. His symptoms had begun on August 31 with headache and lethargy. After admission to a hospital, his symptoms rapidly progressed to a fever of  $104.0^{\circ}F$  (40.0°C), confusion, and abdominal pain. Motile amebae, later identified as *N. fowleri*, were found in CSF on September 3–4. Amphotericin B, rifampin, azithromycin,

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and fluconazole were administered; however, the boy died September 4. The patient's exposure history included swimming and wakeboarding at a privately owned water sports facility on August 19 and August 26. On the latter date, the water temperature of the lake was 89.0°F (31.7°C), and the air temperature was 94.0°F (34.4°C).

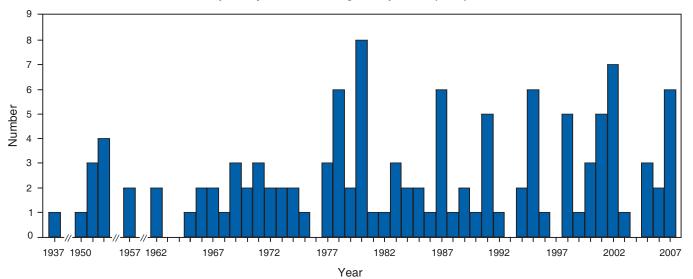
Texas. In August 2007, a boy aged 12 years was admitted to a hospital with a 6-day history of fever. His mother reported her son had become disoriented and lethargic. The boy had been attending a summer camp in Central Texas in the weeks preceding his illness and had participated in recreational water activities in a lake cove. During the week before hospitalization, he visited the camp nurse three times, reporting he was "not feeling well." After admission to the hospital, analysis of the boy's CSF indicated opaque appearance, bloody color, a white blood cell count of 1,750 cells/mm<sup>3</sup> (normal: 0-5 cells/mm<sup>3</sup>), red blood cell count of 30,750 cells/mm<sup>3</sup> (normal: 0 cells/mm<sup>3</sup>), a glucose level of 92 mg/dL (normal: 40-70 mg/dL), and a protein level of 88 mg/dL (normal: 15-45 mg/dL). The admitting differential diagnosis included meningitis (bacterial, viral, or amebic), pneumonia, and bacteremia. Amebae, later identified as N. fowleri, were observed in CSF. Despite treatment with amphotericin B, rifampin, and azithromycin, the boy died 5 days after admission. Average water temperature of the lake during August 2007 was 84.4°F (29.1°C).

On August 31, 2007, a man aged 22 years was admitted to a hospital with symptoms of photosensitivity, altered mental status, and a severe headache that had begun suddenly 2 days before. The headache was frontal and described as a constant pressure sensation. A computer tomography scan of the head without contrast was interpreted as normal. The admission diagnosis was viral meningitis. Despite intensive treatment, the patient died September 4. *N. fowleri* was detected in postmortem brain specimens. According to acquaintances, the man had sustained a ruptured eardrum after a fall while wakeboarding in the same lake as the other Texas decedent on August 24, 7 days before admission to the hospital.

#### Case Review, 1937-2007

In response to the six PAM cases reported in 2007, CDC and the Council of State and Territorial Epidemiologists (CSTE) formed the *Naegleria* Workgroup\* to review future

<sup>\*</sup>Members include state epidemiologists, clinical microbiologists, public health researchers, environmental health specialists, academic researchers, parasitologists, molecular laboratorians, and personnel from CDC and the U.S. Environmental Protection Agency.



#### FIGURE. Number\* of identified cases of primary amebic meningoencephalitis (PAM) — United States, 1937–2007

\* N = 121.

**SOURCES:** 1) the Waterborne Disease and Outbreak Surveillance System (collaboratively maintained by CDC, the U.S. Environmental Protection Agency, and the Council of State and Territorial Epidemiologists), which has tracked PAM cases since 1989; 2) the compressed mortality file of the National Vital Statistics System for cases reported during 1979–2007; 3) medical literature review of reported PAM cases, including those identified by retrospective examination of autopsy records; 4) searches of media reports since 1990; and 5) CDC laboratory test results. Results were verified with public health officials from the state of diagnosis, and method of diagnosis was reviewed by the CDC parasitic disease laboratory. Cases were included if laboratory-confirmed detection of *N. fowleri* organisms or nucleic acid was reported in CSF, biopsy, or tissue specimens.

actions related to N. fowleri and to determine whether the six cases represented an increase in the annual number of cases. The workgroup used multiple resources to conduct a review of all PAM cases reported in the United States during 1937-2007: 1) the Waterborne Disease and Outbreak Surveillance System,<sup>†</sup> which has tracked PAM cases since 1989; 2) the compressed mortality file of the National Vital Statistics System, searching on International Classification of Diseases, Ninth Revision (ICD-9) code 136.2 (specific infections by free-living amebae) and ICD-10 code B60.2 (naegleriasis) for the period 1979-2007; 3) medical literature review of reported PAM cases, including those identified by retrospective examination of autopsy records; 4) searches of media reports since 1990; and 5) CDC laboratory test results. Results were verified with public health officials from the state of diagnosis, and methods of diagnoses were reviewed by the CDC parasitic disease laboratory. Cases were included if laboratory-confirmed detection of *N. fowleri* organisms or nucleic acid was reported in CSF, biopsy, or tissue specimens.

Analyses of the data are still being conducted. Preliminary results indicate that a total of 121 cases (range: 0–8 cases per year) occurred in the United States during 1937– 2007 (Figure). The six cases of PAM reported in 2007 were among the six highest annual totals of cases reported during the study period; the other five highest totals were 1980 (eight cases), 2002 (seven cases), and 1978, 1986, and 1995 (six cases each). During 1937–2007, median age of the patients was 12 years (range: 8 months–66 years). Among the 119 cases for which sex of the patient was known, males accounted for 93 (78%) of the cases. Only one reported survivor met case criteria (*3*).

Exposure primarily occurred in untreated, warm, freshwater lakes or rivers in 15 southern tier states (Arizona, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, Missouri, Nevada, New Mexico, North Carolina, Oklahoma, South Carolina, Texas, and Virginia); the state of exposure for four cases was unknown. Among the 112 cases for which month of exposure was known, 95 (85%) occurred during July–September.

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<sup>&</sup>lt;sup>†</sup> Collaboratively maintained by CDC, the U.S. Environmental Protection Agency, and the Council of State and Territorial Epidemiologists, the Waterborne Disease and Outbreak Surveillance System tracks the occurrences and causes of disease associated with water.

Editorial Note: Preliminary results of the review of PAM cases in the United States during 1937–2007 by the CDC/ CSTE *Naegleria* Workgroup indicates that PAM is a rare disease that primarily affects young male users of warm recreational freshwaters, during summer months, in southern tier states. Although no estimate is available for the number of persons exposed to warm recreational freshwaters, given the increase in the U.S. population and the likelihood that more persons have been exposed over time, incidence of PAM does not appear to be increasing. Nonetheless, reports of PAM fatalities often prompt heightened public concern about the disease, and state and local health departments face challenges in assessing the risk from PAM and communicating that risk to the public. In addition to conducting the review of PAM cases, objectives of the *Naegleria* Workgroup are to 1) update PAM risk-communication messages for health-care providers and the public, 2) propose making PAM a nationally notifiable disease, 3) develop a more extensive case-reporting form, and 4) review the role of environmental testing for *N. fowleri*. Although the workgroup continues to address these issues, this report contains its current findings and recommendations.

Because PAM is a rare disease, it does not generate a high index of suspicion among health-care providers. Symptoms of *N. fowleri* infection (Box) are clinically similar to those for bacterial or viral meningitis, further lowering the index of suspicion for PAM and initiation of appropriate diag-

# BOX. General information, clinical features, diagnosis, recommended treatment, and risk reduction measures for primary amebic meningoencephalitis (PAM)

#### General information

- *Naegleria fowleri*, the thermophilic, free-living ameba that casues PAM, is common worldwide in warm freshwater bodies, including lakes, ponds, rivers, and hot springs; *N. fowleri* also can be found in improperly cleaned, maintained, or disinfected swimming pools.
- Sampling of warm water lakes in southern tier U.S. states indicates that *N. fowleri* is commonly present in most lakes during the summer.
- Because the location and number of amebae in the water can vary over time, posting warning signs is unlikely to be an effective way to prevent infections, and such signs might create a misconception that bodies of water without signs are *N. fowleri*-free.
- Information regarding the risks associated with *N. fowleri* infection should be disseminated routinely through public health messages discussing general issues of water safety and risk.
- The *N. fowleri* CDC data collection survey instrument is available at http://www.cdc.gov/ncidod/dpd/parasites/ naegleria.

#### Clinical features of PAM

- Signs and symptoms are similar to those of bacterial or viral meningitis and include headache, fever, stiff neck, anorexia, vomiting, altered mental status, seizure, and coma.
- Death typically occurs in 3-7 days.
- Autopsy findings show acute hemorrhagic necrosis of olfactory bulbs and cerebral cortex.

#### Laboratory diagnosis

• Visualization of actively moving *N. fowleri* trophozoites in a wet-mount preparation of freshly centrifuged cererbrospinal fluid (CSF) sediment (not previously refrigerated or frozen), or

- Visualization of *N. fowleri* trophozoites in a smear of centrifuged CSF sediment stained with Giemsa-Wright or modified trichrome stains, or
- Visualization of *N. fowleri* trophozoites by indirect fluorescent antibody in slide sections of either hematoxylineosin (H&E)-stained unfixed/frozen brain tissue or H&E-stained fixed brain tissue, or
- Demonstration of *N. fowleri* DNA by polymerase chain reaction from CSF or unfixed brain tissue samples.

#### **Recommended treatment**

- Recommended therapies include intravenous and intrathecal amphotericin B. Other drugs used include azithromycin, rifampin, and azole drugs.
- Intensive supportive care is required.

#### **Risk reduction measures**

- The only certain way to prevent *N. fowleri* infections is to refrain from water-related activities. However, some measures that might reduce risk by limiting the chance of contaminated water going up the nose include:
  - Avoid water-related activities in bodies of warm freshwater, hot springs, and thermally polluted water such as water around power plants.
  - Avoid water-related activities in warm fresh water during periods of high water temperature and low water volume.
  - Hold the nose shut or use nose clips during activities in warm fresh water such as lakes, rivers, or hot springs.
  - Avoid digging in or stirring up sediment during waterrelated activities in shallow, warm freshwater areas.

nostic testing (1,2,4). Making PAM a nationally notifiable condition might improve case detection through increased awareness, reporting, and information about cases. Such information might enable earlier detection of infections, provide insight into the human or environmental determinants of infection, and allow improved assessment of treatment effectiveness.

In the United States, *N. fowleri* is commonly found in warm freshwater environments in southern tier states (5-7). The common finding of these amebae in the environment makes elimination from natural waters impractical. Because the location and number of amebae in the water can vary over time, environmental sampling, testing, and posting of warning signs are unlikely to be effective in preventing infections. In addition, warning signs posted on selected lakes might create a misconception that those bodies of water not posted with warnings are free from *N. fowleri*. Recreational water users should always assume a low level of risk is associated with entering all warm freshwaters in southern tier states.

The extremely low incidence of PAM makes epidemiologic study difficult; why certain persons become infected with the amebae while millions of others exposed to warm recreational freshwaters do not is unknown. Although attempts have been made to determine what concentration of *N. fowleri* in the environment poses an unacceptable risk, how a standard might be set to protect human health and how regulators might measure and enforce such a standard is unclear (8).

Because a low level of risk from PAM likely exists for all users of warm freshwaters during summer to early fall, public health agencies should broadly disseminate evidence-based information on PAM in their recommendations for healthy swimming (Box). The only certain way to prevent *N. fowleri* infection is to refrain from water-related activities. However, although supporting data are absent, risk for infection might be reduced by measures that minimize water entering the nose when using warm freshwater lakes or rivers in southern tier states. Additional information on *N. fowleri* infection is available at http://www.cdc.gov/ncidod/dpd/ parasites/naegleria.

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### Detection of West Nile Virus in Blood Donations — Puerto Rico, 2007

In the United States, West Nile virus (WNV) was first detected in humans in 1999; it subsequently spread to countries of Central and South America and the Caribbean. WNV is a mosquito-borne virus that produces potentially serious clinical disease, particularly among persons aged  $\geq$ 50 years. Transmission by routes other than mosquito bites, including blood transfusion, transplacental infection, organ transplant, and possibly breast milk, also have been reported.\* On July 19, 2007, the American Red Cross in Puerto Rico notified the Puerto Rico Department of Health (PRDH) of three persons whose blood donations were positive for WNV by nucleic acid-amplification test (NAT) screening. These three donors had the first confirmed human WNV infections detected in Puerto Rico. In response, PRDH and CDC conducted in-depth interviews of the blood donors. This report describes these human infections and other recent surveillance for transmission of WNV in Puerto Rico. Detection of WNV infections in human blood donors indicates that heightened clinician awareness, ongoing surveillance, and educational activities are needed to monitor and assess the public health threat posed by WNV in Puerto Rico.

Universal blood donor screening for WNV began in July 2003 at all blood collection agencies (BCAs) in the United States and Puerto Rico. Accepted donors must be healthy and afebrile at the time of donation. Numerous health conditions result in deferral or ineligibility to donate blood. NAT screening for WNV uses pooling of blood donations from multiple donors. Testing of individual samples from positive pools is then used to identify positive donors so their blood can be quarantined and removed from the blood supply.

