Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Weekly / Vol. 60 / No. 12

April 1, 2011

Tetanus Surveillance — United States, 2001–2008

Tetanus is a life-threatening but preventable disease caused by the toxin of *Clostridium tetani,* a ubiquitous, spore-forming, gram-positive bacillus found in high concentrations in soil and animal excrement. Reported tetanus cases have declined >95%, and deaths from tetanus have declined >99% in the United States since 1947, when the disease became reportable nationally. To update a previous report (*1*) and to determine the populations at greatest risk for the disease, CDC analyzed cases reported to the National Notifiable Diseases Surveillance System (NNDSS) during 2001–2008. This report summarizes the results of that analysis, which found that 233 tetanus cases were reported during 2001–2008; among the 197 cases with known outcomes, the case-fatality rate was 13.2%. Average annual incidence during that period was 0.10 per 1 million population overall and 0.23 among persons aged ≥65 years. Incidence among Hispanics was nearly twice that among non-Hispanics, a difference accounted for by 16 cases among Hispanic injection drug users (IDUs). Among the 92 patients for whom tetanus toxoid-containing (TT) vaccination status was available, 37 (40.2%) had received no doses of TT vaccine. Thirty (15.4%) of 195 patients had diabetes, and 27 (15.3%) of 176 were IDUs. Of 51 patients with an acute wound and a surveillance report complete enough to evaluate tetanus prophylaxis, 49 (96.1%) had not received appropriate prophylaxis. Tetanus remains a rare but life-threatening disease in the United States. Health-care providers should ensure up-to-date TT vaccination of all their patients, especially persons aged ≥65 years, persons with diabetes, and injection drug users.

From 1947 to 2008, the number of tetanus cases reported each year, which already had decreased greatly since 1900, continued to decline (Figure), in part because of continued use of tetanus antitoxin for wound management and introduction of TT vaccines in the 1930s and 1940s, which led to universal childhood immunization and the addition of decennial TT boosters for adults (*2,3*). A major contributor to the decline in morbidity was the near elimination of neonatal tetanus, a result attributable to improved childbirth practices and to increased levels of maternal immunity resulting from universal childhood vaccination (*1*). Sporadic cases of tetanus continue to occur in adults, especially in persons who were not vaccinated in childhood; during 1998–2000, a tetanus cluster was reported among IDUs in California (*1*). National surveillance for tetanus is conducted to monitor trends in incidence and identify populations at increased risk.

NNDSS is a passive surveillance system that relies on physicians to report cases of tetanus to state and local health departments. Because no laboratory test provides definitive confirmation of tetanus, the diagnosis is based on the clinical judgment of attending physicians and the exclusion of other causes of disease. For reporting cases to NNDSS, health-care providers use the following definition adopted by the Council of State and Territorial Epidemiologists and CDC in 1990: a confirmed case is an acute onset of hypertonia and/or painful muscular contractions (usually of the muscles of the jaw and neck) and generalized muscle spasms without other apparent medical cause, as reported by a health professional.

Tetanus case reports, including supplemental information (e.g., clinical history, patient vaccination status, wound care, clinical management, and outcome) and epidemiologic information are verified by health departments and transmitted electronically to CDC. Vaccination histories of patients are not validated by CDC. Tetanus rates by age and race/ethnicity were calculated using mid-year postcensal population estimates

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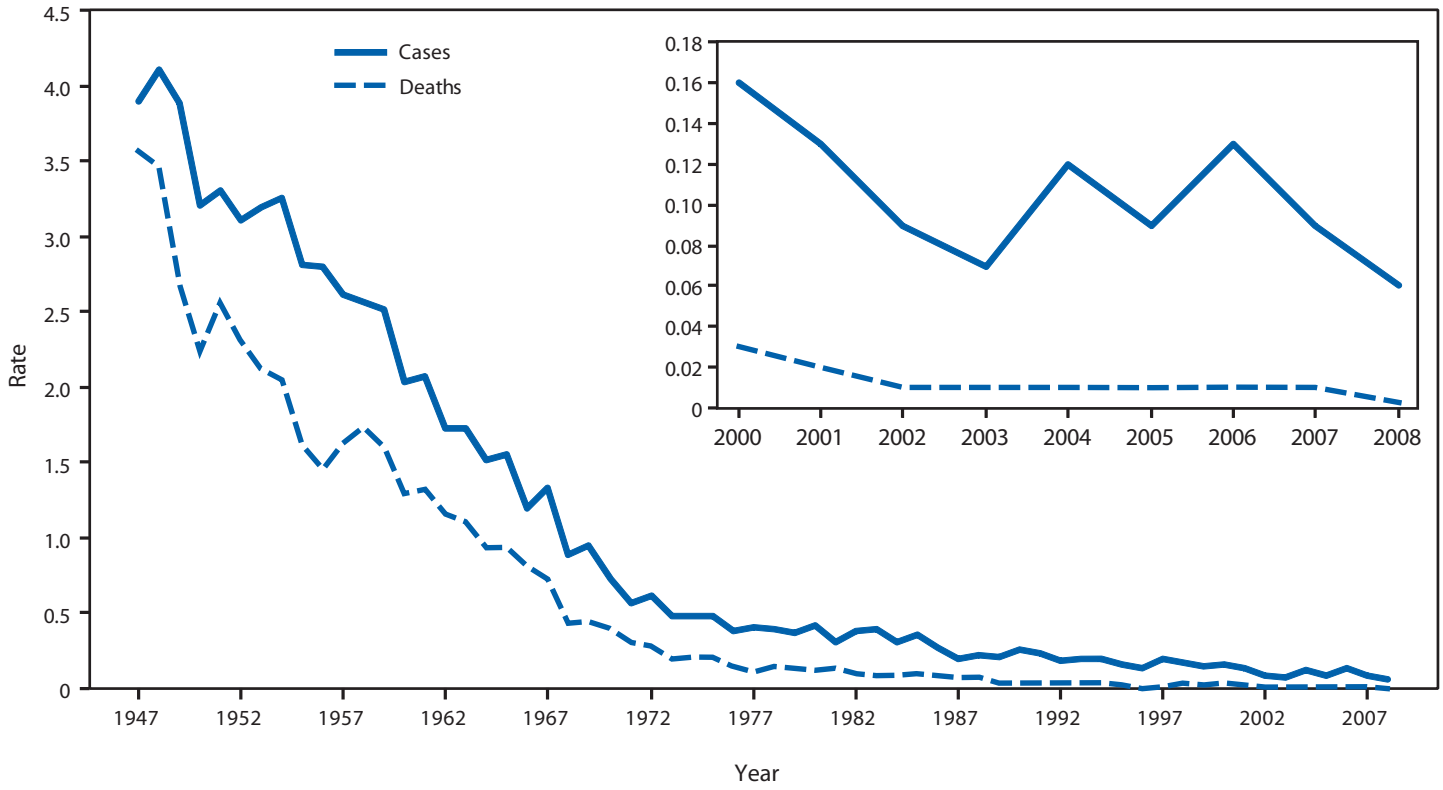
FIGURE. Annual rate* of tetanus cases and tetanus deaths — National Notifiable Diseases Surveillance System, United States, 1947–2008



* Per 1 million population.

The *MMWR* series of publications is published by the Office of Surveillance, Epidemiology, and Laboratory Services, 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 2011;60:[inclusive page numbers].

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for the years 2001–2008. Risk factors for death resulting from tetanus were assessed by univariate analyses followed by multivariate modeling.

During 2001–2008, a total of 233 cases were reported from 45 states; 26 (13.2%) of 197 cases for which outcome was reported were fatal. A total of 120 cases (51.5%) were reported from five states: California (60), Florida (25), Texas (12), New York (12), and Pennsylvania (11). An average of 29 cases was reported each year (range: 19–40). The average annual incidence was 0.10 per 1 million population (Table 1) and showed a slightly declining trend (Figure).

Sex and age were reported for all 233 cases. A total of 138 (59.2%) patients were male; median age was 49 years (range: 5–94 years), excluding one nonfatal neonatal case.* Average annual incidence was higher among those aged ≥65 years (0.23 cases per 1 million population) than among those aged 5–64 years (0.08 per 1 million population) (Table 1). Data on race were available for 179 (76.8%) cases; incidence was similar by race: white (0.08 per 1 million population), black (0.07), American Indian/Alaska Native (0.09), Asian/Pacific Islander (0.07), and other race (0.02). Data on Hispanic ethnicity were available for 185 (79.4%) cases. The incidence among Hispanics was almost twice that among non-Hispanics (0.13 versus 0.07 cases per 1 million population); however, when IDUs were excluded, the incidence was almost the same among Hispanics (0.08) compared with non-Hispanics (0.07).

TT vaccination status was reported for 92 (39.5%) of the 233 patients. A total of 37 patients (40.7%) received no TT doses, 26 (28.3%) received 1 dose, five (5.4%) received 3 doses, and 24 (26.1%) received ≥4 doses (Table 2). Among the 36 patients aged ≥50 years, five (13.9%) reported completing the primary 3-dose TT series, compared with 24 (42.9%) of the 56 aged <50 years. Seven (24.1%) of 29 patients with ≥3 doses of TT had received their last dose within 10 years, 18 (62.1%) from 10 to 54 years previously, and four (13.8%) reported an unknown interval since their last dose.

Among 195 patients whose medical history was known, 30 (15.4%) were reported to have diabetes. Twenty-seven (15.3%) of 176 patients whose status was known were IDUs, of whom 16 (59.3%) were Hispanic. Three (11.1%) of 27 patients with diabetes and known drug use status were IDUs. An

* The patient was a premature male who was delivered at home and developed tetanus 11 days after birth. His mother was an immigrant with an unknown vaccination history.

TABLE 1. Number and rate* of tetanus cases, number of known deaths, and case-fatality rate (CFR), by tetanus toxoid–containing vaccination status and age group — United States, 2001–2008

Age group (yrs)	Previous vaccination with tetanus toxoid–containing vaccine: Unknown No.	Unknown (%)	0 dose No.	0 dose (%)	1 dose No.	1 dose (%)	3 doses No.	3 doses (%)	≥4 doses No.	≥4 doses (%)	Total No.§	Total (%)	Average annual rate	No. known deaths	CFR† (%)
5–19	6	(27.3)	10	(45.5)	1	(4.6)	1	(4.6)	4	(18.2)	**22**	**(9.4)**	0.04	0	—
20–34	20	(58.8)	3	(8.8)	3	(8.8)	1	(2.9)	7	(20.6)	**34**	**(14.6)**	0.07	0	—
35–49	37	(59.7)	5	(8.1)	9	(14.5)	2	(3.2)	9	(14.5)	**62**	**(26.6)**	0.12	4	(7.5)
50–64	30	(69.8)	4	(9.3)	6	(14.0)	0	—	3	(7.0)	**43**	**(18.5)**	0.11	2	(5.4)
≥65	48	(67.6)	14	(19.7)	7	(9.9)	1	(1.4)	1	(1.4)	**71**	**(30.5)**	0.23	20	(31.3)
Total	**141**	**(60.5)**	**37**	**(15.9)**	**26**	**(11.2)**	**5**	**(2.2)**	**24**	**(10.3)**	**233**	**(100.0)**	**0.10**	**26**	**(13.2)**

* Per 1 million population.
† Based on 197 cases with known outcomes.
§ Includes one nonfatal case in a neonatal patient who received no vaccine doses.

TABLE 2. Number of tetanus cases and known deaths, by tetanus toxoid–containing vaccination status and years since last dose — United States, 2001–2008

Previous vaccination with tetanus toxoid–containing vaccine	No.	(%)	Years since last dose: <10 No.	<10 (%)	≥10 No.	≥10 (%)	Unknown No.	Unknown (%)	Known deaths* No.	Known deaths* (%)
0 dose	37†	(15.9)	—	—	—	—	—	—	8	(30.8)
1 dose	26	(11.2)	9	(32.1)	11	(21.6)	6	(3.9)	3	(11.5)
2 doses	0	—	—	—	—	—	—	—	—	—
3 doses	5	(2.2)	1	(3.6)	3	(5.9)	1	(0.7)	0	—
≥4 doses	24	(10.3)	6	(21.4)	15	(29.4)	3	(2.0)	1	(3.8)
Unknown	141§	(60.5)	12	(42.9)	22	(43.1)	107	(69.5)	14	(53.9)
Total	**233**	**(100.0)**	**28**	**(100.0)**	**51**	**(100.0)**	**117**	**(100.0)**	**26**	**(100.0)**

* Among 197 cases with known outcomes.
† Includes one nonfatal case in a neonatal patient.
§ Includes 34 patients who did not recall the number of doses but did recall when the last dose of vaccine was received.

What is already known on this topic?

In 1947, the first year that tetanus became reportable nationally in the United States, the rate of reported cases was 3.9 per 1 million population. Since then, cases have declined >95% with universal childhood vaccination with tetanus toxoid–containing (TT) vaccines, decennial TT boosters, improved wound management with tetanus antitoxin, and improved childbirth practices; however, sporadic cases in adults still occur, especially in those not vaccinated during childhood.

What is added by this report?

During 2001–2008, the average annual incidence of tetanus in the United States was 0.10 cases overall per 1 million population and 0.23 among persons aged ≥65 years; the case-fatality rate was 13.2% overall but 31.3% among persons aged ≥65 years.

What are the implications for public health practice?

Health-care providers should periodically assess their patients' TT vaccination status, with particular emphasis on up-to-date vaccination for those likely to be vaccinated inadequately or at increased risk for disease, such as persons aged ≥65 years, those with diabetes, and injection drug users.

acute wound preceded disease onset in 167 (71.7%) patients. Of those patient wounds, 132 (79.0%) were punctures, or contaminated, infected, or devitalized wounds considered tetanus-prone and eligible to receive tetanus immune globulin (TIG) (*4*). Sixty-one (36.5%) of the 167 patients with acute wounds sought medical care. Case reports for 51 (83.6%) of those who sought care were sufficiently complete to evaluate prophylaxis received; 49 (96.1%) did not receive appropriate TT prophylaxis or TT plus TIG as is currently recommended (*4*). Among all 233 patients, 31 (13.3%) reported a chronic wound or infection before disease onset, including diabetic ulcers and dental abscesses. Twenty-two (9.4%) reported no wounds or infections; of these, 14 were IDUs.

