MMWR™
Morbidity and Mortality Weekly Report
www.cdc.gov/mmwr

Weekly November 21, 2008 / Vol. 57 / No. 46

# Implementation of Newborn Hepatitis B Vaccination — Worldwide, 2006

Globally, hepatitis B virus (HBV) infections are a major cause of cirrhosis and liver cancer and result in an estimated 620,000 deaths annually (*1*). In 1992, the World Health Organization (WHO) set a goal for all countries to introduce hepatitis B (HepB) vaccine into national routine infant immunization programs by 1997 (*2*). In countries where a high percentage of HBV infections are acquired perinatally (where general population prevalence of chronic HBV infection is ≥8%), WHO recommends administering the first HepB vaccine dose <24 hours after birth to prevent perinatal HBV transmission (*3*). To assess implementation of newborn HepB vaccination, the most recently available data were examined from the Joint Reporting Form used by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) to track worldwide vaccine coverage for WHO-recommended infant immunizations (*4*). In 2006, a total of 162 (84%) of 193 countries had introduced HepB vaccine into their national infant immunization schedules. Among the 193 countries, 81 (42%) reported using a schedule with a HepB vaccine birth dose (defined as a dose administered within 24 hours of birth). Worldwide, 27% of newborns received a HepB vaccine birth dose in 2006. In the 87 countries with ≥8% chronic HBV infection prevalence (*5*), HepB vaccine birth dose coverage was 36%. These findings highlight the global need to implement this key hepatitis B prevention strategy more widely.

Since 1998, WHO and UNICEF have used the Joint Reporting Form to collect information annually from WHO member states on coverage and indicators of immunization system performance for all WHO-recommended infant vaccines (*4*). For HepB vaccine, information is collected about the schedule used, the number of infants receiving the recommended 3 doses of vaccine, and (for those countries where the national immunization schedule includes a HepB vaccine birth dose) the administrative coverage of HepB vaccine birth dose.

As of 2006, 81 (42%) of 193 WHO member states indicated that a HepB vaccine birth dose was included in the national infant immunization schedule. Of the 87 countries where chronic HBV infection prevalence has been high historically (≥8%), 38 (44%) reported including a HepB vaccine birth dose in their immunization schedules (Table 1). Of the 135.0 million infants born worldwide in 2006, 62.7 million infants were born in countries where chronic HBV infection prevalence has been high historically.

Global and regional HepB vaccine birth dose coverage were calculated using reported coverage figures from the Joint Reporting Form and estimates of the number of live births (*6*). In this analysis, countries that did not report birth dose coverage on the Joint Reporting Form were assumed to have 0% birth dose coverage. Among the 81 countries reporting a HepB vaccine birth dose in their immunization schedules, 22 (27%) did not report birth dose coverage data. As a result, 11%–20% of the birth cohort might have received a HepB vaccine birth dose but was assumed to have 0% coverage because of lack of reporting. Birth dose coverage worldwide was 27% and varied widely by region, from 3% to 71% (Table 2). Birth dose coverage for countries with ≥8% chronic HBV infection prevalence was 36% (range by region: 1%–92%), and for countries with <8% prevalence was 20% (range by region: 0%–97%) (Table 2). However, in response to an open-ended Joint Reporting Form question regarding which vaccination schedule was used, several member states indicated that a first dose administered beyond 24 hours of birth still could be considered a birth dose.

**INSIDE**



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

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

**Suggested Citation:** Centers for Disease Control and Prevention. [Article title]. MMWR 2008;57:[inclusive page numbers].



**Reported by:** *L Dumolard, PhD, M Gacic-Dobo, CN Shapiro, MD, S Wiersma, MD, Immunization, Vaccines, and Biologicals, Expanded Programme on Immunization, World Health Organization, Geneva, Switzerland. SA Wang, MD, Div of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC.*

**Editorial Note:** This report presents the first analysis of WHO-UNICEF Joint Reporting Form data that estimates worldwide HepB vaccine birth dose coverage. HepB vaccine birth dose coverage during 2006 was 27% globally and 36% for children born in countries where chronic HBV infection has been highly endemic (≥8%). The relatively low coverage is consistent with survey data from several countries (*7*) and suggests that program performance for newborn HepB vaccination needs improvement.

Two major modes of HBV transmission occur during infancy: 1) from an infected mother to her newborn during delivery, and 2) from an infected household contact to the infant. Perinatal HBV transmission accounts for an estimated 21% of HBV-related deaths globally and 13%–26% regionally (*1*). HepB vaccine is 70%–95% effective as postexposure prophylaxis in preventing mother-to-infant HBV transmission when the first dose is administered within 24 hours after birth (*8*). HepB vaccination of newborns also provides early preexposure protection to infants born to uninfected women during a period when, if HBV exposure were to occur, the risk for developing chronic HBV infection is greatest (i.e., during the first year of life). Infants who become HBV infected have an approximately 90% risk for developing chronic HBV infection, and when chronically infected, have a 25% risk for dying prematurely from cirrhosis or liver cancer. Thus, newborn HepB immunization is a key intervention to prevent perinatal HBV transmission and a critical strategy to reduce the global morbidity and mortality associated with hepatitis B.

When introducing HepB vaccine into infant immunization programs, national policy makers must decide when to begin the HepB vaccine series: 1) at birth for all infants, 2) at birth, but targeted only to newborns of HBV-infected women, or 3) at the same time in the immunization schedule as other vaccines are administered to all infants (e.g., at 6 weeks, when national immunization programs in most developing countries initiate administration of other vaccines to infants) but at a time that is too late to prevent perinatal HBV infection. Administering a HepB vaccine birth dose only to newborns of HBV-infected women usually is not feasible in developing countries where hepatitis B is highly endemic (*3*), is a practice that is prone to error and results in missed postexposure prophylaxis of infants (even in countries where testing and identifying infected women during pregnancy is well established) (*8*), and fails to provide early preexposure protection to newborns of uninfected women who might have household contacts who are infected.

**TABLE 1. Number and percentage of World Health Organization (WHO) member states with hepatitis B (HepB) vaccination of newborns, by prevalence of historic chronic hepatitis B virus (HBV) infection — WHO and United Nations Children's Fund, worldwide, 2006**

| Chronic HBV prevalence | No. of births | No. of countries | Countries with HepB vaccine in schedule | | Countries with HepB vaccine birth dose in schedule | |
|---|---|---|---|---|---|---|
| | | | No. | (%) | No. | (%) |
| High (≥8%) | 62,658,651 | 87 | 73 | (84) | 38 | (44) |
| Intermediate (2%–8%) | 58,353,308 | 62 | 56 | (90) | 33 | (53) |
| Low (<2% ) | 14,004,025 | 44 | 34 | (77) | 10 | (23) |
| **Total** | **135,015,984** | **193** | **163** | **(84)** | **81** | **(42)** |

**TABLE 2. Implementation and coverage of newborn hepatitis B (HepB) vaccination globally and in World Health Organization (WHO) member states with historically high (≥8%) and historically intermediate or low (<8%) prevalence of chronic hepatitis B virus (HBV) infection, by WHO region — WHO and United Nations Children's Fund, worldwide, 2006**

| WHO region | WHO member states | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | All | | | | With ≥8% chronic HBV prevalence | | | With <8% chronic HBV prevalence | | |
| | No. | HepB vaccine in schedule | HepB vaccine birth dose in schedule | Estimated birth dose coverage (%) | No. | HepB vaccine birth dose in schedule | Estimated birth dose coverage (%) | No. | HepB vaccine birth dose in schedule | Estimated birth dose coverage (%) |
| African | 46 | 34 | 5 | 3 | 45 | 4 | 1 | 1 | 1 | 97 |
| Americas | 35 | 34 | 12 | 39 | 0 | 0 | NA* | 35 | 12 | 39 |
| Eastern Mediterranean | 21 | 19 | 11 | 40 | 4 | 1 | 25 | 17 | 10 | 43 |
| European | 53 | 41 | 27 | 30 | 10 | 9 | 92 | 43 | 18 | 20 |
| South-East Asian | 11 | 9 | 3 | 8 | 5 | 2 | 46 | 6 | 1 | 0 |
| Western Pacific | 27 | 26 | 23 | 71 | 23 | 22 | 75 | 4 | 1 | 26 |
| **Total** | **193** | **163** | **81** | **27** | **87** | **38** | **36** | **106** | **43** | **20** |

* Not applicable.

In the WHO Western Pacific region (where hepatitis B is highly endemic in many countries), 23 of 26 countries have introduced HepB vaccine starting at birth. However, countries with ≥8% endemic chronic HBV infection in other regions might not have introduced a HepB vaccine birth dose because disease burden from perinatal HBV transmission was not believed to be significant or because of challenges in implementing the birth dose (*1,9*).

Challenges to administering HepB vaccine to newborns within 24 hours after birth can be logistical and financial. First, many infants, especially in remote or poor areas, are born at home and do not have access at birth to skilled attendants who can administer vaccinations. Increasing the number of infants born in facilities or attended by trained health staff would improve birth dose coverage. Second, infant vaccinations usually are administered by vaccination providers in well-baby clinics or other outpatient health settings or during outreach immunization sessions in the community, whereas care of the mothers during delivery and of infants immediately after birth often is provided by maternal health workers, so coordination of these two types of workers is needed. Third, in many parts of the world, vaccines are transported and delivered in cold storage boxes at monthly or even longer intervals from a central source to locations where they will be administered and can only be stored for several days. As a result, HepB vaccine might not be available when infants are born at more remote facilities. Improving the range of the cold storage delivery chain and exploring options for making vaccine available outside that range are needed. Fourth, many developing countries have modified their immunization schedules to include new multivalent vaccines (e.g., combined *Haemophilus influenzae* type b and HepB vaccine) that cannot be administered to newborns. These vaccines provide antigens against two or more diseases and are supported by international donors, but the countries must rely on their own limited resources to purchase separately the monovalent HepB vaccine necessary for the HepB vaccine birth dose. Finally, awareness among providers and parents about the importance of administering HepB vaccine within 24 hours of birth often is lacking, so health promotion and training are needed (*9,10*).

The findings in this report are subject to at least two limitations. First, coverage data were missing from 27% of countries that reported having HepB vaccine birth dose in their immunization schedules, and for which an assumption was made of 0% birth dose coverage. Second, HepB vaccine birth dose coverage reported by countries sometimes might have included doses administered after 24 hours of birth, as indicated by the response on the Joint Reporting Form from several countries that a first dose administered beyond 24 hours of birth would be considered a birth dose. This lack of understanding as to

what constitutes an appropriate birth dose of HepB vaccine might reflect the fact that the term "birth dose" also is used widely for bacille Calmette-Guérin vaccine administration a few weeks after birth, and for oral poliovirus vaccine administration several days after birth. Data on HepB vaccine birth dose coverage from the Joint Reporting Form could be validated by using national coverage surveys that compare date of birth with date of administration of the first HepB vaccine dose for infants.

More complete implementation of routine newborn HepB vaccination globally would reduce the substantial morbidity and mortality caused by perinatally acquired HBV infection. Newborn HepB vaccination is of highest priority in highly endemic areas where the contribution of perinatal transmission to the overall disease burden is greatest. However, even in countries with <8% chronic HBV infection prevalence, newborn HepB vaccination can be an important hepatitis B control strategy. Disease modeling suggests that implementing HepB vaccine birth dose in regions with relatively low prevalence of chronic HBV infection, such as the Americas or Europe, might reduce HBV mortality by an additional 10%–20% compared with following a HepB vaccination schedule without a birth dose (*1*). For this reason, a substantial number of countries in areas with intermediate or low hepatitis B endemicity have implemented newborn HepB vaccination.

### References


1. Goldstein ST, Zhou F, Hadler SC, Bell BP, Mast EE, Margolis HS. A mathematical model to estimate global hepatitis B disease burden and vaccination impact. Int J Epidemiol 2005;34:1329–39.
2. CDC. Global progress toward universal childhood hepatitis B vaccination, 2003. MMWR 2003;52:868–70.
3. World Health Organization. Hepatitis B vaccines: WHO position paper. Weekly Epidemiol Rec 2004;79:255–63.
4. World Health Organization. WHO/UNICEF immunization summary: the 2007 edition. Geneva, Switzerland: World Health Organization; 2007. Available at http://whqlibdoc.who.int/hq/2007/who_ivb_2007_eng.pdf.
5. CDC. Hepatitis, viral, type B. In: Health information for international travel 2008. Atlanta, GA: US Department of Health and Human Services; 2008. Available at http://wwwn.cdc.gov/travel/yellowbookch4-hepb.aspx.
6. United Nations. World population prospects: the 2006 revision. United Nations, Population Division, New York, NY; 2007. Available at http://esa.un.org/unpp.
7. Creati M, Saleh A, Ruff TA, et al. Implementing the birth dose of hepatitis B vaccine in rural Indonesia. Vaccine 2007;25:5985–93.
8. CDC. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP); part 1: immunization of infants, children, and adolescents. MMWR 2005;54 (No. RR-16).
9. Hipgrave DB, Maynard JE, Biggs BA. Improving birth dose coverage of hepatitis B vaccine. Bull World Health Organ 2006;84:65–71.
10. World Health Organization Regional Office for the Western Pacific. Preventing mother-to-child transmission of hepatitis B. Operational field guidelines for delivery of the birth dose of hepatitis B vaccine. Manila, Philippines: World Health Organization Regional Office for the Western Pacific; 2006. Available at http://www.wpro.who.int/publications/publications.htm#listm.


# Continued Shortage of *Haemophilus influenzae* Type b (Hib) Conjugate Vaccines and Potential Implications for Hib Surveillance — United States, 2008

In December 2007, Merck & Co., Inc. (West Point, Pennsylvania) announced a voluntary recall of certain lots of two *Haemophilus influenzae* type b (Hib) conjugate vaccines, PedvaxHIB® (monovalent Hib vaccine) and Comvax® (Hib-HepB vaccine) and suspended production of both vaccines, disrupting the U.S. supply of Hib vaccine (*1*). When the recall was announced, Merck projected restoration of these vaccines to the U.S. market in late 2008. To ensure that enough vaccine would be available for all U.S. children to complete the primary Hib vaccination series, on December 18, 2007, CDC recommended that providers defer the booster dose of Hib vaccine (scheduled for administration at age 12–15 months) for all children except those at increased risk for invasive Hib disease (*1*). On October 17, 2008, Merck announced that restoration of the two vaccines to the market would be delayed until mid-2009. Because the continued delay might result in an increase in Hib disease, national surveillance for invasive Hib disease has become particularly important. To assess the current status of surveillance for Hib nationally, CDC reviewed 4,657 cases of invasive *H. influenzae* infection reported during January 2007–October 2008, including 748 cases among children aged <5 years. Of those 748 cases, 45 (6.0%) were Hib (serotype b), and 278 (37.2%) were missing serotype information. The continued vaccine shortage heightens the need for timely reporting and investigation of *H. influenzae* cases and accurate serotyping of all invasive *H. influenzae* isolates in children aged <5 years.

*H. influenzae* disease can be caused by any of six *H. influenzae* serotypes (a, b, c, d, e, and f) or by nontypeables. Until 1988, when Hib vaccine was introduced, serotype b caused approximately 95% of cases of *H. influenzae* invasive disease among children aged <5 years (*2*); after introduction of the vaccine, during 1989–1995, the incidence of Hib disease decreased 95% among children in that age group (*3*). Cases of invasive *H. influenzae* are reported to CDC weekly from all 50 states, the District of Columbia (DC), and New York City, through the National Notifiable Diseases Surveillance System (NNDSS). All 50 states require reporting of Hib cases (defined in NNDSS as isolation of Hib from a normally sterile site) in children aged <5 years; however, reporting requirements vary for other serotypes of *H. influenzae* and for Hib in other age groups.

CDC also coordinates the Active Bacterial Core surveillance (ABCs) system, which provides active, population-based, laboratory-based surveillance for invasive bacterial diseases, including *H. influenzae* (*4*). ABCs conducts surveillance in all or parts of 10 states,* accounting for 12% of the United States population. For ABCs, a case of *H. influenzae* disease is defined as isolation of *H. influenzae* from a normally sterile site in a resident of the surveillance area.

For this analysis, cases of *H. influenzae* disease reported to NNDSS during January 2007–October 2008 were combined with cases reported through ABCs; cases were matched by date of birth and county of residence, and duplicates were excluded. Completeness of serotype reporting was assessed for all of the *H. influenzae* reports. Isolates were classified as b, non-b (other serotypes and nontypeables), or as having missing serotype information. Serotype reporting was assessed for patients of all ages and for those patients aged <5 years.

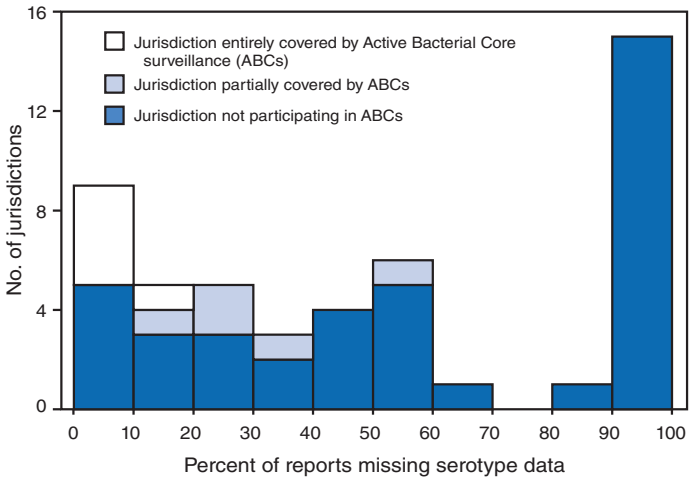
During January 2007–October 2008, a total of 4,657 cases of invasive *H. influenzae* disease were reported to CDC; 127 cases (2.7%) were type b, 2,267 (48.7%) were non-b, and 2,263 (48.6%) were missing serotype information. Among children aged <5 years, 748 *H. influenzae* cases were reported; 45 (6.0%) were type b, 425 (56.8%) were non-b, and 278 (37.2%) were missing serotype information. Based on the merged NNDSS/ABCs data, the average annual rate of invasive Hib disease reported in children aged <5 years, during January 2007–October 2008, was 0.12 cases per 100,000 children per year. During 2007, the annual rate was 0.11 cases per 100,000 children aged <5 years, and during January–October 2008, the annual rate was 0.13 cases per 100,000.

Overall, 49 of 52 jurisdictions (50 states, DC, and New York City) reported at least one case of *H. influenzae* to NNDSS or ABCs in a child aged <5 years. Of the 49 jurisdictions, a total of 19 (38.8%) were missing serotype data for >50% of reported cases, 16 (32.7%) were missing serotype data for >75% of reported cases, and 14 (28.6%) were missing serotype data for all reported cases (Figure). Among the five jurisdictions entirely covered by ABCs, four had no reported cases with missing serotype data. Among the five jurisdictions partially covered by ABCs, the median percentage of cases with missing data was 21.7%; among the 39 remaining jurisdictions not participating in ABCs, the median was 50.0% (Figure).

**Reported by:** *F Coronado, MD, K Brown, MPH, A Cohn, MD, N Messonnier, MD, TA Clark, MD, National Center for Immunization and Respiratory Diseases; M Jackson, PhD, EIS Officer, CDC.*

* Five states are entirely covered by ABCs for *H. influenzae* disease: Connecticut, Maryland, Minnesota, New Mexico, and Oregon. Five other states are partially covered by ABCs: California (three-county San Francisco Bay area), Colorado (five-county Denver area), Georgia (20-county Atlanta area), New York (15 counties), and Tennessee (11 counties).