<sup>\*</sup> Additional epidemiologic information is available at http://www.cdc.gov/ncidod/ dvbid/westnile/clinicians/epi.htm.

Three donors positive for WNV were reported to PRDH on July 19, 2007. The next day, PRDH notified BCAs islandwide by letter that WNV-positive blood donors had been identified in Puerto Rico and emphasized the importance of appropriate blood screening in protecting the integrity of the blood supply. The first donor was a woman aged 40 years who donated blood on June 22, 2007. She reported no illness in the 2 weeks before donation. The second donor was a woman aged 33 years who donated blood on July 5, 2007. She reported a headache on the day of donation, but was not febrile and reported no other symptoms. In addition to detection of WNV nucleic acid by NAT, WNV was isolated from this patient's serum. The third WNV-infected donor was a man aged 22 years who donated blood on July 12, 2007. He reported no illness in the 2 weeks before or after donation. None of the three donors reported travel outside of Puerto Rico within 2 weeks before donation. All three lived near San Juan and had not traveled to areas where WNV transmission previously was detected in animals. All three were notified of their positive screening tests. The WNV NAT-positive blood products donated by them were quarantined and not released for transfusion.

Islandwide physician-based passive surveillance for neuroinvasive WNV disease in humans began in 2002. This system has relied on voluntary reporting, specimen collection, and submission to CDC laboratories by clinicians who suspect neuroinvasive illness consistent with possible WNV infection. No human WNV disease has been detected through this passive surveillance system.

WNV transmission among animals in Puerto Rico was reported first in 2004, when a specific antibody was detected in a free-ranging native bird (1) and three asymptomatic, unvaccinated horses (CDC, unpublished data), all in the northeastern area of the island. During 2006-2007, CDC maintained a sentinel chicken surveillance system in northeastern Puerto Rico. In June 2007, specific anti-WNV neutralizing antibodies were detected in these birds, indicating active WNV transmission (2). WNV nucleic acid was detected by polymerase chain reaction (PCR) in mosquitoes in the same area (2). As a result, PRDH and CDC began enhanced surveillance for human WNV disease in the neighboring municipios<sup>†</sup> of Ceiba (where the sentinel chicken seroconversions and WNV-positive mosquitoes were detected), Humacao, Naguabo, and Fajardo. Enhanced surveillance included asking hospitals and clinics in the four municipios to obtain blood samples from local residents with acute febrile disease, with or without neurologic manifestations. Specimens were submitted to CDC's Dengue Branch for WNV and dengue testing.

During July 1–December 31, 2007, enhanced surveillance generated submission of serum specimens from 1,250 persons for WNV and dengue testing. None of the specimens were positive for WNV by PCR. Reporting of human WNV disease was urged through a physician advisory letter sent to all licensed physicians in Puerto Rico by PRDH. Vector control efforts and advisories for use of repellents and protective clothing already were in effect because of high levels of dengue on the island. In September 2007, WNV infection detected by PCR in postmortem brain tissue taken from an encephalitic horse and by virus isolation from a dead bird confirmed WNV transmission in southwest Puerto Rico.

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Editorial Note: In the United States, WNV transmission to humans was detected first in 1999 during an outbreak of encephalitis in New York City (3) and has since been reported in all states except Alaska, Hawaii, and Maine<sup>§</sup>, likely spreading through bird migration (4). WNV was detected first among blood donors in the United States in 2002 (5). In 2001, the first human case of locally acquired WNV disease in the Americas south of the continental United States was reported in the Cayman Islands (6). Since 2001, WNV has been reported in 16 countries in Latin America and the Caribbean<sup>¶</sup> (Table).

Despite the spread of WNV to Latin America and the Caribbean, few cases of human WNV disease have been reported (7), and reports of animal deaths and illness from WNV in those regions have been rare compared with reports from North America (7). Several factors might contribute to this difference. First, the capacity of surveillance systems in Latin America and the Caribbean region to identify WNV disease might differ from those in North America. Second, dengue, caused by a related flavivirus, is endemic in most countries south of the United States, which can make the diagnosis of WNV infections more difficult. Dengue and WNF can have similar signs and symptoms, and the tests for specific antibody to dengue virus and WNV often cross-react (8). Third, previous dengue or other flavivirus infection might confer some degree of immuno-

<sup>&</sup>lt;sup>†</sup> Puerto Rico is divided into 78 municipios, governmental and geographic areas that are similar to counties.

<sup>&</sup>lt;sup>§</sup>Map available at http://www.cdc.gov/ncidod/dvbid/westnile/mapsactivity/ surv&control07maps.htm.

<sup>&</sup>lt;sup>9</sup> Latin America refers to the Spanish and Portuguese-speaking countries of Central and South America. The Caribbean refers to Spanish-, English-, French-, and Dutch-speaking islands or countries in the region of the Caribbean Sea.

Country*	Estimated year of introduction	Time period of blood sample collection	Species in which transmission identified <sup>†</sup>	Positives in initial report (by PRNT <sup>§</sup> )	Clinical disease observed <sup>11</sup>
Cayman Islands	2001	August 2001	Humans	1	WNND**
Jamaica	2001	January–March 2002	Birds	17	No
Guadaloupe	2001	July 2002–January 2003	Horses, chickens	7, 4	No
Dominican Republic	2002	November 2002	Birds	5	No
Mexico	2002	December 2002, July–October 2002, July 2002–March 2003	Horses, birds	115, 2	Yes <sup>††</sup>
Cuba	2003	Began 2002	Horses, humans	4, 3	Yes§§
El Salvador	2003	April 2003	Horses	10	Yes <sup>††</sup>
Bahamas	2003	July 2003	Humans	1 (N/A)	WNND
Guatemala	2003	September 2003-March 2004	Horses	9	No
Belize	2003	October 2003	Horse	1 (N/A)	Yes
Cuba (Guantánamo Bay	) 2003	January–March 2004	Birds	2	No
Puerto Rico	2003	January–March 2004	Bird, horses	1, 3	No
Venezuela	2004	February 2004	Horses	34	No
Colombia	2004	September-October 2004	Horses	12	No
Trinidad	2004	October 2004	Birds, horses	2, 8 (N/A)	No
Haiti	2004	November-December 2004	Humans	2	WNF <sup>¶¶</sup>
Argentina	2004	January 2005–June 2006	Birds	43	No

#### TABLE. Initial West Nile virus transmission, by country and estimated year of introduction — Latin America and the Caribbean, 2001–2004

\* Countries in Latin America and the Caribbean in which detection of WNV has been reported.

<sup>†</sup> Includes resident species only.

PRNT = Plaque reduction neutralization testing; N/A = method not cited.

<sup>1</sup> Observed at time and location collection; no = no signs of illness were observed when the samples were collected.

\*\* West Nile neuroinvasive disease; includes West Nile encephalitis or meningitis or West Nile poliomyelitis and is characterized by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, or paralysis.

<sup>††</sup>Samples collected during or after outbreaks of encephalitis in horses.

§§ Encephalitis in three humans.

<sup>¶¶</sup>West Nile fever; symptoms include fever, headache, tiredness, and body aches, occasionally with a skin rash (on the trunk of the body), and swollen lymph glands.

logic cross-protection that could modulate infection with WNV.\*\* Finally, circulation of attenuated viral strains might result in less disease. However, in one study, the only isolate reported to date from the Caribbean had no genetic evidence of attenuation; in another study, only one of nine WNV isolates from Mexico had evidence of attenuation (2,9).

Identification of WNV in animals and subsequently in human blood donations in Puerto Rico suggests that human WNV disease is likely to occur in Puerto Rico. Serosurveys and studies of blood donors in North America and Europe indicate that 70%–80% of people infected with WNV are asymptomatic (10). This proportion might be higher in Latin American and Caribbean populations if other circulating flaviviruses, such as dengue, modify the clinical presentation of WNV illness. WNV should be considered in the differential diagnosis of acute febrile or neurologic illness in residents of and visitors to Puerto Rico. Accurate laboratory diagnosis of WNV infection in Puerto Rico and other areas where flaviviruses are endemic requires careful evaluation of serologic antibody assays for cross-reactivity, or direct detection of WNV in diagnostic samples using specific nucleic acid detection tests, viral antigen detection, or viral isolation. PRDH and CDC will continue WNV surveillance activities in the 2008 WNV transmission season.

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<sup>\*\*</sup> Additional information available at http://www.paho.org/english/dd/pin/ ptoday15\_oct03.htm.

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## Guiding Principles for Development of ACIP Recommendations for Vaccination During Pregnancy and Breastfeeding

The Advisory Committee on Immunization Practices (ACIP) provides advice and guidance regarding effective control of vaccine-preventable diseases, including guidance for special populations that might warrant modification of routine recommendations (1). One such special population is pregnant and breastfeeding women. Formulation of recommendations for vaccination of pregnant and breastfeeding women is challenging because the available scientific evidence needed to guide decisions is limited. To promote use of a consistent process and uniform terminology, the ACIP Workgroup on Vaccines during Pregnancy and Breastfeeding was established in 2007 to develop guiding principles for drafting of ACIP recommendations for vaccination of pregnant and breastfeeding women. Workgroup members included ACIP members, members of professional medical organizations, experts in the field, and CDC consultants.

During April 2007–March 2008, the workgroup reviewed existing policies on use of vaccines in pregnant and breastfeeding women. On the basis of this review, opinions of workgroup members, and feedback from partner organizations, the workgroup prepared the document Guiding Principles for Development of ACIP Recommendations for Vaccination during Pregnancy and Breastfeeding, which was approved by ACIP in March 2008. This document provides guidance to help standardize procedures for policy formulation and presentation of the rationale and recommendations for vaccination of pregnant and breastfeeding women. Topics in Guiding Principles include 1) guidance for structure of the background section, 2) guidance for structure and language of recommendations, 3) clarification of the definitions of precautions and contraindications in the context of pregnant and breastfeeding women, 4) suggestions for approaches to policy decision-making in the absence of adequate data, and 5) description of a consistent process to gather expert opinion.

These principles will be applied to future ACIP vaccine statements and routine updates of existing statements in which vaccination of pregnant and breastfeeding women is considered. *Guiding Principles* is available at http://www.cdc.gov/ vaccines/recs/acip/downloads/preg-principles05-01-08.pdf.

#### Reference

1. Advisory Committee on Immunization Practices. Charter, April 2008– March 2010. Available at http://www.cdc.gov/vaccines/recs/acip/ charter.htm.

#### Notice to Readers

#### Release of Computer-Based Case Study: "Salmonella in the Caribbean"

A new computer-based case study, "Salmonella in the Caribbean," is now available from CDC. This self-instructional, interactive exercise is based on an outbreak investigation conducted in Trinidad and Tobago. The study teaches public health practitioners skills in outbreak investigation and allows them to apply and practice those skills. The study also focuses on the role of surveillance in identifying and characterizing public health problems, developing hypotheses about the problems, and monitoring the effectiveness of control measures.

"Salmonella in the Caribbean" is the fourth and final case study in the Foodborne Disease Outbreak Investigation Case Study Series. The Foodborne Disease Outbreak Investigation series was created for students familiar with basic epidemiologic and public health concepts. Each case study was developed in collaboration with the original investigators and experts from CDC, the Council of State and Territorial Epidemiologists, the U.S. Department of Agriculture, and the U.S. Food and Drug Administration.

Other case studies in the series include "Botulism in Argentina" (released 2002), "*E. coli* O157:H7 Infection in Michigan" (released 2004), and "Gastroenteritis at a University in Texas" (released 2005). The curriculum provided by these four case studies covers a wide range of outbreak investigation topics. Because these case studies are self-instructional, students can complete them at their own pace and convenience. Students can select which case study activities to undertake and focus on areas most relevant to their learning needs and goals. The computer-based case studies also can be used in the classroom as group exercises, assigned as homework, or given as tests to reinforce concepts covered in class.

All four case studies can be downloaded at no cost from CDC's Epidemiologic Case Studies website at http://www. cdc.gov/epicasestudies. They also can be purchased from the Public Health Foundation at 1-877-252-1200 or http://book store.phf.org. Additionally, students can receive continuing education credits (e.g., CEUs, CMEs, CNEs, CHES, and AAVSB-RACE) for completing selected case studies.