Among all persons with reported tetanus, the risk for fatal disease was greater among those aged ≥65 years than those aged <65 years (relative risk [RR] = 5.1; 95% confidence interval [CI] = 2.1–12.2), among those with diabetes than those without diabetes (RR = 2.4; CI = 1.2–4.8), and among those with no TT vaccination compared with those with ≥1 doses of TT (RR = 4.0; CI = 1.2–14.1). However, in the multivariable model, comparing age ≥65 years versus <65 years, diabetes versus no diabetes, and no doses of vaccination versus 1 dose, neither diabetes (odds ratio [OR] = 1.3; CI = 0.2–7.2) nor vaccination (OR = 3.1; CI = 0.7–15.1) were statistically significant. Age ≥65 years remained a factor for greater risk for fatal tetanus (OR = 9.6 ; CI = 3.6–25.0) in a final parsimonious model including only age. Sex, injection drug use, Hispanic ethnicity, unknown vaccination history, and acute injuries (versus chronic wounds) were not associated with increased risk for fatal disease in either univariate or multivariable analyses.

Reported by

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Editorial Note

Inadequate TT vaccination and inadequate wound prophylaxis remain the most important factors associated with tetanus. The findings in this report indicate that older adults are at greater risk for tetanus than younger persons, and the risk for fatal disease is higher among patients aged ≥65 years. This increased risk likely results from inadequate vaccination rather than inadequate response to vaccination, because tetanus toxoid is sufficiently immunogenic in older adults (*5*). In this analysis, only one patient aged ≥50 years reported having received a complete primary series and up-to-date boosters. Surveys of adults have shown declining TT vaccination coverage with increasing age, with coverage of <50% observed among persons aged ≥65 years in 2007 (*6*). Missed opportunities to vaccinate adult women and older adults in primary-care settings are common (*7,8*). Providers should review vaccination status during adult health-care visits to ensure that persons with inadequate vaccination complete the primary tetanus series and are up-to-date with booster doses.

In this analysis, approximately one third of patients with acute wounds sought medical care, and among those who sought care and had sufficient case data, fewer than 4% received appropriate TT prophylaxis or TT plus TIG as recommended (*4*). Patients might not receive optimal tetanus prophylaxis as part of wound management because of the trivial appearance of many wounds and the failure of health-care providers to obtain a vaccination history, particularly from those who are not up to date with their TT vaccination (*9*).

Populations considered at increased risk for tetanus include persons with tetanus-prone wounds, IDUs, and those with diabetes and chronic wounds. The prevalence of diabetes among patients in this analysis was 15%, nearly three times the average estimated prevalence of diabetes in the United States during 2001–2008 (*10*). Although the mechanism for increased risk is unclear, one possible explanation is that health-care providers might not suspect tetanus early in persons with chronic wounds and diabetes; approximately 13% of tetanus patients reported a chronic wound or infection before onset. Health-care providers should incorporate up-to-date decennial TT vaccination into routine diabetes management to prevent tetanus (*6*). Of those who reported no wound or infections,

the majority were IDUs. The mechanism for the greater tetanus risk among IDUs likely is introduction of tetanus spores through contaminated heroin or injection needles.

During 2001–2008, 71.7% of tetanus patients had acute wounds, but only 36.5% sought immediate medical care, thus limiting the effectiveness of secondary prevention strategies. This finding was nearly identical to that of a previous report for the period 1982–2000 (*1*). These data also support previous studies indicating that provision of prophylaxis is not always optimal, at least in part because tetanus can result from seemingly trivial wounds that would not trigger suspicion of tetanus risk; clinical determination of tetanus-prone wounds is not exact (*4,9*). In addition, this report indicates that, during 2001–2008, 13% of patients reported experiencing chronic wounds or conditions that were considered the source of tetanus infection. Many of these were not considered classic tetanus-prone wounds, according to treatment guidelines.

The findings in this report are subject to at least two limitations. First, surveillance for tetanus is passive and likely to be limited by underreporting and potential misclassification of disease. Second, because not all tetanus case reports were complete, missing data regarding outcome, risk factors, and other patient characteristics might affect the accuracy of the case-fatality ratio and certain other calculations.

Because *C. tetani* is ubiquitous in the environment, thorough assessment and management of wounds are especially important to the prevention of tetanus. Health-care providers should assess their patients' TT vaccination status with particular emphasis on up-to-date vaccination, especially if the patients are older adults, IDUs, persons with diabetes, and persons with chronic wounds.

Acknowledgments

This report is based, in part, on contributions by T Pondo, MS, CE Rose Jr, PhD, Div of Bacterial Diseases, K Brown, MPH, Global Immunization Div, National Center for Immunization and Respiratory Diseases; P Srivastava , MS, Office of the Director, Office of Infectious Diseases; S Shah, MS, Div of HIV/AIDS Prevention Surveillance and Epidemiology, National Center for HIV, Viral Hepatitis, STD, and TB Prevention, CDC.

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CDC Grand Rounds: Chlamydia Prevention: Challenges and Strategies for Reducing Disease Burden and Sequelae

Chlamydia, a sexually transmitted infection caused by the bacterium *Chlamydia trachomatis*, is the most commonly reported nationally notifiable disease. A total of 1,244,180 cases were reported in 2009 (*1*). However, many infections are not detected, and an estimated 2.8 million infections occur each year (*2*). The burden of infection is greatest among sexually active adolescents and young adults; chlamydia prevalence among sexually active persons aged 14–24 years is nearly three times the prevalence among those aged 25–39 years (National Health and Nutrition Examination Survey 1999–2008 [NHANES], unpublished data, 2011) (Figure 1). Substantial racial/ethnic disparities in chlamydial infection exist, with prevalence among non-Hispanic blacks approximately five times the prevalence among non-Hispanic whites. Among sexually active females aged 14–19 years, chlamydia prevalence is 6.8% overall (4.4% among non-Hispanic whites and 16.2% among non-Hispanic blacks).

The majority of genital chlamydial infections in both males and females are asymptomatic (*3*). When symptoms do occur, lower urogenital tract infection can manifest as cervicitis in females and urethritis in males and females. Whether symptomatic or asymptomatic, untreated chlamydia can ascend to the upper genital tract. In males, this can cause epididymitis, which is not thought to be an important cause of long-term sequelae. However, in females, upper tract infection can result in pelvic inflammatory disease (PID), a spectrum of clinical disorders involving infection and inflammation of the uterus, fallopian tubes, ovaries, or adjacent peritoneum. Both clinically diagnosed PID and subclinical upper genital tract infection can result in fibrosis, scarring, and loss of tubal function, which can in turn lead to serious long-term reproductive consequences, including tubal factor infertility (inability to conceive because of structural or functional fallopian tube damage), ectopic pregnancy, and chronic pelvic pain.

Available natural history data have limitations but suggest that 10%–15% of untreated chlamydial infections result in diagnosed clinical PID (*4,5*). Once clinical PID occurs, up to 10%–15% of cases might lead to tubal factor infertility (*4*). Chlamydia also can lead to tubal infection that is not diagnosed as PID; thus, an even greater proportion of untreated infections likely lead to infertility. Approximately 750,000 PID cases are diagnosed each year in the United States (*6*). However, PID has multiple infectious etiologies, and the burden of chlamydia-related PID is difficult to determine. Infertility is a major public health problem; in 2002, 7.4% of married females aged 15–44 years were infertile, and nearly one in five females aged 40–44 years reported receiving a medical service for infertility at some point (*7*). The proportion of all infertility that is tubal factor varies by clinical setting, ranging from 10% to 40% (*8,9*). Chlamydia is the leading preventable cause of tubal factor infertility (*8*). Direct medical costs of chlamydia, including diagnosing and treating chlamydia-associated infertility, are estimated at $701 million annually (in 2010 U.S. dollars) (*3*).

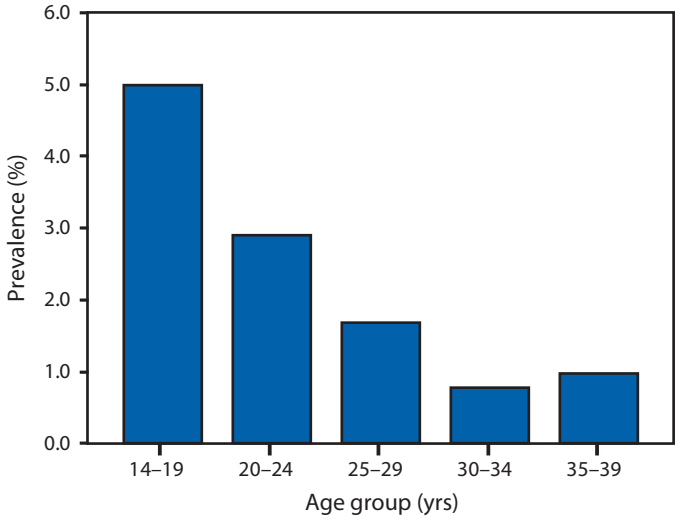
This is another in a series of occasional MMWR *reports titled CDC Grand Rounds. These reports are based on grand rounds presentations at CDC on high-profile issues in public health science, practice, and policy. Information about CDC Grand Rounds is available at http://www.cdc.gov/about/grand-rounds.*

Prevention Challenges and Solutions

Chlamydia prevention programs have been implemented to reduce the burden of reproductive sequelae resulting from chlamydial infection. Because most reproductive complications of chlamydia occur in females and most infections are asymptomatic, the cornerstone of chlamydia prevention is screening young females for infection. Chlamydia is easily diagnosed and treated. Nucleic acid amplification tests are the preferred diagnostic tests because of their superior sensitivity, and they can be performed on easily collected specimens, such as urine or vaginal swabs. Highly efficacious treatment options include single-dose oral azithromycin or a 1-week course of doxycycline. National chlamydia screening recommendations were first released in 1993. Currently, CDC, the U.S. Preventive Services Task Force (USPSTF), and numerous professional medical associations recommend annual chlamydia screening for all sexually active females aged <25 years and for females aged ≥25 years if they are at increased risk for infection (e.g., if they have new or multiple sex partners) (*10*). USPSTF defines chlamydia screening of sexually active young females as an A-rated recommended preventive service (strongest recommendation), based on randomized controlled trial data demonstrating that screening reduces PID incidence (*2*).

Evidence is insufficient to recommend routine chlamydia screening for males because of several factors, including feasibility, impact, and cost-effectiveness in preventing sequelae in females (*10*). However, targeted male screening in high prevalence settings (e.g., correctional facilities) should be considered when resources permit and such screening does not hinder

FIGURE 1. Chlamydia prevalence among sexually active* persons, by age group — United States, 1999–2008†



Source: Unpublished data from National Health and Nutrition Examination Survey cycles 1999–2008, combined to provide stable estimates for all subgroups. Additional information available at http://www.cdc.gov/nchs/nhanes/nhanes_questionnaires.htm.

* Based on a "yes" response to the question, "Have you ever had sex?" Sex was defined as vaginal, anal, or oral sex.

† All relative standard errors <30%.

chlamydia screening efforts in females (*10*). Male partners of females infected with chlamydia have the highest prevalence of infection and should be the top priority for chlamydia testing and treatment efforts among males.

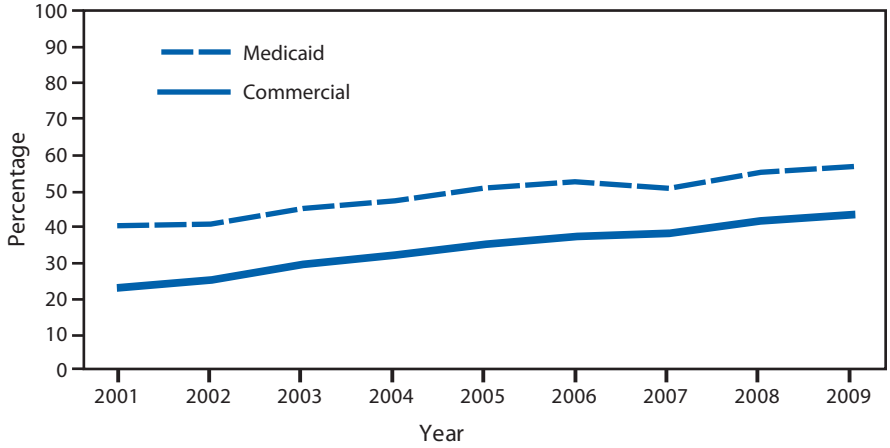
National screening recommendations have been in place for 18 years. Assessing the success of chlamydia prevention programs in reducing chlamydial infections and associated sequelae is critical. Traditionally, sexually transmitted disease (STD) trends have been monitored through case reports, and reported chlamydia case rates have climbed steadily during the past 2 decades (*1*). However, reported case rates do not necessarily reflect actual trends in incidence of infection. Increased case rates most likely are attributed to increased detection of infection through greater screening and use of more sensitive tests. In fact, prevalence data from several sources indicate that national chlamydia prevalence has not increased during the past decade and might actually be decreasing (*11,12*). For example, in a study conducted among women and men entering the National Job Training Program, the adjusted odds of a positive chlamydia test decreased by 19% in women and 8% in men during 2003–2007 (*12*). In addition, although PID has multiple causes, several data sources demonstrate that PID rates have been decreasing (*1,6,13*). After substantial declines in PID rates during the late 1980s and 1990s (*6*), a 25% decline in PID rates during 2001–2005 was observed using a sample of national insurance claims data (*13*). Overall, available ecologic evidence suggests that current chlamydia prevention programs, focused primarily on screening young females, are having some impact on chlamydia prevalence and PID, but not enough.

Screening females aged <25 years is ranked by the National Commission on Prevention Priorities as one of the 10 most beneficial and cost-effective prevention services, but it also is among the most underutilized (*14*). Screening coverage increased during 2001–2009 but still was less than 60%; in 2009, coverage was 43% among eligible females enrolled in commercial health-care plans and 57% among the Medicaid population (Figure 2) (*15*). Expanding chlamydia screening will be critical to reducing disease burden and associated reproductive sequelae. In addition, other prevention strategies also should play an important role, including behavioral interventions, rescreening of infected persons, and partner treatment efforts.

Behavioral risk reduction efforts, such as promoting correct and consistent condom use, can have an impact not only on chlamydia, but also on other STDs, including human immunodeficiency virus (HIV) infection, and on unintended pregnancy (*10*). Because repeat chlamydial infection is common, CDC recommends rescreening persons with chlamydia 3 months after treatment (*10*). Finally, treating male sex partners of infected females is critical in preventing repeat infections in females, and modeling work has shown that it also is essential in interrupting chlamydia transmission in the population (*16*). A safe, effective partner treatment tool endorsed by CDC and many medical associations is expedited partner therapy (EPT) (*17*). EPT involves providing prescriptions or medications to a patient to take to his/her partner, without examining the partner. EPT has been shown to be useful in ensuring partner treatment among males and reducing repeat infections among females (*17*).