**FIGURE. Number of jurisdictions (N = 49*) reporting cases of invasive *Haemophilus influenzae* disease in children aged <5 years, by status of jurisdiction† and percentage of reports with missing serotype data — United States, January 2007–October 2008**




* Out of 52 (50 states, District of Columbia, and New York City).
† Five states are entirely covered by Active Bacterial Core surveillance (ABCs) for *H. influenzae* disease: Connecticut, Maryland, Minnesota, New Mexico, and Oregon. Five other states are partially covered by ABCs: California (three-county San Francisco Bay area), Colorado (five-county Denver area), Georgia (20-county Atlanta area), New York (15 counties), and Tennessee (11 counties).

**Editorial Note:** The primary Hib vaccine series protects infants against invasive Hib disease. However, serum antibody levels decrease by age 12–15 months in children who have completed the primary series (*5*), and the Advisory Committee on Immunization Practices recommends that children receive a booster dose at that age (*6*). Higher concentrations of serum antibodies might be required to interrupt Hib transmission and colonization of the upper respiratory tract than to protect against invasive Hib disease (*7*). Thus, the booster dose can be of particular importance for indirect protection and promotion of herd immunity against Hib disease.

In December 2007, Merck recalled certain lots of PedvaxHIB and Comvax and suspended production of these vaccines because the company was unable to assure the sterility of equipment used during manufacture of those lots (*1*). Interim Hib vaccine recommendations by CDC, in consultation with other organizations, stipulated that vaccination providers defer administering the booster vaccine dose to children not at increased risk for Hib disease until vaccine supply is restored (*1*). Those at increased risk include American Indian/Alaska Native (AI/AN) children and children with certain immunosuppressive conditions (*1*). The recommendations stated that providers should register and track children for whom the booster was deferred to facilitate recalling them for vaccination once supply problems are resolved.

In October 2008, Merck announced that the company had identified the need for an additional manufacturing change and associated regulatory approval and did not expect to restore availability of these vaccines until mid-2009. Sufficient vaccine exists in the United States to provide the primary series and booster dose for AI/AN children and others at increased risk through at least mid-2009. However, the continued delay in restoring these vaccines to the market means continuing the interim recommendations for deferral of Hib booster vaccines for children not at increased risk.

What effect continued deferral of the Hib booster might have on the incidence of invasive Hib disease in young children in the United States is unknown. In this analysis, the annual rate of invasive Hib disease in children aged <5 years was 0.13 per 100,000 during January–October 2008, compared with 0.11 per 100,000 children in 2007 and an average of 0.3 cases per 100,000 per year during 1998–2000, the period of the last published analysis of Hib using NNDSS/ABCs data (*8*). This analysis has not shown an increase in invasive Hib disease in children aged <5 years since the December 2007 vaccine recall. However, the history of Hib disease in the United Kingdom suggests that prolonged deferral of the Hib booster dose might yet lead to changes in the epidemiology of Hib disease in the United States.

In the United Kingdom, Hib conjugate vaccines were introduced in 1992 as a 3-dose primary series without a booster dose, along with a 1-dose catch-up campaign for children aged >4 years. The rate of invasive Hib disease decreased from 22.9 cases per 100,000 children aged <5 years in 1990 to 0.65 cases per 100,000 in 1997. But beginning in 1999, the rate of Hib disease increased again, to 4.6 cases per 100,000 children aged <5 years in 2002 (*9*). One factor likely contributing to this increase was insufficient direct protection and herd immunity because of waning immunity in the absence of a routine Hib booster dose, prompting the United Kingdom to recommend a booster dose in 2003. Based on the United Kingdom experience, prolonged deferral of the Hib booster in the United States might lead to an increase in Hib colonization and disease.

Continued surveillance for invasive *H. influenzae* disease enables monitoring of vaccine failures and potential changes in the epidemiology of non-b *H. influenzae* serotypes. CDC currently uses surveillance data to 1) monitor rates of Hib disease, 2) evaluate the impact of deferring the age 12–15 month Hib vaccine booster dose, and 3) inform other vaccination recommendations. With continuation of the vaccine shortage, *H. influenzae* surveillance takes on increased importance because the shortage might lead to increased Hib colonization, transmission, and eventually Hib disease. However, as the analysis in this report indicates, national surveillance is hampered by incomplete serotype reporting. For children aged <5 years, serotype data are missing for nearly 40% of cases reported to CDC. Although serotype data are more complete from jurisdictions participating in ABCs, the data from that system represent only 12% of the U.S. population. Because changes in the epidemiology of Hib disease resulting from the vaccine shortage might by unevenly distributed on a national level, more complete reporting of *H. influenzae* serotypes is needed for effective surveillance.

National reporting of *H. influenzae* serotypes requires obtaining appropriate clinical specimens for confirmation of suspected *H. influenzae*, sending isolates to a laboratory capable of serotyping using standard procedures (*10*), reporting cases to local health departments, and successfully transmitting data through NNDSS. In 2006, after CDC follow-up with state health departments, the percentage of case reports transmitted through NNDSS with missing serotype data was reduced from 48.6% to 38.0% (K. Brown, CDC, personal communication, 2008). Coupled with the observation that jurisdictions participating in ABCs had fewer case reports with missing serotype data than jurisdictions not participating in ABCs, the follow-up results suggest that enhanced surveillance efforts can improve serotype reporting.

To improve Hib surveillance, CDC will contact state health departments reporting *H. influenzae* disease cases in children aged <5 years during the next several months to solicit serotype information and vaccination history. Health-care providers should contact the local health department when invasive *H. influenzae* is suspected. Health departments and state and hospital laboratories should increase efforts for timely serotyping and reporting of all cases of invasive *H. influenzae* disease in children aged <5 years.

## Acknowledgment

The findings in this report are based, in part, on data contributed by state and local health departments and the Active Bacterial Core surveillance team.

## References

1. CDC. Interim recommendations for the use of *Haemophilus influenzae* type b (Hib) conjugate vaccines related to the recall of certain lots of Hib-containing vaccines (PedvaxHIB® and Comvax®). MMWR 2007; 56:1318–20.
2. Ward J, Lieberman JM, Cochi SL. *Haemophilus influenzae* vaccines. In: Plotkin SA, Mortimer EA, eds. Vaccines. 2nd ed. Philadelphia, PA: WB Saunders Co.; 1994:337–86.
3. Bisgard KM, Kao A, Leake J, Strebel PM, Perkins BA, Wharton M. *Haemophilus influenzae* invasive disease in the United States, 1994–1995: near disappearance of a child vaccine preventable disease. Emerg Infect Dis 1998;4:229–37.
4. Schuchat A, Hilger T, Zell E, et al. Active bacterial core surveillance of the emerging infections program network. Emerg Infect Dis 2001;7:92–9.
5. Kayhty H, Eskola J, Peltola H, Stout MG, Samuelson JS, Gordon LK. Immunogenicity in infants of a vaccine composed of *Haemophilus influenzae* type b capsular polysaccharide mixed with DPT or conjugated to diphtheria toxoid. J Infect Dis 1987;155:100–6.

6. CDC. *Haemophilus* b conjugate vaccines for prevention of *Haemophilus influenzae* type b disease among infants and children two months of age and older: recommendations of the ACIP. MMWR 1991;40 (No. RR-1).
7. Fernandez J, Levine OS, Sanchez J, et al. Prevention of *Haemophilus influenzae* type b colonization by vaccination: correlation with serum anti-capsular IgG concentration. J Infect Dis 2000;182:1553–6.
8. CDC. Progress toward elimination of *Haemophilus influenzae* type b invasive disease among infants and children—United States, 1998–2000. MMWR 2002;51:234–7.
9. Ramsay ME, McVernon J, Andrews NJ, Heath PT, Slack MP. Estimating *Haemophilus influenzae* type b vaccine effectiveness in England and Wales by use of the screening method. J Infect Dis 2003;188:481–5.
10. LaClaire LL, Tondella ML, Beall DS, et al. Identification of *Haemophilus influenzae* serotypes by standard slide agglutination serotyping and PCR-based capsule typing. J Clin Microbiol 2003;41:393–6.

## Rotavirus Surveillance — Worldwide, 2001–2008

Rotavirus infection is the leading cause of severe acute diarrhea among young children worldwide (*1,2*). An estimated 527,000 children aged <5 years die from rotavirus diarrhea each year, with >85% of these deaths occurring in low-income countries of Africa and Asia (*3*). Two licensed rotavirus vaccines have shown efficacy of 85%–98% against severe rotavirus diarrhea in trials conducted in the Americas and Europe (*4,5*), and they have been introduced into routine immunization programs in 11 countries in these regions and in Australia. Additional trials of these vaccines are ongoing to assess efficacy in low-income countries of Asia and Africa, where vaccine performance might be affected by factors such as concurrent enteric infections, greater prevalence of malnutrition, and a greater prevalence of unusual rotavirus strains. Results of these additional trials are expected within the next 1–2 years. To collect epidemiologic and burden-of-disease data that could form the basis of vaccination policy worldwide, beginning in 2001, the World Health Organization (WHO), in collaboration with partners, established networks of hospital-based sentinel surveillance sites for detection of rotavirus diarrhea and characterization of rotavirus strains. This report presents an analysis of results from the WHO surveillance networks for 2001–2008, which indicated that approximately 40% of diarrhea hospitalizations among children aged <5 years worldwide were attributed to rotavirus infection. The most common rotavirus strains found were G1, G2, G3, G4, and G9, and the distribution of strains varied markedly across regions. These data demonstrate the substantial burden of rotavirus diarrhea worldwide and highlight the potential health impact of vaccination.

Since 2001, regional networks of sentinel hospital-based sites have been established in 35 countries located in each of the six WHO regions worldwide.* These sites have conducted rotavirus surveillance using standard guidelines described in a WHO generic protocol (*6*). The period of surveillance differed among the sites depending on when regional networks were established. All data presented in this report were obtained during August 2001–July 2008.

At each site, all children aged <5 years hospitalized with diarrhea (i.e., three or more loose stools in a 24-hour period) were enrolled. Approximately 5 cc of bulk stool were collected from each patient with diarrhea and placed in a screw-top container, preferably within 48 hours of hospital admission. Specimens were stored in a freezer at -4°F (-20°C) until rotavirus testing was performed, generally in a hospital laboratory within the country. A confirmed case of rotavirus diarrhea was defined as diarrhea in a patient who had rotavirus antigen detected by a commercial enzyme immunoassay (EIA) (most frequently used assay was IDEIA™ Rotavirus [Oxoid Ltd (Ely), Cambridge, United Kingdom]) in a fecal specimen. G and P genotypes of strains were characterized in a sample of rotavirus-positive specimens by reverse transcription–polymerase chain reaction (RT-PCR) (*7*), generally in a regional reference laboratory.

To avoid bias from seasonal patterns of rotavirus disease, only data for complete years at each site were analyzed. The percentages of children hospitalized with diarrhea who tested positive for rotavirus and the distribution of strains among rotavirus-positive specimens in each WHO region were examined. Median detection rates and the range of detection rates for all countries within each region and for all countries overall were calculated. Data for the South-East Asian and Western Pacific regions were combined for this report because countries in these two regions were part of a single surveillance network.

A total of 62,584 (range: 3,374–26,065 per WHO region) hospitalized patients aged <5 years with acute diarrhea were tested for rotavirus during the study period at all sites combined (Table 1). The overall median detection rate of rotavirus among all countries was 40%. The median rotavirus detection rate was lowest in the Region of the Americas (34%) and highest in the South-East Asian and the Western Pacific regions (45%).

Of the 4,936 rotavirus-positive specimens from all regions for which strains were characterized, 325 were from the African Region, 388 specimens were from the Region of the Americas, 323 were from the European Region, 1,290 were from the Eastern Mediterranean Region, and 2,610 were

* The following countries were included in the regional surveillance networks: Ghana, Kenya, Uganda, and Zambia in the African Region; Guyana, Nicaragua, Suriname, St. Vincent and Grenadine, Chile, Venezuela, Paraguay, Bolivia, El Salvador, Honduras, and Guatemala in the Region of the Americas; Georgia, Tajikistan, and Ukraine in the European Region; Egypt, Iran, Jordan, Libya, Morocco, Oman, Pakistan, Sudan, and Yemen in the Eastern Mediterranean Region; and China, Hong Kong, Malaysia, Myanmar, South Korea, Taiwan, Thailand, and Vietnam in the South-East Asian and Western Pacific regions.

**TABLE 1. Total number of patients aged <5 years who were tested for acute gastroenteritis and median detection rate of rotavirus, by World Health Organization (WHO) region — worldwide, 2001–2008**

| WHO region* | No. of countries | Total no. of patients tested (range by country) | | Median detection rate for all countries (range by country) | |
|---|---|---|---|---|---|
| | | No. | Range | Rate (%) | Range |
| African | 4 | 4,356 | (642–1,702) | 41 | (39–52) |
| Americas | 11 | 26,065 | (192–6,062) | 34 | (10–51) |
| European | 3 | 3,374 | (702–1,969) | 40 | (38–45) |
| Eastern Mediterranean | 9 | 17,291 | (316–6,553) | 40 | (29–55) |
| South-East Asian and Western Pacific† | 8 | 11,498 | (388–2,986) | 45 | (28–59) |
| **Total** | **35** | **62,584** | **(192–6,553)** | **40** | **(10–59)** |

* The following countries were included in the regional surveillance networks: Ghana, Kenya, Uganda, and Zambia in the African Region; Guyana, Nicaragua, Suriname, St. Vincent and Grenadine, Chile, Venezuela, Paraguay, Bolivia, El Salvador, Honduras, and Guatemala in the Region of the Americas; Georgia, Tajikistan, and Ukraine in the European Region; Egypt, Iran, Jordan, Libya, Morocco, Oman, Pakistan, Sudan, and Yemen in the Eastern Mediterranean Region; and China, Hong Kong, Malaysia, Myanmar, South Korea, Taiwan, Thailand, and Vietnam in the South-East Asian and Western Pacific regions.
† Data adapted from Nelson EA, Bresee JS, Parashar UD, Widdowson MA, Glass RI; Asian Rotavirus Surveillance Network. Rotavirus epidemiology: the Asian Rotavirus Surveillance Network. Vaccine 2008;26:3192–6.

from the South-East Asian and the Western Pacific regions (Table 2). The most common strains in all regions except the Eastern Mediterranean and African regions were G1P[8], G9P[8], and G2P[4], accounting for approximately two thirds of strains in these regions. In the Eastern Mediterranean and African regions, specimens characterized in the category "other" accounted for 50% and 46% of strains, respectively; this category included specimens in which either the G or P type (or both) of the infecting strain could not be characterized.

**Reported by:** *Dept of Immunization, Vaccines, and Biologicals, World Health Organization, Geneva, Switzerland. World Health Organization Regional Offices in Brazzaville, Republic of the Congo (African Region), District of Columbia, United States (Region of the Americas), Cairo, Egypt (Eastern Mediterranean Region), Copenhagen, Denmark (European Region), New Delhi, India (South-East Asian Region), and Manila, Philippines (Western Pacific Region). Rotavirus Vaccine Program, PATH, Seattle, Washington. Global Immunization Div; Div of Viral Diseases, National Center for Immunization and Respiratory Diseases, CDC.*

**Editorial Note:** The hospital-based surveillance findings in this report indicate that, during 2001–2008, rotavirus accounted for approximately 40% of hospitalizations for diarrhea among children aged <5 years worldwide. This percentage is greater than those percentages reported in two literature reviews (one reviewing studies published during 1986–1999 and one reviewing studies conducted during 1990–2004), which indicated a median rotavirus detection rate of 22% and 29%, respectively, for diarrhea hospitalizations among children aged <5 years (*2,3*). The higher rotavirus detection rates in the surveillance networks described in this report might reflect more standardized approaches for selection of patients (e.g., enrolling inpatients only and excluding those with milder disease) and/or improved collection and testing of specimens (e.g., obtaining whole stool specimens and avoiding rectal swabs, which might yield a falsely low rotavirus detection rate) than were used in the studies included in these reviews. Alternatively, the higher detection rates described in this report might reflect changing trends in the etiology of severe childhood diarrhea over the past 2–3 decades, reflecting either an absolute increase in the incidence of rotavirus diarrhea or a relatively greater decrease in the incidence of diarrhea from other causes. One review of more recent studies published during 2000–2004 reported a median detection rate of 39% (*1*), which is comparable to the overall rate observed in the surveillance data presented in this report. Similarly, surveillance data collected using a consistent approach (i.e., systematic sampling of patients seeking care for diarrhea) at Dhaka Hospital in Bangladesh during 1993–2004 also indicate that the percentage of childhood diarrhea hospitalizations attributed to rotavirus increased from 22% during 1993–1995 to 42% during 2002–2004 (*8*).

The substantial health burden of rotavirus diarrhea in the world underscores the need for effective interventions (e.g., vaccines) for the control of this disease as part of a comprehensive approach for prevention and control of diarrhea. For optimum results, rotavirus vaccines need to provide good protection against the range of rotavirus strains in circulation. Although the two licensed rotavirus vaccines differ in strain composition (i.e., one is monovalent, and one is pentavalent), both appear to provide protection against a variety of strains, including some strains not included in either of the licensed vaccines (*4,5*). The findings in this report support other observations that strains with G types 1–4 and 9 generally are the most prevalent (*9*), although the Eastern Mediterranean and African regions showed a high prevalence of other strains. As rotavirus vaccines are implemented in immunization programs worldwide, the sentinel hospital-based rotavirus surveillance networks described in this report will provide valuable baseline information to assess the future impact of vaccination. These sites also will provide platforms for conducting specialized epidemiologic studies of vaccine performance (e.g., vaccine effectiveness evaluations) and for detecting possible changes in the epidemiology of rotavirus disease (including possible changes in strains) in the postvaccination era. In countries of

**TABLE 2. Number and percentage of rotavirus-positive specimens (N = 4,936) from hospitalized patients aged <5 years with rotavirus diarrhea, by strain and World Health Organization (WHO) region — worldwide, 2001–2008**

| | WHO region* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | African | | Americas | | European | | Eastern Mediterranean | | South-East Asian and Western Pacific† | |
| Strain | No. | (%) | No. | (%) | No. | (%) | No. | (%) | No. | (%) |
| G1P[8] | 117 | (36) | 124 | (32) | 102 | (32) | 223 | (17) | 554 | (21) |
| G2P[4] | 29 | (9) | 71 | (18) | 59 | (18) | 310 | (24) | 332 | (13) |
| G3P[8] | 0 | (0) | 10 | (3) | 14 | (4) | 17 | (1) | 365 | (14) |
| G4P[8] | 0 | (0) | 21 | (5) | 59 | (18) | 33 | (3) | 103 | (4) |
| G9P[8] | 31 | (10) | 81 | (21) | 63 | (20) | 59 | (5) | 758 | (29) |
| Other§ | 148 | (46) | 82 | (23) | 26 | (8) | 648 | (50) | 498 | (19) |
| **Total** | **325** | **(100)** | **388** | **(100)** | **323** | **(100)** | **1,290** | **(100)** | **2,610** | **(100)** |

* The following countries were included in the regional surveillance networks: Ghana, Kenya, Uganda, and Zambia in the African Region; Guyana, Nicaragua, Suriname, St. Vincent and Grenadine, Chile, Venezuela, Paraguay, Bolivia, El Salvador, Honduras, and Guatemala in the Region of the Americas; Georgia, Tajikistan, and Ukraine in the European region; Egypt, Iran, Jordan, Libya, Morocco, Oman, Pakistan, Sudan, and Yemen in the Eastern Mediterranean Region; and China, Hong Kong, Malaysia, Myanmar, South Korea, Taiwan, Thailand, and Vietnam in the South-East Asian and Western Pacific regions.
† Data adapted from Nelson EA, Bresee JS, Parashar UD, Widdowson MA, Glass RI; Asian Rotavirus Surveillance Network. Rotavirus epidemiology: the Asian Rotavirus Surveillance Network. Vaccine 2008;26:3192–6.
§ Includes untypeable strains.