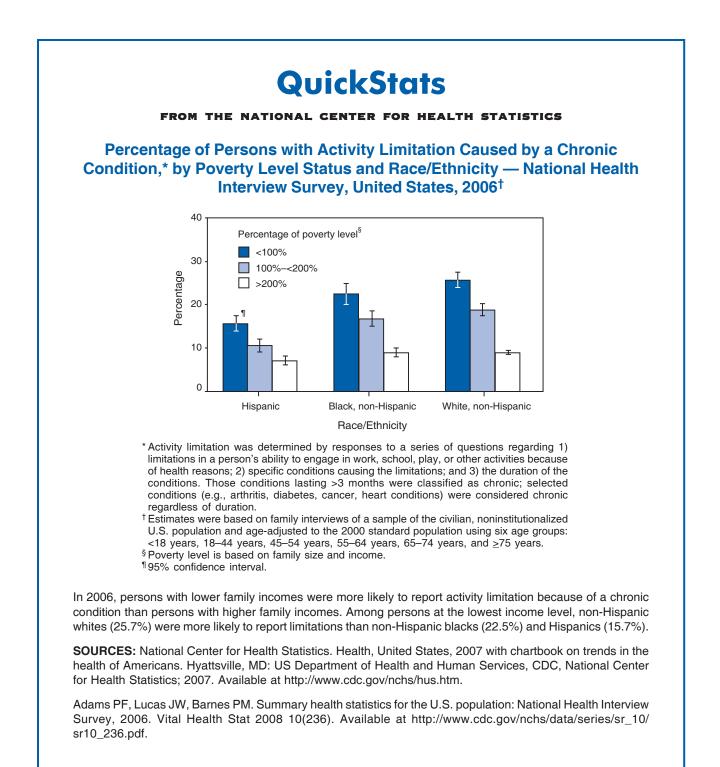


TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 24, 2008 (21st Week)\*

	Current	Cum	5-year weekly	Total	cases rep	orted for	previous	syears	
Disease	week	2008	average <sup>†</sup>	2007	2006	2005	2004	2003	States reporting cases during current week (No.)
Anthrax	_	_	_	1	1	_	_	_	
Botulism:									
foodborne	_	2	0	31	20	19	16	20	
infant	_	29	2	87	97	85	87	76	
other (wound & unspecified)	_	3	0	25	48	31	30	33	
Brucellosis	1	27	2	128	121	120	114	104	FL(1)
Chancroid	_	23	0	23	33	17	30	54	
Cholera	_	_	0	7	9	8	6	2	
Cyclosporiasis§	1	27	16	93	137	543	160	75	FL(1)
Diphtheria				_				1	. = (.)
Domestic arboviral diseases <sup>§,1</sup> :									
California serogroup	_	_	0	44	67	80	112	108	
eastern equine	_	_	Õ	4	8	21	6	14	
Powassan	_	_	Ő	1	1	1	1		
St. Louis	_	_	0	7	10	13	12	41	
western equine	_	_	_		_				
Ehrlichiosis/Anaplasmosis <sup>§,**</sup> :									
Ehrlichia chaffeensis	8	39	8	809	578	506	338	321	MD (4), TN (4)
Ehrlichia ewingii	_		_		_				
Anaplasma phagocytophilum	_	6	9	714	646	786	537	362	
undetermined	_	2	3	136	231	112	59	44	
Haemophilus influenzae, <sup>††</sup>		2	0	100	201	112	00		
invasive disease (age <5 yrs):									
serotype b	_	11	0	22	29	9	19	32	
nonserotype b	_	69	2	185	175	135	135	117	
unknown serotype	7	100	4	181	179	217	177	227	NY (2), OH (1), MI (1), MO (1), FL (1), AK (1)
Hansen disease <sup>§</sup>	1	31	2	98	66	87	105	95	FL(1)
Hantavirus pulmonary syndrome <sup>§</sup>	_	4	1	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal <sup>§</sup>	_	36	4	285	288	221	200	178	
Hepatitis C viral, acute	18	286	15	832	766	652	720	1,102	OH (2), MN (8), MO (3), MD (1), GA (2), ID (1), NV (1)
HIV infection, pediatric (age <13 yrs) <sup>§§</sup>		200	3	002	/00	380	436	504	
Influenza-associated pediatric mortality <sup>§,¶¶</sup>	3	76	1	76	43	45		N	VT (1), GA (1), TX (1)
Listeriosis	3	185	11	796	884	896	753	696	OH (1), VA (2)
Measles***		68	1	42	55	66	37	56	O(1), VA(2)
Meningococcal disease, invasive <sup>111</sup> :		00		74	00	00	07	00	
A, C, Y, & W-135	3	129	5	314	318	297	_	_	NY (1), VA (1), CO (1)
serogroup B	1	72	3	157	193	156	_	_	ME (1)
other serogroup	_	15	0	32	32	27	_	_	
unknown serogroup	7	286	14	566	651	765	_	_	NY (1), PA (1), OH (1), MO (1), NE (1), KY (1), NV (1)
Mumps	2	226	60	781	6.584	314	258	231	MD (1), VA (1)
Novel influenza A virus infections	_	220		1	0,004 N	N	200 N	N	
Plaque	_	1	0	7	17	8	3	1	
Poliomyelitis, paralytic	_					1			
Poliovirus infection, nonparalytic <sup>§</sup>	_	_	_	_	N	Ň	N	N	
Psittacosis <sup>§</sup>	_	2	0	10	21	16	12	12	
Q fever <sup>§,§§§</sup> total:	_	18	4	173	169	136	70	71	
acute	_	15	_						
chronic	_	3	_	_	_	_	_	_	
Rabies, human	_		_	_	3	2	7	2	
Rubella	1	5	0	12	11	11	10	7	FL (1)
Rubella, congenital syndrome	_		_		1	1		1	. = (.)
SARS-CoV <sup>§,****</sup>	_	_	0	_	_	_	_	8	

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

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

<sup>†</sup> Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf. § Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 for the domestic arboviral diseases

and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm.

<sup>1</sup> Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-

Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II. The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to E. chaffeensis); Ehrlichiosis, human granulocytic (analogous to Anaplasma phagocytophilum), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of E. ewingii).

<sup>††</sup> Data for *H. influenzae* (all ages, all serotypes) are available in Table II.

S 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.

11 Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Seventy-five cases occurring during the 2007–08 influenza season have been reported.

No measles cases were reported for the current week.

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

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

1111 The one rubella case reported for the current week was indigenous.

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

## TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 24, 2008 (21st Week)\*

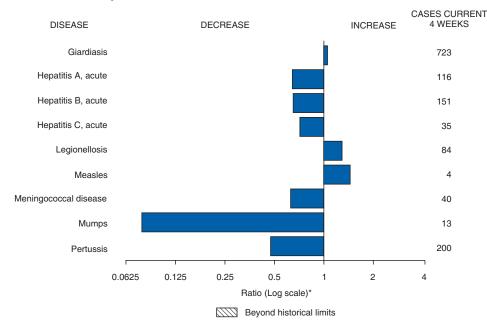
	Current	Cum	5-year weekly	Total	cases rep	orted for	previous	s years	
Disease	week	2008	averaget	2007	2006	2005	2004	2003	States reporting cases during current week (No.)
Smallpox <sup>§</sup>	_	_	_	_	_	_	_	_	
Streptococcal toxic-shock syndromes	1	58	3	130	125	129	132	161	CT (1)
Syphilis, congenital (age <1 yr)	_	47	8	383	349	329	353	413	
Tetanus	_	2	1	26	41	27	34	20	
Toxic-shock syndrome (staphylococcal)§	1	23	2	86	101	90	95	133	CO(1)
Trichinellosis	_	2	0	6	15	16	5	6	
Tularemia	2	12	3	128	95	154	134	129	MO (1), VA (1)
Typhoid fever	3	138	6	418	353	324	322	356	PA (1), MD (1), FL (1)
Vancomycin-intermediate Staphylococcus aureu	us§ —	3	0	28	6	2	_	N	
Vancomycin-resistant Staphylococcus aureus§	_	_	0	2	1	3	1	N	
Vibriosis (noncholera Vibrio species infections)§	2	55	2	380	N	N	N	N	FL (2)
Yellow fever	_	_	_	_	_	_	_	_	

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

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

<sup>†</sup> Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf.

S Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm.



## FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 24, 2008, with historical data

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

Notifiable Disease Data Team an	nd 122 Cities Mortality Data	Геат
Patsy A	A. Hall	
Deborah A. Adams	Rosaline Dhara	
Willie J. Anderson	Carol Worsham	
Lenee Blanton	Pearl C. Sharp	