Barriers exist in implementing chlamydia prevention strategies. Young females might lack knowledge about the need for screening and might be reluctant to seek STD services because of fears related to disclosing sexual activity to health-care providers and the societal stigma related to STDs. In addition, young adults (i.e., those aged 20–29 years) remain the largest uninsured group in the United States, with associated underutilization of health care (*18*). When young females do seek care, many health-care providers fail to take a sexual history and offer chlamydia screening. Clinicians might have limited knowledge about STDs and screening recommendations, might lack information about community STD rates, and might believe their patients are not at high risk (*19*). High deductibles and copayments for clinic visits, laboratory services, and medications might be another important barrier. For adolescents, maintaining confidentiality is of particular concern. All 50 states and the District of Columbia currently

FIGURE 2. Percentage of sexually active* females aged 16–24 years† screened for chlamydia, by health plan type — United States, 2001–2009



Source: Healthcare Effectiveness Data and Information Set. Available at http://www.ncqa.org/tabid/136/default.aspx.

* Defined as persons who had a claim or visit for pregnancy; contraception; diagnosis, screening, or treatment for a sexually transmitted disease; or cervical cancer screening.

† Aged 16–26 years during 2001–2002, 16–25 years during 2003–2007, and 16–24 years during 2008–2009.

allow minors to seek care for STD diagnosis and treatment without parental consent; however, maintaining confidentiality in the billing and insurance claims process is challenging. Many states mandate commercial health plans to provide written statements to the primary insured, usually parents or guardians, listing services rendered and those reimbursed by the health plan. Thus, "confidential" services could potentially be disclosed.

Several initiatives are under way to expand chlamydia screening efforts. To address the stigma and the lack of information about chlamydia and other STDs, CDC and its partners, MTV Networks, the Kaiser Family Foundation, and the Planned Parenthood Federation of America, are in the third year of a national campaign known as GYT (Get Yourself Tested).* The goals are to increase awareness among adolescents and young adults, normalize conversations about STD prevention, and promote sexual health and STD testing. The campaign includes public service announcements, videos, an STD testing service locator that can be accessed via website or mobile phone, and tips on generating conversations about STD testing. The Patient Protection and Affordable Care Act of 2010 expands insurance access for young adults and eliminates chlamydia screening copayments for young females who sign up for new insurance plans.† The National Chlamydia Coalition is training medical professionals, endorsing screening by professional medical associations, developing tools to facilitate office-based screening, disseminating information through lectures, articles, and webinars, and promoting quality measures to improve the care of adolescents.§ The coalition also is working to address racial/ethnic disparities in chlamydia prevalence, for example, by using mini-grants to develop community-level prevention approaches in areas with a disproportionate burden. The American Academy of Pediatrics and the Society for Adolescent Health and Medicine have developed coding and billing tools to maximize provider reimbursement while minimizing potential disclosure of confidential services through health plan billing statements.¶

One of the primary barriers to improving partner treatment services for chlamydia has been concerns about the legality of EPT in various jurisdictions. National advocacy efforts have been successful in removing many EPT legal and health systems barriers. In 2006, EPT was legally permissible in 12 states; as of November 2010, it was permissible in 27 states and one city. California was one of the first states to legalize EPT. In monitoring chlamydia partner services, California has found the highest levels of partner treatment with EPT, as well as with an alternative partner treatment strategy, "bring your own partner" (BYOP) (Figure 3) (*20*). With BYOP, at the time clinic staff members contact patients regarding their positive chlamydia test results and the need for timely treatment, staff members encourage patients to bring their partners with them when they come for treatment. For all partner treatment strategies, cost remains a major barrier to implementation. Ensuring coverage of the partner's prescribed treatment is critical. Effective partner treatment is an evidence-based prevention intervention that can reduce the risk for reinfection in females and ongoing transmission of chlamydia in the population.

Summary and Next Steps

A substantial burden of chlamydia exists in the United States. Chlamydia is an important preventable cause of infertility and other adverse reproductive health outcomes. Effective prevention interventions are available to reduce the burden of chlamydia and its sequelae, but they are underutilized. Although prevention programs appear to be having some impact on chlamydia prevalence and PID, improvements can be made in raising awareness about chlamydia, increasing screening coverage, and enhancing

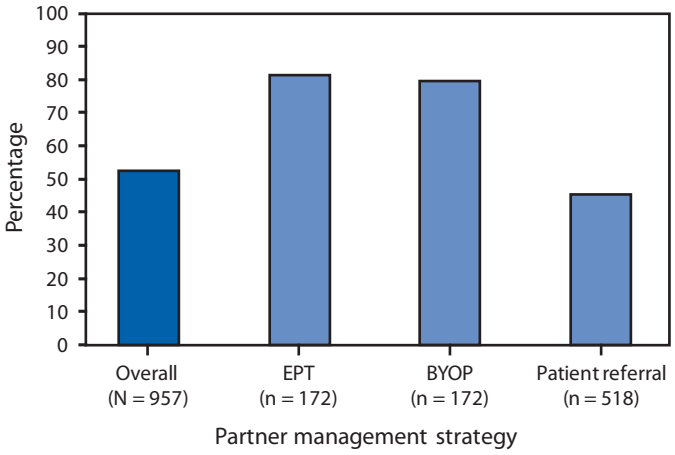
* Additional information available at http://www.gytnow.org.

† Additional information available at http://edocket.access.gpo.gov/2010/pdf/2010-17242.pdf.

§ Additional information available at http://ncc.prevent.org.

¶ Additional information available at http://www.adolescenthealth.org/clinical_care_resources/2304.htm.

FIGURE 3. Percentage of chlamydia patients reporting that their sex partners also received treatment, by partner management strategy — eight family planning clinics, California, 2005–2006



Abbreviations: EPT = expedited partner therapy; BYOP = bring your own partner.
Source: Yu Y, Frasure J, Bolan G, et al. Evaluation of partner services for treatment of *Chlamydia trachomatis* in California family planning clinics. Presented at the 2008 National STD Prevention Conference, Chicago, IL, March 10–13, 2008. Available at http://cdc.confex.com/cdc/std2008/webprogram/Paper14526.html.

partner services, including EPT. In addition, efforts should focus on reaching disproportionately affected racial/ethnic groups. Improving measurement of program implementation and outcomes also is critical. Chlamydia prevention presents many challenges but also opportunities for improvement. To break the cycle of chlamydia transmission in the United States, health-care providers should encourage annual chlamydia screening for all sexually active females aged <25 years, maximize use of effective partner treatment services, and rescreen infected females and males 3 months after treatment.

Reported by

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Measles Outbreaks and Progress Toward Measles Preelimination — African Region, 2009–2010

In 2008, the World Health Organization (WHO) African Region (AFR) measles technical advisory group (TAG) recommended establishing a measles preelimination goal, to be achieved by the end of 2012. The goal sets the following targets for the 46 AFR countries: ≥98% reduction in estimated regional measles mortality compared with 2000; measles incidence of <5 cases per 1 million population per year nationally; >90% national measles-containing vaccine (MCV) first dose (MCV1) coverage and >80% MCV1 coverage in all districts; and ≥95% MCV coverage by supplementary immunization activities (SIAs) in all districts (*1*). The goal also sets surveillance performance targets of ≥2 cases of nonmeasles febrile rash illness per 100,000 population, ≥1 suspected measles cases investigated with blood specimens in ≥80% of districts, and routine reporting from all districts (*1*). In addition, introduction of a routine second MCV dose (MCV2) was recommended for countries meeting specific criteria for MCV1 coverage and measles surveillance (*1,2*). This report updates progress toward the preelimination goal during 2009–2010 and summarizes measles outbreaks occurring in AFR countries since 2008. Of the 46 AFR countries, 12 (26%) reported measles incidence of <5 cases per 1 million population during 2010, compared with 28 (61%) in 2008. Furthermore, 28 (61%) countries reported a laboratory-confirmed measles outbreak during 2009–2010 (*3*). The recent measles outbreaks highlight the need for renewed dedication by donors and governments to ensure that national multiyear vaccination plans, national budgetary line items, and financial commitments exist for routine immunization services and measles control activities.

Measles Vaccination Coverage

The 46 AFR countries* report routine vaccination coverage to the WHO Regional Office for Africa (AFRO) using the WHO and United Nations Children's Fund (UNICEF) Joint Reporting Form (JRF) (*4*). In addition, WHO and UNICEF publish MCV1 coverage estimates based on multiple data sources, including JRF reports and demographic surveys (*5*). As of 2010, MCV1 was administered routinely at age 9 months† in 43 countries, and MCV2 was included in the routine immunization program in seven countries (Algeria, Cape Verde, Lesotho, Mauritius, Seychelles, South Africa, and Swaziland).

During 2001–2008, reported MCV1 coverage increased from 55% to 79% in the region (*6*). In 2009, AFR MCV1 administrative coverage§ was 83%, based on the most recent JRF data; the WHO and UNICEF regional MCV1 coverage estimate was 69% (Figure 1). In 2009, four (9%) countries (Burkina Faso, Gambia, Mauritius, and Sao Tome and Principe) reported >80% MCV1 coverage in all districts. To interrupt endemic transmission of measles, mathematical models indicate that 93%–95% population immunity is needed (*7*). Since 1997, 41 (89%) countries (all except Algeria, Cape Verde, Mauritius, Sao Tome and Principe, and Seychelles) have conducted an SIA targeting children aged 9 months–14 years, and 43 (93%) countries (all except Algeria, Mauritius, and Seychelles) have conducted at least one SIA targeting children aged 9–59 months. A nationwide SIA was conducted in 31 (67%) countries during 2009–2010 (Table); of these countries, five (16%) (Ethiopia, Ghana, Malawi, Zambia, and Zimbabwe) conducted post-SIA vaccination coverage surveys.

Measles Surveillance

Data on suspected measles cases are tallied monthly at local health facilities, reported to the district level, aggregated at the national level, and annually reported to AFRO using the JRF (*8*). JRF data on 2010 suspected measles cases were not yet available; thus, 2010 measles case-based surveillance data reported to AFRO by 40 (87%) countries, in accordance with WHO AFRO measles surveillance guidelines, are cited instead (*8*). During 2001–2008, reported measles cases in AFR decreased by 93%, and estimated measles-related mortality declined 91% (*2*). The number of reported measles cases decreased from 520,102 in 2000 to 37,162 in 2008, then increased to 83,464 in 2009 and to 172,824 in 2010 (Figure 1). Of 172,824 reported cases, 23,842 (14%) were laboratory confirmed and 109,570 (63%) were confirmed through epidemiologic link¶ (*3*). During 2010, 25 (63%) countries met the nonmeasles febrile rash illness reporting target of ≥2 cases per 100,000

* AFR countries: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia, and Zimbabwe.

† MCV1 is administered in Cape Verde, Mauritius, and Seychelles at ages 12–15 months.

§ Administrative coverage is the total number of doses given to the target population, divided by the estimated target population.

¶ A laboratory-confirmed case is confirmed by serology for measles-specific immunoglobulin M (IgM) antibody in a person who was not vaccinated in the previous 30 days. A case of measles is confirmed by epidemiologic linkage when linked in time and place to a laboratory-confirmed measles case in a district but lacks serologic confirmation (*8*).

TABLE. Reported and estimated measles vaccination coverage,* supplementary immunization activities (SIAs),† reported measles cases,§ and measles incidence,¶ by country — World Health Organization (WHO) African Region, 2009–2010

	MCV1 coverage for 2009		Most recent national measles SIA			2009		2010	
Country	Administrative coverage (%)**	WHO/UNICEF estimates (%)††	Year	Target age groups (mos)	Administrative coverage (%)	No. of reported measles cases	Incidence (per 100,000 population)	No. of reported measles cases	Incidence (per 100,000 population)
Algeria	NA	88	2007	NA	90	NA	NA	NA	NA
Angola¶¶	77	77	2009	9–59	>100	2,657	0.3	1,679	6.7
Benin¶¶	95	72	2008	9–59	>100	1,001	7.6	368	2.7
Botswana¶¶	93	94	2009	9–59	>100	553	5.9	1,412	46.8
Burkina Faso¶¶	99	75	2007	9–59	>100	786	3.3	741	2.5
Burundi¶¶	91	91	2010	9 mos–14 yrs	94	303	0.2	492	2.8
Cameroon¶¶	74	74	2009	9–59	96	1,305	4.4	808	1.1
Cape Verde	72	96	2009	9–59	87	3	0.0	NA	NA
Central African Republic	94	62	2010	9–47	NA	119	0.3	96	0.0
Chad¶¶	87	23	2009	9–59	93	551	3.7	305	1.7
Comoros	79	79	2010	9–47	84	1	NA	NA	NA
Congo	76	76	2010	9–59	82	106	0.0	113	0.1
Côte d'Ivoire¶¶	67	67	2008	9–59	95	423	0.7	912	2.1
Democratic Republic of Congo¶¶	86	76	2010	6–59	NA	683	0.1	1,421	0.2
Equatorial Guinea	77	51	2009	12–59	80	76	NA	NA	NA
Eritrea	80	95	2009	9–47	82	45	0.1	168	0.1
Ethiopia¶¶	75	75	2006	9–59	87	4,470	2.6	8,261	5.4
Gabon	63	55	2007	9–59	83	122	NA	58	0.1
Gambia	88	96	2007	9–59	96	3	NA	69	0.1
Ghana	93	93	2010	9–59	92	587	0.4	680	0.2
Guinea¶¶	87	51	2009	9–59	>100	56	NA	105	0.4
Guinea-Bissau	79	76	2009	9–59	>100	0	0.0	NA	NA
Kenya	74	74	2009	9–59	82	1,374	0.1	1,279	0.2
Lesotho¶¶	70	85	2010	6 mos–14 yrs	91	182	0.9	2,857	118.7
Liberia¶¶	95	64	2010	6–59	100	53	0.0	81	0.3
Madagascar	85	64	2010	9–47	93	364	NA	394	NA
Malawi¶¶	92	92	2010	9 mos–14 yrs	>100	533	0.1	73,727	526.3
Mali¶¶	86	71	2007	9–59	>100	3,086	22.4	1,990	12.6
Mauritania¶¶	59	59	2007	9–59	98	152	1.0	620	17.5
Mauritius	99	99	NA	NA	NA	15	NA	NA	NA
Mozambique¶¶	67	77	2008	9–59	>100	457	0.2	2,318	6.7
Namibia¶¶	76	76	2009	9–59	>100	2,222	45.4	2,242	64.3
Niger¶¶	87	73	2010	9–47	>100	906	3.7	414	1.8
Nigeria¶¶	81	41	2008	9–59	97	4,800	0.8	14,028	5.1
Rwanda¶¶	93	92	2009	9–59	>100	254	0.1	517	1.2
Sao Tome and Principe	90	90	NA	NA	NA	0	0.0	NA	NA
Senegal¶¶	79	79	2010	9–59	NA	1,429	7.9	866	3.7
Seychelles	97	97	NA	NA	NA	0	0.0	NA	NA
Sierra Leone¶¶	93	71	2009	9–59	>100	191	0.4	151	1.6
South Africa¶¶	99	62	2010	6 mos–14 yrs	80	2,510	3.1	24,393	25.5
Swaziland¶¶	72	95	2010	6–59	90	152	0.3	771	25.9
Togo¶¶	84	84	2010	9–47	98	413	2.9	360	2.1
Uganda	81	68	2009	9–47	>100	1,216	0.2	1,313	0.0
United Republic of Tanzania	91	91	2008	9–59	86	975	1.4	1,086	0.4
Zambia¶¶	92	85	2010	9–47	>100	342	0.2	15,736	107.3
Zimbabwe¶¶	76	76	2010	6 mos–15 yrs	97	524	1.1	9,993	72.4
Regional total	**83§§**	**69*** **				**36,000**	**1.9**	**172,824**	**17.2**

Abbreviations: AFRO = African Regional Office; IgM = immunoglobulin M; JRF = Joint Reporting Form; MCV = measles-containing vaccine; MCV1 = measles-containing vaccine first dose; NA = not available; UNICEF = United Nations Children's Fund.