Latin America where vaccines have been licensed and recommended by WHO, existing surveillance networks currently are being used to conduct such evaluations of vaccine impact and effectiveness.

The findings in this report are subject to at least two limitations. First, although the countries participating in the various regional networks conducted surveillance using a standard generic WHO protocol, methods were adapted according to local needs (e.g., obtaining information on use of oral rehydration therapy or antibiotics before hospitalization) and availability of resources. These variations might have affected the comparability of data across sites, but key factors such as criteria for enrollment of cases, procedures for obtaining fecal specimens, and methods of rotavirus detection and strain characterization were well standardized. Formal assurance and standardization systems are being implemented to ensure further improvement in the quality and comparability of data across various countries and networks. Second, although surveillance generally was conducted in large pediatric hospitals that cared for a substantial number of patients with acute gastroenteritis, these sites might not be representative of the total population of the country.

Data generated from global rotavirus surveillance networks highlight the burden of rotavirus hospitalizations, including those in low-income countries that are eligible for financial support for vaccine purchase through the GAVI Alliance (formerly known as the Global Alliance for Vaccines and Immunizations). Fourteen low-income countries in regions where vaccine efficacy is proven (i.e., Latin America and Europe) are currently eligible for GAVI Alliance support for rotavirus vaccine purchase. If ongoing trials in Africa and Asia show good vaccine efficacy, this support likely will be extended to the remaining 58 countries eligible for GAVI Alliance funding in other regions. The availability and use of rotavirus vaccines globally should have a substantial impact on hospitalizations and mortality associated with childhood diarrhea and thereby will contribute to achievement of the United Nations' Millennium Development Goals for reduction of childhood mortality.†

† Available at http://www.unicef.org/mdg/mortalitymultimedia/index.html.

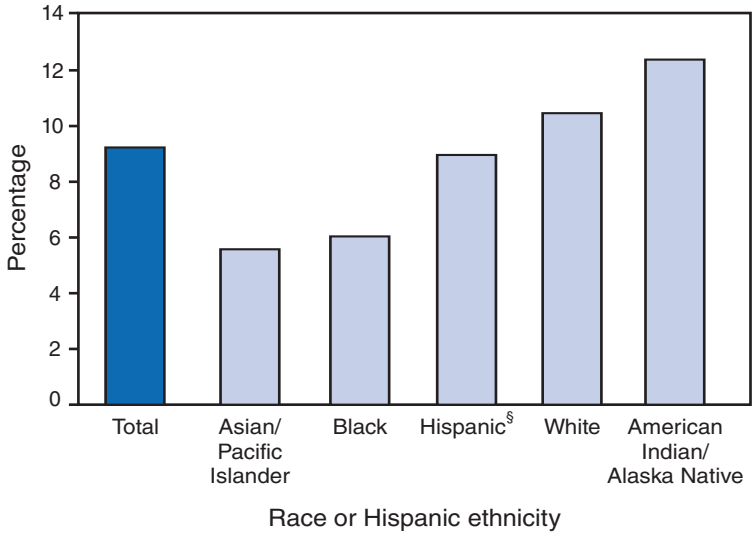
## References


1. Parashar UD, Gibson CJ, Bresee JS, Glass RI. Rotavirus and severe childhood diarrhea. Emerg Infect Dis 2006;12:304–6.
2. Parashar UD, Hummelman EG, Bresee JS, Miller MA, Glass RI. Global illness and deaths caused by rotavirus disease in children. Emerg Infect Dis 2003;9:565–72.
3. Parashar UD, Burton A, Lanata C, et al. World Health Organization estimates of the global mortality from rotavirus in children in the year 2004. J Infect Dis 2009 (in press).
4. Ruiz-Palacios GM, Perez-Schael I, Velazquez FR, et al. Safety and efficacy of an attenuated vaccine against severe rotavirus gastroenteritis. N Engl J Med 2006;354:11–22.
5. Vesikari T, Matson DO, Dennehy P, et al. Safety and efficacy of a pentavalent human-bovine (WC3) reassortant rotavirus vaccine. N Engl J Med 2006;354:23–33.
6. World Health Organization. Generic protocol for (i) hospital-based surveillance to estimate the burden of rotavirus among children and (ii) a community-based survey on utilization of health care services for gastroenteritis in children. Geneva, Switzerland: World Health Organization; 2002. Available at https://www.who.int/vaccines-documents/docspdf02/www698.pdf.
7. Gentsch JR, Glass RI, Woods P, et al. Identification of group A rotavirus gene 4 types by polymerase chain reaction. J Clin Microbiol 1992;30:1365–73.
8. Tanaka F, Faruque AS, Luby SP, et al. Deaths from rotavirus disease in Bangladeshi children: evidence from hospital-based surveillance. Pediatr Infect Dis J 2007;26:1014–8.
9. Gentsch JR, Laird AR, Bielfelt B, et al. Serotype diversity and reassortment between human and animal rotavirus strains: implications for rotavirus vaccine programs. J Infect Dis 2005;192:S146–59.

# QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

## Percentage of Large-for-Gestational-Age* Births,† by Race or Hispanic Ethnicity — United States, 2005




* Birthweight at or above the 90th percentile for a given gestational age.
† Includes only singleton live births.
§ Might be of any race.

Infants born large for their gestational age (LGA) are at increased risk for birth complications, such as obstructed labor, and for obesity later in life. Information from U.S. birth certificates for 2005 shows that a greater percentage of American Indian/Alaska Native women gave birth to an LGA infant (12%), followed by white (10%) and Hispanic women (9%). Black and Asian/Pacific Islander women were least likely to have given birth to an LGA infant (6%).

**SOURCES:** National Vital Statistics System. Annual natality files. Available at http://www.cdc.gov/nchs/births.htm.

Oken E, Kleiman KP, Rich-Edwards J, Gillman MW. A nearly continuous measure of birth weight for gestational age using a United States national reference. BMC Pediatr 2003;3:6. Available at http://www.biomedcentral.com/content/pdf/1471-2431-3-6.pdf.

**TABLE 1. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending November 15, 2008 (46th week)***

| Disease | Current week | Cum 2008 | 5-year weekly average† | Total cases reported for previous years 2007 | 2006 | 2005 | 2004 | 2003 | States reporting cases during current week (No.) |
|---|---|---|---|---|---|---|---|---|---|
| Anthrax | — | — | — | 1 | 1 | — | — | — | |
| Botulism: | | | | | | | | | |
| foodborne | — | 11 | 1 | 32 | 20 | 19 | 16 | 20 | |
| infant | — | 79 | 2 | 85 | 97 | 85 | 87 | 76 | |
| other (wound & unspecified) | — | 17 | 0 | 27 | 48 | 31 | 30 | 33 | |
| Brucellosis | 2 | 81 | 2 | 131 | 121 | 120 | 114 | 104 | NY (1), CA (1) |
| Chancroid | — | 29 | 1 | 23 | 33 | 17 | 30 | 54 | |
| Cholera | — | 1 | 0 | 7 | 9 | 8 | 6 | 2 | |
| Cyclosporiasis§ | 3 | 118 | 1 | 93 | 137 | 543 | 160 | 75 | IN (1), MD (1), FL (1) |
| Diphtheria | — | — | — | — | — | — | — | 1 | |
| Domestic arboviral diseases§,¶: | | | | | | | | | |
| California serogroup | — | 36 | 0 | 55 | 67 | 80 | 112 | 108 | |
| eastern equine | — | 2 | 0 | 4 | 8 | 21 | 6 | 14 | |
| Powassan | — | 1 | 0 | 7 | 1 | 1 | 1 | — | |
| St. Louis | — | 8 | 0 | 9 | 10 | 13 | 12 | 41 | |
| western equine | — | — | — | — | — | — | — | — | |
| Ehrlichiosis/Anaplasmosis§,**: | | | | | | | | | |
| *Ehrlichia chaffeensis* | 1 | 743 | 8 | 828 | 578 | 506 | 338 | 321 | KY (1) |
| *Ehrlichia ewingii* | — | 7 | — | — | — | — | — | — | |
| *Anaplasma phagocytophilum* | 2 | 366 | 10 | 834 | 646 | 786 | 537 | 362 | NY (1), MN (1) |
| undetermined | — | 63 | 2 | 337 | 231 | 112 | 59 | 44 | |
| *Haemophilus influenzae*,†† | | | | | | | | | |
| invasive disease (age <5 yrs): | | | | | | | | | |
| serotype b | 1 | 24 | 0 | 22 | 29 | 9 | 19 | 32 | OH (1) |
| nonserotype b | 1 | 143 | 2 | 199 | 175 | 135 | 135 | 117 | FL (1) |
| unknown serotype | 3 | 167 | 3 | 180 | 179 | 217 | 177 | 227 | MO (1), MD (1), TN (1) |
| Hansen disease§ | — | 65 | 2 | 101 | 66 | 87 | 105 | 95 | |
| Hantavirus pulmonary syndrome§ | — | 14 | 0 | 32 | 40 | 26 | 24 | 26 | |
| Hemolytic uremic syndrome, postdiarrheal§ | 4 | 186 | 3 | 292 | 288 | 221 | 200 | 178 | FL (1), CA (3) |
| Hepatitis C viral, acute | 6 | 707 | 17 | 849 | 766 | 652 | 720 | 1,102 | MI (1), NC (1), WA (1), OR (3) |
| HIV infection, pediatric (age <13 years)§§ | — | — | 4 | — | — | 380 | 436 | 504 | |
| Influenza-associated pediatric mortality§,¶¶ | — | 90 | 0 | 77 | 43 | 45 | — | N | |
| Listeriosis | 7 | 558 | 14 | 808 | 884 | 896 | 753 | 696 | MD (2), NC (1), FL (2), AR (1), CA (1) |
| Measles*** | — | 132 | 0 | 43 | 55 | 66 | 37 | 56 | |
| Meningococcal disease, invasive†††: | | | | | | | | | |
| A, C, Y, & W-135 | — | 236 | 4 | 325 | 318 | 297 | — | — | |
| serogroup B | 1 | 131 | 3 | 167 | 193 | 156 | — | — | OK (1) |
| other serogroup | — | 30 | 1 | 35 | 32 | 27 | — | — | |
| unknown serogroup | 6 | 534 | 11 | 550 | 651 | 765 | — | — | NY (1), OH (2), SC (1), CO (1), CA (1) |
| Mumps | 2 | 352 | 16 | 800 | 6,584 | 314 | 258 | 231 | MI (1), CA (1) |
| Novel influenza A virus infections | 1 | 1 | — | 4 | N | N | N | N | TX (1) |
| Plague | — | 1 | 0 | 7 | 17 | 8 | 3 | 1 | |
| Poliomyelitis, paralytic | — | — | — | — | — | 1 | — | — | |
| Polio virus infection, nonparalytic§ | — | — | — | — | N | N | N | N | |
| Psittacosis§ | — | 9 | 0 | 12 | 21 | 16 | 12 | 12 | |
| Qfever§,§§§ total: | — | 103 | 1 | 171 | 169 | 136 | 70 | 71 | |
| acute | — | 92 | — | — | — | — | — | — | |
| chronic | — | 11 | — | — | — | — | — | — | |
| Rabies, human | — | — | 0 | 1 | 3 | 2 | 7 | 2 | |
| Rubella¶¶¶ | — | 13 | — | 12 | 11 | 11 | 10 | 7 | |
| Rubella, congenital syndrome | — | — | — | — | 1 | 1 | — | 1 | |
| SARS-CoV§,**** | — | — | — | — | — | — | — | 8 | |
| Smallpox§ | — | — | — | — | — | — | — | — | |
| Streptococcal toxic-shock syndrome§ | 1 | 112 | 1 | 132 | 125 | 129 | 132 | 161 | OH (1) |
| Syphilis, congenital (age <1 yr) | — | 192 | 8 | 430 | 349 | 329 | 353 | 413 | |
| Tetanus | — | 10 | 0 | 28 | 41 | 27 | 34 | 20 | |
| Toxic-shock syndrome (staphylococcal)§ | 2 | 57 | 1 | 92 | 101 | 90 | 95 | 133 | CA (2) |
| Trichinellosis | — | 4 | 0 | 5 | 15 | 16 | 5 | 6 | |
| Tularemia | 1 | 88 | 2 | 137 | 95 | 154 | 134 | 129 | NE (1) |
| Typhoid fever | 1 | 352 | 4 | 434 | 353 | 324 | 322 | 356 | CA (1) |
| Vancomycin-intermediate *Staphylococcus aureus*§ | — | 6 | 0 | 37 | 6 | 2 | — | N | |
| Vancomycin-resistant *Staphylococcus aureus*§ | — | — | — | 2 | 1 | 3 | 1 | N | |
| Vibriosis (noncholera *Vibrio* species infections)§ | 6 | 396 | 3 | 447 | N | N | N | N | FL (2), KY (1), WA (1), CA (1), HI (1) |
| Yellow fever | — | — | — | — | — | — | — | — | |

See Table 1 footnotes on next page.

**TABLE 1. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending November 15, 2008 (46th week)***

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

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

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

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

¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.

** The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).

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

§§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.

¶¶ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. There are no reports of confirmed influenza-associated pediatric deaths for the current 2008-09 season.

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

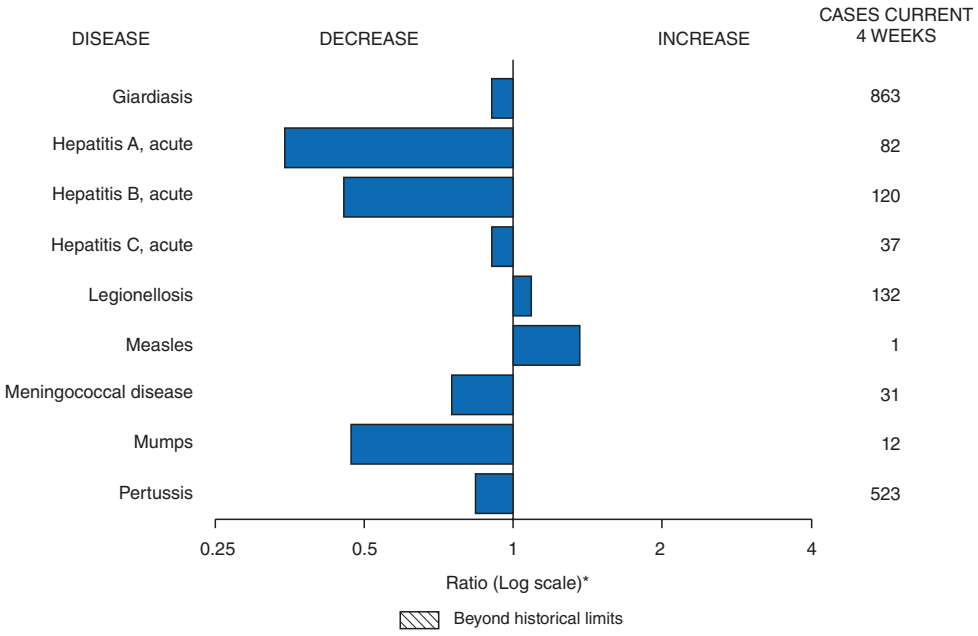
††† Data for meningococcal disease (all serogroups) are available in Table II.

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

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

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

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals November 15, 2008, with historical data**




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

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

Patsy A. Hall

Deborah A. Adams
Willie J. Anderson
Lenee Blanton
Rosaline Dhara
Michael S. Wodajo
Pearl C. Sharp