Charged   Charged   Construction   Construction	(21st Week)*															
Courted   52 weeks   Cun   Cun   Cun   S2 weeks   S2 weeks   Cun   S2 weeks   S2 weeks   Cun   S2 weeks   S2 weeks   Cun   S2 weeks   Cun   S2 weeks   S2 we				· · ·	ia <sup>†</sup>					osis					iosis	
Number Spanne   0.710   21.473   24.79   477   128   941   2.682   3.033   96   88   974   1.286   1.190     Consectorul   246   1.516   1.718   3.778   7.71   128   941   2.682   3.033   36   68   974   1.286   1.190     Consectorul   246   1.045   3.778   7.778   1.045   N   0   N   N   -   1   67   7.192     Massachusette   24   913   060   6.942   6.452   N   0   0   N   N   -   1   4   7.7   128     Massachusette   24   913   1.9   34   1.00   0   N   N   -   1   1.3   7.7   128   34.1   N   0   0   N   N   1   1.1   1.1   34.1   1.7   1.9   3.1   7.7   1.2   1.1   1.1   1.1   1		Current			Cum	Cum	Current			Cum	Cum	Current			Cum	Cum
New England   492   694   1.11   1	Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
Conneglicul   216   214   1.08   3.786   N   0   N   N   -   0   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   -   0   1		,					77		341	2,632	3,033	36				
							N					_				
New Handsellang   24   39   73   726   774    0   1   1   1    1   5   17   15     Warmorth    13   180   1.378    0   0   N   N    1   4   177   15     Mach Attentic   2.89   2.723   4.89   5.015   5.746    0   0   N   N   -   1   4   177   16   16     New York (Mpolate)   645   556   2.044   10.783   10.342   N   0   0   N   N   4   6   103   86   99   98   33   176   160   176   177	Maine <sup>§</sup>	—	49	67	941	1,045	N	0	0	N	N		1	6	7	10
Vernorit   13   15   34   60   431   N   0   0   N   N   -   1   4   177   9     Mid. Allentic   2.269   4.869   50.015   57.486   N   0   0   N   N   -   1   8   100   9     New Vork (Lipitatis)   64.62   57.85   10.029   16.644   17.878   N   0   0   N   N   -   1   4   66.99   56.99     Ponrey/variai   2   1.014   1.671   1.06.39   1.66.47   7.0029   -   1   3   17   14   6.6   59.9     Billinois   2   1.014   1.65.45   4.200   1.58.97   N   0   0   N   N   -   2   14   44   15   59.76   16   15.37.97   7.77   N   0   0   N   N   -   4   16   69.9   7.6   15.3   12.	New Hampshire		39	73	792	794	N	0	1			_	1	5	17	
Mid. Altanic 2.89 2.729 4.89 6.011 57.446  0 0   5 13 120 176 10 9   New York (Dpate) 645 556 2.044 10.788 10.342 N 0 0 N N 1 4 20 52 42   New York (Dpate) 1.440 651 3.162 2.338 2.0517 N 0 0 N N 4 6 103 28 31 32 2.83 32 1.11  1.30 17 1.44 8 21 153 32 2.13 1.23																
New York (Jpstate)   645   566   2.044   10.765   10.342   N   0   N   N   1   4   200   522   42     Perney Vork (Jpstate)   1.041   1.042   1.045   4.757   0.0338   20.112   N   0   0   N   N   -   2   1.03   1.7   1.4   6   1.03   3.02   2.03   1.011   1.45   4.370   2.03   2.03   1.011   1.011   3.02   2.03   1.011   1.011   3.02   2.03   1.011   1.011   3.01   1.011   3.01   1.01   3.01   1.01   3.01   1.01   3.01   1.01   3.01   1.01   1.01   3.01   1.01   1.01   3.01   1.01 <td< td=""><td></td><td></td><td>2,729</td><td></td><td>58,015</td><td>57,446</td><td>_</td><td>-</td><td></td><td></td><td></td><td>5</td><td>13</td><td></td><td>176</td><td>141</td></td<>			2,729		58,015	57,446	_	-				5	13		176	141
New York Chy   1,440   951   3,166   23.38   20.512   N   0   0   N   N    2   100   28   31     E.N. Central   1011   3,455   4,370   66,176   73.032    1   3   17   14   80   20   13   28   33     indiana    381   655   7,846   8,357   N   0   0   N   N    2   13   28   333     indiana    383   655   7,847   8,069    0   1   5   1   5   5   5   60   86   76   76   76   76   76   76   0   7    3   3   17   125   228   166   733   737   737   N   0   0   N   N    1   1   2   4   36   6   78   77   <																
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	New York City				23,338	20,512									28	31
Illinois   2   1,111   1,711   16,834   20,512   N   0   N   N   -   2   13   26   33   26   33   26   33   26   33   26   33   26   33   26   11   -   4   11   68   98   78     Wisconsin   70   707   16   13   737   77   N   0   0   N   N   3   16   15   228   16   16   16   28   16   16   16   28   16   16   16   28   16   16   16   20   16   16   28   16   16   16   28   37   16   16   16   16   33   16   11   20   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16   16							_									
Michigan   876   765   1.215   18.820   15.867   -   0   2   12   11   -   4   11   68   59     Wisconsin   73   376   673   7.387   7.977   N   0   N   N   3   17   228   608   74     KN. Central   311   1.221   1.644   24231   25.76   -   0   N   N   -   4   61   44   93   44   93   44   93   44   93   44   93   44   93   44   93   44   93   44   93   44   93   88   North Dakota   -   3   66   68   700   N   0   N   N   -   2   11   2   2   16   16   33     S.Atlantic   2.669   3.303   7.499   7.493   8.502   -   0   1   -   -   0   2		2										_				
Wisconsin   73   376   613   7.387   7.977   N   0   0   N   N   3   8   59   78   85     Iowa   —   160   251   3.312   3.534   N   0   0   N   N   —   14   61   42   29     Kanasa   218   158   629   3.719   3.281   N   0   0   N   N   —   -   4   44   59   37     Missouri   —   424   55   8.81   1.125   9.86   N   0   0   N   N   —   0   1   2   2   14   48   34   51   53   66   68   7.439   8.222   —   0   1   2   2   11   20   65   2.42   2   14   79   22   12   12   12   12   12   12   12   12   12   12 <td>Michigan</td> <td></td> <td>765</td> <td>1,215</td> <td>18,820</td> <td>15,867</td> <td></td> <td>0</td> <td>2</td> <td>12</td> <td>11</td> <td></td> <td>4</td> <td>11</td> <td>68</td> <td>59</td>	Michigan		765	1,215	18,820	15,867		0	2	12	11		4	11	68	59
							N									
Kanasa   218   158   529   3,719   3,281   N   0   0   N   N    1   16   19   24   49   37     Missouri    464   551   6,881   9,265    0   1    3   2   2   14   49   34   59   37     Missouri    3   66   688   700   N   0   N   N    2   16   1   1   324   38   8     S.Allantic   2,669   3,300   7,499   74,439   65,202    0   1     0   4   6   2   2   11   20   65   22   12   14   65   122   12   14   65   12   14   14   14   14   14   14   14   14   14   14   14   14   14   14   14 <td></td> <td>311</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td></td>		311										3				
Mesouri — 444 551 8.881 9.265 — 0 1 — 3 2 2 14 49 34   North Dakota  33 66 668 700 N 0 0 N N  2 2 11 20 66 1 1 3   S.Atlantic 2.66 3.330 7.499 74.439 85.202  0 1 -  0 2 2 11 20 65 281 277   Delavare 42 65 1.441 1.457 1.703 17.714 - 0 0 N N - 1 14 9 53 12 12 14 14 78 53 12 14 13 12	Kansas	218	158	529	3,719	3,281	Ν	0	0	N	Ν	_	1	16	19	24
North Dakota   -   33   66   668   700   N   0   0   N   N   -   2   6   16   16   33     S.Atlantic   2.660   3.930   7.499   74.439   65.202   -   0   1   2   2   11   20   65   281   274     Delstriot Columbia   -   115   200   2.370   2.450   -   0   1   -   -   -   0   2   2   2   2   2   2   2   2   2   2   2   2   2   2   2   3   5   111     North Carolina   -   2   2   2   0   3   5   111     North Carolina   -   0   1   1   0   N   N   -   1   16   14   22   0   3   5   111   North Carolina   30   11   1   1   1 <td></td> <td>_</td> <td></td> <td>2</td> <td></td> <td></td> <td></td>		_											2			
South Dakota   50   63   81   1,125   996   N   0   0   N   N   -   2   16   16   33     S.Atlantic   2,669   3,930   7,499   7,449   8,232   -   0   1   2   2   11   20   65   261   274     Detroid Columbia   1,001   1,230   1,543   2,750   2,450   -   0   1   -   -   0   1   2   2   11   20   65   2127     Georgia   1,001   1,230   1,543   7,781   -   0   0   N   N   -   1   18   9   25     South Carolina <sup>4</sup> 430   474   3,345   10,561   11,127   N   0   0   N   -   1   18   9   25     South Carolina <sup>4</sup> 430   863   96   1,254   1,277   N   0   0   N   -																
Delaware   42   65   144   1,457   1,354   —   0   0   —   —   0   0   —   —   0   1   -   0   2   2   4     Florida   1,091   1,290   1,543   27,501   20,369   N   0   N   N   4   9   35   128   127     Georgia   2   864   1,514   1,708   1,708   1,713   N   0   N   N   4   9   35   118   N   0   0   N   N   —   1   18   9   5   111   12   20   12,83   12,12   N   0   N   N   —   1   16   14   22   12   0   N   N   0   N   N   0   N   N   —   1   16   14   22   12   12   12   12   12   12   12   12   <		50														33
District of Columbia   -   1   -   -   -   -   0   1   -   -   -   0   2   2   2   4     Florida   1.091   1.290   1.543   27.210   20.300   N <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							_		•							
Cecorgia		_	115	200	2,370	2,450	N		•							4
Norfic Carolina    206   4.656   6.330   12.646   N   0   0   N   N    1   18   9   25     South Carolina*   430   474   3.345   10.661   11.2105   10.282   N   0   N   N    1   6   14   23     West Virginia*   9   6.3   96   1.254   1.277   N   0   N   N    1   64   42   5.3     E.S. Central   798   1.493   2.394   30.408   34.288    0   0   N   N    1   14   17   715     Missispipi    290   1.048   6.413   9.237   N   0   0   N   N    1   11   71   11   15   8     West Central   857   2.689   4.425   56.582   47.945    0   1   1	Georgia	2	684	1,514	1,708	17,713		0	Ō	N	N	5	4	14	79	59
Virginia   631   485   1061   12:105   10:282   N   0   0   N   N    1   6   14   23     West Virginia   9   63   96   1.254   1.277   N   0   0   N   N    0   5   6   3     E.S. Central   788   1.483   2.394   30.408   34.228    0   0   N   N    1   14   17   21     Kentucky   361   211   304   4.427   3.118   N   0   0   N   N    1   14   17   21     Musassippi    290   1.048   6.412   9.237   N   0   0   N   N    1   18   5   8   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6   6 <td></td> <td>464</td> <td></td> <td></td> <td></td> <td></td> <td>N</td> <td></td> <td>•</td> <td></td> <td></td> <td>2</td> <td>0 1</td> <td></td> <td></td> <td></td>		464					N		•			2	0 1			
West Virginia 9 63 96 1,254 1,277 N 0 0 N N  0 5 6 3   E.S. Central 798 1,493 2,394 30,408 34,238  0 0    4 64 42 53   Kentucky 361 211 304 4,427 3,118 N 0 0 N N  1 14 0 7 15   Mississippi  200 1,048 6,413 9,237 N 0 0 N N  1 18 15 8   W.S. Central 857 2,689 4,425 5,710 3,628 N 0 0 N N  1 1 1 11 11 17 15 3 22 60 N N  1 1 11 11 17 15 3 22 3 13 13 13 13 23 13									-							
Alabamai14481 $605$ $8,454$ $10,313$ N00NN1141721Mississippi290 $1.048$ $6,413$ $9,237$ N00NN11407715Mississippi290 $1.048$ $6,413$ $9,237$ N00NN11407715Mississippi290 $1.048$ $6,413$ $9,237$ N00NN11407715Tennesseei423518715 $11,114$ $11,570$ N00NN116286260W.S. Central8572.669 $4,425$ $56,582$ $47,945$ 01116286260Oklahoma196242416 $4,897$ $5,153$ N00NN3163322Oklahoma196242416 $4,897$ $5,153$ N00NN3163322Rountain419 $1,334$ $1,383$ $23,860$ $9,861$ $77$ 89170 $1,823$ $1,970$ 7956710682Arizona42468 $679$ $8,089$ $9,861$ $75$ 84168 $1,782$ $1,912$ 14 <td></td>																
Kentucky 361 211 304 4.427 3.118 N 0 0 N N  1 40 7 15   Mississippi  290 1.048 6.413 9.237 N 0 0 N N  1 11 30 9   V.S. Central 857 2.689 4.425 56.582 47.945  0 1 1  1 6 28 62 60   Arkansas <sup>3</sup> 274 224 455 57.10 3.628 N 0 0 N N  0 8 9 4   Louisiana 387 375 851 6.920 7.794  0 1 1  0 8 3 23 22   Mountain 419 1.334 1.388 23.860 29.803 77 89 170 1.823 1.910 7 9 567 106 82 26 26 26 26 26 26 <												_				
Tennessee <sup>6</sup> 423   518   715   11,114   11,570   N   0   0   N   N   -   1   18   15   8     W.S. Central   857   2,689   4,425   5,6582   47,945   -   0   1   1   -   1   6   28   62   60     Arkansas <sup>6</sup> 274   224   455   5,710   3,628   N   0   0   N   N   -   0   8   9   4     Louisiana   387   375   851   6,920   7,794   -   0   1   1   -   1   11   11   17   15     Mountain   419   1,334   1,838   23,680   29,803   77   89   170   1,823   1,970   7   9   567   106   82     Arizona   42   468   679   8,089   9,581   75   84   168   1,972   1   1	Kentucky		211	304	4,427	3,118	N	0	0	N	Ν	_		40	7	15
Arkansas <sup>5</sup> 274 224 455 5,710 3,628 N 0 0 N N  0 8 9 4   Louisiana 387 375 851 6,920 7,794  0 1 1  0 4 3 19   Oklahoma 196 242 416 4,897 5,153 N 0 0 N N  3 16 33 22   Mountain 419 1,394 1,838 23,680 29,803 77 89 170 1,823 1,970 7 9 567 106 82   Arizona 42 468 679 8,089 9,561 75 84 168 1,782 1,912 1 1 4 13 18 Colorado 56 319 488 4,842 7,259 N 0 0 N N - 2 71 21 5 44 Nevada <sup>6</sup> 163 185 4,123 N 0 0 <		423										_				
Louisiana 387 375 851 6,920 7,794 — 0 1 1 — — 0 4 3 19   Oklahoma 196 242 416 4,897 5,153 N 0 0 N N 1 1 1 1 1 17 15   Texas <sup>8</sup> — 1,795 3,922 39,055 31,370 N 0 0 N N — 3 16 33 22   Mountain 419 1,394 1,838 23,680 29,803 77 89 170 1,823 1,970 7 9 567 106 82   Arizona 42 468 679 8,089 9,581 75 84 168 1,782 1,912 1 1 4 13 18   Colorado 56 319 488 4,842 7,259 N 0 0 N — 2 1 1 4 13 18   Metada <sup>6</sup> 163 1							N									
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Louisiana	387	375	851	6,920	7,794	—	0	1	1	_	_	0	4	3	19
Arizona 42 468 679 8,089 9,581 75 84 168 1,782 1,912 1 1 4 13 18   Colorado 56 319 448 4,842 7,259 N 0 0 N N 4 2 26 28 22   Montana <sup>§</sup> 129 55 233 1,446 1,626 N 0 0 N N  2 71 21 5   Montana <sup>§</sup> 29 49 363 1,185 1,123 N 0 0 N N  2 1 7 13 4   New Mexico <sup>§</sup> 148 562 2,016 3,940  0 3 12 15  2 9 13 20   Utah  119 216 2,004 2,085  0 1   0 8 6 7   Pacific 294 3,376 4,677 62,045 71,858 <td></td>																
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$												7				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Colorado	56	319	488	4,842	7,259	N	0	0	N	N		2	26	28	22
New Mexico <sup>§</sup> - 148 562 2,016 3,940 - 0 3 12 15 - 2 9 13 20   Utah - 119 216 2,204 2,085 - 0 7 3 23 - 1 484 9 2   Wyoming <sup>§</sup> - 17 34 11 485 - 0 1 - - - 0 8 6 7   Pacific 294 3,376 4,677 62,045 71,858 - 34 217 788 1,043 1 2 20 23 30   Alaska 68 91 126 1,677 1,988 N 0 N N - 0 0 - - - - - - - 20 23 30   California - 2,767 4,115 53,930 56,384 - 34 217 788 1,043 - 0 0 - - 0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1,123</td><td></td><td></td><td>0</td><td>N</td><td>N</td><td></td><td>1</td><td></td><td>13</td><td></td></t<>						1,123			0	N	N		1		13	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		163					2					_				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Utah		119	216	2,204	2,085		0	7	3	23		1	484	9	2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	, ,															
Hawaii - 111 152 2,106 2,315 N 0 0 N N - 0 4 1    Oregon <sup>§</sup> 226 189 402 4,219 3,818 N 0 0 N N 1 2 16 21 30   Washington - 299 659 113 7,353 N 0 0 N N - 0 0 - -   American Samoa - 0 32 62 41 N 0 0 N N 0 0 N N 0 0 N N 0 0 -	Alaska	68	91	126	1,677	1,988		0	0	N	Ń	_	0	2	1	_
Washington   -   299   659   113   7,353   N   0   0   N   N   -   0   0   -   -   -   -   -   -   -   0   0   N   N   -   0   0   -	Hawaii	_	ĺ111	152	2,106	2,315	N	0	0	N	Ń		0	4	1	_
C.N.M.I. -<												1			21	
Guam   -   5   26   57   347   -   0   0   -   -   0   0   -   -   0   0   -   -   0   0   -   -   0   0   -   -   0   0   -   -   -   0   0   -   -   -   -   0   0   -   -   -   -   0   0   -<		_	0										0	0		
U.S. Virgin Islands - 4 21 215 82 - 0 0 0 0 0 0	Guam			26	57	347	_	0	0	_	_	_			_	_
																IN