* Reported measles vaccination coverage is the proportion of children aged 9–12 months who have received MCV1. The proportion is calculated by dividing the number of doses of MCV administered by the targeted number of children.

† SIAs are regularly scheduled nationally to provide a second opportunity to administer MCV to all children aged 9–59 months.

§ WHO AFRO monthly case-based reporting system. Underreporting in case-based data compared with the JRF data in 2009 was notably lower in Burkina Faso, Guinea, Mauritania, Namibia, South Africa, Uganda, United Republic of Tanzania, and Zimbabwe.

¶ Confirmed incidence is derived from cases confirmed in laboratory testing for measles-specific IgM antibodies, and reported to AFRO.

** Administrative coverage is the number of doses given to the target population, divided by the estimated target population. Countries report administrative data to WHO.

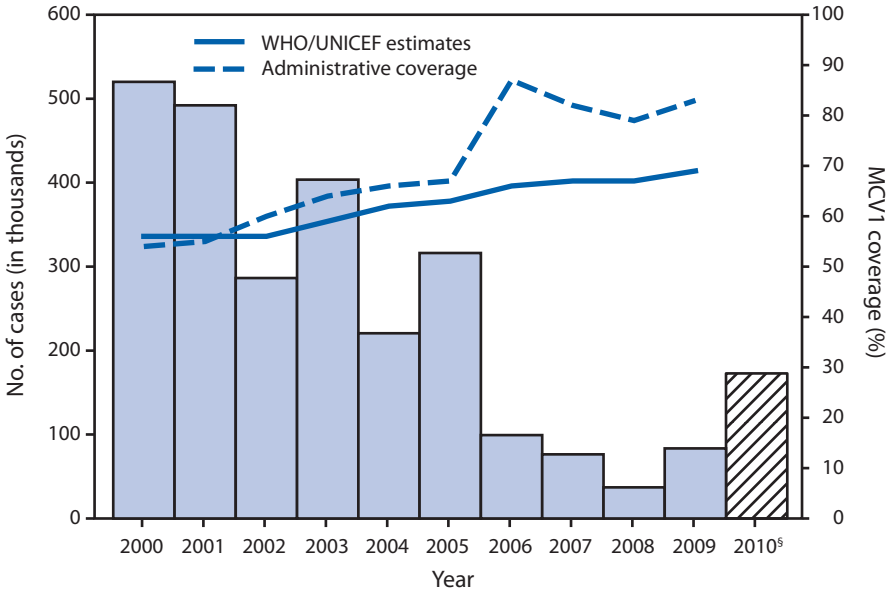
†† WHO and UNICEF estimates of routine measles vaccination coverage are based on reviews of surveys and national reports of administrative coverage.

§§ JRF data reported MCV1 administrative coverage as 79% in 2008 and 83% in 2009.

¶¶ One of the 28 countries that had measles outbreaks during 2009–2010.

*** WHO/UNICEF regional estimate for MCV1 was 67% in 2008 and 69% in 2009.

FIGURE 1. Number of reported measles cases* and coverage with the first dose of measles-containing vaccine (MCV1) in children aged <1 year† — World Health Organization (WHO) African Region (AFR), 2000–2010§



* Confirmed cases of measles for 2000–2009 were reported by member states to WHO and the United Nations Children's Fund (UNICEF) through the Joint Reporting Form (JRF).

† Data are from WHO/UNICEF measles vaccination coverage estimates based on reviews of surveys and national reports of administrative coverage and adjusted for biases. Administrative coverage is calculated by dividing the number of doses administered by the total estimated number in the <1 year target population.

§ 2010 data are from monthly measles case-based surveillance reported to the WHO AFR Office; JRF data are not included.

population and 29 (73%) had ≥80% of districts reporting ≥1 suspected cases with blood specimen. The overall confirmed measles incidence for the region in 2010 was 17.2 per 100,000 population and 12 (30%) countries reported measles incidence of <5 cases per 1 million population (Figure 2).

During 2009 and 2010, B3 measles virus was detected in all 25 countries with genotype information and was the predominant genotype in the region. In addition to the B3 outbreak strain, Angola and Namibia reported transmission of the B2 genotype, and South Africa reported two additional genotypes: a D4 from a single case imported during the World Cup games in June 2010 and a D8 from a single case in 2009.

Major Outbreaks and Response Activities

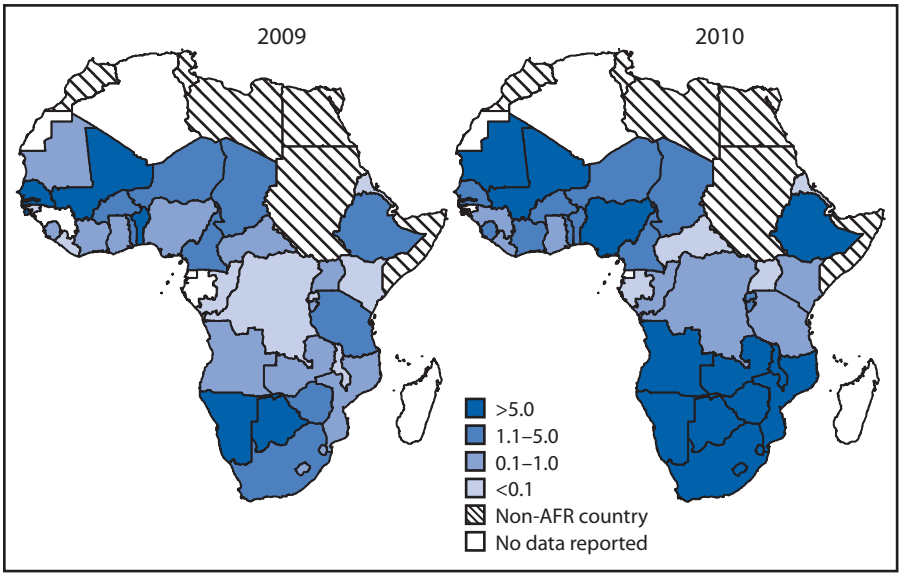
During 2009–2010, a total of 28 (61%) of the 46 AFR countries had laboratory-confirmed measles outbreaks** with >100 reported measles cases, including 13 countries in 2009 and 15 additional countries in 2010 (Table), compared with nine (20%) countries in 2008. Of these 28 countries, 10 reported ≥90% MCV1 coverage in 2009, 15 had a follow-up SIA within 24 months before the outbreak, and all reported ≥90% SIA administrative coverage in the most recent measles SIA (Table). Of the 28 countries with reported outbreaks, 20 conducted an outbreak investigation and 14 implemented an outbreak response immunization (ORI) campaign or a nationwide SIA following the start of the outbreak.

In some AFRO countries, frequent outbreaks continued, suggesting that children were missed by routine vaccinations and by SIAs in recent years. Measles outbreaks in which the majority of cases involved children aged <5 years occurred in Angola, Democratic Republic of Congo, Ethiopia, Nigeria, and Sierra Leone. Ethiopia, for example, reported that MCV1 coverage increased from 59% in 2005 to 75% in 2009. The last nationwide measles SIA, conducted in three phases during 2007–2009, targeted children aged 9–59 months, with reported coverage of 98%, 92%, and 93%, respectively. The 2009 nonmeasles febrile rash illness rate was 2.4 per 100,000 population, and 87% of districts reported ≥1 suspected cases with blood specimen. In 2009, 1,176 suspected cases were reported, compared with 8,261 cases in 2010 in 93 of 96 administrative zones. Of the cases reported in 2010, a total of 4,182 (51%) were confirmed by either laboratory testing or epidemiologic link. Of the confirmed cases, 3,142 (75%) were among children aged <5 years, and 3,877 (93%) were among unvaccinated persons. In 2010, an ORI campaign was conducted in 54 districts of five zones, targeting children aged 6–59 months, with reported coverage >100%.

In AFRO countries with higher, but still suboptimal, MCV1 coverage and SIA implementation, the age distribution of measles cases shifted to include older children and young adults. A measles outbreak pattern in which the age distribution of measles cases included older children and young adults occurred in Burkina Faso, Malawi, Namibia, South Africa, and Zambia. In Malawi, for example, reported MCV1 coverage increased from 82% in 2005 to 92% in 2009; a nationwide SIA targeting children aged 9–59 months was implemented in both 2005 and 2008, each with >95% reported coverage. In 2009, the nonmeasles febrile rash illness rate was 3.8 per

** A measles outbreak is laboratory confirmed when 3 or more laboratory-confirmed measles IgM-positive cases occur in a health facility or district in a month (*8*).

FIGURE 2. Confirmed measles incidence* — World Health Organization (WHO) African Region (AFR), 2009 and 2010



* Confirmed measles incidence per 100,000 population; measles cases confirmed by laboratory testing or epidemiologic linkage.

100,000 and 96% of districts reported ≥1 suspected case with blood specimen. In 2010, 73,727 suspected measles cases were reported from 24 of 28 districts in Malawi. Among 35,366 patients reported during October 24, 2009–July 17, 2010, a total of 14,627 (41%) were aged <5 years, 11,391 (32%) were aged 5–14 years, and 9,348 (26%) were aged ≥15 years. An initial ORI campaign was conducted 3 months after the start of the outbreak in three districts targeting children aged 9–59 months. A second ORI campaign was conducted 5–6 months after the outbreak started in eight districts targeting children aged 6 months–14 years in affected schools and prisons with clusters of patients. In 2010, a nationwide SIA was implemented targeting children aged 6 months–14 years with >95% administrative coverage in 26 of 28 districts.

Reasons for nonvaccination identified through outbreak investigations during 2009–2010 included vaccine unavailability; strict adherence to the WHO open vial policy,[††] leading to batching of children into infrequent vaccination sessions; and exclusion of children aged >12 months, who were considered ineligible for MCV1. In addition, unwillingness to receive vaccination was identified among certain religious groups in Zimbabwe, Botswana, Malawi, and South Africa.

[††] The WHO policy requires that opened vials of MCV be discarded at the end of each immunization session or immediately if potentially contaminated. The policy is available at http://www.who.int/vaccines-documents/docspdf/www9403.pdf.

Reported by

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Editorial Note

During 2001–2008, AFR countries made remarkable progress in reducing measles mortality and morbidity by increasing MCV1 coverage and periodic SIAs (*2*). However, since reaching an historic low of 32,278 reported cases in 2008, a resurgence of measles led to multiple large outbreaks during 2009–2010, despite increases in reported MCV1 coverage, indicating the fragility of the progress (Figure 1). Suboptimal routine and SIA vaccination coverage led to an increasing number of susceptible persons over a prolonged period of low incidence, allowing some children to remain susceptible as they grew older. Outbreak cases occurring among older children and young adults suggest some progress in reducing measles incidence together with long-standing gaps in vaccination activities. In countries with large outbreaks occurring primarily among children aged <5 years, substantial numbers of children were missed by both routine vaccination and SIAs in recent years. In these countries, estimated MCV1 coverage remains suboptimal and reviews of vaccination services are needed to identify programmatic reasons for nonvaccination (*9*). Detailed outbreak investigations are recommended to describe the epidemiology of an outbreak, guide rapid ORI, and determine the likely cause of the outbreak (e.g., failure to vaccinate) (*1*).

The findings in this report are subject to at least two limitations. First, underreporting of measles cases and low sensitivity of measles case-based surveillance in some countries likely led to underestimates of measles incidence. Second, SIA administrative coverage >100% suggests inaccurate and inflated reported coverage (*9*).

Although post-SIA coverage surveys are recommended, only five of 31 countries implemented a post-SIA coverage survey during 2009–2010. Estimates of vaccination coverage from population-based coverage surveys are key inputs to determine the susceptibility profile of a population. In addition, reliable

What is already known on this topic?

During 2001–2008, reported measles-containing vaccine first dose (MCV1) coverage increased from 55% to 79% in 46 African countries, reported measles cases decreased by 93%, and estimated measles-related mortality decreased 91%. By 2008, 40 of the 46 countries had established case-based surveillance in accordance with the World Health Organization guidelines, and 28 reported measles incidence <5 cases per 1 million population per year.

What is added by this report?

In 2009, reported MCV1 coverage among the 46 African countries was 83%; 12 (26%) countries had measles incidence of <5 cases per 1 million population in 2010, and 28 (61%) reported laboratory-confirmed measles outbreaks.

What are the implications for public health practice?