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Chlamydia† | | | | | Coccidiodomycosis | | | | | Cryptosporidiosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 week | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 12,689 | 21,200 | 28,892 | 954,829 | 971,989 | 148 | 121 | 341 | 5,795 | 6,697 | 43 | 102 | 426 | 6,536 | 10,397 |
| **New England** | 674 | 707 | 1,516 | 32,699 | 31,343 | — | 0 | 1 | 1 | 2 | 1 | 5 | 39 | 283 | 312 |
| Connecticut | 141 | 215 | 1,093 | 10,108 | 9,264 | N | 0 | 0 | N | N | — | 0 | 37 | 37 | 42 |
| Maine§ | 60 | 50 | 72 | 2,289 | 2,247 | N | 0 | 0 | N | N | — | 1 | 6 | 41 | 49 |
| Massachusetts | 368 | 327 | 660 | 15,366 | 14,238 | N | 0 | 0 | N | N | — | 1 | 9 | 91 | 124 |
| New Hampshire | 43 | 40 | 64 | 1,881 | 1,843 | — | 0 | 1 | 1 | 2 | — | 1 | 4 | 53 | 46 |
| Rhode Island§ | 46 | 54 | 104 | 2,379 | 2,809 | — | 0 | 0 | — | — | — | 0 | 2 | 7 | 10 |
| Vermont§ | 16 | 15 | 52 | 676 | 942 | N | 0 | 0 | N | N | 1 | 1 | 7 | 54 | 41 |
| **Mid. Atlantic** | 4,428 | 2,763 | 4,942 | 130,755 | 127,004 | — | 0 | 0 | — | — | 5 | 12 | 34 | 647 | 1,307 |
| New Jersey | 11 | 419 | 537 | 18,215 | 19,090 | N | 0 | 0 | N | N | — | 0 | 2 | 26 | 64 |
| New York (Upstate) | 456 | 555 | 2,177 | 23,929 | 24,216 | N | 0 | 0 | N | N | 2 | 4 | 17 | 241 | 228 |
| New York City | 3,413 | 975 | 3,021 | 51,231 | 45,886 | N | 0 | 0 | N | N | — | 2 | 6 | 95 | 95 |
| Pennsylvania | 548 | 823 | 1,047 | 37,380 | 37,812 | N | 0 | 0 | N | N | 3 | 5 | 15 | 285 | 920 |
| **E.N. Central** | 890 | 3,477 | 4,373 | 153,666 | 158,789 | — | 1 | 3 | 38 | 32 | 8 | 25 | 122 | 1,799 | 1,754 |
| Illinois | 5 | 1,062 | 1,711 | 44,449 | 47,173 | N | 0 | 0 | N | N | — | 2 | 7 | 104 | 188 |
| Indiana | 267 | 375 | 656 | 18,022 | 18,717 | N | 0 | 0 | N | N | 2 | 3 | 41 | 173 | 90 |
| Michigan | 467 | 834 | 1,226 | 39,032 | 32,944 | — | 0 | 3 | 29 | 21 | — | 5 | 13 | 231 | 182 |
| Ohio | 10 | 828 | 1,261 | 37,484 | 42,330 | — | 0 | 1 | 9 | 11 | 5 | 6 | 59 | 648 | 535 |
| Wisconsin | 141 | 335 | 612 | 14,679 | 17,625 | N | 0 | 0 | N | N | 1 | 8 | 46 | 643 | 759 |
| **W.N. Central** | 654 | 1,265 | 1,700 | 57,304 | 56,305 | — | 0 | 77 | 2 | 8 | 6 | 16 | 71 | 878 | 1,516 |
| Iowa | — | 165 | 240 | 7,598 | 7,799 | N | 0 | 0 | N | N | — | 4 | 30 | 259 | 599 |
| Kansas | 131 | 181 | 529 | 8,150 | 7,237 | N | 0 | 0 | N | N | 2 | 1 | 8 | 75 | 139 |
| Minnesota | — | 264 | 373 | 11,639 | 12,089 | — | 0 | 77 | — | — | 4 | 5 | 15 | 210 | 257 |
| Missouri | 397 | 478 | 566 | 21,789 | 20,782 | — | 0 | 1 | 2 | 8 | — | 3 | 13 | 152 | 169 |
| Nebraska§ | 51 | 91 | 252 | 4,067 | 4,591 | N | 0 | 0 | N | N | — | 2 | 8 | 106 | 163 |
| North Dakota | 23 | 33 | 65 | 1,483 | 1,529 | N | 0 | 0 | N | N | — | 0 | 51 | 7 | 23 |
| South Dakota | 52 | 55 | 85 | 2,578 | 2,278 | N | 0 | 0 | N | N | — | 1 | 9 | 69 | 166 |
| **S. Atlantic** | 1,875 | 3,662 | 7,609 | 165,757 | 190,334 | — | 0 | 1 | 4 | 5 | 9 | 18 | 46 | 860 | 1,156 |
| Delaware | 57 | 67 | 150 | 3,275 | 3,050 | — | 0 | 1 | 1 | — | — | 0 | 2 | 10 | 20 |
| District of Columbia | 108 | 129 | 210 | 6,078 | 5,339 | — | 0 | 0 | — | 2 | — | 0 | 2 | 8 | 3 |
| Florida | 880 | 1,359 | 1,569 | 61,300 | 50,954 | N | 0 | 0 | N | N | 2 | 8 | 35 | 415 | 615 |
| Georgia | 3 | 231 | 1,338 | 15,966 | 38,246 | N | 0 | 0 | N | N | 1 | 4 | 13 | 200 | 213 |
| Maryland§ | — | 451 | 699 | 19,841 | 19,855 | — | 0 | 1 | 3 | 3 | 1 | 0 | 4 | 33 | 33 |
| North Carolina | — | 3 | 4,783 | 5,901 | 24,330 | N | 0 | 0 | N | N | 2 | 0 | 16 | 63 | 102 |
| South Carolina§ | 514 | 465 | 3,047 | 23,407 | 23,727 | N | 0 | 0 | N | N | 3 | 1 | 4 | 45 | 81 |
| Virginia§ | 311 | 616 | 1,059 | 27,334 | 22,001 | N | 0 | 0 | N | N | — | 1 | 4 | 67 | 78 |
| West Virginia | 2 | 57 | 96 | 2,655 | 2,832 | N | 0 | 0 | N | N | — | 0 | 3 | 19 | 11 |
| **E.S. Central** | 1,111 | 1,564 | 2,394 | 72,878 | 73,488 | — | 0 | 0 | — | — | 2 | 3 | 9 | 147 | 589 |
| Alabama§ | — | 457 | 589 | 18,978 | 22,518 | N | 0 | 0 | N | N | — | 1 | 6 | 60 | 113 |
| Kentucky | 250 | 234 | 370 | 10,731 | 7,466 | N | 0 | 0 | N | N | — | 0 | 4 | 31 | 246 |
| Mississippi | 411 | 369 | 1,048 | 18,422 | 19,224 | N | 0 | 0 | N | N | — | 0 | 2 | 16 | 100 |
| Tennessee§ | 450 | 528 | 790 | 24,747 | 24,280 | N | 0 | 0 | N | N | 2 | 1 | 6 | 40 | 130 |
| **W.S. Central** | 257 | 2,752 | 4,426 | 122,281 | 110,751 | — | 0 | 1 | 3 | 2 | 2 | 5 | 130 | 1,071 | 415 |
| Arkansas§ | 46 | 276 | 455 | 12,548 | 8,803 | N | 0 | 0 | N | N | — | 0 | 6 | 37 | 58 |
| Louisiana | 211 | 383 | 775 | 18,504 | 17,614 | — | 0 | 1 | 3 | 2 | — | 1 | 5 | 52 | 57 |
| Oklahoma | — | 195 | 392 | 7,668 | 11,257 | N | 0 | 0 | N | N | 2 | 1 | 16 | 122 | 114 |
| Texas§ | — | 1,892 | 3,923 | 83,561 | 73,077 | N | 0 | 0 | N | N | — | 2 | 117 | 860 | 186 |
| **Mountain** | 814 | 1,266 | 1,811 | 56,357 | 65,606 | 86 | 88 | 170 | 3,829 | 4,178 | 8 | 9 | 37 | 489 | 2,851 |
| Arizona | 308 | 470 | 651 | 21,236 | 22,099 | 86 | 86 | 168 | 3,754 | 4,037 | 3 | 1 | 9 | 86 | 47 |
| Colorado | 356 | 196 | 488 | 9,159 | 15,465 | N | 0 | 0 | N | N | 5 | 1 | 12 | 108 | 204 |
| Idaho§ | 91 | 60 | 314 | 3,276 | 3,253 | N | 0 | 0 | N | N | — | 1 | 14 | 61 | 442 |
| Montana§ | — | 58 | 363 | 2,414 | 2,273 | N | 0 | 0 | N | N | — | 1 | 6 | 39 | 61 |
| Nevada§ | — | 181 | 416 | 8,242 | 8,587 | — | 1 | 6 | 41 | 60 | — | 0 | 1 | 1 | 36 |
| New Mexico§ | — | 135 | 561 | 5,859 | 8,055 | — | 0 | 3 | 27 | 20 | — | 1 | 23 | 144 | 118 |
| Utah | 36 | 115 | 253 | 4,840 | 4,804 | — | 0 | 3 | 5 | 58 | — | 0 | 6 | 33 | 1,889 |
| Wyoming§ | 23 | 30 | 58 | 1,331 | 1,070 | — | 0 | 1 | 2 | 3 | — | 0 | 4 | 17 | 54 |
| **Pacific** | 1,986 | 3,692 | 4,676 | 163,132 | 158,369 | 62 | 31 | 217 | 1,918 | 2,470 | 2 | 9 | 29 | 362 | 497 |
| Alaska | 53 | 88 | 129 | 3,917 | 4,322 | N | 0 | 0 | N | N | — | 0 | 1 | 3 | 3 |
| California | 1,482 | 2,878 | 4,115 | 128,714 | 123,778 | 62 | 31 | 217 | 1,918 | 2,470 | 2 | 5 | 14 | 219 | 256 |
| Hawaii | 27 | 103 | 153 | 4,597 | 5,051 | N | 0 | 0 | N | N | — | 0 | 1 | 2 | 6 |
| Oregon§ | 114 | 188 | 402 | 8,769 | 8,508 | N | 0 | 0 | N | N | — | 1 | 4 | 50 | 122 |
| Washington | 310 | 372 | 634 | 17,135 | 16,710 | N | 0 | 0 | N | N | — | 2 | 16 | 88 | 110 |
| American Samoa | — | 0 | 20 | 73 | 95 | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 5 | 24 | 115 | 747 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Puerto Rico | 115 | 121 | 612 | 6,253 | 6,522 | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| U.S. Virgin Islands | — | 12 | 23 | 502 | 146 | — | 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 year 2008 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.
† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Giardiasis | | | | | Gonorrhea | | | | | *Haemophilus influenzae*, invasive All ages, all serotypes† | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 195 | 308 | 1,158 | 15,015 | 16,455 | 2,986 | 5,942 | 8,913 | 263,370 | 313,473 | 27 | 48 | 173 | 2,227 | 2,114 |
| **New England** | 2 | 24 | 49 | 1,134 | 1,325 | 68 | 103 | 227 | 4,648 | 4,946 | 5 | 3 | 12 | 134 | 159 |
| Connecticut | — | 6 | 11 | 278 | 328 | 20 | 52 | 199 | 2,287 | 1,891 | 5 | 0 | 9 | 39 | 43 |
| Maine§ | 1 | 3 | 12 | 158 | 174 | 3 | 1 | 6 | 84 | 111 | — | 0 | 1 | 15 | 12 |
| Massachusetts | — | 9 | 17 | 343 | 555 | 40 | 38 | 127 | 1,880 | 2,395 | — | 1 | 5 | 57 | 77 |
| New Hampshire | 1 | 2 | 11 | 134 | 31 | 2 | 2 | 6 | 92 | 131 | — | 0 | 1 | 9 | 16 |
| Rhode Island§ | — | 1 | 8 | 76 | 77 | 2 | 6 | 13 | 280 | 364 | — | 0 | 1 | 6 | 8 |
| Vermont§ | — | 2 | 13 | 145 | 160 | 1 | 0 | 5 | 25 | 54 | — | 0 | 3 | 8 | 3 |
| **Mid. Atlantic** | 51 | 60 | 131 | 2,804 | 2,855 | 838 | 625 | 1,028 | 29,198 | 32,302 | 6 | 10 | 31 | 427 | 405 |
| New Jersey | — | 7 | 14 | 302 | 365 | 2 | 100 | 168 | 4,465 | 5,393 | — | 1 | 7 | 66 | 62 |
| New York (Upstate) | 37 | 23 | 111 | 1,059 | 1,043 | 93 | 122 | 545 | 5,328 | 6,044 | 4 | 3 | 22 | 130 | 114 |
| New York City | 4 | 15 | 27 | 703 | 771 | 636 | 175 | 519 | 9,514 | 9,489 | — | 1 | 6 | 73 | 87 |
| Pennsylvania | 10 | 15 | 45 | 740 | 676 | 107 | 225 | 394 | 9,891 | 11,376 | 2 | 4 | 8 | 158 | 142 |
| **E.N. Central** | 25 | 48 | 78 | 2,201 | 2,580 | 259 | 1,239 | 1,647 | 54,657 | 64,613 | 1 | 7 | 28 | 327 | 324 |
| Illinois | — | 10 | 22 | 492 | 805 | 3 | 371 | 589 | 15,413 | 17,748 | — | 2 | 7 | 102 | 101 |
| Indiana | N | 0 | 0 | N | N | 95 | 149 | 284 | 7,242 | 8,052 | — | 1 | 20 | 65 | 54 |
| Michigan | 1 | 11 | 21 | 503 | 554 | 107 | 329 | 657 | 14,619 | 13,727 | — | 0 | 3 | 17 | 26 |
| Ohio | 22 | 16 | 31 | 801 | 728 | 8 | 301 | 531 | 13,391 | 18,973 | 1 | 2 | 6 | 119 | 91 |
| Wisconsin | 2 | 9 | 23 | 405 | 493 | 46 | 94 | 175 | 3,992 | 6,113 | — | 1 | 2 | 24 | 52 |
| **W.N. Central** | 18 | 26 | 621 | 1,742 | 1,348 | 171 | 318 | 425 | 14,530 | 17,482 | 3 | 3 | 24 | 174 | 124 |
| Iowa | — | 6 | 17 | 282 | 274 | — | 28 | 48 | 1,289 | 1,733 | — | 0 | 1 | 2 | 1 |
| Kansas | 1 | 3 | 11 | 145 | 167 | 33 | 41 | 130 | 2,026 | 2,057 | — | 0 | 3 | 13 | 11 |
| Minnesota | — | 0 | 575 | 590 | 168 | — | 57 | 92 | 2,553 | 3,110 | — | 0 | 21 | 54 | 56 |
| Missouri | 9 | 8 | 22 | 411 | 478 | 106 | 149 | 203 | 7,102 | 8,948 | 2 | 1 | 6 | 67 | 37 |
| Nebraska§ | 6 | 4 | 10 | 186 | 147 | 19 | 25 | 47 | 1,158 | 1,295 | 1 | 0 | 2 | 26 | 15 |
| North Dakota | 2 | 0 | 36 | 21 | 20 | 1 | 2 | 6 | 91 | 108 | — | 0 | 3 | 12 | 4 |
| South Dakota | — | 2 | 10 | 107 | 94 | 12 | 7 | 15 | 311 | 231 | — | 0 | 0 | — | — |
| **S. Atlantic** | 40 | 55 | 87 | 2,459 | 2,734 | 743 | 1,186 | 3,072 | 55,809 | 73,887 | 7 | 11 | 29 | 595 | 532 |
| Delaware | — | 1 | 3 | 38 | 39 | 10 | 20 | 44 | 919 | 1,160 | — | 0 | 2 | 7 | 8 |
| District of Columbia | — | 1 | 5 | 51 | 68 | 44 | 48 | 104 | 2,305 | 2,116 | — | 0 | 1 | 9 | 3 |
| Florida | 33 | 22 | 52 | 1,138 | 1,142 | 263 | 449 | 549 | 20,339 | 20,691 | 3 | 3 | 10 | 159 | 143 |
| Georgia | — | 10 | 27 | 511 | 613 | — | 105 | 560 | 6,101 | 15,762 | — | 2 | 9 | 132 | 106 |
| Maryland§ | 7 | 5 | 12 | 225 | 245 | — | 118 | 206 | 5,346 | 5,930 | 2 | 2 | 6 | 85 | 78 |
| North Carolina | N | 0 | 0 | N | N | — | 0 | 1,949 | 2,638 | 12,644 | 1 | 1 | 9 | 66 | 51 |
| South Carolina§ | — | 2 | 6 | 106 | 108 | 170 | 189 | 832 | 8,434 | 9,166 | 1 | 1 | 7 | 46 | 46 |
| Virginia§ | — | 9 | 39 | 338 | 473 | 254 | 166 | 486 | 9,107 | 5,571 | — | 1 | 6 | 73 | 72 |
| West Virginia | — | 1 | 5 | 52 | 46 | 2 | 14 | 26 | 620 | 847 | — | 0 | 3 | 18 | 25 |
| **E.S. Central** | — | 9 | 21 | 415 | 515 | 327 | 552 | 945 | 26,012 | 28,629 | 3 | 2 | 8 | 114 | 127 |
| Alabama§ | — | 5 | 12 | 231 | 240 | — | 179 | 287 | 7,510 | 9,637 | — | 0 | 2 | 17 | 27 |
| Kentucky | N | 0 | 0 | N | N | 81 | 90 | 153 | 4,084 | 2,937 | — | 0 | 1 | 2 | 8 |
| Mississippi | N | 0 | 0 | N | N | 127 | 131 | 401 | 6,557 | 7,385 | — | 0 | 2 | 13 | 9 |
| Tennessee§ | — | 4 | 13 | 184 | 275 | 119 | 163 | 296 | 7,861 | 8,670 | 3 | 2 | 6 | 82 | 83 |
| **W.S. Central** | 4 | 7 | 41 | 378 | 392 | 156 | 954 | 1,355 | 41,904 | 46,004 | — | 2 | 29 | 95 | 89 |
| Arkansas§ | — | 3 | 8 | 125 | 142 | 49 | 86 | 167 | 4,111 | 3,779 | — | 0 | 3 | 9 | 9 |
| Louisiana | — | 2 | 9 | 113 | 128 | 107 | 169 | 317 | 7,953 | 10,101 | — | 0 | 2 | 7 | 8 |
| Oklahoma | 4 | 3 | 35 | 140 | 122 | — | 67 | 124 | 2,903 | 4,358 | — | 1 | 21 | 71 | 62 |
| Texas§ | N | 0 | 0 | N | N | — | 635 | 1,102 | 26,937 | 27,766 | — | 0 | 3 | 8 | 10 |
| **Mountain** | 14 | 28 | 60 | 1,302 | 1,629 | 103 | 212 | 338 | 9,475 | 12,298 | 2 | 5 | 14 | 250 | 223 |
| Arizona | 1 | 2 | 7 | 118 | 181 | 40 | 68 | 109 | 2,991 | 4,528 | — | 2 | 11 | 102 | 79 |
| Colorado | 10 | 11 | 27 | 511 | 518 | 58 | 58 | 100 | 2,725 | 3,008 | 2 | 1 | 4 | 50 | 53 |
| Idaho§ | 3 | 4 | 19 | 176 | 161 | 3 | 3 | 13 | 140 | 238 | — | 0 | 4 | 12 | 6 |
| Montana§ | — | 1 | 9 | 74 | 101 | — | 2 | 48 | 95 | 61 | — | 0 | 1 | 2 | 2 |
| Nevada§ | — | 1 | 7 | 81 | 128 | — | 40 | 130 | 1,901 | 2,114 | — | 0 | 2 | 14 | 10 |
| New Mexico§ | — | 1 | 7 | 78 | 108 | — | 24 | 104 | 1,094 | 1,579 | — | 1 | 4 | 33 | 38 |
| Utah | — | 5 | 22 | 242 | 391 | — | 11 | 36 | 418 | 700 | — | 1 | 6 | 34 | 30 |
| Wyoming§ | — | 0 | 3 | 22 | 41 | 2 | 2 | 9 | 111 | 70 | — | 0 | 2 | 3 | 5 |
| **Pacific** | 41 | 54 | 185 | 2,580 | 3,077 | 321 | 608 | 746 | 27,137 | 33,312 | — | 2 | 7 | 111 | 131 |
| Alaska | 2 | 2 | 10 | 91 | 72 | 2 | 10 | 24 | 444 | 501 | — | 0 | 2 | 16 | 15 |
| California | 32 | 35 | 91 | 1,675 | 2,059 | 274 | 510 | 657 | 22,538 | 27,810 | — | 0 | 3 | 25 | 45 |
| Hawaii | — | 1 | 5 | 38 | 72 | 4 | 11 | 22 | 511 | 593 | — | 0 | 2 | 17 | 11 |
| Oregon§ | 2 | 8 | 18 | 404 | 420 | 14 | 23 | 48 | 1,090 | 1,083 | — | 1 | 4 | 50 | 58 |
| Washington | 5 | 8 | 87 | 372 | 454 | 27 | 55 | 90 | 2,554 | 3,325 | — | 0 | 3 | 3 | 2 |
| American Samoa | — | 0 | 0 | — | — | — | 0 | 1 | 3 | 3 | — | 0 | 0 | — | — |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 0 | — | 2 | — | 1 | 15 | 72 | 118 | — | 0 | 1 | — | — |
| Puerto Rico | 3 | 2 | 10 | 117 | 354 | 4 | 5 | 25 | 250 | 284 | — | 0 | 0 | — | 2 |
| U.S. Virgin Islands | — | 0 | 0 | — | — | — | 2 | 6 | 93 | 37 | N | 0 | 0 | N | N |