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2007 and 2008 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly. Chamydia refers to genital infections caused by *Chlamydia trachomatis*. S Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(21St Week)*			Giardiasi	s			G	onorrhea	a		Нае		<i>is influen.</i> s, all sere	z <i>ae</i> , invas otypes†	ive
	Current		vious eeks	Cum	Cum	Current		evious weeks	Cum	Cum	Current		vious veeks	Cum	Cum
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	146	293	1,594	5,314	5,663	2,453	6,528	7,983	114,477	140,181	46	44	161	1,190	1,097
New England Connecticut	1	23 6	55 18	407 110	431 118	109 54	103 46	227 199	1,963 818	2,173 767	8 8	3 0	10 9	68 14	76 19
Maine <sup>§</sup> Massachusetts	—	3 9	10 29	41 155	51 191	49	2 48	7 127	33 929	43 1,082	_	0	4 6	5 35	6 40
New Hampshire	1	1	4	32	6	3	2	6	51	62	_	0	2	5	8
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	1 3	15 9	25 44	22 43	3	6 1	13 5	127 5	196 23	_	0 0	2 2	4 5	3
Mid. Atlantic New Jersey	36	61 7	120 15	1,031 130	1,048 135	549 11	644 114	1,004 175	12,475 2.050	14,535 2,478	6	9 1	29 7	222 32	228 37
New York (Upstate)	24	23	100	383	348	102	134	518	2,434	2,340	4	2	20	63	60
New York City Pennsylvania	2 10	16 14	29 30	260 258	341 224	265 171	181 227	526 394	3,681 4,310	4,356 5,361	2	1 3	6 9	39 88	45 86
E.N. Central Illinois	23	44 13	90 33	777 172	927 266	310	1,341 393	1,735 589	23,301 5,263	29,125 7,277	5	6 2	24 7	161 42	144 54
Indiana	N	0	0	N	N	_	158	311	3,186	3,429	_	1	20	37	20
Michigan Ohio	1 18	10 16	22 36	161 320	255 270	276 18	302 344	654 685	7,072 5,609	6,370 9,279	1 4	0 2	3 6	8 67	12 51
Wisconsin W.N. Central	4 12	6 27	21 583	124 607	136 355	16 56	121 347	214 440	2,171 6,081	2,770 8,046	4	0 3	4 24	7 92	7 60
lowa		5	23	95	78	_	31	56	522	801	-	0	1	2	1
Kansas Minnesota	_	3 0	11 575	54 191	46 6	43	44 62	130 92	911 1,132	930 1,414	_	0	2 21	8 17	6 22
Missouri Nebraska§	4 7	9 4	23 8	162 74	152 43	9	178 26	235 51	2,859 515	4,197 551	2 1	1 0	6 3	44 15	23 7
North Dakota South Dakota	1	0 1	3 6	11 20	7 23	4	2 5	6 10	40 102	43 110	1	0 0	2 0	6	1
S. Atlantic	52	54	102	855	1,046	702	1,470	2,540	25,463	33,048	14	11	30	321	282
Delaware District of Columbia	_	1 1	6 5	15 18	13 43	19	23 46	44 99	477 897	543 946	_	0 0	1	3 4	5 3
Florida Georgia	27 20	22 11	47 25	442 153	456 213	322 6	474 282	616 626	9,408 694	8,672 7,216	8 1	3 2	10 9	87 73	76 63
Maryland <sup>§</sup> North Carolina	N	5 0	18 0	73 N	95 N	94	129 133	237 1,825	2,405 3,664	2,397 6,426	2	1 0	5 9	52 30	49 33
South Carolina§	2	3 8	7 39	42 93	30 184	116	191	840	3,799	4,038	1	1	6	24 40	26
Virginia <sup>§</sup> West Virginia		0	39 8	93 19	184	144 1	132 17	485 38	3,823 296	2,464 346	2	0	23 3	40	19 8
E.S. Central Alabama <sup>§</sup>	2 1	10 5	23 11	143 76	177 91	291 11	568 203	945 287	11,036 3,430	12,807 4,388	1	3 0	8 2	63 8	60 14
Kentucky	N N	0	0	N N	N N	138	80 122	161 401	1,699 2,446	1,107 3,345	_	0 0	1 2	1 9	3
Mississippi Tennessee <sup>§</sup>	1	4	16	67	86	142	174	261	2,440 3,461	3,967	1	2	6	9 45	39
W.S. Central Arkansas <sup>§</sup>	6 2	6 2	34 9	80 39	118 49	331 101	1,029 77	1,355 138	19,232 1,793	19,691 1,675	3	2 0	22 3	59 3	46 3
Louisiana Oklahoma		1 3	14 29	11 30	34 35	164 66	186 93	384 171	3,190 1,803	4,566 2,031	3	0 1	2 14	3 49	5 35
Texas <sup>§</sup>	Ň	0	29	N	N		646	1,102	12,446	11,419	_	0	3	49	3
<b>Mountain</b> Arizona	12 1	32 3	67 11	428 38	532 75	84 6	250 90	337 130	4,119 1,257	5,358 2,031	3 2	5 2	14 11	154 72	133 56
Colorado Idaho <sup>§</sup>	6	11 3	26 19	179 47	172 43	44 7	61 4	91 19	1,160	1,351 107	_	1 0	4	26 6	31 4
Montana§	1	2	8	24	30	1	1	48	39	41	_	0	1	1	_
Nevada <sup>§</sup> New Mexico <sup>§</sup>	3	3 2	8 5	40 25	52 48	26	46 28	126 105	1,002 376	859 629	1	0 1	4	9 16	6 19
Utah Wyoming <sup>§</sup>	_	7 1	32 3	64 11	98 14	_	13 1	39 5	222	315 25	_	1 0	6 1	24	15 2
Pacific	2	54	688	986	1,029	21	662	810	10,807	15,398	2	2	10	50	68
Alaska California	_	2 41	5 91	28 685	21 816	7	11 562	24 683	175 9,874	200 12,965	1	0	4	9 6	5 23
Hawaii Oregon <sup>§</sup>	2	1 9	5 19	12 168	33 156	14	11 24	23 63	206 535	292 442	1	0 1	1 4	7 26	3 37
Washington	—	0	590	93	3	—	55	142	17	1,499	—	0	6	2	_
American Samoa C.N.M.I.	_	0	0	_		_	0	1	2	2	_	0	0	_	_
Guam Puerto Rico	_	0 4	1 31	 24	1 110	8	1 5	9 23	19 105	50 137	_	0 0	1 1	_	1
U.S. Virgin Islands	_	0	0	_	_	_	1	4	38	22	Ν	0	0	N	N

Med: Median.

Max: Maximum.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 24, 2008, and May 26, 2007 (21st Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Me \* Incidence data for reporting years 2007 and 2008 are provisional. Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I. Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(21st week)*	Hepatitis (viral, acute), by type <sup>+</sup>														
		Dress	Α				Dues	В					egionellos	is	
	Current	Previ 52 we		Cum	Cum	Current		ious eeks	Cum	Cum	Current		vious veeks	Cum	Cum
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	20	52	207	960	1,069	28	79	300	1,246	1,669	20	48	123	658	604
New England Connecticut	—	2 0	6 3	42 10	38 8	_	1 0	5 5	18 7	32 19	1 1	2 1	14 4	28 8	33 4
Maine <sup>§</sup>	_	0	3	2	<u> </u>	_	0	5 2	5	2	_	0	2	1	—
Massachusetts New Hampshire	—	1 0	5 1	18 2	14 9	_	0 0	1 1	3 1	2 4	_	0 0	2 2	1 3	16
Rhode Island <sup>§</sup>	_	0	2	9	6	_	0	3	1	4	_	0	5	11	12
Vermont <sup>§</sup>	_	0	1	1	1	—	0	1	1	1	—	0	2	4	1
Mid. Atlantic New Jersey	1	9 1	21 6	111 20	171 54	3	9 2	17 7	151 35	245 75	8	14 1	37 13	150 14	154 22
New York (Upstate)	—	1	6	28	30	1	2	7	29	34	1	4	15	42	45
New York City Pennsylvania	1	2 2	9 6	31 32	57 30	2	2 3	7 8	22 65	54 82	7	2 5	11 21	15 79	34 53
E.N. Central	_	6	13	118	116	4	8	15	131	211	2	11	30	144	139
Illinois	—	2	6	31	52 4	—	1	5	25	66	—	2	12	18	31
Indiana Michigan	_	0 2	4 7	6 55	4 26	2	0 2	8 6	11 47	14 55	_	1 3	7 11	10 42	9 42
Ohio Wisconsin	_	1 0	3 2	16 10	26 8	2	2 0	6 1	45 3	62 14	_2	4 0	17 1	70 4	48 9
Wisconsin W.N. Central	7	4	24	140	63	2	2	7	35	44	1	2	9	4 32	9 22
lowa	_	1	7	56	14		0	2	7	12	_	0	2	6	3
Kansas Minnesota	5	0 0	3 23	10 15	2 33	2	0 0	2 5	4 3	4 4	_	0 0	1 6	1 3	1 4
Missouri	2	1	3	22	5		1	4	18	16	1	1	3	12	10
Nebraska <sup>§</sup> North Dakota	_	1 0	5 0	35	5	_	0	1	3	5	_	0 0	2 0	9	3
South Dakota	—	Ő	1	2	4	_	Ő	2	_	3	_	Ő	1	1	1
S. Atlantic	6	9	22	131	189	9	17	58	337	423	4	8	28	130	134
Delaware District of Columbia	_	0 0	1 0	_2	2 13	_	0 0	3 0	5	6 1	_	0 0	2 2	2 3	1 5
Florida	3 3	2	8	64	56 32	5	6	12	142	139 54	2	3	10	59	56 17
Georgia Maryland <sup>§</sup>	3	1	5 4	17 16	33	1	2 2	8 6	41 28	54 46	2	1 2	3 5	10 26	25
North Carolina South Carolina <sup>§</sup>	—	0 0	9 4	9 6	7 4	_	0 1	17 6	42 24	56 31	_	0 0	7 2	8 2	13 5
Virginia <sup>§</sup>	_	1	5	15	40	3	2	16	41	70	_	1	6	17	9
WestVirginia		0	2	2	2		0	30	14	20	_	0	3	3	3
E.S. Central Alabama <sup>§</sup>	3	2 0	5 4	21 3	36 8	1	8 2	15 6	129 37	124 46	1	2 0	5 1	30 4	34 4
Kentucky	2	0	2	10	5	_	2	7	37	15	_	1	3	15	13
Mississippi Tennessee <sup>§</sup>	1	0 1	1 3	8	6 17	1	0 3	3 8	12 43	10 53	1	0 1	0 3	11	17
W.S. Central	_	5	46	65	86	7	17	121	253	316	_	2	16	18	28
Arkansas <sup>§</sup> Louisiana	_	0 0	1 3	2 4	5 17	_	1 1	3 6	14 14	30 37	_	0 0	3 2	_2	2 1
Oklahoma	_	0	8	4	3	3	2	38	32	13	_	0	2	1	_
Texas <sup>§</sup>	_	4	45	55	61	4	12	97	193	236	_	2	14	15	25
<b>Mountain</b> Arizona	3 1	4 2	10 7	85 33	111 83	2	3	7 4	58 13	97 45	3 2	2 1	6 5	33 11	27 6
Colorado	1	0	3	18	13	2	Ó	3	10	16	—	Ó	2	3	6
Idaho <sup>§</sup> Montana <sup>§</sup>	_	0 0	3 2	13	2 2	_	0 0	2 1	4	4	_	0 0	1 1	1 2	2 1
Nevada§	1	0	1	3	7	—	1	3	17	24	1	0	2	6	3
New Mexico <sup>§</sup> Utah	_	0 0	3 2	14 2	1 2	_	0 0	2 2	6 7	5 3	_	0 0	1 3	3 7	2 4
Wyoming <sup>§</sup>	—	0	1	2	1	_	0	1	1	_	_	0	0	—	3
<b>Pacific</b> Alaska	_	12 0	103 1	247 2	259 2	—	8 0	84 2	134 6	177 3	_	3 0	38 1	93 1	33
California	_	11	42	203	243	_	6	19	94	145	_	3	14	76	29
Hawaii Oregon <sup>§</sup>	_	0 1	2 3	3 16	3 11	_	0 1	2 3	3 15	5 23	_	0 0	1 2	4 6	1 2
Washington	_	0	59	23	—	_	0	64	16	1	_	0	23	6	1
American Samoa	_	0	0	_	_	_	0	0	_	14	Ν	0	0	Ν	Ν
C.N.M.I. Guam	_	0	0	_	_	_	0	1	_	2	_	0	0	_	_
Puerto Rico	_	0	4	6	35	_	1	5	15	27	_	0	1	—	3
U.S. Virgin Islands	—	0	0	_	_	_	0	0	_			0	0	_	_