Despite substantial progress toward reducing measles mortality and morbidity, multiple outbreaks during 2009–2010 showed the gains were fragile, and epidemiologic investigations of some outbreaks showed a failure to vaccinate. The reasons for nonvaccination and corrective solutions need to be determined, the quality of reported data should be verified, and measles surveillance should be strengthened.

coverage estimates can help identify areas of low coverage so that program managers can better prioritize and more efficiently use resources. Even though AFR reported MCV coverage has increased continuously and the quality of measles surveillance has improved, subsequent measles outbreaks raise doubts concerning the accuracy and reliability of reported coverage and surveillance data. WHO-recommended methods for improving the accuracy of monitoring measles vaccination programs and post-SIA surveys to estimate coverage should be implemented routinely (*1*).

The 2009–2010 outbreaks highlight the need for full implementation of regional strategies, with an emphasis on improving vaccination coverage through routine immunization services and SIAs in every district, and introduction of MCV2 into routine immunization services in eligible countries (*1*). National immunization program policies and delivery systems should be reviewed to ensure access to the recommended 2 doses of MCV by all eligible children. Communication strategies should be identified to ensure vaccination acceptance and demand among all segments of the population. Renewed dedication by donors and governments is needed to ensure that national multiyear plans, budgetary line items, and financial commitments exist for routine immunization services and measles control activities.

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Announcements

Autism Awareness Month — April 2011

April is Autism Awareness Month. CDC's most recent report from the 11 sites that make up the Autism and Developmental Disabilities Monitoring (ADDM) Network identified 2,757 children with autism spectrum disorders (ASDs) in a total population of 308,038 children aged 8 years, indicating a prevalence of approximately one in 110 (or 1% of children) (*1*). ASDs are a group of developmental disabilities characterized by atypical development in socialization, communication, and behavior. The symptoms of ASDs typically are present before age 3 years and often are accompanied by abnormalities in cognitive functioning, learning, attention, and sensory processing (*1,2*).

Efforts are needed to understand how complex genetic and environmental factors interact to result in the manifestations that make up the autism spectrum. In addition to differences in ASD prevalence by race/ethnicity, sex, and cognitive functioning, potential risk factors (e.g., variations by urban and rural area, sociodemographic status, perinatal complications, and parental age) also need further study. ADDM data are being analyzed to better understand the roles of these and other factors. Studies such as the Study to Explore Early Development, a CDC-funded study examining various risk factors for ASD, are being conducted and are necessary to test hypotheses more fully.

CDC also is working with caregiver and professional groups through the "Learn the Signs. Act Early" health education program to improve early identification of ASDs and other developmental disabilities (*3*). CDC has resources and information for health-care providers, including information on screening tools and free educational materials to give to patients. These resources are available at http://www.cdc.gov/actearly. Additional information about autism and CDC's activities is available at http://www.cdc.gov/autism.

References

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Epidemiology in Action: Intermediate Analytic Methods Course — May 31–June 1, 2011

Emory University's Rollins School of Public Health and CDC's Office of Surveillance, Epidemiology, and Laboratory Services will cosponsor Epidemiology in Action: Intermediate Analytic Methods, to be held May 31–June 3, 2011, at Emory University. This course is designed for public health professionals who have had training and experience in basic applied epidemiology and would like training in additional quantitative skills related to analysis and interpretation of epidemiologic data.

The course includes a review of the fundamentals of descriptive epidemiology and biostatistics, measures of association, normal and binomial distributions, confounding, statistical tests, stratification, logistic regression models, and computer programs as used in epidemiology.

The prerequisite is an introductory course in epidemiology taken as an undergraduate or graduate student or completion of courses such as Epidemiology in Action or the International Course in Applied Epidemiology. Tuition will be charged.

Additional information and applications are available from Emory University by mail (Hubert Department of Global Health [Attn: Pia], 1518 Clifton Rd. NE, Rm. 7038, Atlanta, GA 30322), by telephone (404-727-3485); by fax (404-727-4590), online (http://www.sph.emory.edu/epicourses), or by email (pvaleri@emory.edu).

Announcements

STD Awareness Month — April 2011

April is STD Awareness Month, an annual observance to raise public awareness about the impact of sexually transmitted diseases (STDs) on the lives of persons in the United States and the importance of discussing sexual health with health-care providers and sex partners. This STD Awareness Month's focus is on the importance of young persons getting tested. Even though they make up only 25% of the sexually active population, persons aged 15–24 years account for nearly half of the 19 million new STD cases each year (*1*). Undetected and untreated STDs can increase a person's risk for human immunodeficiency virus (HIV) infection and cause other serious health consequences, such as infertility. STD screening can help detect disease early and, when combined with treatment, is one of the most effective tools available to protect one's health and prevent the spread of STDs to others.

To increase STD screening among young persons, CDC is partnering again with MTV, the Kaiser Family Foundation, the Planned Parenthood Federation of America, and other partners on the GYT (Get Yourself Tested) campaign. This year, the GYT website (http://www.gytnow.org) is offering resources for health-care providers to help them better serve their teen and young adult patients. CDC continues to update its interactive STD and HIV testing locator on the National HIV and STD Testing Resource website (http://www.findstdtest.org). CDC's STD Awareness Resource Site (http://www.cdcnpin.org/stdawareness) provides STD prevention partners with information and tools to support their local STD Awareness Month activities all year round. Additional information about STDs is available at http://www.cdc.gov/std.

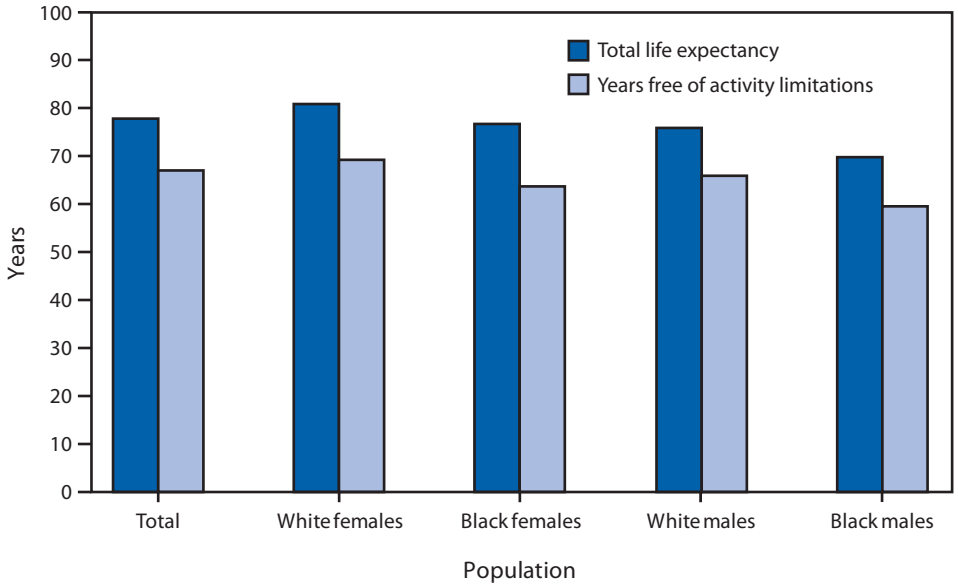
Reference

1. Weinstock H, Berman S, Cates W Jr. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. Perspect Sex Reprod Health 2004;36:6–10.

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Life Expectancy and Years Free of Activity Limitations,* by Race and Sex — United States, 2006



* Estimates are based on data from the National Vital Statistics System and the National Health Interview Survey (NHIS). NHIS collects information in household interviews of a sample of the civilian noninstitutionalized U.S. population. Expected years free from activity limitations combines estimates of total life expectancy and prevalence rates of activity limitations associated with chronic conditions, which are determined from responses to several questions in the NHIS Family Core component. Questions and methods used to compute total life expectancy and expected years free of activity limitations are included in the source report.

In 2006, total life expectancy was greater for females than males and for whites than for blacks. Total life expectancy ranged from 80.6 years for white females and 76.5 years for black females to 75.7 years for white males and 69.5 years for black males. Expected years free of activity limitations was greatest for white females (69.1 years), followed by white males (65.7 years), black females (63.4 years), and black males (59.3 years).

Source: Molla MT, Madans JH. Life expectancy free of chronic condition-induced activity limitations among white and black Americans, 2000–2006. National Center for Health Statistics. Vital Health Stat 2010;3(34). Available at http://www.cdc.gov/nchs/data/series/sr_03/sr03_034.pdf.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 26, 2011 (12th week)*

Disease	Current week	Cum 2011	5-year weekly average†	Total cases reported for previous years 2010	2009	2008	2007	2006	States reporting cases during current week (No.)
Anthrax	—	—	—	—	1	—	1	1	
Arboviral diseases§,¶:									
California serogroup virus disease	—	—	0	74	55	62	55	67	
Eastern equine encephalitis virus disease	—	—	—	10	4	4	4	8	
Powassan virus disease	—	—	0	8	6	2	7	1	
St. Louis encephalitis virus disease	—	—	—	10	12	13	9	10	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	2	6	1	NN	NN	NN	NN	NN	NY (2)
Botulism, total	2	17	2	111	118	145	144	165	
foodborne	—	2	0	7	10	17	32	20	
infant	2	12	2	79	83	109	85	97	PA (1), TX (1)
other (wound and unspecified)	—	3	0	25	25	19	27	48	
Brucellosis	—	8	2	129	115	80	131	121	
Chancroid	2	6	1	31	28	25	23	33	MA (2)
Cholera	—	12	0	12	10	5	7	9	
Cyclosporiasis§	3	25	1	173	141	139	93	137	FL (2), TN (1)
Diphtheria	—	—	—	—	—	—	—	—	
Haemophilus influenzae,** invasive disease (age <5 yrs):									
serotype b	—	1	1	23	35	30	22	29	
nonserotype b	2	21	5	186	236	244	199	175	OH (1), CO (1)
unknown serotype	6	66	4	233	178	163	180	179	NY (2), OH (2), NC (1), CA (1)
Hansen disease§	1	13	2	69	103	80	101	66	FL (1)
Hantavirus pulmonary syndrome§	—	4	0	18	20	18	32	40	
Hemolytic uremic syndrome, postdiarrheal§	1	12	2	240	242	330	292	288	FL (1)
Influenza-associated pediatric mortality§,††	12	85	4	61	358	90	77	43	AZ (1), CA (1), GA (2), MI (1), MO (1), NYC (1), NV (1), SD (2), WA (1), WI (1)
Listeriosis	6	82	11	776	851	759	808	884	NY (1), GA (1), TX (1), AZ (1), CA (2)
Measles§§	6	35	2	61	71	140	43	55	MN (6)
Meningococcal disease, invasive¶¶:									
A, C, Y, and W-135	2	39	10	262	301	330	325	318	SC (1), CO (1)
serogroup B	—	23	4	122	174	188	167	193	
other serogroup	—	1	1	10	23	38	35	32	
unknown serogroup	6	120	15	406	482	616	550	651	ME (1), OH (1), FL (1), AL (1), OR (1), CA (1)
Novel influenza A virus infections***	—	1	0	4	43,774	2	4	NN	
Plague	1	1	—	2	8	3	7	17	IN (1)
Poliomyelitis, paralytic	—	—	—	—	1	—	—	—	
Polio virus Infection, nonparalytic§	—	—	—	—	—	—	—	NN	
Psittacosis§	—	1	0	4	9	8	12	21	
Q fever, total§	—	12	2	119	113	120	171	169	
acute	—	5	1	96	93	106	—	—	
chronic	—	7	0	23	20	14	—	—	
Rabies, human	—	—	0	1	4	2	1	3	
Rubella†††	—	1	0	6	3	16	12	11	
Rubella, congenital syndrome	—	—	—	—	2	—	—	1	
SARS-CoV§	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	5	34	5	173	161	157	132	125	MA (1), NY (2), OH (2)
Syphilis, congenital (age <1 yr)§§§	—	24	7	273	423	431	430	349	
Tetanus	—	—	0	11	18	19	28	41	
Toxic-shock syndrome (staphylococcal)§	2	16	2	77	74	71	92	101	MI (1), CA (1)
Trichinellosis	—	4	0	6	13	39	5	15	
Tularemia	1	3	0	114	93	123	137	95	CA (1)
Typhoid fever	3	63	6	444	397	449	434	353	CA (3)
Vancomycin-intermediate *Staphylococcus aureus*§	—	13	1	100	78	63	37	6	
Vancomycin-resistant *Staphylococcus aureus*§	—	—	0	1	1	—	2	1	
Vibriosis (noncholera *Vibrio* species infections)§	3	37	4	803	789	588	549	NN	FL (3)
Viral hemorrhagic fever¶¶¶	—	—	—	1	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 26, 2011 (12th week)*

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

* Case counts for reporting years 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf.

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

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

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

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

†† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 3, 2010, 89 influenza-associated pediatric deaths occurring during the 2010-11 influenza season have been reported.

§§ The six measles cases reported for the current week were indigenous.

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

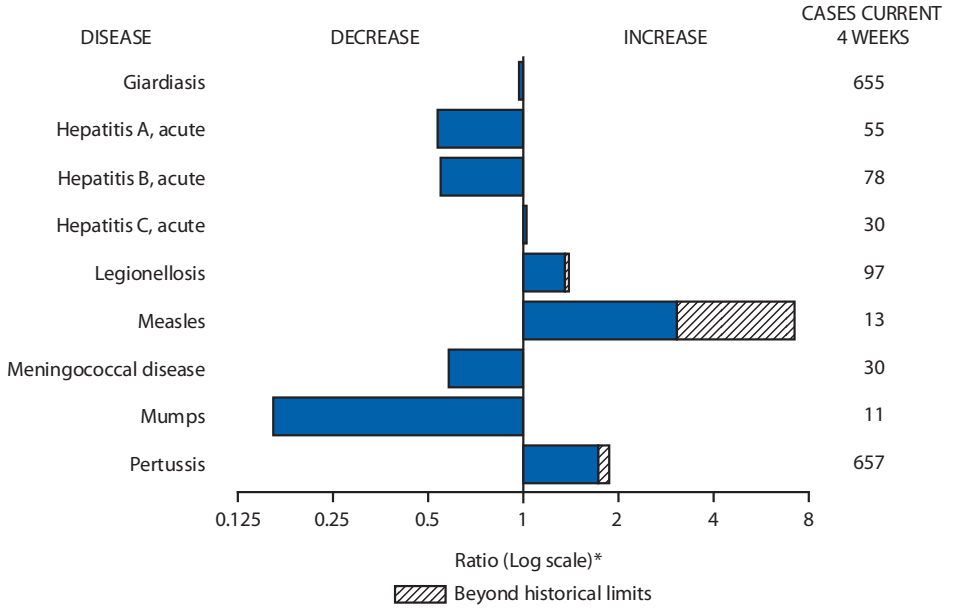
*** CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC. The four cases of novel influenza A virus infection reported to CDC during 2010, and the one case reported during 2011, were identified as swine influenza A (H3N2) virus and are unrelated to the 2009 pandemic influenza A (H1N1) virus. Total case counts for 2009 were provided by the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD).