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

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Hepatitis (viral, acute), by type† | | | | | | | | | | Legionellosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | | | | | B | | | | | | | | | |
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 17 | 47 | 171 | 2,154 | 2,553 | 21 | 69 | 259 | 2,988 | 3,836 | 29 | 49 | 139 | 2,429 | 2,339 |
| **New England** | — | 2 | 7 | 98 | 122 | — | 1 | 7 | 50 | 114 | — | 2 | 16 | 118 | 137 |
| Connecticut | — | 0 | 4 | 26 | 25 | — | 0 | 7 | 19 | 35 | — | 0 | 5 | 37 | 36 |
| Maine§ | — | 0 | 2 | 8 | 3 | — | 0 | 2 | 10 | 13 | — | 0 | 2 | 9 | 7 |
| Massachusetts | — | 0 | 5 | 38 | 61 | — | 0 | 1 | 9 | 41 | — | 0 | 3 | 13 | 39 |
| New Hampshire | — | 0 | 2 | 12 | 12 | — | 0 | 1 | 6 | 5 | — | 0 | 5 | 24 | 8 |
| Rhode Island§ | — | 0 | 2 | 12 | 13 | — | 0 | 2 | 4 | 15 | — | 0 | 14 | 30 | 38 |
| Vermont§ | — | 0 | 1 | 2 | 8 | — | 0 | 1 | 2 | 5 | — | 0 | 1 | 5 | 9 |
| **Mid. Atlantic** | 4 | 6 | 12 | 262 | 413 | 3 | 9 | 15 | 377 | 495 | 7 | 14 | 58 | 831 | 753 |
| New Jersey | — | 1 | 4 | 51 | 118 | — | 2 | 7 | 110 | 137 | — | 1 | 7 | 77 | 104 |
| New York (Upstate) | — | 1 | 6 | 57 | 67 | 2 | 1 | 4 | 59 | 81 | 2 | 5 | 19 | 296 | 204 |
| New York City | — | 2 | 6 | 93 | 146 | — | 2 | 6 | 78 | 110 | — | 2 | 12 | 101 | 170 |
| Pennsylvania | 4 | 1 | 6 | 61 | 82 | 1 | 3 | 7 | 130 | 167 | 5 | 6 | 33 | 357 | 275 |
| **E.N. Central** | 1 | 6 | 16 | 282 | 309 | 1 | 7 | 12 | 338 | 406 | 2 | 10 | 39 | 518 | 536 |
| Illinois | — | 1 | 10 | 85 | 109 | — | 1 | 5 | 78 | 124 | — | 1 | 7 | 66 | 105 |
| Indiana | — | 0 | 4 | 21 | 27 | — | 1 | 6 | 40 | 47 | 1 | 1 | 7 | 46 | 55 |
| Michigan | 1 | 2 | 7 | 105 | 86 | — | 2 | 6 | 110 | 103 | — | 2 | 16 | 141 | 155 |
| Ohio | — | 1 | 4 | 45 | 58 | 1 | 2 | 8 | 104 | 112 | 1 | 4 | 18 | 248 | 190 |
| Wisconsin | — | 0 | 2 | 26 | 29 | — | 0 | 1 | 6 | 20 | — | 0 | 3 | 17 | 31 |
| **W.N. Central** | 3 | 5 | 29 | 237 | 152 | 2 | 2 | 9 | 87 | 101 | 2 | 2 | 9 | 110 | 105 |
| Iowa | — | 1 | 7 | 104 | 43 | — | 0 | 2 | 13 | 23 | — | 0 | 2 | 13 | 11 |
| Kansas | — | 0 | 3 | 13 | 7 | — | 0 | 3 | 7 | 8 | — | 0 | 1 | 2 | 9 |
| Minnesota | — | 0 | 23 | 36 | 62 | — | 0 | 5 | 10 | 17 | 2 | 0 | 4 | 21 | 25 |
| Missouri | 2 | 1 | 3 | 40 | 19 | 1 | 1 | 4 | 50 | 35 | — | 1 | 5 | 53 | 43 |
| Nebraska§ | 1 | 0 | 5 | 40 | 15 | 1 | 0 | 1 | 6 | 11 | — | 0 | 4 | 19 | 13 |
| North Dakota | — | 0 | 2 | — | — | — | 0 | 1 | 1 | — | — | 0 | 2 | — | — |
| South Dakota | — | 0 | 1 | 4 | 6 | — | 0 | 0 | — | 7 | — | 0 | 1 | 2 | 4 |
| **S. Atlantic** | 3 | 7 | 15 | 346 | 437 | 3 | 16 | 60 | 758 | 890 | 5 | 8 | 28 | 403 | 387 |
| Delaware | — | 0 | 1 | 7 | 7 | — | 0 | 3 | 7 | 14 | — | 0 | 2 | 11 | 11 |
| District of Columbia | U | 0 | 0 | U | U | U | 0 | 0 | U | U | — | 0 | 1 | 13 | 15 |
| Florida | 1 | 3 | 8 | 137 | 137 | 1 | 6 | 12 | 292 | 303 | 3 | 3 | 7 | 132 | 130 |
| Georgia | 1 | 1 | 4 | 44 | 62 | 1 | 3 | 6 | 125 | 137 | — | 0 | 4 | 27 | 37 |
| Maryland§ | — | 1 | 3 | 37 | 69 | — | 2 | 4 | 71 | 106 | 2 | 2 | 10 | 107 | 75 |
| North Carolina | 1 | 0 | 9 | 58 | 57 | — | 0 | 17 | 73 | 120 | — | 0 | 7 | 33 | 42 |
| South Carolina§ | — | 0 | 3 | 15 | 17 | — | 1 | 6 | 53 | 56 | — | 0 | 2 | 11 | 17 |
| Virginia§ | — | 1 | 5 | 43 | 79 | 1 | 2 | 16 | 89 | 115 | — | 1 | 6 | 49 | 47 |
| West Virginia | — | 0 | 2 | 5 | 9 | — | 1 | 30 | 48 | 39 | — | 0 | 3 | 20 | 13 |
| **E.S. Central** | 2 | 1 | 9 | 74 | 96 | 1 | 7 | 13 | 320 | 338 | 2 | 2 | 10 | 101 | 91 |
| Alabama§ | — | 0 | 4 | 12 | 19 | — | 2 | 6 | 89 | 118 | — | 0 | 2 | 14 | 9 |
| Kentucky | 1 | 0 | 3 | 28 | 19 | — | 2 | 5 | 76 | 68 | 2 | 1 | 4 | 51 | 46 |
| Mississippi | 1 | 0 | 2 | 5 | 8 | — | 0 | 3 | 38 | 36 | — | 0 | 1 | 1 | — |
| Tennessee§ | — | 0 | 6 | 29 | 50 | 1 | 3 | 8 | 117 | 116 | — | 1 | 5 | 35 | 36 |
| **W.S. Central** | — | 5 | 55 | 183 | 234 | 6 | 13 | 131 | 553 | 833 | — | 1 | 23 | 70 | 116 |
| Arkansas§ | — | 0 | 1 | 5 | 12 | — | 0 | 4 | 30 | 66 | — | 0 | 2 | 11 | 15 |
| Louisiana | — | 0 | 1 | 10 | 27 | — | 2 | 4 | 73 | 89 | — | 0 | 2 | 9 | 4 |
| Oklahoma | — | 0 | 3 | 7 | 10 | 6 | 2 | 22 | 102 | 119 | — | 0 | 6 | 10 | 5 |
| Texas§ | — | 4 | 53 | 161 | 185 | — | 7 | 107 | 348 | 559 | — | 1 | 18 | 40 | 92 |
| **Mountain** | 1 | 4 | 9 | 173 | 208 | — | 4 | 10 | 174 | 191 | 4 | 2 | 4 | 70 | 101 |
| Arizona | 1 | 2 | 8 | 79 | 138 | — | 1 | 5 | 60 | 76 | 2 | 0 | 2 | 18 | 36 |
| Colorado | — | 0 | 3 | 35 | 24 | — | 0 | 3 | 30 | 34 | — | 0 | 2 | 10 | 21 |
| Idaho§ | — | 0 | 3 | 18 | 6 | — | 0 | 2 | 9 | 12 | — | 0 | 1 | 3 | 6 |
| Montana§ | — | 0 | 1 | 1 | 9 | — | 0 | 1 | 2 | — | — | 0 | 1 | 4 | 3 |
| Nevada§ | — | 0 | 3 | 8 | 11 | — | 1 | 3 | 32 | 43 | 2 | 0 | 1 | 10 | 8 |
| New Mexico§ | — | 0 | 3 | 16 | 11 | — | 0 | 2 | 9 | 12 | — | 0 | 1 | 6 | 10 |
| Utah | — | 0 | 2 | 13 | 6 | — | 0 | 5 | 28 | 10 | — | 0 | 2 | 19 | 14 |
| Wyoming§ | — | 0 | 1 | 3 | 3 | — | 0 | 1 | 4 | 4 | — | 0 | 0 | — | 3 |
| **Pacific** | 3 | 11 | 51 | 499 | 582 | 5 | 7 | 30 | 331 | 468 | 7 | 4 | 18 | 208 | 113 |
| Alaska | — | 0 | 1 | 3 | 4 | — | 0 | 2 | 9 | 7 | 1 | 0 | 1 | 2 | — |
| California | 3 | 9 | 42 | 407 | 500 | 5 | 5 | 19 | 235 | 344 | 6 | 3 | 14 | 166 | 83 |
| Hawaii | — | 0 | 2 | 17 | 7 | — | 0 | 2 | 7 | 16 | — | 0 | 1 | 8 | 2 |
| Oregon§ | — | 0 | 3 | 26 | 27 | — | 1 | 3 | 38 | 52 | — | 0 | 2 | 15 | 11 |
| Washington | — | 1 | 7 | 46 | 44 | — | 1 | 9 | 42 | 49 | — | 0 | 3 | 17 | 17 |
| American Samoa | — | 0 | 0 | — | — | — | 0 | 0 | — | 14 | N | 0 | 0 | N | N |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 0 | — | — | — | 0 | 1 | — | 2 | — | 0 | 0 | — | — |
| Puerto Rico | 1 | 0 | 4 | 17 | 58 | — | 0 | 5 | 38 | 79 | — | 0 | 1 | 1 | 4 |
| 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 year 2008 are provisional.
† Data for acute hepatitis C, viral are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Lyme disease | | | | | Malaria | | | | | Meningococcal disease, invasive† All serotypes | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 244 | 351 | 1,431 | 23,058 | 24,761 | 7 | 22 | 136 | 931 | 1,143 | 7 | 18 | 53 | 931 | 950 |
| **New England** | 19 | 50 | 252 | 3,317 | 7,517 | — | 1 | 35 | 33 | 54 | — | 0 | 3 | 22 | 41 |
| Connecticut | — | 0 | 35 | — | 2,963 | — | 0 | 27 | 11 | 2 | — | 0 | 1 | 1 | 6 |
| Maine§ | 19 | 2 | 72 | 775 | 460 | — | 0 | 1 | — | 8 | — | 0 | 1 | 6 | 7 |
| Massachusetts | — | 13 | 114 | 1,039 | 2,921 | — | 0 | 2 | 14 | 31 | — | 0 | 3 | 15 | 19 |
| New Hampshire | — | 8 | 133 | 1,198 | 867 | — | 0 | 1 | 4 | 9 | — | 0 | 0 | — | 3 |
| Rhode Island§ | — | 0 | 12 | — | 175 | — | 0 | 8 | — | — | — | 0 | 0 | — | 3 |
| Vermont§ | — | 2 | 39 | 305 | 131 | — | 0 | 1 | 4 | 4 | — | 0 | 1 | — | 3 |
| **Mid. Atlantic** | 165 | 169 | 1,011 | 13,497 | 10,193 | — | 4 | 14 | 214 | 349 | 1 | 2 | 6 | 107 | 120 |
| New Jersey | — | 32 | 209 | 2,602 | 2,967 | — | 0 | 2 | — | 65 | — | 0 | 2 | 10 | 18 |
| New York (Upstate) | 124 | 53 | 453 | 4,520 | 3,027 | — | 1 | 8 | 28 | 58 | 1 | 0 | 3 | 28 | 35 |
| New York City | — | 0 | 7 | 26 | 397 | — | 3 | 10 | 151 | 186 | — | 0 | 2 | 25 | 20 |
| Pennsylvania | 41 | 56 | 529 | 6,349 | 3,802 | — | 1 | 3 | 35 | 40 | — | 1 | 5 | 44 | 47 |
| **E.N. Central** | 1 | 9 | 130 | 1,063 | 2,054 | — | 2 | 7 | 113 | 123 | 2 | 3 | 9 | 157 | 150 |
| Illinois | — | 0 | 9 | 75 | 149 | — | 1 | 6 | 48 | 57 | — | 1 | 4 | 54 | 56 |
| Indiana | — | 0 | 8 | 37 | 45 | — | 0 | 2 | 5 | 9 | — | 0 | 4 | 23 | 25 |
| Michigan | — | 1 | 11 | 90 | 51 | — | 0 | 2 | 14 | 18 | — | 0 | 3 | 28 | 25 |
| Ohio | — | 0 | 5 | 42 | 32 | — | 0 | 3 | 28 | 22 | 2 | 1 | 4 | 38 | 33 |
| Wisconsin | 1 | 7 | 116 | 819 | 1,777 | — | 0 | 3 | 18 | 17 | — | 0 | 2 | 14 | 11 |
| **W.N. Central** | 27 | 8 | 740 | 1,159 | 567 | 1 | 1 | 9 | 60 | 40 | — | 2 | 8 | 85 | 62 |
| Iowa | — | 1 | 8 | 82 | 120 | — | 0 | 1 | 5 | 3 | — | 0 | 3 | 16 | 14 |
| Kansas | — | 0 | 1 | 5 | 8 | — | 0 | 2 | 9 | 3 | — | 0 | 1 | 5 | 4 |
| Minnesota | 27 | 2 | 731 | 1,015 | 419 | — | 0 | 8 | 24 | 16 | — | 0 | 7 | 22 | 18 |
| Missouri | — | 0 | 4 | 41 | 10 | 1 | 0 | 4 | 14 | 8 | — | 0 | 3 | 25 | 16 |
| Nebraska§ | — | 0 | 2 | 12 | 7 | — | 0 | 2 | 8 | 7 | — | 0 | 1 | 12 | 5 |
| North Dakota | — | 0 | 9 | 1 | 3 | — | 0 | 2 | — | 2 | — | 0 | 1 | 3 | 2 |
| South Dakota | — | 0 | 1 | 3 | — | — | 0 | 0 | — | 1 | — | 0 | 1 | 2 | 3 |
| **S. Atlantic** | 22 | 64 | 185 | 3,600 | 4,180 | 4 | 5 | 15 | 243 | 237 | 1 | 3 | 10 | 141 | 157 |
| Delaware | 4 | 12 | 37 | 690 | 665 | — | 0 | 1 | 2 | 4 | — | 0 | 1 | 2 | 1 |
| District of Columbia | — | 2 | 11 | 147 | 115 | — | 0 | 2 | 4 | 2 | — | 0 | 0 | — | — |
| Florida | 4 | 1 | 10 | 100 | 24 | 3 | 1 | 7 | 52 | 50 | — | 1 | 3 | 48 | 60 |
| Georgia | 1 | 0 | 3 | 22 | 10 | — | 1 | 5 | 48 | 37 | — | 0 | 2 | 16 | 22 |
| Maryland§ | 8 | 30 | 121 | 1,798 | 2,410 | 1 | 1 | 6 | 62 | 63 | — | 0 | 4 | 16 | 19 |
| North Carolina | 3 | 0 | 7 | 42 | 43 | — | 0 | 7 | 26 | 20 | — | 0 | 4 | 12 | 18 |
| South Carolina§ | — | 0 | 2 | 21 | 29 | — | 0 | 1 | 9 | 6 | 1 | 0 | 3 | 21 | 16 |
| Virginia§ | 2 | 12 | 68 | 712 | 817 | — | 1 | 7 | 40 | 54 | — | 0 | 2 | 21 | 19 |
| West Virginia | — | 1 | 11 | 68 | 67 | — | 0 | 0 | — | 1 | — | 0 | 1 | 5 | 2 |
| **E.S. Central** | 2 | 0 | 3 | 43 | 50 | — | 0 | 2 | 17 | 33 | — | 1 | 6 | 48 | 48 |
| Alabama§ | — | 0 | 3 | 10 | 13 | — | 0 | 1 | 4 | 6 | — | 0 | 2 | 9 | 9 |
| Kentucky | — | 0 | 1 | 3 | 5 | — | 0 | 1 | 4 | 8 | — | 0 | 2 | 8 | 11 |
| Mississippi | — | 0 | 1 | 1 | 1 | — | 0 | 1 | 1 | 2 | — | 0 | 2 | 11 | 11 |
| Tennessee§ | 2 | 0 | 3 | 29 | 31 | — | 0 | 2 | 8 | 17 | — | 0 | 3 | 20 | 17 |
| **W.S. Central** | — | 2 | 11 | 95 | 74 | — | 1 | 64 | 72 | 84 | 1 | 2 | 13 | 98 | 93 |
| Arkansas§ | — | 0 | 0 | — | 1 | — | 0 | 0 | — | 2 | — | 0 | 2 | 7 | 9 |
| Louisiana | — | 0 | 1 | 3 | 2 | — | 0 | 1 | 3 | 14 | — | 0 | 3 | 22 | 25 |
| Oklahoma | — | 0 | 1 | — | — | — | 0 | 4 | 2 | 5 | 1 | 0 | 5 | 15 | 16 |
| Texas§ | — | 2 | 10 | 92 | 71 | — | 1 | 60 | 67 | 63 | — | 1 | 7 | 54 | 43 |
| **Mountain** | — | 0 | 4 | 41 | 42 | — | 1 | 3 | 29 | 61 | 1 | 1 | 4 | 50 | 59 |
| Arizona | — | 0 | 2 | 8 | 2 | — | 0 | 2 | 14 | 12 | — | 0 | 2 | 10 | 12 |
| Colorado | — | 0 | 2 | 7 | — | — | 0 | 1 | 4 | 23 | 1 | 0 | 1 | 13 | 21 |
| Idaho§ | — | 0 | 2 | 10 | 9 | — | 0 | 1 | 3 | 4 | — | 0 | 2 | 4 | 4 |
| Montana§ | — | 0 | 1 | 4 | 4 | — | 0 | 0 | — | 3 | — | 0 | 1 | 5 | 2 |
| Nevada§ | — | 0 | 2 | 4 | 12 | — | 0 | 3 | 3 | 3 | — | 0 | 1 | 4 | 5 |
| New Mexico§ | — | 0 | 2 | 6 | 5 | — | 0 | 1 | 2 | 5 | — | 0 | 1 | 7 | 2 |
| Utah | — | 0 | 0 | — | 7 | — | 0 | 1 | 3 | 11 | — | 0 | 1 | 5 | 11 |
| Wyoming§ | — | 0 | 1 | 2 | 3 | — | 0 | 0 | — | — | — | 0 | 1 | 2 | 2 |
| **Pacific** | 8 | 5 | 10 | 243 | 84 | 2 | 3 | 10 | 150 | 162 | 1 | 4 | 18 | 223 | 220 |
| Alaska | — | 0 | 2 | 5 | 9 | — | 0 | 2 | 6 | 2 | — | 0 | 2 | 4 | 1 |
| California | 6 | 3 | 10 | 183 | 66 | 2 | 2 | 8 | 112 | 116 | 1 | 2 | 18 | 158 | 160 |
| Hawaii | N | 0 | 0 | N | N | — | 0 | 1 | 3 | 2 | — | 0 | 2 | 4 | 10 |
| Oregon§ | 2 | 0 | 5 | 45 | 6 | — | 0 | 2 | 4 | 17 | — | 1 | 3 | 33 | 28 |
| Washington | — | 0 | 7 | 10 | 3 | — | 0 | 3 | 25 | 25 | — | 0 | 5 | 24 | 21 |
| American Samoa | N | 0 | 0 | N | N | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 0 | — | — | — | 0 | 2 | 3 | 1 | — | 0 | 0 | — | — |
| Puerto Rico | N | 0 | 0 | N | N | — | 0 | 1 | 1 | 3 | — | 0 | 1 | 3 | 8 |
| U.S. Virgin Islands | N | 0 | 0 | N | N | — | 0 | 0 | — | — | — | 0 | 0 | — | — |