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2007 and 2008 are provisional. \* Data for acute hepatitis C, viral are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(21st Week)*		L	.yme disea	ise			Ν	lalaria			Ме		cal disea	se, invasiv Ips	/e <sup>†</sup>
			vious			-		vious	0				/ious		
Reporting area	Current week	Med	eeks Max	Cum 2008	Cum 2007	Current week	Med	eeks Max	Cum 2008	Cum 2007	Current week	Med	veeks Max	Cum 2008	Cum 2007
United States	77	320	1,329	2,120	3,541	6	24	156	271	391	11	17	71	502	509
New England Connecticut	3	44 11	301 214	122	348 78	_	1 0	34 26	3	18	1	1 0	3 1	16	24 4
Maine <sup>§</sup>	_	6	61	33	25	_	0	2	_	3	1	0	1	1 3	4
Massachusetts New Hampshire	2	0 7	31 88	25 54	109 122	_	0	3 4	2 1	14 1	_	0 0	3 0	12	12 1
Rhode Island <sup>§</sup>	—	0	77	_	—		0	8	_	_	_	0	1	—	1
Vermont <sup>s</sup> Mid. Atlantic	1 50	1 174	13 692	10 1,170	14 1,732	1	0 7	2 18	 59	 110		0 2	1 6	 55	2 60
New Jersey	_	35	220	238	660	_	0	7	_	25	_	0	1	1	8
New York (Upstate) New York City	25	54 4	224 27	236 4	291 67	1	1 4	8 9	10 38	18 58	2	0 0	3 3	18 9	15 17
Pennsylvania	25	52	326	692	714	_	1	4	11	9	1	1	5	27	20
E.N. Central	—	5	169	28	250	_	2	7	43	55	1	3	9	85	80
Illinois Indiana	_	0 0	16 7	2 1	17 4	_	1 0	6 2	20 1	28 2	_	1 0	3 4	26 13	29 13
Michigan Ohio	_	0 0	5 4	7 5	8 4	_	0 0	2 3	6 13	7 11	1	0 1	2 4	13 24	12 18
Wisconsin	_	4	149	13	217	_	0	1	3	7	_	0	2	9	8
W.N. Central	4	3	731	70	81	_	0	8	21	19	2	2	8	52	31
lowa Kansas	_	1 0	11 1	6 2	32 6	_	0 0	1 1	2 3	2 1	_	0 0	3 1	11 1	7 2
Minnesota Missouri	3 1	0	731 4	54 6	41 1	_	0 0	8 4	6 6	11 2		0 0	7 3	15 14	9 8
Nebraska§	_	0	1	1	1	_	0	2	4	2	1	0	2	9	2
North Dakota South Dakota		0 0	2 1	1	_	_	0	1 0	_	1	_	0 0	1 1	1 1	2 1
S. Atlantic	15	60	221	628	1,056	5	5	15	70	78	1	3	7	67	72
Delaware District of Columbia	12	12 2	34 9	205 30	214 37	_	0	1 1	1	2 3	_	0 0	1 0	_	_
Florida	1	0	4	9	2	3	1	7	24	17	_	1	5	25	26
Georgia Maryland§	_	0 30	3 135	1 290	1 633	_2	1 1	3 5	13 23	9 21	_	0 0	3 2	8 5	8 15
North Carolina South Carolina <sup>§</sup>	_	0 0	8 4	2 3	6 6	_	0 0	4 1	2 2	7 3	_	0 0	4 3	3 10	6 7
Virginia§	2	16	68	85	153	_	1	7	5	15	1	0	3	14	10
West Virginia	_	0	9	3	4	_	0	1	_	1	_	0	1	2	
E.S. Central Alabama <sup>§</sup>	4	0 0	5 3	7 2	15 6	_	0 0	3 1	6 3	13 2	1	1 0	4 1	28 1	30 7
Kentucky Mississippi	_	0 0	2 1	1	_	_	0 0	1 1	2	3 1	1	0 0	2 2	7 9	5 7
Tennessee§	4	0	4	4	9	_	0	2	1	7	_	0	2	11	11
W.S. Central		1	9	9	26	_	1	59	12	29	_	2	12	44	57
Arkansas <sup>§</sup> Louisiana	_	0 0	1 0	_	2	_	0	1 1	_	12	_	0 0	1 3	4 12	7 20
Oklahoma Texas <sup>§</sup>		0 1	1 8	9	24	_	0 1	4 55	2 10	1 16	—	0 1	4 7	8 20	11 19
Mountain	_	0	3	9 3	9	_	1	5	10	22	2	1	4	20	39
Arizona		0	1	2	_	—	0	1	3	4	_	0	1	2	9
Colorado Idaho <sup>§</sup>	_	0 0	1 2	1	2	_	0 0	2 2	3	9	1	0 0	2 2	6 2	14 2
Montana <sup>§</sup> Nevada <sup>§</sup>	—	0 0	2 2	—	1 6	—	0 0	1 3	4	2 1	1	0 0	1 2	4 6	1 3
New Mexico§	_	0	2	_	_	_	0	1	-	1	_	0	1	4	1
Utah Wyoming <sup>§</sup>	_	0 0	1	_	_	_	0	3 0	_	5	_	0 0	2 1	2 2	7 2
Pacific	1	2	15	83	24	_	3	37	47	47	_	4	39	127	116
Alaska California	_	0 2	2 8	 79	2 20	_	0 2	1 8	1 38	2 34	_	0 3	2 17	2 95	1 96
Hawaii	Ν	0	0	N	N	_	0	1	1	2	_	0	2	1	4
Oregon <sup>§</sup> Washington	1	0 0	2 12	4	2	_	0 0	2 30	4 3	9	_	1 0	3 28	17 12	15
American Samoa	Ν	0	0	Ν	Ν	_	0	0	_	_	_	0	0	_	_
C.N.M.I. Guam	_	0	0	_	_	_	0	1	_	_	_	0	0	_	_
Puerto Rico U.S. Virgin Islands	N N	0 0	0 0	N N	N N	_	0 0	1 0	1	1	_	0 0	1 0	_2	5
		ÿ	5				~	<u> </u>				~	~		

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2007 and 2008 are provisional. \* Data for meningococcal disease, invasive caused by serogroups A, C, Y, & W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(21st Week)*	Partussis												-		
		Dres	Pertussis	S				ies, anim /ious	al		R		untain sp vious	otted fever	
	Current		eeks	Cum	Cum	Current		eeks	Cum	Cum	Current		veeks	Cum	Cum
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	46	154	1,126	2,390	3,599	28	93	177	1,400	2,264	9	30	164	128	365
New England Connecticut	_	19 0	44 5	264	573 27	10 3	8 4	22 10	122 62	215 86	_	0 0	1 0	_	3
Maine <sup>†</sup>	—	1	5	15	34	2	1	5	20	34	Ν	0	0	Ν	N
Massachusetts New Hampshire	_	13 0	33 3	222 9	457 34	N	0 1	0 4	N 14	N 16	_	0 0	1	_	3
Rhode Island <sup>†</sup> Vermont <sup>†</sup>	—	1 0	25 6	13 5	3 18	N 5	0 2	0 13	N 26	N 79	_	0	0 0	—	_
Mid. Atlantic	10	22	44	303	502	5 8	2 19	29	339	376	_	1	5	 16	28
New Jersey	_	3	9	3	84	_	0	0	_	_	_	0	3	2	6
New York (Upstate) New York City	5	7 2	24 7	111 29	246 53	8	9 0	20 2	145 5	160 24	_	0 0	2 2	5 5	14
Pennsylvania	5	8	23	160	119	—	8	18	189	192	—	0	2	4	8
E.N. Central Illinois	6	21 2	186 8	545 39	704 80	3 N	3 0	43 0	20 N	19 N	_	1 0	4 3	2 1	16 11
Indiana	_	0	12	15	11	_	0	1	1	4	_	0	2	—	1
Michigan Ohio	1 5	3 10	16 176	55 436	122 327	3	1 1	32 11	13 6	9 6	_	0 0	1 2	1	2 2
Wisconsin	_	0	14	_	164	Ν	Ó	0	Ň	Ň	—	Ő	ō	_	_
W.N. Central Iowa	1	11 1	136 8	192 27	281 74	4 3	4 0	13 3	40 7	88 9	4	4 0	33 4	24	61 4
Kansas	_	2	5	23	66	_	0	7	_	50	_	0	2	_	6
Minnesota Missouri	_	0 2	131 18	20 97	48 35	- 1	0 0	6 3	17 6	6 8	4	0 3	4 25	24	47
Nebraska <sup>†</sup>	1	1	12	22	12	_	0	0	_	_	—	0	2	_	3
North Dakota South Dakota	_	0 0	4 2	3	4 42	_	0 0	5 2	8 2	6 9	_	0 0	0 1	_	1
S. Atlantic	8	13	50	217	417	3	40	61	725	933	3	13	110	48	163
Delaware District of Columbia	1	0 0	2 1	3 2	3 9	_	0 0	0 0	_	_	_	0 0	2 2	2 2	7 2
Florida	5	3	9 3	67	100	—	0	25 17	48	124	1	0	3 6	3 6	3
Georgia Maryland <sup>†</sup>	_	0 2	6	27	18 55	_	9	18	110 128	95 153	1 1	1	6	12	19 16
North Carolina South Carolina <sup>†</sup>	2	0 1	38 22	59 24	145 38	_	9 0	16 0	181	196 46	_	1 0	96 7	11 3	90 9
Virginia <sup>†</sup>	_	2	11	33	42	_	12	27	211	284	_	1	10	8	16
West Virginia	_	0	12	2	7	3	0	11	47	35	_	0	3	1	1
E.S. Central Alabama <sup>†</sup>	1	7 1	31 6	81 18	103 31	_	2 0	6 0	40	64	2	3 1	16 10	20 7	78 20
Kentucky Mississippi	1	0 3	4 29	12 34	10 18	_	0 0	3 1	14 1	8	_	0 0	2 3	1	1 5
Tennessee <sup>†</sup>	_	1	4	17	44	_	2	6	25	56	2	1	10	12	52
W.S. Central	11	19	186	187	303	_	13	40	42	469	_	2	122	12	8
Arkansas† Louisiana	_	1 0	17 2	23 2	64 9	_	1 0	6 0	26	10	_	0 0	15 2	1 2	1
Oklahoma Texas†	3 8	0 15	26 170	7 155	1 229	_	0 12	32 34	16	20 439	_	0 1	101 8	4 5	7
Mountain	4	19	37	310	498	_	2	8	19	-03	_	0	4	4	7
Arizona	1	2	8	44	134	Ν	0	0	Ň	Ň	_	0	1	2	1
Colorado Idaho†	2 1	5 0	13 4	60 18	125 21	_	0 0	0 4	_	_	_	0 0	2 1	_	1
Montana <sup>†</sup> Nevada <sup>†</sup>	_	1 0	11 7	56 13	28 15	_	0 0	3 2	1	1	_	0 0	1 0	1	_
New Mexico <sup>†</sup>	_	1	7	21	24	_	0	3	14	1	_	0	1	1	1
Utah Wyoming <sup>†</sup>	_	5 0	27 2	94 4	136 15	_	0 0	2 4	4	2 3	_	0 0	0 2	_	4
Pacific	5	14	616	291	218	_	4	10	53	93	_	0	1	2	1
Alaska California	4	1 8	29 129	30 105	14 157	_	0 3	3 8	11 41	34 58	N	0 0	0 1	N 1	N 1
Hawaii	_	0	2	4	10	_	0	0	_	_	Ν	0	0	N	Ň
Oregon <sup>†</sup> Washington	1	2 0	14 482	53 99	37	_	0 0	3 0	1	1	N	0 0	1 0	1 N	N
American Samoa	_	0	0	_	_	Ν	0	0	Ν	Ν	Ν	0	0	Ν	Ν
C.N.M.I. Guam	_		0	_	_	_	0	0	_	_	N	0	0	N	N
Puerto Rico	_	0	0	—	_	_	1	5	26	19	N	0	0	N	N
U.S. Virgin Islands		0	0		_	N	0	0	N	N	N	0	0	N	N

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(21st Week)*		s	almonello	sis		Shiga	toxin-pro	ducina E	. coli (STE	EC)†			Shigellos	is	
		Prev	/ious				Prev	vious		<u> </u>		Pre	vious		
Reporting area	Current week	52 w Med	veeks Max	Cum 2008	Cum 2007	Current week	52 w Med	veeks Max	Cum 2008	Cum 2007	Current week	52 v Med	veeks Max	Cum 2008	Cum 2007
United States	344	833	2,662	10,405	13,124	31	74	244	1,114	1,014	196	365	1,297	5,744	5,048
New England Connecticut Maine <sup>§</sup> Massachusetts New Hampshire Rhode Island <sup>§</sup> Vermont <sup>§</sup>	1 1  	21 0 15 2 1 1	164 136 14 58 10 13 5	464 136 47 220 23 21 17	1,000 431 42 420 47 34 26	  	3 0 2 0 0 0	13 9 4 10 4 2 3	49 9 4 24 7 3 2	131 71 14 34 8 1 3		3 0 2 0 0 0	17 16 1 8 1 9 1	58 16 2 33 1 5 1	124 44 12 59 4 4 1
<b>Mid. Atlantic</b> New Jersey New York (Upstate) New York City Pennsylvania	50 — 27 4 19	96 17 24 24 31	190 48 63 52 69	1,290 172 355 354 409	1,837 373 452 441 571	5 4 1	9 1 3 0 2	195 7 191 5 11	303 5 268 10 20	124 32 40 13 39	24  22 2	22 4 5 7 2	79 14 36 35 66	617 92 199 284 42	215 37 40 109 29
<b>E.N. Central</b> Illinois Indiana Michigan Ohio Wisconsin	44 — 4 39 1	86 26 9 17 26 11	255 188 34 43 65 29	1,236 279 120 243 432 162	1,932 683 169 306 391 383	4 — 3 1	8 1 2 2 2	35 13 12 8 9 11	105 10 9 23 39 24	123 19 11 20 42 31	20 — — 14 6	61 16 8 1 23 6	134 29 83 7 104 20	1,083 269 316 20 310 168	490 216 23 18 141 92
W.N. Central lowa Kansas Minnesota Missouri Nebraska <sup>§</sup> North Dakota South Dakota	19 — — 13 3 —	50 8 13 14 5 0 2	95 18 39 29 13 9 11	782 122 80 213 224 93 16 34	917 145 143 223 253 73 11 69	5 2 	12 3 1 2 3 1 0 1	38 13 15 12 6 1 5	136 34 9 22 47 13 2 9	133 26 14 48 21 19 	7 2 	24 2 0 4 13 0 0 2	64 6 3 11 48 3 5 30	355 44 7 83 126 — 26 69	872 28 13 98 697 10 6 20
S. Atlantic Delaware District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup>	117 	230 3 1 87 33 15 20 17 22 4	442 8 4 181 86 44 228 52 49 25	2,723 42 16 1,357 394 175 264 232 190 53	3,163 40 28 1,295 489 229 447 257 340 38	8 	12 0 2 1 1 1 0 3 0	40 2 1 18 6 5 24 3 9 3	189 5 63 13 31 18 13 33 8	192 6 	64 	75 0 30 27 2 0 7 4 0	149 2 3 75 85 7 12 21 14 61	1,195 3 5 382 464 21 35 230 52 3	1,748 4 998 616 32 25 28 35
E.S. Central Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	21 5 6 1 9	60 16 9 13 17	144 50 23 57 34	667 194 113 146 214	836 244 161 179 252	3  -   3	5 1 1 0 2	26 19 12 1 12	80 26 14 2 38	44 10 13 2 19	34  13  21	53 13 12 18 9	178 43 35 112 32	774 162 143 194 275	392 159 44 114 75
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	67 4  22 41	97 13 14 9 51	875 50 44 60 790	901 110 58 142 591	1,019 133 220 115 551	1  1 	5 0 0 4	23 4 0 13 11	73 15  6 52	74 15 3 11 45	37 13  3 21	49 2 6 3 37	707 17 22 31 663	1,035 120 58 42 815	551 39 181 27 304
Mountain Arizona Colorado Idaho <sup>§</sup> Montana <sup>§</sup> Nevada <sup>§</sup> New Mexico <sup>§</sup> Utah Wyoming <sup>§</sup>	21 7 10 3 - 1 -	52 17 11 3 2 5 6 5 1	83 39 44 10 10 12 14 17 5	908 262 312 48 28 79 83 77 19	883 287 221 42 34 88 90 89 32	5 3 2 — —	8 1 2 0 0 0 1 0	42 8 17 16 3 3 3 9 1	119 21 33 27 12 5 11 7 3	114 39 21 10  10 19 15 	10 2 1 	18 10 2 0 2 1 1 0	40 30 6 2 1 10 6 5 2	235 101 30 5 1 77 12 6 3	275 129 41 42 13 44 8 24
Pacific Alaska California Hawaii Oregon <sup>§</sup> Washington	4 2 	102 1 83 5 6 0	1,045 5 286 14 16 749	1,434 10 1,100 65 103 156	1,537 36 1,306 92 100 3	 	7 0 4 0 1 0	166 1 34 5 11 140	60 1 36 3 6 14	79  54 13 12 	 	26 0 23 0 1 0	218 1 61 43 6 159	392 — 331 16 21 24	381 6 341 14 20 —
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	 	0 	1  55 0	1 5 124	 5 303 	 	0 0 0 0	0 0 1 0	  1		 	0 0 0 0	1 3 2 0	1 9 3	1 6 15