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

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

¶¶¶ There was one case of viral hemorrhagic fever reported during week 12 of 2010. The one case report was confirmed as lassa fever. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 26, 2011, with historical data



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

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	*Chlamydia trachomatis* infection					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010
United States	14,057	24,606	27,733	270,296	289,529	137	0	505	2,819	NN	30	121	356	807	1,246
New England	1,120	805	2,046	9,600	8,271	—	0	1	1	NN	1	7	19	39	143
Connecticut	413	177	1,558	1,578	1,630	N	0	0	N	NN	—	0	8	8	77
Maine†	—	54	100	578	603	N	0	0	N	NN	—	0	7	1	13
Massachusetts	559	403	875	5,277	4,556	N	0	0	N	NN	1	3	9	22	26
New Hampshire	26	54	113	689	435	—	0	1	1	NN	—	1	5	3	12
Rhode Island†	95	69	154	1,129	755	—	0	0	—	NN	—	0	2	1	5
Vermont†	27	23	84	349	292	N	0	0	N	NN	—	1	5	4	10
Mid. Atlantic	2,359	3,351	5,202	36,911	37,954	—	0	0	—	NN	6	15	38	119	117
New Jersey	381	517	697	5,924	5,824	N	0	0	N	NN	—	0	4	—	4
New York (Upstate)	713	706	2,028	7,846	6,654	N	0	0	N	NN	2	4	13	34	19
New York City	434	1,176	2,777	11,627	14,793	N	0	0	N	NN	—	2	6	15	10
Pennsylvania	831	951	1,189	11,514	10,683	N	0	0	N	NN	4	7	26	70	84
E.N. Central	1,003	3,778	6,184	39,118	45,477	1	0	3	10	NN	6	30	130	190	313
Illinois	23	972	1,117	7,723	12,557	N	0	0	N	NN	—	3	21	16	46
Indiana	—	414	2,832	6,281	3,157	N	0	0	N	NN	—	4	10	22	44
Michigan	625	939	1,388	11,045	12,523	—	0	2	4	NN	1	5	18	42	72
Ohio	183	995	1,134	9,750	11,948	1	0	3	6	NN	5	7	24	73	68
Wisconsin	172	426	518	4,319	5,292	N	0	0	N	NN	—	9	65	37	83
W.N. Central	163	1,357	1,600	13,417	16,901	—	0	0	—	NN	4	19	83	63	164
Iowa	9	200	237	2,112	2,562	N	0	0	N	NN	—	4	24	8	38
Kansas	12	183	286	1,996	2,238	N	0	0	N	NN	—	2	9	12	16
Minnesota	—	290	354	2,316	3,615	—	0	0	—	NN	—	0	16	—	50
Missouri	—	501	619	4,844	6,040	—	0	0	—	NN	3	4	30	18	28
Nebraska†	125	94	185	1,229	1,242	N	0	0	N	NN	1	3	26	22	16
North Dakota	—	40	88	188	457	N	0	0	N	NN	—	0	9	—	1
South Dakota	17	62	91	732	747	N	0	0	N	NN	—	1	6	3	15
S. Atlantic	3,396	4,820	5,978	57,984	58,032	—	0	0	—	NN	7	19	39	176	195
Delaware	88	84	220	1,008	999	—	0	0	—	NN	—	0	1	2	1
District of Columbia	—	99	158	983	1,191	—	0	0	—	NN	—	0	1	2	1
Florida	691	1,456	1,706	16,090	16,990	N	0	0	N	NN	2	7	19	55	75
Georgia	770	699	2,201	8,926	8,980	N	0	0	N	NN	1	5	11	47	64
Maryland†	—	494	1,106	3,662	4,862	—	0	0	—	NN	1	1	3	12	7
North Carolina	588	750	1,436	11,186	11,260	N	0	0	N	NN	2	0	12	23	21
South Carolina†	522	530	847	6,164	6,013	N	0	0	N	NN	—	2	8	25	9
Virginia†	654	666	970	8,909	6,901	N	0	0	N	NN	—	2	9	9	13
West Virginia	83	75	124	1,056	836	N	0	0	N	NN	1	0	3	1	4
E.S. Central	641	1,757	2,412	17,697	19,793	—	0	0	—	NN	1	4	19	26	43
Alabama†	—	538	780	4,049	5,567	N	0	0	N	NN	—	2	13	5	13
Kentucky	381	266	614	2,753	3,322	N	0	0	N	NN	—	1	6	10	14
Mississippi	—	384	780	4,467	4,703	N	0	0	N	NN	—	0	2	4	4
Tennessee†	260	576	800	6,428	6,201	N	0	0	N	NN	1	1	5	7	12
W.S. Central	1,832	3,163	4,248	36,823	41,059	—	0	1	1	NN	—	7	31	25	57
Arkansas†	309	302	439	3,710	3,510	N	0	0	N	NN	—	0	3	3	9
Louisiana	458	387	792	4,869	6,403	—	0	1	1	NN	—	1	6	5	10
Oklahoma	—	240	1,373	1,902	2,740	N	0	0	N	NN	—	1	8	—	8
Texas†	1,065	2,294	3,112	26,342	28,406	N	0	0	N	NN	—	4	24	17	30
Mountain	409	1,501	2,147	15,020	18,660	40	0	422	1,975	NN	3	10	30	84	106
Arizona	148	493	704	2,477	5,843	40	0	417	1,941	NN	—	1	3	4	5
Colorado	—	337	684	4,908	4,673	N	0	0	N	NN	2	3	6	29	25
Idaho†	85	66	199	697	888	N	0	0	N	NN	1	2	7	12	21
Montana†	59	61	81	698	680	N	0	0	N	NN	—	1	4	9	14
Nevada†	—	189	375	2,291	2,045	—	0	4	15	NN	—	0	7	2	2
New Mexico†	103	196	1,253	2,260	2,524	—	0	4	14	NN	—	2	12	18	20
Utah	—	122	158	1,292	1,505	—	0	2	2	NN	—	1	5	6	13
Wyoming†	14	38	90	397	502	—	0	2	3	NN	—	0	2	4	6
Pacific	3,134	3,662	5,423	43,726	43,382	96	0	103	832	NN	2	12	29	85	108
Alaska	—	118	156	1,252	1,408	N	0	0	N	NN	—	0	3	3	2
California	2,502	2,838	4,717	34,891	32,463	96	0	103	832	NN	1	7	18	53	65
Hawaii	—	107	158	915	1,458	N	0	0	N	NN	—	0	0	—	1
Oregon	302	212	496	2,880	3,121	N	0	0	N	NN	1	3	13	28	29
Washington	330	396	505	3,788	4,932	N	0	0	N	NN	—	1	7	1	11
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	NN	N	0	0	N	NN
C.N.M.I.	—	—	—	—	—	—	—	—	—	NN	—	—	—	—	—
Guam	—	10	44	153	5	—	0	0	—	NN	—	0	0	—	—
Puerto Rico	123	102	251	1,319	1,447	N	0	0	N	NN	N	0	0	N	NN
U.S. Virgin Islands	—	12	29	—	113	—	0	0	—	NN	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
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† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever†					Dengue Hemorrhagic Fever§				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max		
United States	—	6	51	6	67	—	0	2	—	1
New England	—	0	3	—	3	—	0	0	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine¶	—	0	2	—	3	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	1	—	—	—	0	0	—	—
Vermont¶	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	2	25	2	28	—	0	1	—	1
New Jersey	—	0	5	—	3	—	0	0	—	—
New York (Upstate)	—	0	5	—	3	—	0	1	—	—
New York City	—	1	17	—	17	—	0	1	—	1
Pennsylvania	—	0	3	2	5	—	0	0	—	—
E.N. Central	—	1	7	2	9	—	0	1	—	—
Illinois	—	0	3	—	2	—	0	0	—	—
Indiana	—	0	2	1	2	—	0	0	—	—
Michigan	—	0	2	—	—	—	0	0	—	—
Ohio	—	0	2	—	5	—	0	0	—	—
Wisconsin	—	0	2	1	—	—	0	1	—	—
W.N. Central	—	0	6	—	5	—	0	1	—	—
Iowa	—	0	1	—	—	—	0	0	—	—
Kansas	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	2	—	4	—	0	0	—	—
Missouri	—	0	0	—	—	—	0	0	—	—
Nebraska¶	—	0	6	—	—	—	0	0	—	—
North Dakota	—	0	0	—	1	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	1	—	—
S. Atlantic	—	2	19	—	13	—	0	1	—	—
Delaware	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	2	14	—	10	—	0	1	—	—
Georgia	—	0	2	—	1	—	0	0	—	—
Maryland¶	—	0	0	—	—	—	0	0	—	—
North Carolina	—	0	2	—	—	—	0	0	—	—
South Carolina¶	—	0	3	—	—	—	0	0	—	—
Virginia¶	—	0	3	—	2	—	0	0	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—
E.S. Central	—	0	2	—	—	—	0	0	—	—
Alabama¶	—	0	2	—	—	—	0	0	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee¶	—	0	1	—	—	—	0	0	—	—
W.S. Central	—	0	1	—	—	—	0	1	—	—
Arkansas¶	—	0	0	—	—	—	0	1	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	1	—	—	—	0	0	—	—
Texas¶	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	2	—	2	—	0	0	—	—
Arizona	—	0	2	—	—	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—
Idaho¶	—	0	1	—	—	—	0	0	—	—
Montana¶	—	0	1	—	—	—	0	0	—	—
Nevada¶	—	0	1	—	1	—	0	0	—	—
New Mexico¶	—	0	0	—	1	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—
Wyoming¶	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	6	2	7	—	0	0	—	—
Alaska	—	0	0	—	1	—	0	0	—	—
California	—	0	5	—	3	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	2	2	3	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	104	528	169	1,116	—	2	18	—	24
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage, other clinical and unknown case classifications.
§ DHF includes cases that meet criteria for dengue shock syndrome (DSS), a more severe form of DHF.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	Ehrlichia chaffeensis					*Anaplasma phagocytophilum*					Undetermined				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	1	8	49	10	42	—	13	60	5	20	—	1	10	2	2
New England	—	0	2	—	1	—	1	9	1	6	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	6	—	—	—	0	0	—	—
Maine§	—	0	1	—	1	—	0	2	1	3	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	1	—	—	—	0	2	—	—	—	0	1	—	—
Rhode Island§	—	0	1	—	—	—	0	6	—	3	—	0	0	—	—
Vermont§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	—	0	10	—	6	—	4	15	2	1	—	0	1	1	1
New Jersey	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
New York (Upstate)	—	0	10	—	2	—	4	15	2	1	—	0	1	1	1
New York City	—	0	3	—	3	—	0	2	—	—	—	0	0	—	—
Pennsylvania	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
E.N. Central	—	0	4	1	4	—	4	41	—	9	—	1	7	1	1
Illinois	—	0	2	—	—	—	0	2	—	—	—	0	2	—	—
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	3	1	1
Michigan	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
Ohio	—	0	3	1	—	—	0	1	—	—	—	0	0	—	—
Wisconsin	—	0	1	—	4	—	4	41	—	9	—	0	4	—	—
W.N. Central	—	1	13	2	1	—	0	3	—	—	—	0	3	—	—
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
Minnesota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Missouri	—	1	13	2	1	—	0	3	—	—	—	0	3	—	—
Nebraska§	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	1	3	17	7	27	—	1	7	1	4	—	0	1	—	—
Delaware	—	0	3	1	1	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	1	0	2	2	1	—	0	1	—	—	—	0	0	—	—
Georgia	—	0	4	1	2	—	0	1	—	—	—	0	1	—	—
Maryland§	—	0	3	2	4	—	0	2	—	2	—	0	1	—	—
North Carolina	—	1	13	1	19	—	0	4	1	2	—	0	0	—	—
South Carolina§	—	0	2	—	—	—	0	1	—	—	—	0	0	—	—
Virginia§	—	1	8	—	—	—	0	2	—	—	—	0	1	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
E.S. Central	—	1	11	—	—	—	0	2	1	—	—	0	1	—	—
Alabama§	—	0	3	—	—	—	0	2	1	—	—	0	0	—	—
Kentucky	—	0	2	—	—	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
Tennessee§	—	0	7	—	—	—	0	2	—	—	—	0	1	—	—
W.S. Central	—	0	11	—	2	—	0	4	—	—	—	0	1	—	—
Arkansas§	—	0	5	—	—	—	0	2	—	—	—	0	0	—	—
Louisiana	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	6	—	—	—	0	2	—	—	—	0	0	—	—
Texas§	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Idaho§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Nevada§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	—	1	—	0	0	—	—	—	0	1	—	—
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
California	—	0	1	—	1	—	0	0	—	—	—	0	1	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Cumulative total *E. ewingii* cases reported for year 2010 = 11, and 1 case report for 2011.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	163	327	496	2,679	3,842	2,893	5,758	6,588	60,937	66,042	32	58	121	703	780
New England	8	28	55	209	339	116	102	206	1,125	1,139	—	3	9	38	34
Connecticut	—	4	12	—	79	56	39	169	456	512	—	0	6	—	—
Maine§	3	3	11	23	39	—	3	7	32	56	—	0	2	5	1
Massachusetts	3	14	25	136	135	49	48	80	524	465	—	2	6	25	24
New Hampshire	—	2	10	12	36	1	3	7	23	33	—	0	1	4	4
Rhode Island§	—	1	7	7	15	10	5	15	84	63	—	0	2	3	4
Vermont§	2	4	10	31	35	—	0	17	6	10	—	0	3	1	1
Mid. Atlantic	29	60	106	525	637	483	713	1,170	8,003	7,606	10	11	26	139	170
New Jersey	—	3	18	—	86	116	117	173	1,539	1,248	—	2	5	22	23
New York (Upstate)	23	21	58	198	226	106	110	260	1,163	1,005	4	3	15	32	45
New York City	5	17	33	179	165	85	233	540	2,454	2,815	2	2	6	29	33
Pennsylvania	1	16	27	148	160	176	262	366	2,847	2,538	4	4	11	56	69
E.N. Central	24	53	91	406	703	287	1,036	1,924	10,485	12,001	7	10	20	116	131
Illinois	—	11	32	50	161	4	252	328	1,932	2,885	—	3	7	27	35
Indiana	—	5	11	41	94	—	107	960	1,819	928	—	1	7	11	24
Michigan	3	12	25	95	151	181	248	486	2,869	3,379	1	1	3	19	9
Ohio	19	17	29	166	191	51	321	383	3,016	3,771	6	2	6	44	27
Wisconsin	2	8	34	54	106	51	93	156	849	1,038	—	2	5	15	36
W.N. Central	12	24	101	220	260	47	288	367	2,762	3,188	1	3	14	26	41
Iowa	1	5	11	46	58	2	35	57	374	391	—	0	1	—	1
Kansas	2	3	10	33	56	4	40	62	352	416	—	0	2	2	4
Minnesota	—	0	75	—	—	—	38	62	304	539	—	0	9	—	12
Missouri	7	8	26	87	70	—	141	181	1,328	1,477	1	2	4	14	18
Nebraska§	2	4	9	42	53	40	22	50	270	248	—	0	3	10	3
North Dakota	—	0	5	—	3	—	2	9	17	34	—	0	2	—	3
South Dakota	—	1	7	12	20	1	8	20	117	83	—	0	0	—	—
S. Atlantic	50	71	114	541	790	894	1,373	1,808	15,440	16,964	8	15	26	176	181
Delaware	—	0	5	6	9	23	19	48	238	228	—	0	1	1	2
District of Columbia	—	0	5	5	11	—	34	66	351	462	—	0	1	—	—
Florida	20	40	75	273	400	188	383	486	4,083	4,525	3	4	9	63	43
Georgia	22	10	26	134	172	211	230	668	2,617	2,852	2	3	7	38	48
Maryland§	5	5	11	52	70	—	137	243	957	1,337	1	1	5	15	9
North Carolina	N	0	0	N	N	209	248	596	3,860	3,710	1	2	9	20	28
South Carolina§	—	3	9	19	23	156	151	261	1,773	1,821	1	1	5	14	27
Virginia§	2	8	32	49	96	88	134	223	1,346	1,922	—	2	6	25	19
West Virginia	1	0	6	3	9	19	13	26	215	107	—	0	9	—	5
E.S. Central	—	4	12	25	64	205	471	697	4,735	5,311	1	3	10	42	44
Alabama§	—	4	11	23	33	—	159	236	1,262	1,596	1	1	4	15	5
Kentucky	N	0	0	N	N	131	72	160	744	893	—	1	3	10	8
Mississippi	N	0	0	N	N	—	110	216	1,171	1,314	—	0	2	2	4
Tennessee§	—	0	4	2	31	74	144	195	1,558	1,508	—	1	5	15	27
W.S. Central	1	6	14	37	77	489	866	1,209	9,477	10,882	2	2	21	40	41
Arkansas§	1	2	7	18	18	118	93	137	1,148	997	1	0	3	9	6
Louisiana	—	3	8	19	34	128	100	284	1,334	1,801	—	0	4	16	10
Oklahoma	—	0	5	—	25	—	76	332	605	805	1	1	17	15	22
Texas§	N	0	0	N	N	243	597	866	6,390	7,279	—	0	1	—	3
Mountain	4	30	52	222	380	34	188	245	1,785	2,068	2	5	11	83	103
Arizona	1	3	8	24	35	26	59	81	437	700	1	2	7	38	45
Colorado	3	12	27	104	159	—	50	93	470	639	1	1	5	20	23
Idaho§	—	4	9	31	51	4	2	14	24	28	—	0	2	3	3
Montana§	—	1	7	6	30	1	2	5	20	32	—	0	1	2	—
Nevada§	—	1	11	16	15	—	34	103	488	348	—	0	1	4	4
New Mexico§	—	2	6	6	15	3	25	100	287	247	—	1	3	11	11
Utah	—	4	11	26	58	—	5	15	46	66	—	0	3	5	12
Wyoming§	—	0	5	9	17	—	1	4	13	8	—	0	1	—	5
Pacific	35	52	132	494	592	338	630	809	7,125	6,883	1	3	20	43	35
Alaska	—	2	6	11	22	—	22	36	190	334	—	0	2	7	9
California	30	32	57	348	379	279	522	684	6,084	5,544	1	0	16	9	—
Hawaii	—	1	4	3	15	—	13	26	116	179	—	0	2	5	6
Oregon	5	8	20	90	117	11	19	30	250	257	—	1	4	22	18
Washington	—	8	71	42	59	48	53	86	485	569	—	0	2	—	2
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	0	5	6	—	—	0	0	—	—
Puerto Rico	2	1	8	8	17	11	6	14	89	56	—	0	0	—	1
U.S. Virgin Islands	—	0	0	—	—	—	2	7	—	22	—	0	0	—	—