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

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Pertussis | | | | | Rabies, animal | | | | | Rocky Mountain spotted fever | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 147 | 156 | 849 | 7,532 | 8,651 | 27 | 93 | 147 | 4,211 | 5,537 | 10 | 36 | 195 | 2,077 | 1,880 |
| **New England** | — | 14 | 49 | 561 | 1,348 | 4 | 7 | 20 | 333 | 494 | — | 0 | 1 | 2 | 8 |
| Connecticut | — | 0 | 4 | 34 | 80 | 3 | 4 | 17 | 186 | 208 | — | 0 | 0 | — | — |
| Maine† | — | 0 | 5 | 35 | 75 | — | 1 | 5 | 51 | 80 | N | 0 | 0 | N | N |
| Massachusetts | — | 11 | 33 | 420 | 1,041 | N | 0 | 0 | N | N | — | 0 | 1 | 1 | 7 |
| New Hampshire | — | 0 | 4 | 31 | 74 | — | 1 | 3 | 35 | 51 | — | 0 | 1 | 1 | 1 |
| Rhode Island† | — | 0 | 25 | 29 | 29 | N | 0 | 0 | N | N | — | 0 | 0 | — | — |
| Vermont† | — | 0 | 6 | 12 | 49 | 1 | 1 | 6 | 61 | 155 | — | 0 | 0 | — | — |
| **Mid. Atlantic** | 21 | 19 | 43 | 866 | 1,133 | 6 | 22 | 50 | 1,179 | 930 | — | 2 | 5 | 76 | 74 |
| New Jersey | — | 1 | 9 | 36 | 200 | — | 0 | 0 | — | — | — | 0 | 2 | 12 | 29 |
| New York (Upstate) | 7 | 7 | 24 | 388 | 496 | 6 | 9 | 20 | 461 | 482 | — | 0 | 2 | 16 | 6 |
| New York City | — | 1 | 6 | 46 | 132 | — | 0 | 2 | 13 | 42 | — | 0 | 2 | 24 | 24 |
| Pennsylvania | 14 | 9 | 23 | 396 | 305 | — | 14 | 35 | 705 | 406 | — | 0 | 2 | 24 | 15 |
| **E.N. Central** | 29 | 22 | 189 | 1,248 | 1,408 | — | 3 | 28 | 240 | 401 | — | 1 | 13 | 125 | 58 |
| Illinois | — | 3 | 18 | 213 | 177 | — | 1 | 21 | 103 | 113 | — | 1 | 10 | 84 | 38 |
| Indiana | 5 | 1 | 15 | 92 | 53 | — | 0 | 2 | 10 | 12 | — | 0 | 3 | 7 | 5 |
| Michigan | 2 | 5 | 14 | 226 | 269 | — | 1 | 8 | 70 | 200 | — | 0 | 1 | 3 | 4 |
| Ohio | 22 | 8 | 176 | 653 | 593 | — | 1 | 7 | 57 | 76 | — | 0 | 4 | 30 | 10 |
| Wisconsin | — | 1 | 7 | 64 | 316 | N | 0 | 0 | N | N | — | 0 | 1 | 1 | 1 |
| **W.N. Central** | 44 | 14 | 142 | 853 | 660 | 2 | 3 | 12 | 174 | 244 | 1 | 5 | 36 | 487 | 358 |
| Iowa | — | 1 | 9 | 68 | 138 | — | 0 | 5 | 27 | 30 | — | 0 | 2 | 6 | 16 |
| Kansas | — | 1 | 13 | 53 | 96 | — | 0 | 7 | — | 99 | — | 0 | 0 | — | 12 |
| Minnesota | 8 | 2 | 131 | 223 | 210 | — | 0 | 10 | 61 | 32 | — | 0 | 4 | — | 1 |
| Missouri | 14 | 5 | 31 | 300 | 87 | 2 | 0 | 9 | 50 | 38 | 1 | 4 | 35 | 458 | 310 |
| Nebraska† | 22 | 2 | 30 | 191 | 65 | — | 0 | 0 | — | — | — | 0 | 4 | 20 | 14 |
| North Dakota | — | 0 | 5 | 1 | 7 | — | 0 | 8 | 24 | 21 | — | 0 | 0 | — | — |
| South Dakota | — | 0 | 3 | 17 | 57 | — | 0 | 2 | 12 | 24 | — | 0 | 1 | 3 | 5 |
| **S. Atlantic** | 13 | 14 | 50 | 753 | 861 | 12 | 37 | 101 | 1,853 | 2,016 | 2 | 15 | 70 | 796 | 889 |
| Delaware | — | 0 | 3 | 16 | 11 | — | 0 | 0 | — | — | 1 | 0 | 4 | 28 | 16 |
| District of Columbia | — | 0 | 1 | 5 | 9 | — | 0 | 0 | — | — | — | 0 | 2 | 7 | 3 |
| Florida | 7 | 4 | 20 | 255 | 197 | — | 0 | 77 | 128 | 128 | — | 0 | 3 | 17 | 15 |
| Georgia | — | 1 | 6 | 59 | 33 | — | 6 | 42 | 288 | 271 | 1 | 1 | 8 | 72 | 58 |
| Maryland† | 4 | 2 | 9 | 107 | 108 | — | 8 | 17 | 386 | 392 | — | 1 | 7 | 63 | 60 |
| North Carolina | — | 0 | 38 | 79 | 288 | 12 | 9 | 16 | 424 | 445 | — | 2 | 55 | 414 | 563 |
| South Carolina† | — | 2 | 22 | 97 | 71 | — | 0 | 0 | — | 46 | — | 1 | 8 | 49 | 61 |
| Virginia† | 2 | 3 | 10 | 129 | 114 | — | 12 | 24 | 554 | 658 | — | 1 | 15 | 139 | 108 |
| West Virginia | — | 0 | 2 | 6 | 30 | — | 1 | 9 | 73 | 76 | — | 0 | 1 | 7 | 5 |
| **E.S. Central** | 4 | 6 | 13 | 284 | 431 | 2 | 1 | 7 | 95 | 147 | — | 3 | 23 | 296 | 268 |
| Alabama† | — | 1 | 5 | 42 | 85 | — | 0 | 0 | — | — | — | 1 | 8 | 84 | 92 |
| Kentucky | — | 1 | 8 | 81 | 27 | 2 | 0 | 4 | 45 | 18 | — | 0 | 1 | 1 | 5 |
| Mississippi | — | 2 | 6 | 86 | 243 | — | 0 | 1 | 2 | 2 | — | 0 | 1 | 6 | 20 |
| Tennessee† | 4 | 1 | 6 | 75 | 76 | — | 0 | 6 | 48 | 127 | — | 2 | 19 | 205 | 151 |
| **W.S. Central** | 21 | 24 | 198 | 1,260 | 955 | — | 1 | 40 | 85 | 989 | 7 | 2 | 153 | 259 | 188 |
| Arkansas† | — | 1 | 11 | 48 | 159 | — | 1 | 6 | 47 | 29 | 7 | 0 | 14 | 57 | 100 |
| Louisiana | — | 1 | 7 | 68 | 20 | — | 0 | 0 | — | 6 | — | 0 | 1 | 5 | 4 |
| Oklahoma | 21 | 0 | 26 | 53 | 6 | — | 0 | 32 | 36 | 45 | — | 0 | 132 | 158 | 47 |
| Texas† | — | 20 | 179 | 1,091 | 770 | — | 0 | 14 | 2 | 909 | — | 1 | 8 | 39 | 37 |
| **Mountain** | 4 | 15 | 37 | 679 | 978 | — | 1 | 8 | 71 | 89 | — | 0 | 3 | 32 | 34 |
| Arizona | — | 3 | 10 | 176 | 195 | N | 0 | 0 | N | N | — | 0 | 2 | 13 | 9 |
| Colorado | 4 | 3 | 13 | 136 | 266 | — | 0 | 0 | — | — | — | 0 | 1 | 1 | 3 |
| Idaho† | — | 0 | 5 | 28 | 37 | — | 0 | 1 | — | 11 | — | 0 | 1 | 1 | 4 |
| Montana† | — | 1 | 11 | 77 | 41 | — | 0 | 2 | 8 | 19 | — | 0 | 1 | 3 | 1 |
| Nevada† | — | 0 | 7 | 18 | 37 | — | 0 | 4 | 5 | 13 | — | 0 | 2 | 2 | — |
| New Mexico† | — | 0 | 5 | 39 | 70 | — | 0 | 3 | 24 | 12 | — | 0 | 1 | 2 | 5 |
| Utah | — | 5 | 27 | 189 | 309 | — | 0 | 6 | 13 | 16 | — | 0 | 0 | — | — |
| Wyoming† | — | 0 | 2 | 16 | 23 | — | 0 | 3 | 21 | 18 | — | 0 | 2 | 10 | 12 |
| **Pacific** | 11 | 22 | 303 | 1,028 | 877 | 1 | 4 | 13 | 181 | 227 | — | 0 | 1 | 4 | 3 |
| Alaska | 9 | 2 | 19 | 194 | 86 | 1 | 0 | 4 | 14 | 41 | N | 0 | 0 | N | N |
| California | — | 7 | 129 | 299 | 402 | — | 3 | 12 | 154 | 174 | — | 0 | 1 | 1 | 1 |
| Hawaii | — | 0 | 2 | 11 | 18 | — | 0 | 0 | — | — | N | 0 | 0 | N | N |
| Oregon† | — | 3 | 9 | 156 | 112 | — | 0 | 4 | 13 | 12 | — | 0 | 1 | 3 | 2 |
| Washington | 2 | 6 | 169 | 368 | 259 | — | 0 | 0 | — | — | N | 0 | 0 | N | N |
| American Samoa | — | 0 | 0 | — | — | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 0 | — | — | — | 0 | 0 | — | — | N | 0 | 0 | N | N |
| Puerto Rico | — | 0 | 0 | — | — | 3 | 1 | 5 | 59 | 47 | N | 0 | 0 | N | N |
| U.S. Virgin Islands | — | 0 | 0 | — | — | N | 0 | 0 | N | N | N | 0 | 0 | N | N |

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 are provisional.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Salmonellosis | | | | | Shiga toxin-producing E. coli (STEC)† | | | | | Shigellosis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 543 | 828 | 2,110 | 39,203 | 41,817 | 73 | 85 | 249 | 4,560 | 4,375 | 313 | 413 | 1,227 | 17,172 | 16,273 |
| **New England** | 1 | 19 | 462 | 1,595 | 2,131 | — | 3 | 52 | 212 | 299 | — | 2 | 36 | 150 | 232 |
| Connecticut | — | 0 | 433 | 433 | 431 | — | 0 | 49 | 49 | 71 | — | 0 | 35 | 35 | 44 |
| Maine§ | 1 | 3 | 8 | 132 | 127 | — | 0 | 3 | 22 | 39 | — | 0 | 6 | 21 | 14 |
| Massachusetts | — | 14 | 52 | 741 | 1,235 | — | 1 | 11 | 80 | 135 | — | 2 | 5 | 78 | 145 |
| New Hampshire | — | 3 | 10 | 125 | 159 | — | 0 | 3 | 30 | 34 | — | 0 | 1 | 3 | 5 |
| Rhode Island§ | — | 1 | 8 | 92 | 101 | — | 0 | 3 | 8 | 7 | — | 0 | 1 | 10 | 21 |
| Vermont§ | — | 1 | 7 | 72 | 78 | — | 0 | 3 | 23 | 13 | — | 0 | 1 | 3 | 3 |
| **Mid. Atlantic** | 46 | 86 | 166 | 4,466 | 5,486 | 4 | 7 | 192 | 561 | 483 | 12 | 40 | 96 | 2,029 | 713 |
| New Jersey | — | 13 | 30 | 510 | 1,144 | — | 0 | 4 | 26 | 110 | — | 9 | 38 | 690 | 157 |
| New York (Upstate) | 23 | 25 | 73 | 1,255 | 1,310 | 4 | 2 | 188 | 393 | 188 | 12 | 9 | 35 | 533 | 148 |
| New York City | 4 | 21 | 53 | 1,161 | 1,211 | — | 1 | 5 | 52 | 47 | — | 11 | 35 | 626 | 248 |
| Pennsylvania | 19 | 26 | 78 | 1,540 | 1,821 | — | 1 | 8 | 90 | 138 | — | 3 | 65 | 180 | 160 |
| **E.N. Central** | 41 | 87 | 180 | 4,272 | 5,431 | 6 | 11 | 66 | 791 | 685 | 73 | 70 | 145 | 3,268 | 2,581 |
| Illinois | — | 22 | 67 | 1,021 | 1,824 | — | 1 | 8 | 81 | 128 | — | 16 | 29 | 704 | 636 |
| Indiana | 19 | 9 | 53 | 564 | 612 | — | 1 | 14 | 84 | 93 | 10 | 11 | 83 | 565 | 126 |
| Michigan | 2 | 17 | 38 | 794 | 872 | 1 | 2 | 39 | 201 | 109 | — | 2 | 7 | 124 | 78 |
| Ohio | 18 | 24 | 65 | 1,168 | 1,210 | 5 | 3 | 17 | 185 | 151 | 63 | 26 | 76 | 1,490 | 1,103 |
| Wisconsin | 2 | 15 | 50 | 725 | 913 | — | 4 | 18 | 240 | 204 | — | 9 | 39 | 385 | 638 |
| **W.N. Central** | 14 | 48 | 126 | 2,478 | 2,590 | 1 | 12 | 57 | 738 | 726 | 3 | 16 | 39 | 781 | 1,715 |
| Iowa | — | 8 | 15 | 365 | 443 | — | 2 | 20 | 190 | 171 | — | 3 | 11 | 135 | 90 |
| Kansas | 3 | 7 | 25 | 405 | 381 | — | 0 | 7 | 46 | 50 | 1 | 0 | 5 | 51 | 24 |
| Minnesota | 1 | 13 | 70 | 649 | 617 | — | 3 | 21 | 185 | 218 | — | 5 | 25 | 276 | 221 |
| Missouri | 10 | 13 | 51 | 682 | 705 | 1 | 2 | 9 | 133 | 146 | 1 | 4 | 20 | 195 | 1,230 |
| Nebraska§ | — | 4 | 13 | 207 | 249 | — | 1 | 28 | 139 | 87 | 1 | 0 | 3 | 11 | 26 |
| North Dakota | — | 0 | 35 | 42 | 42 | — | 0 | 20 | 3 | 8 | — | 0 | 15 | 37 | 3 |
| South Dakota | — | 2 | 11 | 128 | 153 | — | 1 | 4 | 42 | 46 | — | 0 | 9 | 76 | 121 |
| **S. Atlantic** | 219 | 263 | 456 | 10,735 | 10,828 | 12 | 13 | 50 | 715 | 616 | 38 | 57 | 149 | 2,686 | 4,104 |
| Delaware | 1 | 2 | 9 | 140 | 131 | — | 0 | 1 | 10 | 14 | — | 0 | 1 | 7 | 10 |
| District of Columbia | — | 1 | 4 | 46 | 53 | — | 0 | 1 | 11 | — | — | 0 | 3 | 13 | 18 |
| Florida | 147 | 102 | 174 | 4,606 | 4,293 | 2 | 2 | 18 | 138 | 134 | 12 | 15 | 75 | 729 | 2,031 |
| Georgia | 37 | 37 | 86 | 2,030 | 1,833 | — | 1 | 7 | 82 | 89 | 19 | 21 | 48 | 978 | 1,444 |
| Maryland§ | 7 | 12 | 35 | 668 | 841 | 2 | 2 | 9 | 112 | 76 | 4 | 1 | 5 | 73 | 101 |
| North Carolina | 20 | 22 | 228 | 1,238 | 1,390 | 7 | 1 | 12 | 99 | 124 | — | 3 | 27 | 199 | 94 |
| South Carolina§ | 6 | 21 | 55 | 979 | 1,033 | 1 | 0 | 4 | 38 | 12 | 3 | 9 | 32 | 491 | 172 |
| Virginia§ | 1 | 19 | 49 | 883 | 1,075 | — | 3 | 25 | 196 | 149 | — | 4 | 13 | 180 | 170 |
| West Virginia | — | 3 | 25 | 145 | 179 | — | 0 | 3 | 29 | 18 | — | 0 | 61 | 16 | 64 |
| **E.S. Central** | 29 | 56 | 136 | 3,053 | 3,148 | 6 | 5 | 21 | 260 | 301 | 21 | 39 | 123 | 1,693 | 2,604 |
| Alabama§ | — | 15 | 47 | 834 | 865 | — | 1 | 17 | 57 | 63 | 1 | 8 | 24 | 354 | 660 |
| Kentucky | 16 | 9 | 18 | 435 | 525 | 1 | 1 | 7 | 93 | 117 | — | 4 | 24 | 244 | 461 |
| Mississippi | 1 | 13 | 57 | 964 | 988 | 1 | 0 | 2 | 6 | 6 | — | 6 | 70 | 287 | 1,205 |
| Tennessee§ | 12 | 16 | 55 | 820 | 770 | 4 | 2 | 7 | 104 | 115 | 20 | 17 | 44 | 808 | 278 |
| **W.S. Central** | 90 | 104 | 894 | 4,912 | 4,612 | 4 | 5 | 25 | 239 | 237 | 126 | 88 | 748 | 3,997 | 2,058 |
| Arkansas§ | 8 | 12 | 40 | 715 | 762 | 1 | 1 | 3 | 41 | 42 | 10 | 9 | 27 | 510 | 80 |
| Louisiana | — | 17 | 49 | 895 | 904 | — | 0 | 1 | 2 | 10 | — | 10 | 25 | 537 | 467 |
| Oklahoma | 14 | 16 | 72 | 743 | 580 | — | 0 | 19 | 45 | 16 | 1 | 3 | 32 | 155 | 118 |
| Texas§ | 68 | 41 | 794 | 2,559 | 2,366 | 3 | 4 | 11 | 151 | 169 | 115 | 58 | 702 | 2,795 | 1,393 |
| **Mountain** | 26 | 56 | 109 | 2,796 | 2,477 | 4 | 9 | 36 | 527 | 551 | 24 | 18 | 54 | 1,020 | 866 |
| Arizona | 11 | 19 | 45 | 981 | 901 | 1 | 1 | 5 | 64 | 101 | 18 | 9 | 35 | 543 | 493 |
| Colorado | 13 | 12 | 43 | 634 | 519 | 1 | 3 | 17 | 186 | 150 | 6 | 2 | 9 | 116 | 110 |
| Idaho§ | — | 3 | 14 | 162 | 131 | 2 | 2 | 15 | 135 | 123 | — | 0 | 2 | 13 | 12 |
| Montana§ | — | 2 | 10 | 102 | 96 | — | 0 | 3 | 31 | — | — | 0 | 1 | 6 | 23 |
| Nevada§ | 2 | 3 | 9 | 164 | 239 | — | 0 | 2 | 9 | 29 | — | 4 | 13 | 211 | 61 |
| New Mexico§ | — | 6 | 33 | 448 | 265 | — | 1 | 6 | 47 | 39 | — | 1 | 9 | 96 | 101 |
| Utah | — | 5 | 17 | 265 | 258 | — | 1 | 6 | 51 | 92 | — | 1 | 4 | 30 | 34 |
| Wyoming§ | — | 1 | 5 | 40 | 68 | — | 0 | 2 | 4 | 17 | — | 0 | 1 | 5 | 32 |
| **Pacific** | 77 | 111 | 399 | 4,896 | 5,114 | 36 | 8 | 50 | 517 | 477 | 16 | 30 | 82 | 1,548 | 1,400 |
| Alaska | 1 | 1 | 4 | 49 | 82 | — | 0 | 1 | 7 | 4 | — | 0 | 1 | 1 | 8 |
| California | 70 | 78 | 286 | 3,562 | 3,874 | 18 | 5 | 39 | 270 | 242 | 12 | 27 | 74 | 1,328 | 1,120 |
| Hawaii | — | 5 | 15 | 233 | 271 | — | 0 | 5 | 13 | 30 | — | 1 | 3 | 39 | 66 |
| Oregon§ | 1 | 6 | 20 | 376 | 299 | — | 1 | 8 | 62 | 73 | — | 2 | 10 | 86 | 71 |
| Washington | 5 | 13 | 103 | 676 | 588 | 18 | 2 | 16 | 165 | 128 | 4 | 2 | 13 | 94 | 135 |
| American Samoa | — | 0 | 1 | 2 | — | — | 0 | 0 | — | — | — | 0 | 1 | 1 | 5 |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 2 | 13 | 15 | — | 0 | 0 | — | — | — | 0 | 3 | 14 | 16 |
| Puerto Rico | 5 | 10 | 41 | 449 | 832 | — | 0 | 1 | 2 | 1 | — | 0 | 4 | 17 | 24 |
| 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 year 2008 are provisional.
† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Streptococcal diseases, invasive, group A | | | | | *Streptococcus pneumoniae*, invasive disease, nondrug resistant† Age <5 years | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | |
| **United States** | 38 | 96 | 259 | 4,595 | 4,621 | 32 | 35 | 166 | 1,427 | 1,567 |
| **New England** | 1 | 6 | 31 | 315 | 352 | 11 | 1 | 14 | 71 | 114 |
| Connecticut | 1 | 0 | 26 | 96 | 109 | 11 | 0 | 11 | 11 | 13 |
| Maine§ | — | 0 | 3 | 25 | 25 | — | 0 | 1 | 2 | 3 |
| Massachusetts | — | 3 | 8 | 138 | 168 | — | 0 | 5 | 39 | 77 |
| New Hampshire | — | 0 | 2 | 26 | 26 | — | 0 | 1 | 11 | 11 |
| Rhode Island§ | — | 0 | 9 | 18 | 8 | — | 0 | 2 | 7 | 8 |
| Vermont§ | — | 0 | 2 | 12 | 16 | — | 0 | 1 | 1 | 2 |
| **Mid. Atlantic** | 7 | 18 | 43 | 896 | 849 | 5 | 4 | 19 | 188 | 276 |
| New Jersey | — | 3 | 11 | 137 | 156 | — | 1 | 6 | 55 | 56 |
| New York (Upstate) | 1 | 6 | 17 | 291 | 256 | 5 | 2 | 14 | 92 | 90 |
| New York City | — | 4 | 10 | 165 | 206 | — | 0 | 8 | 41 | 130 |
| Pennsylvania | 6 | 6 | 16 | 303 | 231 | N | 0 | 0 | N | N |
| **E.N. Central** | 6 | 19 | 42 | 843 | 873 | 4 | 6 | 23 | 238 | 273 |
| Illinois | 1 | 5 | 16 | 222 | 263 | — | 1 | 6 | 48 | 74 |
| Indiana | — | 2 | 11 | 119 | 105 | 1 | 0 | 14 | 35 | 18 |
| Michigan | — | 3 | 10 | 158 | 186 | 2 | 1 | 5 | 67 | 69 |
| Ohio | 5 | 5 | 14 | 242 | 204 | — | 1 | 5 | 54 | 55 |
| Wisconsin | — | 2 | 10 | 102 | 115 | 1 | 1 | 3 | 34 | 57 |
| **W.N. Central** | — | 5 | 39 | 343 | 310 | 1 | 2 | 16 | 126 | 89 |
| Iowa | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Kansas | — | 0 | 5 | 35 | 30 | 1 | 0 | 3 | 18 | 1 |
| Minnesota | — | 0 | 35 | 154 | 149 | — | 0 | 13 | 53 | 47 |
| Missouri | — | 2 | 10 | 82 | 79 | — | 1 | 2 | 30 | 24 |
| Nebraska§ | — | 1 | 3 | 39 | 23 | — | 0 | 3 | 8 | 16 |
| North Dakota | — | 0 | 5 | 12 | 18 | — | 0 | 2 | 8 | 1 |
| South Dakota | — | 0 | 2 | 21 | 11 | — | 0 | 1 | 9 | — |
| **S. Atlantic** | 13 | 22 | 37 | 989 | 1,127 | 4 | 6 | 16 | 264 | 286 |
| Delaware | — | 0 | 2 | 8 | 10 | — | 0 | 0 | — | — |
| District of Columbia | — | 0 | 4 | 26 | 17 | — | 0 | 1 | 2 | 2 |
| Florida | 7 | 5 | 11 | 239 | 287 | 3 | 1 | 4 | 59 | 60 |
| Georgia | 3 | 4 | 14 | 214 | 220 | — | 1 | 5 | 62 | 67 |
| Maryland§ | 2 | 4 | 8 | 165 | 188 | 1 | 1 | 5 | 49 | 59 |
| North Carolina | — | 2 | 10 | 125 | 149 | N | 0 | 0 | N | N |
| South Carolina§ | — | 1 | 5 | 62 | 90 | — | 1 | 4 | 46 | 50 |
| Virginia§ | 1 | 3 | 12 | 118 | 140 | — | 1 | 6 | 38 | 41 |
| West Virginia | — | 0 | 3 | 32 | 26 | — | 0 | 1 | 8 | 7 |
| **E.S. Central** | 1 | 4 | 9 | 158 | 194 | 1 | 2 | 11 | 90 | 88 |
| Alabama§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| Kentucky | — | 1 | 3 | 36 | 37 | N | 0 | 0 | N | N |
| Mississippi | N | 0 | 0 | N | N | — | 0 | 3 | 20 | 5 |
| Tennessee§ | 1 | 3 | 6 | 122 | 157 | 1 | 2 | 9 | 70 | 83 |
| **W.S. Central** | 3 | 9 | 85 | 413 | 277 | 3 | 5 | 66 | 239 | 216 |
| Arkansas§ | — | 0 | 2 | 5 | 17 | — | 0 | 2 | 6 | 13 |
| Louisiana | — | 0 | 2 | 15 | 15 | — | 0 | 2 | 10 | 33 |
| Oklahoma | 2 | 2 | 19 | 102 | 62 | 1 | 1 | 7 | 59 | 47 |
| Texas§ | 1 | 6 | 65 | 291 | 183 | 2 | 3 | 58 | 164 | 123 |
| **Mountain** | 5 | 11 | 22 | 490 | 510 | 3 | 4 | 12 | 197 | 212 |
| Arizona | — | 4 | 9 | 184 | 192 | 1 | 2 | 8 | 100 | 101 |
| Colorado | 4 | 3 | 8 | 135 | 126 | 2 | 1 | 4 | 55 | 42 |
| Idaho§ | — | 0 | 2 | 15 | 16 | — | 0 | 1 | 5 | 2 |
| Montana§ | N | 0 | 0 | N | N | — | 0 | 1 | 4 | 1 |
| Nevada§ | 1 | 0 | 1 | 12 | 2 | N | 0 | 0 | N | N |
| New Mexico§ | — | 2 | 8 | 88 | 93 | — | 0 | 3 | 17 | 38 |
| Utah | — | 1 | 5 | 50 | 76 | — | 0 | 3 | 15 | 28 |
| Wyoming§ | — | 0 | 2 | 6 | 5 | — | 0 | 1 | 1 | — |
| **Pacific** | 2 | 3 | 10 | 148 | 129 | — | 0 | 2 | 14 | 13 |
| Alaska | — | 1 | 4 | 36 | 24 | N | 0 | 0 | N | N |
| California | — | 0 | 0 | — | — | N | 0 | 0 | N | N |
| Hawaii | 2 | 2 | 10 | 112 | 105 | — | 0 | 2 | 14 | 13 |
| Oregon§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| Washington | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| American Samoa | — | 0 | 12 | 30 | 4 | N | 0 | 0 | N | N |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 0 | — | 14 | — | 0 | 0 | — | — |
| Puerto Rico | N | 0 | 0 | N | N | N | 0 | 0 | N | N |
| U.S. Virgin Islands | — | 0 | 0 | — | — | N | 0 | 0 | N | N |