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: N \* Incidence data for reporting years 2007 and 2008 are provisional. Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped. Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Med: Median. Max: Maximum.

	oup A	Stre	eptococcus	pneumoni	<i>iae</i> , invasive Age <5 yea		ondrug resistant <sup>†</sup>					
		Prev							/ious		_	-
Reporting area	Current week	52 we Med	eeks Max	Cum 2008	Cum 2007		Current week	52 w Med	eeks Max	Cum 2008	Cum 2007	
United States	86	97	240	2,631	2,614		27	35	153	783	835	
New England	28	5	24	182	212		_	1	6	39	62	
Connecticut	28	0	22	59	49		_	0	5	—	11	
Maine <sup>§</sup>	—	0	3	12	13		—	0	1	1	1	
Massachusetts	_	2 0	7 2	82 16	111 24		_	1 0	4 1	30 7	44	
New Hampshire Rhode Island§	_	0	6	5	24		_	0	1	_	4	
/ermont <sup>§</sup>	_	Ő	2	8	13		_	Ő	1	1	2	
Aid. Atlantic	17	17	42	547	545		2	4	38	87	125	
lew Jersey		3	9	79	109			1	6	18	33	
lew York (Upstate)	10	6	20	194	149		2	2	14	44	52	
Vew York City	_	4	10	93	137		—	1	35	25	40	
Pennsylvania	7	5	16	181	150		N	0	0	N	N	
I.N. Central	13	16	59	533	498		2	5	22	160	122	
llinois		4	15	137	157		_	2	6	38	28	
ndiana		2	11	70	56		_	0	14	20	7	
<i>l</i> ichigan	4	3	8	84	120		_	1	5	38	45	
Dhio Misconsin	8	4 0	15	153	139		2	1 0	5	30	34	
Visconsin	1		38	89	26		_		9	34	8	
V.N. Central	2	5	39	225	187		2	2	15	67	49	
owa	_	0 0	0				_	0	0	10	1	
Kansas Ainnesota	_	0	6 35	32 101	24 86		_	0 0	3 13	13 24	1 30	
Aissouri	2	2	10	55	49		2	1	2	24	13	
Vebraska§	_	ō	3	18	14		_	Ö	3	4	4	
lorth Dakota	_	0	3	8	10		_	0	1	1	1	
South Dakota	—	0	2	11	4		—	0	1	5	_	
S. Atlantic	10	23	51	517	576		7	7	16	121	194	
Delaware	_	0	2	6	4		_	0	0	_	_	
District of Columbia	_	0	2	10	16		_	0	1	1	2	
Iorida	4	6	16	128	125		2	1	4	32	30	
	_	4	10	99	128		3	1	9	6	87	
/laryland§ North Carolina	3	4 2	9 22	92 70	101 55		N	1 0	5 0	34 N	37 N	
South Carolina <sup>§</sup>	1	1	6	32	56		1	1	4	21	12	
/irginia <sup>§</sup>	2	3	12	66	78		1	Ó	6	23	24	
Vest Virginia	_	Õ	3	14	13		_	Õ	ĩ	4	2	
E.S. Central	4	4	13	84	96		2	2	11	51	49	
Alabama <sup>§</sup>	Ň	0	0	N	N		Ň	0	0	N	Ň	
Kentucky	_	1	3	16	24		N	Ō	Ō	N	N	
Aississippi	Ν	0	0	N	N		_	0	3	13	3	
ennessee§	4	3	13	68	72		2	2	9	38	46	
V.S. Central	6	7	83	205	149		9	5	61	127	116	
Arkansas§	—	0	2	4	13		—	0	2	5	7	
ouisiana	_	0	1	3	14		_	0	2	1	23	
Dklahoma	2 4	1	17	60	39		2	1	5	43	24	
exas§		5	65	138	83		7	3	56	78	62	
lountain	6	11	22	289	285		3	5	12	124	110	
Arizona	3	4	9	102	103		2	2	8	65	56	
Colorado daho§	3	2 0	8 2	78 9	75 6		1	1 0	4 1	37 2	26 2	
Aontana <sup>§</sup>	N	0	2	9 N	N		_	0	1		2	
levada§		Ő	2	6	2		N	0	0	N	N	
lew Mexico§	_	2	7	54	48		_	0	3	11	22	
Itah	—	1	5	35	47		_	0	4	8	4	
/yoming <sup>§</sup>	—	0	2	5	4		_	0	1	1	—	
acific	_	3	6	49	66		_	0	2	7	8	
laska	—	0	3	13	12		Ν	0	0	N	N	
California	_	0	0				N	0	0	Ν	N	
lawaii		2	6	36	54			0	2	7	8	
Dregon§ Vashington	N N	0 0	0 0	N N	N N		N N	0 0	0 0	N N	N N	
0	IN											
American Samoa	_	0	12	19	4		Ν	0	0	N	N	
C.N.M.I. Guam	_	0	0	_	_		_	0	0	_	_	
Puerto Rico	N	0	0	N	N		N	0	0	N	N	
J.S. Virgin Islands	_	Ő	Ő	_	_		N	õ	ŏ	Ň	N	

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

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2007 and 2008 are provisional. \* Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available § (NNDSS event code 11717). § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

		S		cus pneum		_									
			All ages					e <5 year	S		Sy			d seconda	ry
	Current		vious reeks	Cum	Cum	Current		vious /eeks	Cum	Cum	Current		vious veeks	Cum	Cum
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	39	46	252	1,261	1,302	10	7	38	204	213	72	224	328	4,179	4,097
New England	_	1	38	24	79	_	0	8	3	9	6	6	14	114	90
Connecticut Maine <sup>§</sup>	_	0 0	34 2	10	49 7	_	0 0	7 1	1	4 1	1	0 0	6 2	8 2	11 2
Massachusetts New Hampshire	_	0 0	0 0	_	_	_	0 0	0 0	_	_	5	4 0	11 3	98 4	53 10
Rhode Island <sup>§</sup>	_	0	3	5	12	_	0	1	1	2	_	0	3	2	12
Vermont <sup>§</sup>	_	0	2	9	11		0	1	1	2	_	0	5		2
Mid. Atlantic New Jersey	3	2 0	7 0	75	79	1	0 0	2 0	14	19	20	32 4	45 10	711 86	627 76
New York (Úpstate) New York Citv	_	1 0	4 0	23	25	_	0 0	1 0	4	8	3 16	3 17	10 30	52 449	48 397
Pennsylvania	3	1	7	52	54	1	0	2	10	11	10	5	12	124	106
E.N. Central	6	14	46	365	346	3	2	14	58	61	6	17	31	358	337
Illinois Indiana	_	3 3	13 28	51 112	60 72	_	0 0	6 11	11 13	25 8	_	7 1	19 6	62 58	169 16
Michigan Ohio	6	0 7	1 15	4 198	214	3	0 1	1 4	1 33	28	5	2 4	17 14	92 128	46 80
Wisconsin		0	0	190	214		0	4		20	1	1	3	120	26
W.N. Central Iowa	1	3 0	106 0	99	97	_	0 0	9 0	7	17	3	8 0	15 2	148 5	112 6
Kansas	_	1	5	45	53	—	0	1	2	2	3	0	5	15	8
Minnesota Missouri	1	0 1	105 8	 54	1 35	_	0 0	9 1	2	11	_	1 5	4 10	34 91	26 70
Nebraska <sup>ş</sup> North Dakota	_	0 0	0 0	_	2	_	0 0	0 0	_	_	_	0 0	1 1	3	_2
South Dakota	_	0	1	_	6	_	0	1	3	4	_	0	3	_	_
S. Atlantic	27	20	39	523	557	6	2	9	87	75	15	48	196	844	882
Delaware District of Columbia	_	0 0	1 0		5 4	_	0 0	1 0	_	1	_	0 2	3 11	1 35	5 72
Florida Georgia	24 3	11 7	26 18	302 173	305 209	6	2 0	6 6	55 27	67	10	18 6	34 174	346 42	297 121
Maryland§	_	0	2	3	1	_	0	1	1	_	4	7	14	149	116
North Carolina South Carolina§	N	0 0	0 0	N	N	N	0 0	0 0	N		_	6 1	18 5	130 31	140 42
Virginia <sup>ş</sup> West Virginia	N	0 1	0 7	N 43	N 33	N	0 0	0 2	N 4	N 7	1	5 0	17 1	110	84 5
E.S. Central	2	4	, 12	138	75	_	1	4	25	, 16	12	20	31	402	307
Alabama§	N	0 0	0 3	N	N	Ν	0 0	0	N	N	2	8 1	17 7	168	119
Kentucky Mississippi	1	0	0	34	16	_	0	2 0	8	_2	4	2	15	39 45	30 48
Tennessee§	1	3	12	104	59	_	1	3	17	14	6	8	14	150	110
W.S. Central Arkansas <sup>§</sup>	_	1 0	5 2	23 6	45 1	_	0 0	2 1	6 2	7 2	7 6	41 2	60 10	785 50	638 46
Louisiana		1 0	4 0	17	44 N		0	2 0	4	5	1	11	22 5	172	169 25
Oklahoma Texas <sup>§</sup>	N	0	0	N	N 	N	0	0		N	_	1 26	47	25 538	398
Mountain	_	1	6	14	24	_	0	2	3	8	3	8	29	104	171
Arizona Colorado	_	0 0	0 0	_	_	_	0 0	0 0	_	_	2	4 1	21 7	24 41	88 20
Idaho§ Montana§	N	0 0	0 0	N	N	N	0 0	0 0	N	N	_	0 0	1 3	1	1 1
Nevada§	Ν	0	0	N	Ν	Ν	0	0	Ν	Ν	1	2	6	28	37
New Mexico <sup>§</sup> Utah	_	0 0	1 6	1 13	15	_	0 0	0 2	3	1 6	_	0 0	3 2	10	19 4
Wyoming§	—	0	2		9	—	0	1	_	1	—	0	1	—	1
<b>Pacific</b> Alaska	N	0 0	0 0	N	N	N	0 0	1 0	1 N	1 N	_	40 0	69 1	713	933 5
California	N	0	0	Ν	N	N	0	0	N	N	_	37	59	628	865
Hawaii Oregon§	N	0 0	0 0	N	N	N	0 0	1 0	1 N	1 N	_	0 0	2 2	9 6	4 8
Washington	N	0	0	N	N	N	0	0	N	N	_	3	13	70	51
American Samoa C.N.M.I.	<u>N</u>	0	0	N		N	0	0	N	N	_	0	0	_	4
Guam Puerto Rico	—	0 0	0 0	_	_	_	0 0	0 0	—	_	1	0 3	0 10		 57
U.S. Virgin Islands		0	0				0	0				0	0	- 02	