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† 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 March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	14	29	44	252	369	20	61	142	451	679	7	15	27	153	161
New England	—	1	6	12	32	—	1	4	6	17	—	0	4	3	17
Connecticut	—	0	4	5	7	—	0	2	1	5	—	0	4	1	9
Maine†	—	0	1	1	1	—	0	1	1	4	—	0	1	1	—
Massachusetts	—	0	5	3	20	—	0	2	3	5	—	0	1	—	8
New Hampshire	—	0	1	—	—	—	0	2	1	2	N	0	0	N	N
Rhode Island†	—	0	1	1	4	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	1	2	—	—	0	1	—	1	—	0	1	1	—
Mid. Atlantic	1	4	10	37	52	5	5	10	55	64	1	1	5	13	16
New Jersey	—	0	1	—	6	—	1	5	6	15	—	0	2	—	4
New York (Upstate)	1	1	4	9	12	1	1	8	11	10	1	1	4	9	8
New York City	—	1	7	15	21	1	1	4	18	24	—	0	1	—	—
Pennsylvania	—	1	3	13	13	3	2	5	20	15	—	0	3	4	4
E.N. Central	2	4	9	39	62	—	9	22	67	130	—	1	6	29	19
Illinois	—	1	3	4	15	—	2	7	12	24	—	0	1	—	—
Indiana	—	0	3	7	6	—	1	6	5	20	—	0	4	13	7
Michigan	1	1	5	13	14	—	2	5	23	30	—	1	4	16	10
Ohio	1	1	5	14	10	—	1	16	22	26	—	0	1	—	1
Wisconsin	—	0	1	1	17	—	1	5	5	30	—	0	2	—	1
W.N. Central	—	1	13	10	12	—	2	8	24	36	—	0	8	2	1
Iowa	—	0	3	1	4	—	0	1	1	6	—	0	0	—	—
Kansas	—	0	2	2	4	—	0	1	3	2	—	0	1	—	—
Minnesota	—	0	12	—	—	—	0	7	—	2	—	0	6	—	1
Missouri	—	0	2	3	3	—	1	3	15	18	—	0	2	—	—
Nebraska†	—	0	4	2	1	—	0	3	4	8	—	0	1	2	—
North Dakota	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	2	—	—	0	1	1	—	—	0	0	—	—
S. Atlantic	3	6	14	50	73	8	17	33	137	179	1	3	6	34	32
Delaware	—	0	1	1	3	—	0	2	—	8	U	0	0	U	U
District of Columbia	—	0	0	—	1	—	0	1	—	1	—	0	1	—	1
Florida	1	3	7	20	26	4	5	11	46	63	1	0	3	11	—
Georgia	—	1	4	13	7	1	3	8	28	46	—	0	2	4	4
Maryland†	1	0	3	5	5	1	1	5	12	17	—	0	3	5	6
North Carolina	—	0	5	3	10	2	2	16	25	14	—	1	3	10	13
South Carolina†	—	0	3	2	14	—	1	4	5	9	—	0	1	—	—
Virginia†	1	1	6	6	6	—	2	7	21	14	—	0	2	4	4
West Virginia	—	0	5	—	1	—	0	18	—	7	—	0	5	—	4
E.S. Central	—	0	6	5	11	4	8	13	86	78	2	3	8	33	26
Alabama†	—	0	2	—	3	—	1	4	14	19	—	0	1	1	1
Kentucky	—	0	6	2	5	—	3	8	28	26	—	2	6	15	22
Mississippi	—	0	1	—	—	—	1	3	4	5	U	0	0	U	U
Tennessee†	—	0	2	3	3	4	3	8	40	28	2	1	5	17	3
W.S. Central	—	2	13	16	30	3	10	55	46	64	3	2	7	21	13
Arkansas†	—	0	1	—	—	—	1	4	5	8	—	0	0	—	—
Louisiana	—	0	2	1	3	—	1	3	10	15	—	0	2	4	1
Oklahoma	—	0	4	—	—	—	2	8	12	8	2	1	6	10	3
Texas†	—	2	9	15	27	3	5	43	19	33	1	0	3	7	9
Mountain	—	2	8	18	38	—	2	7	13	32	—	1	4	9	17
Arizona	—	1	4	7	19	—	0	2	2	9	U	0	0	U	U
Colorado	—	1	2	6	9	—	0	5	1	9	—	0	3	1	4
Idaho†	—	0	2	1	2	—	0	1	2	1	—	0	2	5	3
Montana†	—	0	1	2	1	—	0	0	—	—	—	0	1	1	—
Nevada†	—	0	2	—	3	—	0	3	7	8	—	0	1	—	1
New Mexico†	—	0	1	1	1	—	0	1	—	2	—	0	1	2	6
Utah	—	0	2	—	3	—	0	1	1	3	—	0	2	—	3
Wyoming†	—	0	3	1	—	—	0	1	—	—	—	0	0	—	—
Pacific	8	5	16	65	59	—	5	23	17	79	—	1	8	9	20
Alaska	—	0	1	—	—	—	0	1	1	1	U	0	0	U	U
California	8	4	16	58	46	—	3	18	4	59	—	0	3	3	9
Hawaii	—	0	1	1	4	—	0	1	1	1	U	0	0	U	U
Oregon	—	0	2	2	5	—	1	3	9	12	—	0	3	4	7
Washington	—	0	2	4	4	—	1	5	2	6	—	0	5	2	4
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	6	6	1	—	1	8	22	10	—	0	7	9	6
Puerto Rico	1	0	2	2	3	—	0	2	1	6	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	23	57	122	368	487	79	412	1,680	1,264	2,939	11	27	81	202	260
New England	—	4	16	20	22	—	128	504	138	922	—	1	11	8	13
Connecticut	—	0	6	—	3	—	47	213	—	392	—	0	11	—	—
Maine†	—	0	3	2	—	—	11	62	38	44	—	0	1	—	—
Massachusetts	—	2	10	14	13	—	40	223	52	307	—	1	4	6	12
New Hampshire	—	0	5	2	1	—	24	69	30	151	—	0	2	—	1
Rhode Island†	—	0	4	1	4	—	1	40	4	13	—	0	4	—	—
Vermont†	—	0	2	1	1	—	4	28	14	15	—	0	1	2	—
Mid. Atlantic	4	14	48	86	105	32	180	737	751	1,365	1	7	18	52	65
New Jersey	—	1	11	1	16	—	47	220	142	399	—	0	1	—	—
New York (Upstate)	4	5	19	36	28	24	36	159	118	153	1	1	6	9	16
New York City	—	2	17	20	27	—	2	10	2	41	—	4	14	34	35
Pennsylvania	—	6	19	29	34	8	92	386	489	772	—	1	3	9	14
E.N. Central	4	12	44	71	124	—	26	330	13	125	—	3	9	16	22
Illinois	—	2	15	6	15	—	1	18	2	7	—	1	7	2	8
Indiana	—	1	6	7	25	—	0	7	1	11	—	0	2	2	2
Michigan	—	3	20	16	15	—	1	14	2	1	—	0	4	3	3
Ohio	4	4	15	42	43	—	0	9	3	5	—	1	5	8	9
Wisconsin	—	1	5	—	26	—	23	302	5	101	—	0	2	1	—
W.N. Central	—	2	9	5	16	—	1	11	—	3	—	1	4	2	15
Iowa	—	0	2	1	1	—	0	10	—	2	—	0	2	—	3
Kansas	—	0	2	—	2	—	0	1	—	1	—	0	2	1	3
Minnesota	—	0	8	—	3	—	0	0	—	—	—	0	0	—	3
Missouri	—	0	4	3	5	—	0	1	—	—	—	0	3	—	2
Nebraska†	—	0	2	—	2	—	0	2	—	—	—	0	1	1	4
North Dakota	—	0	1	—	1	—	0	5	—	—	—	0	1	—	—
South Dakota	—	0	2	1	2	—	0	1	—	—	—	0	2	—	—
S. Atlantic	6	10	27	61	77	46	57	177	320	464	4	7	44	68	85
Delaware	—	0	3	—	3	3	10	33	74	124	—	0	1	—	1
District of Columbia	—	0	4	—	1	—	0	4	3	1	—	0	2	1	1
Florida	2	3	9	34	31	2	2	10	21	12	2	2	7	21	30
Georgia	—	1	4	1	11	—	0	2	1	2	1	1	7	11	14
Maryland†	2	2	6	10	17	34	22	106	128	203	1	1	24	11	11
North Carolina	2	1	7	9	4	—	0	9	6	34	—	0	13	8	17
South Carolina†	—	0	2	1	1	—	0	3	1	8	—	0	1	—	1
Virginia†	—	1	9	6	8	7	18	82	86	69	—	1	5	16	10
West Virginia	—	0	3	—	1	—	0	29	—	11	—	0	1	—	—
E.S. Central	1	2	10	12	22	1	0	4	4	10	1	0	3	4	4
Alabama†	—	0	2	1	3	—	0	1	2	—	—	0	1	1	1
Kentucky	—	0	4	4	6	—	0	1	—	1	1	0	1	2	2
Mississippi	—	0	3	1	2	—	0	0	—	—	—	0	2	—	—
Tennessee†	1	1	6	6	11	1	0	4	2	9	—	0	2	1	1
W.S. Central	—	3	8	17	14	—	2	22	3	11	—	1	17	10	19
Arkansas†	—	0	2	—	1	—	0	0	—	—	—	0	1	—	1
Louisiana	—	0	3	6	1	—	0	1	—	—	—	0	1	—	1
Oklahoma	—	0	3	1	—	—	0	0	—	—	—	0	1	1	2
Texas†	—	2	7	10	12	—	2	22	3	11	—	1	16	9	15
Mountain	—	3	10	13	35	—	0	3	2	2	—	1	4	10	12
Arizona	—	1	7	6	9	—	0	1	1	—	—	0	3	3	4
Colorado	—	0	2	1	11	—	0	1	—	—	—	0	3	3	3
Idaho†	—	0	1	1	—	—	0	2	—	1	—	0	1	—	—
Montana†	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Nevada†	—	0	2	1	6	—	0	1	—	—	—	0	2	2	2
New Mexico†	—	0	2	—	1	—	0	2	1	—	—	0	1	2	—
Utah	—	0	2	4	7	—	0	1	—	1	—	0	0	—	3
Wyoming†	—	0	2	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	8	5	15	83	72	—	4	11	33	37	5	4	10	32	25
Alaska	—	0	2	—	—	—	0	1	—	1	—	0	2	2	1
California	8	4	14	76	66	—	3	8	26	20	5	2	9	24	17
Hawaii	—	0	1	1	—	N	0	0	N	N	—	0	1	—	—
Oregon	—	0	3	1	—	—	0	3	7	16	—	0	3	3	2
Washington	—	0	5	5	6	—	0	3	—	—	—	0	5	3	5
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	N	0	0	N	N	—	0	1	—	3
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Meningococcal disease, invasive† All serogroups					Mumps					Pertussis				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	8	14	37	183	225	3	15	220	82	964	181	541	2,151	3,062	2,617
New England	1	0	3	9	2	—	0	2	1	15	2	10	24	80	60
Connecticut	—	0	1	1	—	—	0	1	—	10	—	1	8	—	8
Maine§	1	0	1	2	—	—	0	1	—	1	1	1	8	28	4
Massachusetts	—	0	2	6	1	—	0	2	1	4	1	5	13	39	40
New Hampshire	—	0	0	—	—	—	0	1	—	—	—	0	3	9	3
Rhode Island§	—	0	1	—	—	—	0	0	—	—	—	0	7	3	3
Vermont§	—	0	1	—	1	—	0	0	—	—	—	0	4	1	2
Mid. Atlantic	—	1	5	21	23	—	6	209	9	871	12	38	122	330	141
New Jersey	—	0	1	—	8	—	1	15	4	191	—	2	9	11	28
New York (Upstate)	—	0	4	7	2	—	0	44	1	556	9	12	85	104	47
New York City	—	0	3	8	6	—	0	201	4	115	—	0	12	7	—
Pennsylvania	—	0	2	6	7	—	0	16	—	9	3	20	70	208	66