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

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | *Streptococcus pneumoniae*, invasive disease, drug resistant† | | | | | | | | | | Syphilis, primary and secondary | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | | | | | B | | | | | | | | | |
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 74 | 55 | 307 | 2,465 | 2,596 | 11 | 9 | 43 | 373 | 442 | 88 | 234 | 351 | 10,386 | 9,920 |
| **New England** | 48 | 1 | 49 | 100 | 104 | 5 | 0 | 8 | 13 | 13 | 7 | 5 | 13 | 276 | 242 |
| Connecticut | 48 | 0 | 44 | 55 | 55 | 5 | 0 | 7 | 5 | 4 | — | 0 | 6 | 28 | 30 |
| Maine§ | — | 0 | 2 | 16 | 11 | — | 0 | 1 | 2 | 2 | — | 0 | 2 | 10 | 9 |
| Massachusetts | — | 0 | 0 | — | 2 | — | 0 | 0 | — | 2 | 5 | 4 | 11 | 199 | 145 |
| New Hampshire | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 0 | 2 | 19 | 26 |
| Rhode Island§ | — | 0 | 3 | 16 | 19 | — | 0 | 1 | 4 | 3 | — | 0 | 5 | 13 | 29 |
| Vermont§ | — | 0 | 2 | 13 | 17 | — | 0 | 1 | 2 | 2 | 2 | 0 | 5 | 7 | 3 |
| **Mid. Atlantic** | 1 | 4 | 13 | 211 | 143 | — | 0 | 2 | 20 | 26 | 16 | 32 | 51 | 1,498 | 1,364 |
| New Jersey | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 4 | 10 | 186 | 197 |
| New York (Upstate) | — | 1 | 6 | 56 | 48 | — | 0 | 2 | 6 | 9 | 1 | 3 | 13 | 119 | 124 |
| New York City | — | 1 | 5 | 64 | — | — | 0 | 0 | — | — | 13 | 21 | 37 | 971 | 803 |
| Pennsylvania | 1 | 2 | 9 | 91 | 95 | — | 0 | 2 | 14 | 17 | 2 | 5 | 12 | 222 | 240 |
| **E.N. Central** | 6 | 14 | 64 | 608 | 677 | 1 | 2 | 14 | 87 | 103 | 12 | 19 | 33 | 883 | 782 |
| Illinois | — | 0 | 17 | 71 | 169 | — | 0 | 6 | 14 | 35 | — | 5 | 19 | 228 | 408 |
| Indiana | — | 2 | 39 | 179 | 150 | — | 0 | 11 | 21 | 24 | 2 | 2 | 10 | 121 | 48 |
| Michigan | — | 0 | 3 | 14 | 3 | — | 0 | 1 | 2 | 2 | 1 | 3 | 17 | 181 | 99 |
| Ohio | 6 | 8 | 17 | 344 | 355 | 1 | 1 | 4 | 50 | 42 | 8 | 6 | 15 | 302 | 171 |
| Wisconsin | — | 0 | 0 | — | — | — | 0 | 0 | — | — | 1 | 1 | 4 | 51 | 56 |
| **W.N. Central** | 2 | 3 | 115 | 141 | 173 | — | 0 | 9 | 10 | 38 | 2 | 8 | 15 | 345 | 315 |
| Iowa | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 0 | 2 | 14 | 17 |
| Kansas | — | 1 | 5 | 58 | 79 | — | 0 | 1 | 4 | 8 | 1 | 0 | 5 | 27 | 19 |
| Minnesota | — | 0 | 114 | — | 25 | — | 0 | 9 | — | 24 | — | 2 | 5 | 91 | 53 |
| Missouri | 2 | 1 | 8 | 77 | 54 | — | 0 | 1 | 3 | 2 | — | 5 | 10 | 204 | 215 |
| Nebraska§ | — | 0 | 0 | — | 2 | — | 0 | 0 | — | — | — | 0 | 2 | 8 | 4 |
| North Dakota | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 0 | 1 | — | — |
| South Dakota | — | 0 | 2 | 6 | 13 | — | 0 | 1 | 3 | 4 | 1 | 0 | 0 | 1 | 7 |
| **S. Atlantic** | 12 | 21 | 53 | 1,051 | 1,137 | 5 | 4 | 10 | 181 | 204 | 25 | 51 | 215 | 2,294 | 2,291 |
| Delaware | — | 0 | 1 | 3 | 10 | — | 0 | 0 | — | 2 | — | 0 | 4 | 14 | 15 |
| District of Columbia | — | 0 | 3 | 15 | 19 | — | 0 | 1 | 1 | 1 | 2 | 2 | 8 | 116 | 164 |
| Florida | 10 | 13 | 30 | 616 | 620 | 4 | 3 | 6 | 116 | 108 | 9 | 19 | 36 | 888 | 791 |
| Georgia | 2 | 7 | 23 | 331 | 423 | 1 | 1 | 5 | 53 | 85 | — | 10 | 175 | 447 | 443 |
| Maryland§ | — | 0 | 2 | 4 | 1 | — | 0 | 1 | 1 | — | — | 6 | 14 | 283 | 292 |
| North Carolina | N | 0 | 0 | N | N | N | 0 | 0 | N | N | 1 | 5 | 19 | 238 | 291 |
| South Carolina§ | — | 0 | 0 | — | — | — | 0 | 0 | — | — | 5 | 1 | 5 | 76 | 86 |
| Virginia§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N | 8 | 4 | 17 | 230 | 203 |
| West Virginia | — | 1 | 9 | 82 | 64 | — | 0 | 2 | 10 | 8 | — | 0 | 1 | 2 | 6 |
| **E.S. Central** | 4 | 5 | 15 | 247 | 230 | — | 1 | 4 | 43 | 33 | 15 | 21 | 36 | 996 | 808 |
| Alabama§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 8 | 17 | 392 | 333 |
| Kentucky | 3 | 1 | 6 | 70 | 24 | — | 0 | 2 | 12 | 3 | — | 1 | 7 | 75 | 53 |
| Mississippi | — | 0 | 5 | 4 | 51 | — | 0 | 1 | 1 | — | 6 | 3 | 19 | 158 | 106 |
| Tennessee§ | 1 | 3 | 13 | 173 | 155 | — | 1 | 3 | 30 | 30 | 9 | 8 | 18 | 371 | 316 |
| **W.S. Central** | 1 | 2 | 7 | 74 | 75 | — | 0 | 2 | 12 | 9 | 5 | 39 | 61 | 1,791 | 1,668 |
| Arkansas§ | 1 | 0 | 2 | 15 | 6 | — | 0 | 1 | 3 | 2 | 3 | 2 | 19 | 154 | 112 |
| Louisiana | — | 1 | 7 | 59 | 69 | — | 0 | 2 | 9 | 7 | 2 | 10 | 28 | 451 | 464 |
| Oklahoma | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 1 | 5 | 54 | 56 |
| Texas§ | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 25 | 48 | 1,132 | 1,036 |
| **Mountain** | — | 1 | 7 | 31 | 54 | — | 0 | 2 | 5 | 13 | — | 9 | 22 | 402 | 461 |
| Arizona | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 5 | 17 | 199 | 253 |
| Colorado | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 2 | 7 | 90 | 47 |
| Idaho§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 0 | 2 | 6 | 1 |
| Montana§ | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 0 | 3 | — | 4 |
| Nevada§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 1 | 6 | 68 | 98 |
| New Mexico§ | — | 0 | 1 | 2 | — | — | 0 | 0 | — | — | — | 1 | 4 | 36 | 37 |
| Utah | — | 0 | 7 | 27 | 38 | — | 0 | 2 | 5 | 11 | — | 0 | 2 | — | 17 |
| Wyoming§ | — | 0 | 1 | 2 | 16 | — | 0 | 1 | — | 2 | — | 0 | 1 | 3 | 4 |
| **Pacific** | — | 0 | 1 | 2 | 3 | — | 0 | 1 | 2 | 3 | 6 | 43 | 65 | 1,901 | 1,989 |
| Alaska | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 0 | 1 | 1 | 7 |
| California | N | 0 | 0 | N | N | N | 0 | 0 | N | N | 3 | 38 | 59 | 1,711 | 1,830 |
| Hawaii | — | 0 | 1 | 2 | 3 | — | 0 | 1 | 2 | 3 | — | 0 | 2 | 16 | 7 |
| Oregon§ | N | 0 | 0 | N | N | N | 0 | 0 | N | N | 3 | 0 | 3 | 23 | 16 |
| Washington | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 3 | 9 | 150 | 129 |
| American Samoa | N | 0 | 0 | N | N | N | 0 | 0 | N | N | — | 0 | 0 | — | 4 |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Puerto Rico | — | 0 | 0 | — | — | — | 0 | 0 | — | — | 2 | 3 | 11 | 143 | 147 |
| 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 year 2008 are provisional.
† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending November 15, 2008, and November 17, 2007 (46th week)***