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2007 and 2008 are provisional. Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720). Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(21st week)*						West Nile virus disease <sup>†</sup>										
			/e	Nonneuroinvasive§												
	Previous Current 52 weeks		0		0		Previous 52 weeks Cum		0	0		vious	0			
Reporting area	week	52 W	Max	Cum 2008	Cum 2007	Current week	Med	Max	Cum 2008	Cum 2007	Current week	Med	veeks Max	Cum 2008	Cum 2007	
United States	491	648	1,459	14,073	21,884	_	1	141	_	7	_	2	299	_	7	
New England	1	23	80	226	1,264	—	0	2	_	—	—	0	2	_	_	
Connecticut Maine <sup>1</sup>	_	12 1	58 26	_	723 178	_	0 0	2 0	_	_	_	0 0	1 0	_	_	
Massachusetts	_	0	0		—	_	0	2	_	_	_	0	2	_	_	
New Hampshire Rhode Island <sup>1</sup>	_	6 0	18 0	103	166	_	0 0	0 0	_	_	_	0 0	0 1	_	_	
Vermont <sup>1</sup>	1	6	19	123	197	—	Ő	Ő	—	—	—	Ő	0	—	_	
Mid. Atlantic	76	57	145	1,156	2,648	—	0	3	—	—	—	0	3	—	_	
New Jersey New York (Upstate)	N N	0 0	0	N N	N N	_	0 0	1	_	_	_	0 0	0 1	_	_	
New York City	Ν	0	0	N	N	—	0	3	—	—	—	0	3	—	_	
Pennsylvania E.N. Central	76 86	57 155	145 358	1,156 3,259	2,648 5,932	_	0 0	1 18	_	_	_	0 0	1 12	_	- 1	
Illinois	11	4	57	483	5,932 81	_	0	13	_	_	_	0	8	_	_	
Indiana		0	222	4 0 44		—	0	4	—	—	—	0	2	—	—	
Michigan Ohio	23 48	62 58	154 129	1,341 1,342	2,334 2,860	_	0 0	5 4	_	_	_	0 0	0 3	_	1	
Wisconsin	4	7	80	93	657	_	0	2	_	_	_	Ō	2	_	_	
W.N. Central	15	22	69	672	1,084	_	0	41	—	_	—	0	117	—	3	
lowa Kansas	N	0 5	0 36	N 231	N 402	_	0 0	4 3	_	_	_	0 0	3 7	_	1	
Minnesota		0	0	_	_	_	0	9	_	_	_	0	12	_	_	
Missouri Nebraska <sup>1</sup>	10 N	12 0	53 0	376 N	543 N	_	0 0	9 5	_	_	_	0 0	3 15	_	1	
North Dakota	5	0	39	48	84	_	0	11	_	_	_	0	49	_	_	
South Dakota		1	5	17	55	_	0	9	—	—	—	0	32	—	1	
S. Atlantic Delaware	117	98 1	157 4	2,348 14	2,738 18	_	0 0	12 1	_	_	_	0 0	6 0	_	_	
District of Columbia		0	3	13	21	_	0	0	_	_	_	0	0	_	_	
Florida Georgia	48 N	28 0	87 0	949 N	633 N	_	0 0	1 8	_	_	_	0 0	0 5	_	_	
Maryland <sup>1</sup>	Ν	0	0	N	Ν	_	0	2	_	_	_	0	2	_	_	
North Carolina South Carolina <sup>1</sup>	N 51	0 14	0 56	N 402	N 645	_	0 0	1 2	_	_	_	0 0	1	_	_	
Virginia <sup>1</sup>	14	24	82	630	808	_	ŏ	1	_	_	_	0	1	_	_	
West Virginia	4	15	66	340	613	_	0	0	_	_	_	0	0	_	_	
E.S. Central Alabama <sup>1</sup>	3 3	15 15	82 82	599 592	294 293	_	0 0	11 2	_	5	_	0 0	14 1	_	_	
Kentucky	Ň	0	0	N	N	_	0	1	_	_	_	0	0	_	_	
Mississippi Tennessee <sup>1</sup>	N	0 0	2 0	7 N	1 N	_	0 0	7 1	_	4 1	_	0 0	12 2	_	_	
W.S. Central	170	172	855	4,704	6,294	_	0	34	_	2	_	0	18	_	1	
Arkansas <sup>®</sup>	_	14	42	318	348	_	0	5	—	1	_	0	2	_	_	
Louisiana Oklahoma	N	1 0	8 0	27 N	81 N	_	0	5 11	_	_	_	0 0	3 7	_	_	
Texas <sup>1</sup>	170	159	825	4,359	5,865	_	0	18	_	1	_	0	10	_	1	
Mountain	20	42	105	1,091	1,608	_	0	36	_	_	_	0	143	_	2	
Arizona Colorado	13	0 19	0 43	514	618	_	0	8 17	_	_	_	0 0	10 65	_	1	
Idaho <sup>1</sup>	N	0	0	N	N	_	0	3	_	_	_	0	22	_	_	
Montana <sup>1</sup> Nevada <sup>1</sup>	7 N	6 0	40 0	159 N	209 N	_	0 0	10 1	_	_	_	0 0	30 3	_	1	
New Mexico <sup>1</sup>	_	4	22	115	255	_	0	8	_	_	_	0	6	_		
Utah Wyoming <sup>¶</sup>	_	8 0	55 9	302 1	510 16	_	0	8 4	_	_	_	0 0	8 33	_	_	
Pacific	3	0	9 4	18	22	_	0	18	_	_	_	0	23	_	_	
Alaska	3	0	4	18	22	_	0	0	_	_	_	0	0	_	_	
California Hawaii	_	0 0	0	_	_	_	0 0	17 0	_	_	_	0 0	21 0	_	_	
Oregon <sup>®</sup>	N	0	0	N	N	_	0	3	_	_	_	0	4	_	_	
Washington	N	0	0	N	N	—	0	0	—	—	—	0	0	_	—	
American Samoa C.N.M.I.	N	0	0	N	N	_	0	0	_	_	_	0	0	_	_	
Guam	_	2	7	33	153	_	0	0	_	_	_	0	0	_	_	
Puerto Rico U.S. Virgin Islands	3	12 0	37 0	226	342	_	0 0	0 0	_	_	_	0 0	0 0	_	_	
S.S. Virgini Islanus	—	U	U	—	_	—	0	0	_	_	_	0	0			

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2007 and 2008 are provisional. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I. Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### TABLE III. Deaths in 122 U.S. cities,\* week ending May 24, 2008 (21st Week)

TABLE III. Deaths	s in 122 U	IN 122 U.S. cities,* week ending May 24, 2008 (21) All causes, by age (years)					J8 (2151	(vveek)	All causes, by age (years)						
	All			,			P&I <sup>†</sup>		All	,,		,			P&I <sup>†</sup>
Reporting Area	Ages	<u>&gt;</u> 65	45-64	25-44	1-24	<1	Total	Reporting Area	Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	Total
New England	554	394	98	36	7	19	46	S. Atlantic	1,135	692	279	89	36	37	84
Boston, MA Bridgeport, CT	132 37	93 28	24 5	7 3	2 1	6	6 5	Atlanta, GA Baltimore, MD	113 131	61 80	35 32	10 10	6 5	1 4	5 17
Cambridge, MA	21	18	3	_	_	_	5	Charlotte, NC	119	73	36	6	3	1	18
Fall River, MA	22	18	1	3	_	_	2	Jacksonville, FL	157	95	47	7	5	3	4
Hartford, CT	49	33	8 3	5	1	2	2	Miami, FL	109	77	19	12	1		20
Lowell, MA Lynn, MA	23 11	20 9	3	2	_	_	1	Norfolk, VA Richmond, VA	36 58	25 25	6 23	2 8	1	3 1	_
New Bedford, MA	27	22	4	1	_	_	3	Savannah, GA	67	42	14	4	2	5	5
New Haven, CT	50	33	6	4	1	6	7	St. Petersburg, FL	43	27	8	2	—	6	—
Providence, RI	53	32	12	6	1	2	5	Tampa, FL	188	122	39	14	7	6	11
Somerville, MA Springfield, MA	1 40	1 28	7	2	1	2	5	Washington, D.C. Wilmington, DE	96 18	56 9	16 4	12 2	3 3	7	3 1
Waterbury, CT	28	23	3	2	_		3								
Worcester, MA	60	36	22	1	—	1	2	E.S. Central Birmingham, AL	850 152	549 99	211 39	53 8	20 3	17 3	66 13
Mid. Atlantic	2,136	1,475	482	109	37	33	113	Chattanooga, TN	99	67	18	10	2	2	4
Albany, NY	55	35	12	4	2	2	2	Knoxville, TN	101	67	24	5	4	1	9
Allentown, PA	25	20	4	1	_	_	1	Lexington, KY	69	45	17	4	2	1	4
Buffalo, NY Camden, NJ	65 26	44 17	16 4	4 2	1	3	1	Memphis, TN Mobile, AL	157 75	98 49	44 15	12 5	2 2	1 4	19 3
Elizabeth, NJ	10	4	4	2	_	_	_	Montgomery, AL	50	33	10	3	2	2	2
Erie, PA	40	31	6	3	_	_	2	Nashville, TN	147	91	44	6	3	3	12
Jersey City, NJ	15	10	5				2	W.S. Central	1,313	841	306	86	42	38	71
New York City, NY Newark, NJ	972 30	648 19	245 7	49 2	17	13 2	52 3	Austin, TX	81	55	15	6	2	3	2
Paterson, NJ	14	9	3	1	_	1		Baton Rouge, LA	62	37	8	10	7		
Philadelphia, PA	492	326	117	30	11	8	28	Corpus Christi, TX Dallas, TX	U 198	U 115	U 47	U 17	U 8	U 11	U 13
Pittsburgh, PA§	22	13	9		—	_	1	El Paso, TX	99	76	47	3	0	4	13
Reading, PA Rochester, NY	27 132	22 106	4 18	1 4	2	2	1 8	Fort Worth, TX	107	63	32	5	3	4	3
Schenectady, NY	21	100	10	4		1	3	Houston, TX	372	225	95	27	14	11	24
Scranton, PA	30	24	4	2	_	_	2	Little Rock, AR New Orleans, LA <sup>1</sup>	U U	U U	U U	U U	U U	U U	U U
Syracuse, NY	104	89	10	2	2	1	5	San Antonio, TX	212	153	43	8	6	2	18
Trenton, NJ	23 16	14	7 2	1	2	_	—	Shreveport, LA	51	35	14	1	_	1	3
Utica, NY Yonkers, NY	10	13 12	4	1	_	_	2	Tulsa, ÓK	131	82	36	9	2	2	7
E.N. Central	1,876	1,217	468	109	35	47	126	Mountain	1,129	742	252	81	34	19	65
Akron, OH	56	36	13	3	1	3	3	Albuquerque, NM Boise, ID	118 63	82 48	24 9	6 5	3 1	3	9 5
Canton, OH	44	30	10	4	—	_	7	Colorado Springs, CO	65	40 46	10	6	2	1	
Chicago, IL	343	191	102	31	7	12	33	Denver, CO	93	58	25	5	1	4	6
Cincinnati, OH Cleveland, OH	67 210	44 154	14 44	4 3	1 5	4 4	7 9	Las Vegas, NV	309	195	84	22	8	—	16
Columbus, OH	229	128	69	20	7	5	13	Ogden, UT	12	9	1		1	1	
Dayton, OH	114	86	22	3	1	2	7	Phoenix, AZ Pueblo, CO	181 38	94 27	54 4	16 3	8 4	8	9 2
Detroit, MI	U	U	U	U	U	U	U	Salt Lake City, UT	109	71	20	14	4	_	12
Evansville, IN Fort Wayne, IN	41 74	30 50	7 18	4 2	3	1	1	Tucson, AZ	141	112	21	4	2	2	6
Gary, IN	19	9	7	2	1	_	_	Pacific	1,608	1,108	348	93	22	37	136
Grand Rapids, MI	52	37	9	3	1	2	8	Berkeley, CA	19	10	5	3	1		4
Indianapolis, IN Lansing, MI	165 59	113 35	38 21	7 2	1	6	16 2	Fresno, CA Glendale, CA	U 36	U 28	U 6	U	U	U 2	U 4
Milwaukee, WI	110	68	31	9	2	_	7	Honolulu, HI	82	28 67	10	3	1	1	8
Peoria, IL	42	28	11	2	_	1	1	Long Beach, CA	50	33	11	5	1	—	3
Rockford, IL	57	38	15	2	_	2	2	Los Angeles, CA	244	154	66	14	4	6	34
South Bend, IN Toledo, OH	52 81	33 54	9 22	5 2	3 1	2 2	1 2	Pasadena, CA Portland, OR	20 118	13 78	6 26	1 8	1	5	7
Youngstown, OH	61	53	6	1	_	1	7	Sacramento, CA	177	124	38	10	4	1	19
W.N. Central	603	386	141	37	26	13	41	San Diego, CA	152	102	32	7	1	10	9
Des Moines, IA	U	U	U	U	U	U	U	San Francisco, CA San Jose, CA	124 211	86 148	23 44	11 13	2 2	2 4	11 21
Duluth, MN	34	28	2	2	2	—	3	San Jose, CA Santa Cruz, CA	211	148 20	44 6	13		4	21
Kansas City, KS	16 107	7	5	2	2 7	4	1	Seattle, WA	124	82	35	3	1	3	7
Kansas City, MO Lincoln. NE	107 33	63 28	27 5	6		4	4 4	Spokane, WA	73	56	8	7	2	_	4
Minneapolis, MN	63	44	12	5	1	1	6	Tacoma, WA	150	107	32	6	2	3	3
Omaha, NE	95	58	24	9	3	1	10	Total	11,204**	7,404	2,585	693	259	260	748
St. Louis, MO St. Paul, MN	130 52	71 34	37 13	8 2	8 2	6 1	4 3								
Wichita, KS	52 73	34 53	13	2	2	_	6								
,	No reported			0			~	1							

U: Unavailable.

J: 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. <sup>†</sup> Pneumonia and influenza.

<sup>8</sup> 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.

<sup>1</sup>Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted. \*\*Total includes unknown ages.

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