| Reporting area | Varicella (chickenpox) | | | | | West Nile virus disease† | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Neuroinvasive | | | | | Nonneuroinvasive§ | | | | |
| | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 | Current week | Previous 52 weeks | | Cum 2008 | Cum 2007 |
| | | Med | Max | | | | Med | Max | | | | Med | Max | | |
| **United States** | 269 | 575 | 1,660 | 23,216 | 34,510 | — | 1 | 80 | 604 | 1,222 | — | 2 | 84 | 697 | 2,396 |
| **New England** | 8 | 11 | 68 | 455 | 2,242 | — | 0 | 2 | 6 | 5 | — | 0 | 1 | 3 | 6 |
| Connecticut | — | 0 | 38 | — | 1,278 | — | 0 | 2 | 5 | 2 | — | 0 | 1 | 3 | 2 |
| Maine¶ | — | 0 | 14 | — | 307 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Massachusetts | — | 0 | 1 | 1 | — | — | 0 | 0 | — | 3 | — | 0 | 0 | — | 3 |
| New Hampshire | 3 | 6 | 18 | 226 | 328 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Rhode Island¶ | — | 0 | 0 | — | — | — | 0 | 1 | 1 | — | — | 0 | 0 | — | 1 |
| Vermont¶ | 5 | 6 | 17 | 228 | 329 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| **Mid. Atlantic** | 47 | 49 | 80 | 2,030 | 4,305 | — | 0 | 8 | 45 | 22 | — | 0 | 5 | 19 | 11 |
| New Jersey | N | 0 | 0 | N | N | — | 0 | 1 | 3 | 1 | — | 0 | 1 | 4 | — |
| New York (Upstate) | N | 0 | 0 | N | N | — | 0 | 5 | 23 | 3 | — | 0 | 2 | 7 | 1 |
| New York City | N | 0 | 0 | N | N | — | 0 | 2 | 8 | 13 | — | 0 | 2 | 6 | 5 |
| Pennsylvania | 47 | 49 | 80 | 2,030 | 4,305 | — | 0 | 2 | 11 | 5 | — | 0 | 1 | 2 | 5 |
| **E.N. Central** | 92 | 135 | 336 | 5,788 | 9,770 | — | 0 | 7 | 43 | 112 | — | 0 | 5 | 22 | 65 |
| Illinois | 9 | 17 | 63 | 978 | 994 | — | 0 | 4 | 11 | 62 | — | 0 | 2 | 8 | 38 |
| Indiana | — | 0 | 222 | — | 222 | — | 0 | 1 | 2 | 14 | — | 0 | 1 | 1 | 10 |
| Michigan | 27 | 58 | 154 | 2,436 | 3,613 | — | 0 | 4 | 11 | 16 | — | 0 | 2 | 6 | 1 |
| Ohio | 55 | 48 | 128 | 2,005 | 4,002 | — | 0 | 3 | 16 | 13 | — | 0 | 2 | 3 | 10 |
| Wisconsin | 1 | 3 | 38 | 369 | 939 | — | 0 | 1 | 3 | 7 | — | 0 | 1 | 4 | 6 |
| **W.N. Central** | 12 | 22 | 145 | 1,022 | 1,396 | — | 0 | 6 | 43 | 249 | — | 0 | 23 | 168 | 739 |
| Iowa | N | 0 | 0 | N | N | — | 0 | 3 | 5 | 12 | — | 0 | 1 | 4 | 18 |
| Kansas | 6 | 6 | 37 | 359 | 495 | — | 0 | 2 | 6 | 14 | — | 0 | 4 | 26 | 26 |
| Minnesota | — | 0 | 0 | — | — | — | 0 | 2 | 3 | 44 | — | 0 | 6 | 18 | 57 |
| Missouri | 6 | 10 | 51 | 594 | 822 | — | 0 | 3 | 11 | 61 | — | 0 | 1 | 7 | 16 |
| Nebraska¶ | N | 0 | 0 | N | N | — | 0 | 1 | 5 | 21 | — | 0 | 8 | 44 | 142 |
| North Dakota | — | 0 | 140 | 49 | — | — | 0 | 2 | 2 | 49 | — | 0 | 12 | 41 | 320 |
| South Dakota | — | 0 | 5 | 20 | 79 | — | 0 | 5 | 11 | 48 | — | 0 | 6 | 28 | 160 |
| **S. Atlantic** | 28 | 92 | 173 | 4,098 | 4,634 | — | 0 | 3 | 13 | 43 | — | 0 | 3 | 13 | 39 |
| Delaware | — | 1 | 5 | 43 | 45 | — | 0 | 0 | — | 1 | — | 0 | 1 | 1 | — |
| District of Columbia | — | 0 | 3 | 22 | 27 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Florida | 14 | 28 | 87 | 1,437 | 1,134 | — | 0 | 2 | 2 | 3 | — | 0 | 0 | — | — |
| Georgia | N | 0 | 0 | N | N | — | 0 | 1 | 3 | 23 | — | 0 | 1 | 4 | 27 |
| Maryland¶ | N | 0 | 0 | N | N | — | 0 | 2 | 7 | 6 | — | 0 | 2 | 7 | 4 |
| North Carolina | N | 0 | 0 | N | N | — | 0 | 0 | — | 4 | — | 0 | 0 | — | 4 |
| South Carolina¶ | 4 | 15 | 66 | 751 | 978 | — | 0 | 0 | — | 3 | — | 0 | 0 | — | 2 |
| Virginia¶ | — | 24 | 81 | 1,229 | 1,408 | — | 0 | 0 | — | 3 | — | 0 | 1 | 1 | 2 |
| West Virginia | 10 | 13 | 66 | 616 | 1,042 | — | 0 | 1 | 1 | — | — | 0 | 0 | — | — |
| **E.S. Central** | 8 | 18 | 101 | 1,017 | 549 | — | 0 | 9 | 52 | 74 | — | 0 | 12 | 83 | 96 |
| Alabama¶ | 8 | 17 | 101 | 1,004 | 547 | — | 0 | 3 | 11 | 17 | — | 0 | 3 | 10 | 7 |
| Kentucky | N | 0 | 0 | N | N | — | 0 | 1 | 3 | 4 | — | 0 | 0 | — | — |
| Mississippi | — | 0 | 2 | 13 | 2 | — | 0 | 6 | 32 | 48 | — | 0 | 10 | 67 | 83 |
| Tennessee¶ | N | 0 | 0 | N | N | — | 0 | 1 | 6 | 5 | — | 0 | 2 | 6 | 6 |
| **W.S. Central** | 61 | 147 | 886 | 7,004 | 9,152 | — | 0 | 7 | 56 | 268 | — | 0 | 8 | 55 | 156 |
| Arkansas¶ | — | 10 | 38 | 514 | 675 | — | 0 | 2 | 8 | 13 | — | 0 | 0 | — | 7 |
| Louisiana | — | 1 | 10 | 69 | 108 | — | 0 | 2 | 9 | 27 | — | 0 | 6 | 27 | 12 |
| Oklahoma | N | 0 | 0 | N | N | — | 0 | 1 | 2 | 59 | — | 0 | 1 | 5 | 47 |
| Texas¶ | 61 | 143 | 852 | 6,421 | 8,369 | — | 0 | 6 | 37 | 169 | — | 0 | 4 | 23 | 90 |
| **Mountain** | 11 | 37 | 105 | 1,690 | 2,399 | — | 0 | 12 | 90 | 288 | — | 0 | 23 | 180 | 1,039 |
| Arizona | — | 0 | 0 | — | — | — | 0 | 10 | 53 | 49 | — | 0 | 8 | 44 | 46 |
| Colorado | 11 | 15 | 43 | 762 | 968 | — | 0 | 4 | 13 | 99 | — | 0 | 12 | 64 | 477 |
| Idaho¶ | N | 0 | 0 | N | N | — | 0 | 1 | 3 | 11 | — | 0 | 6 | 30 | 120 |
| Montana¶ | — | 6 | 27 | 278 | 365 | — | 0 | 0 | — | 37 | — | 0 | 2 | 5 | 165 |
| Nevada¶ | N | 0 | 0 | N | N | — | 0 | 2 | 9 | 2 | — | 0 | 3 | 7 | 10 |
| New Mexico¶ | — | 4 | 22 | 185 | 356 | — | 0 | 2 | 6 | 39 | — | 0 | 1 | 3 | 21 |
| Utah | — | 10 | 55 | 455 | 676 | — | 0 | 2 | 6 | 28 | — | 0 | 4 | 19 | 42 |
| Wyoming¶ | — | 0 | 4 | 10 | 34 | — | 0 | 0 | — | 23 | — | 0 | 2 | 8 | 158 |
| **Pacific** | 2 | 2 | 8 | 112 | 63 | — | 0 | 36 | 256 | 161 | — | 0 | 24 | 154 | 245 |
| Alaska | 2 | 1 | 5 | 60 | 35 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| California | — | 0 | 0 | — | — | — | 0 | 36 | 252 | 154 | — | 0 | 19 | 140 | 226 |
| Hawaii | — | 1 | 6 | 52 | 28 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Oregon¶ | N | 0 | 0 | N | N | — | 0 | 2 | 3 | 7 | — | 0 | 4 | 13 | 19 |
| Washington | N | 0 | 0 | N | N | — | 0 | 1 | 1 | — | — | 0 | 1 | 1 | — |
| American Samoa | N | 0 | 0 | N | N | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| C.N.M.I. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Guam | — | 2 | 17 | 62 | 229 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| Puerto Rico | 4 | 7 | 20 | 378 | 661 | — | 0 | 0 | — | — | — | 0 | 0 | — | — |
| U.S. Virgin Islands | — | 0 | 0 | — | — | — | 0 | 0 | — | — | — | 0 | 0 | — | — |

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 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 November 15, 2008 (46th week)**

| Reporting area | All causes, by age (years) | | | | | | P&I† |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45–64 | 25–44 | 1–24 | <1 | Total |
| **New England** | 494 | 353 | 100 | 29 | 3 | 9 | 30 |
| Boston, MA | 148 | 102 | 30 | 10 | 2 | 4 | 12 |
| Bridgeport, CT | 34 | 26 | 5 | 3 | — | — | 3 |
| Cambridge, MA | 19 | 15 | 4 | — | — | — | — |
| Fall River, MA | 27 | 22 | 2 | 3 | — | — | 5 |
| Hartford, CT | 39 | 27 | 8 | 1 | 1 | 2 | 3 |
| Lowell, MA | 20 | 14 | 5 | 1 | — | — | — |
| Lynn, MA | 10 | 7 | 2 | 1 | — | — | — |
| New Bedford, MA | 16 | 11 | 4 | 1 | — | — | — |
| New Haven, CT | U | U | U | U | U | U | U |
| Providence, RI | 57 | 42 | 12 | 2 | — | 1 | 4 |
| Somerville, MA | 3 | 2 | 1 | — | — | — | — |
| Springfield, MA | 40 | 24 | 12 | 3 | — | 1 | 1 |
| Waterbury, CT | 27 | 22 | 4 | 1 | — | — | 2 |
| Worcester, MA | 54 | 39 | 11 | 3 | — | 1 | — |
| **Mid. Atlantic** | 1,871 | 1,341 | 381 | 95 | 28 | 25 | 101 |
| Albany, NY | 45 | 32 | 11 | 2 | — | — | 2 |
| Allentown, PA | 31 | 24 | 4 | 3 | — | — | 1 |
| Buffalo, NY | 100 | 77 | 14 | 5 | 2 | 2 | 12 |
| Camden, NJ | 26 | 16 | 5 | 3 | — | 2 | 2 |
| Elizabeth, NJ | 20 | 16 | 4 | — | — | — | — |
| Erie, PA | 31 | 23 | 6 | 2 | — | — | 2 |
| Jersey City, NJ | 19 | 15 | 4 | — | — | — | 2 |
| New York City, NY | 868 | 614 | 181 | 54 | 10 | 9 | 39 |
| Newark, NJ | 48 | 18 | 21 | 2 | 2 | 4 | 3 |
| Paterson, NJ | 15 | 9 | 5 | 1 | — | — | 2 |
| Philadelphia, PA | 149 | 97 | 37 | 9 | 3 | 3 | 6 |
| Pittsburgh, PA§ | 55 | 34 | 17 | 1 | 3 | — | 2 |
| Reading, PA | 32 | 23 | 6 | 3 | — | — | 1 |
| Rochester, NY | 150 | 130 | 12 | 1 | 5 | 2 | 10 |
| Schenectady, NY | 21 | 19 | 2 | — | — | — | 1 |
| Scranton, PA | 25 | 20 | 4 | 1 | — | — | 2 |
| Syracuse, NY | 181 | 136 | 37 | 4 | 2 | 2 | 11 |
| Trenton, NJ | 16 | 6 | 6 | 2 | 1 | 1 | 1 |
| Utica, NY | 21 | 15 | 4 | 2 | — | — | — |
| Yonkers, NY | 18 | 17 | 1 | — | — | — | 2 |
| **E.N. Central** | 1,954 | 1,312 | 445 | 118 | 45 | 34 | 110 |
| Akron, OH | 48 | 32 | 9 | 3 | — | 4 | 5 |
| Canton, OH | 35 | 26 | 7 | 2 | — | — | 6 |
| Chicago, IL | 168 | 88 | 60 | 11 | 8 | 1 | 22 |
| Cincinnati, OH | 110 | 70 | 25 | 8 | 2 | 5 | 5 |
| Cleveland, OH | 260 | 191 | 53 | 6 | 3 | 7 | 14 |
| Columbus, OH | 196 | 130 | 45 | 12 | 4 | 5 | 6 |
| Dayton, OH | 121 | 96 | 16 | 8 | — | 1 | 9 |
| Detroit, MI | 174 | 93 | 56 | 17 | 6 | 2 | 4 |
| Evansville, IN | 41 | 27 | 14 | — | — | — | 4 |
| Fort Wayne, IN | 68 | 50 | 17 | 1 | — | — | 2 |
| Gary, IN | 19 | 13 | 4 | 1 | 1 | — | — |
| Grand Rapids, MI | 49 | 29 | 11 | 4 | 3 | 2 | 2 |
| Indianapolis, IN | 204 | 112 | 48 | 28 | 11 | 5 | 9 |
| Lansing, MI | 43 | 33 | 8 | 1 | 1 | — | 2 |
| Milwaukee, WI | 94 | 69 | 18 | 4 | 1 | 2 | 5 |
| Peoria, IL | 45 | 33 | 9 | 1 | 2 | — | 6 |
| Rockford, IL | 47 | 35 | 7 | 4 | 1 | — | — |
| South Bend, IN | 62 | 50 | 6 | 5 | 1 | — | 1 |
| Toledo, OH | 101 | 72 | 26 | 2 | 1 | — | 4 |
| Youngstown, OH | 69 | 63 | 6 | — | — | — | 4 |
| **W.N. Central** | 550 | 371 | 126 | 27 | 11 | 14 | 36 |
| Des Moines, IA | 46 | 28 | 14 | 2 | 1 | 1 | 2 |
| Duluth, MN | 33 | 25 | 7 | 1 | — | — | 2 |
| Kansas City, KS | 21 | 14 | 6 | 1 | — | — | 2 |
| Kansas City, MO | 68 | 40 | 18 | 8 | 2 | — | 1 |
| Lincoln, NE | 49 | 46 | 1 | 1 | — | 1 | 4 |
| Minneapolis, MN | 62 | 39 | 10 | 5 | 4 | 4 | 9 |
| Omaha, NE | 78 | 65 | 11 | 2 | — | — | 6 |
| St. Louis, MO | 68 | 38 | 25 | 3 | 1 | 1 | 3 |
| St. Paul, MN | 63 | 40 | 14 | 2 | 2 | 5 | 3 |
| Wichita, KS | 62 | 36 | 20 | 2 | 1 | 2 | 4 |
| **S. Atlantic** | 1,046 | 660 | 254 | 77 | 23 | 31 | 61 |
| Atlanta, GA | 88 | 56 | 17 | 8 | 4 | 3 | 3 |
| Baltimore, MD | 112 | 62 | 30 | 12 | 4 | 4 | 10 |
| Charlotte, NC | 115 | 67 | 34 | 9 | 3 | 2 | 8 |
| Jacksonville, FL | 159 | 103 | 37 | 14 | 2 | 3 | 13 |
| Miami, FL | 91 | 62 | 19 | 7 | 2 | 1 | 8 |
| Norfolk, VA | 41 | 29 | 8 | 2 | 1 | 1 | 1 |
| Richmond, VA | 56 | 29 | 16 | 6 | 3 | 2 | 3 |
| Savannah, GA | 47 | 35 | 12 | — | — | — | 1 |
| St. Petersburg, FL | 37 | 29 | 7 | — | — | 1 | 2 |
| Tampa, FL | 196 | 132 | 44 | 13 | 1 | 6 | 11 |
| Washington, D.C. | 98 | 51 | 29 | 6 | 3 | 8 | 1 |
| Wilmington, DE | 6 | 5 | 1 | — | — | — | — |
| **E.S. Central** | 848 | 567 | 202 | 41 | 21 | 17 | 75 |
| Birmingham, AL | 125 | 83 | 32 | 7 | 3 | — | 15 |
| Chattanooga, TN | 81 | 63 | 12 | 1 | 2 | 3 | 4 |
| Knoxville, TN | 113 | 83 | 21 | 3 | 4 | 2 | 16 |
| Lexington, KY | 50 | 39 | 10 | 1 | — | — | 3 |
| Memphis, TN | 141 | 92 | 36 | 4 | 7 | 2 | 13 |
| Mobile, AL | 116 | 74 | 28 | 8 | 3 | 3 | 9 |
| Montgomery, AL | 58 | 36 | 17 | 5 | — | — | 5 |
| Nashville, TN | 164 | 97 | 46 | 12 | 2 | 7 | 10 |
| **W.S. Central** | 1,477 | 971 | 327 | 107 | 38 | 34 | 73 |
| Austin, TX | 84 | 63 | 16 | 3 | 2 | — | 4 |
| Baton Rouge, LA | 49 | 40 | 5 | 3 | 1 | — | — |
| Corpus Christi, TX | 51 | 40 | 8 | 3 | — | — | 3 |
| Dallas, TX | 190 | 110 | 49 | 18 | 7 | 6 | 9 |
| El Paso, TX | 96 | 63 | 22 | 7 | 2 | 2 | 8 |
| Fort Worth, TX | 122 | 76 | 37 | 4 | 2 | 3 | 5 |
| Houston, TX | 424 | 269 | 100 | 31 | 12 | 12 | 13 |
| Little Rock, AR | 67 | 39 | 19 | 5 | 1 | 3 | 1 |
| New Orleans, LA¶ | U | U | U | U | U | U | U |
| San Antonio, TX | 222 | 151 | 38 | 22 | 5 | 6 | 19 |
| Shreveport, LA | 64 | 38 | 17 | 4 | 3 | 2 | 3 |
| Tulsa, OK | 108 | 82 | 16 | 7 | 3 | — | 8 |
| **Mountain** | 915 | 606 | 202 | 63 | 24 | 20 | 52 |
| Albuquerque, NM | 93 | 53 | 26 | 7 | 2 | 5 | 4 |
| Boise, ID | 40 | 27 | 8 | 2 | 2 | 1 | 2 |
| Colorado Springs, CO | 62 | 40 | 19 | 2 | — | 1 | 2 |
| Denver, CO | 80 | 54 | 14 | 4 | 5 | 3 | 6 |
| Las Vegas, NV | 249 | 149 | 71 | 22 | 5 | 2 | 19 |
| Ogden, UT | 37 | 26 | 10 | 1 | — | — | 2 |
| Phoenix, AZ | 104 | 70 | 16 | 9 | 4 | 5 | 4 |
| Pueblo, CO | 29 | 25 | 2 | 2 | — | — | 2 |
| Salt Lake City, UT | 103 | 67 | 20 | 11 | 4 | 1 | 8 |
| Tucson, AZ | 118 | 95 | 16 | 3 | 2 | 2 | 3 |
| **Pacific** | 1,484 | 996 | 342 | 82 | 35 | 29 | 138 |
| Berkeley, CA | 13 | 6 | 4 | 1 | — | 2 | — |
| Fresno, CA | 101 | 73 | 16 | 8 | 2 | 2 | 9 |
| Glendale, CA | 30 | 26 | 3 | 1 | — | — | 3 |
| Honolulu, HI | 67 | 50 | 11 | 2 | 2 | 2 | 4 |
| Long Beach, CA | 49 | 33 | 12 | 3 | 1 | — | 8 |
| Los Angeles, CA | 241 | 137 | 60 | 24 | 12 | 8 | 31 |
| Pasadena, CA | 20 | 13 | 5 | 1 | — | 1 | 2 |
| Portland, OR | 93 | 51 | 35 | 3 | 1 | 3 | 11 |
| Sacramento, CA | 198 | 140 | 43 | 10 | 4 | 1 | 20 |
| San Diego, CA | 140 | 101 | 31 | 5 | 2 | 1 | 13 |
| San Francisco, CA | 85 | 57 | 23 | 3 | 1 | 1 | 14 |
| San Jose, CA | 158 | 124 | 23 | 7 | 1 | 3 | 10 |
| Santa Cruz, CA | 21 | 12 | 7 | 2 | — | — | 2 |
| Seattle, WA | 101 | 53 | 34 | 7 | 2 | 5 | 2 |
| Spokane, WA | 64 | 46 | 14 | 1 | 3 | — | 4 |
| Tacoma, WA | 103 | 74 | 21 | 4 | 4 | — | 5 |
| **Total**** | **10,639** | **7,177** | **2,379** | **639** | **228** | **213** | **676** |

U: Unavailable. —:No reported cases.

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

† Pneumonia and influenza.

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

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

** Total includes unknown ages.

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

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



☆ U.S. Government Printing Office: 2009-523-019/41140 Region IV ISSN: 0149-2195