E.N. Central	1	2	9	20	35	1	1	7	16	29	24	114	194	767	646
Illinois	—	0	3	6	7	—	0	2	7	6	—	22	52	121	90
Indiana	—	0	2	2	9	—	0	1	—	2	—	12	26	49	61
Michigan	—	0	4	2	2	—	0	1	2	11	15	31	57	254	182
Ohio	1	1	2	8	9	1	0	5	7	4	9	34	80	270	238
Wisconsin	—	0	3	2	8	—	0	2	—	6	—	12	24	73	75
W.N. Central	—	1	5	12	14	1	1	14	9	13	4	35	416	187	184
Iowa	—	0	1	3	4	—	0	7	—	3	—	12	34	38	34
Kansas	—	0	2	1	1	—	0	1	2	1	—	2	10	19	33
Minnesota	—	0	1	—	1	—	0	4	—	2	—	0	408	—	—
Missouri	—	0	4	4	6	—	0	3	5	5	3	8	44	89	92
Nebraska§	—	0	2	3	2	—	0	10	1	2	1	4	13	26	11
North Dakota	—	0	1	—	—	1	0	1	1	—	—	0	30	13	—
South Dakota	—	0	1	1	—	—	0	1	—	—	—	0	2	2	14
S. Atlantic	2	2	7	29	50	—	0	5	2	15	11	40	106	355	326
Delaware	—	0	1	—	1	—	0	0	—	—	—	0	4	5	—
District of Columbia	—	0	0	—	—	—	0	1	—	1	—	0	2	1	1
Florida	1	1	5	9	22	—	0	3	—	1	7	6	28	78	43
Georgia	—	0	2	1	3	—	0	2	1	—	1	5	13	58	48
Maryland§	—	0	1	2	2	—	0	1	—	5	—	2	6	25	40
North Carolina	—	0	3	7	8	—	0	2	—	1	—	3	35	72	124
South Carolina§	1	0	1	4	4	—	0	2	—	1	1	6	25	40	43
Virginia§	—	0	2	6	9	—	0	2	1	4	2	7	39	76	22
West Virginia	—	0	1	—	1	—	0	0	—	2	—	1	43	—	5
E.S. Central	1	1	3	10	9	—	0	2	3	3	—	14	35	92	193
Alabama§	1	0	1	6	1	—	0	2	1	1	—	4	8	27	55
Kentucky	—	0	2	—	3	—	0	1	—	—	—	4	16	37	66
Mississippi	—	0	1	1	2	—	0	1	2	—	—	1	8	2	16
Tennessee§	—	0	2	3	3	—	0	1	—	2	—	4	11	26	56
W.S. Central	—	1	10	17	30	1	2	16	34	11	18	54	234	181	604
Arkansas§	—	0	1	4	2	—	0	1	—	1	—	3	17	10	34
Louisiana	—	0	2	3	6	—	0	2	—	—	—	1	3	3	9
Oklahoma	—	0	1	2	12	—	0	1	—	—	6	0	63	8	3
Texas§	—	1	9	8	10	1	2	15	34	10	12	45	157	160	558
Mountain	1	1	6	12	14	—	0	4	1	3	30	40	99	516	239
Arizona	—	0	2	5	5	—	0	1	—	1	—	11	29	160	86
Colorado	1	0	4	1	3	—	0	1	—	2	29	11	67	226	23
Idaho§	—	0	1	3	1	—	0	1	—	—	1	3	15	25	40
Montana§	—	0	1	—	1	—	0	0	—	—	—	2	16	41	5
Nevada§	—	0	1	—	1	—	0	1	—	—	—	0	7	7	1
New Mexico§	—	0	1	—	2	—	0	2	1	—	—	2	11	12	26
Utah	—	0	1	3	1	—	0	1	—	—	—	6	13	43	57
Wyoming§	—	0	1	—	—	—	0	1	—	—	—	0	2	2	1
Pacific	2	3	15	53	48	—	0	18	7	4	80	148	1,101	554	224
Alaska	—	0	1	—	—	—	0	1	1	1	—	0	6	13	4
California	1	2	10	37	34	—	0	18	—	—	80	130	959	430	123
Hawaii	—	0	1	2	1	—	0	2	3	1	—	1	6	7	17
Oregon	1	1	3	11	9	—	0	1	3	1	—	6	12	39	53
Washington	—	0	4	3	4	—	0	2	—	1	—	8	132	65	27
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	15	12	7	—	0	14	28	—
Puerto Rico	—	0	0	—	—	—	0	1	—	—	—	0	1	1	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Rabies, animal					Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	23	61	143	317	659	246	934	1,768	4,943	6,667	32	92	215	543	529
New England	3	3	11	18	55	7	33	81	252	752	—	2	13	16	78
Connecticut	—	0	7	—	21	—	0	59	59	490	—	0	7	7	60
Maine§	2	1	3	7	16	2	3	8	24	16	—	0	3	1	1
Massachusetts	—	0	0	—	—	3	23	52	131	191	—	1	9	3	11
New Hampshire	1	0	6	2	4	1	3	12	20	27	—	0	2	5	6
Rhode Island§	—	0	4	2	2	1	2	18	10	19	—	0	1	—	—
Vermont§	—	1	3	7	12	—	2	5	8	9	—	0	2	—	—
Mid. Atlantic	4	18	41	50	225	31	95	218	513	765	1	10	32	62	50
New Jersey	—	0	0	—	—	—	15	57	52	153	—	2	9	11	10
New York (Upstate)	4	8	19	50	96	15	25	63	130	151	1	4	12	19	16
New York City	—	0	9	—	74	—	23	56	145	193	—	1	7	7	7
Pennsylvania	—	8	24	—	55	16	31	81	186	268	—	3	13	25	17
E.N. Central	—	2	27	10	6	27	91	253	514	769	1	13	44	75	80
Illinois	—	1	11	4	1	—	33	124	145	266	—	2	9	7	16
Indiana	—	0	0	—	—	—	13	62	42	90	—	2	10	13	8
Michigan	—	1	5	3	3	6	16	49	98	148	—	3	16	19	20
Ohio	—	0	12	3	2	20	24	47	173	185	1	3	11	25	10
Wisconsin	—	0	0	—	—	1	10	48	56	80	—	4	17	11	26
W.N. Central	1	4	36	8	36	15	45	97	269	357	2	11	39	40	57
Iowa	—	0	3	—	1	1	10	34	67	42	—	2	16	9	10
Kansas	1	1	4	4	16	—	7	18	40	58	—	1	5	6	6
Minnesota	—	0	34	—	8	—	0	32	—	89	—	0	7	—	16
Missouri	—	1	6	—	2	13	13	44	119	106	2	4	27	15	17
Nebraska§	—	1	4	4	9	1	4	13	25	33	—	1	6	9	6
North Dakota	—	0	3	—	—	—	0	13	—	4	—	0	10	—	—
South Dakota	—	0	0	—	—	—	2	17	18	25	—	0	4	1	2
S. Atlantic	12	20	38	183	262	74	263	610	1,463	1,765	16	15	34	169	84
Delaware	—	0	0	—	—	—	3	11	18	13	—	0	2	2	—
District of Columbia	—	0	0	—	—	—	1	6	4	13	—	0	1	1	2
Florida	—	0	14	25	96	47	108	226	589	796	12	6	23	82	33
Georgia	—	0	0	—	—	8	41	144	273	213	1	2	7	16	12
Maryland§	—	6	15	41	83	9	18	57	113	144	1	2	9	21	9
North Carolina	—	0	0	—	—	1	29	240	229	349	—	2	10	22	8
South Carolina§	—	0	0	—	—	1	25	99	100	98	1	0	3	4	2
Virginia§	12	12	25	117	70	6	21	68	131	102	1	3	9	21	18
West Virginia	—	1	7	—	13	2	1	13	6	37	—	0	3	—	—
E.S. Central	1	3	7	26	27	14	55	177	332	330	5	5	22	34	31
Alabama§	—	1	4	15	5	3	20	52	105	117	—	1	4	4	9
Kentucky	1	0	4	3	—	4	11	32	57	60	1	1	6	7	3
Mississippi	—	0	1	—	—	3	18	67	67	52	—	0	12	3	4
Tennessee§	—	1	4	8	22	4	17	53	103	101	4	2	7	20	15
W.S. Central	1	0	30	6	8	10	132	396	426	566	2	7	84	36	26
Arkansas§	1	0	7	3	6	7	12	43	71	42	—	0	5	4	5
Louisiana	—	0	0	—	—	—	20	49	63	147	—	0	2	1	4
Oklahoma	—	0	30	3	2	3	12	39	54	48	1	0	24	5	1
Texas§	—	0	0	—	—	—	84	345	238	329	1	5	60	26	16
Mountain	1	1	7	3	11	14	51	113	359	469	1	11	34	39	66
Arizona	—	0	0	—	—	2	16	43	116	159	1	1	13	15	13
Colorado	—	0	0	—	—	9	10	24	106	115	—	3	21	5	19
Idaho§	—	0	2	—	1	1	3	9	37	25	—	2	7	6	7
Montana§	—	0	3	2	—	2	1	6	10	24	—	1	5	2	9
Nevada§	—	0	2	—	—	—	5	22	21	29	—	0	5	2	1
New Mexico§	1	0	2	1	3	—	6	19	30	52	—	0	6	3	8
Utah	—	0	2	—	—	—	5	17	29	50	—	1	7	6	8
Wyoming§	—	0	4	—	7	—	1	8	10	15	—	0	3	—	1
Pacific	—	2	13	13	29	54	117	291	815	894	4	12	52	72	57
Alaska	—	0	2	9	8	—	1	4	11	18	—	0	1	—	1
California	—	0	12	—	17	51	79	217	641	671	3	6	32	57	32
Hawaii	—	0	0	—	—	2	6	14	65	59	1	0	3	1	11
Oregon	—	0	2	4	4	1	8	48	54	82	—	2	11	6	5
Washington	—	0	0	—	—	—	14	71	44	64	—	2	18	8	8
Territories															
American Samoa	N	0	0	N	N	—	0	1	—	1	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	3	4	—	—	0	0	—	—
Puerto Rico	—	1	3	6	14	2	7	21	15	132	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† 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 March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Shigellosis					Spotted Fever Rickettsiosis (including RMSF)†									
						Confirmed					Probable				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010
United States	98	274	500	1,696	3,070	—	2	10	12	10	3	27	99	60	81
New England	1	4	17	44	121	—	0	0	—	—	—	0	1	1	—
Connecticut	—	0	5	5	69	—	0	0	—	—	—	0	0	—	—
Maine§	1	0	3	5	2	—	0	0	—	—	—	0	1	—	—
Massachusetts	—	3	16	33	44	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	2	—	3	—	0	0	—	—	—	0	1	—	—
Rhode Island§	—	0	4	—	2	—	0	0	—	—	—	0	1	1	—
Vermont§	—	0	1	1	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	8	24	70	116	449	—	0	1	—	—	—	1	4	2	6
New Jersey	—	4	16	16	75	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	2	3	15	27	39	—	0	1	—	—	—	0	3	—	—
New York City	2	5	14	51	73	—	0	1	—	—	—	0	4	2	6
Pennsylvania	4	9	55	22	262	—	0	0	—	—	—	0	3	—	—
E.N. Central	3	23	45	116	656	—	0	1	—	—	—	1	10	2	1
Illinois	—	8	20	31	471	—	0	1	—	—	—	0	5	—	—
Indiana§	—	1	4	11	8	—	0	1	—	—	—	0	5	—	1
Michigan	2	5	10	26	44	—	0	0	—	—	—	0	1	1	—
Ohio	1	5	18	48	60	—	0	0	—	—	—	0	2	1	—
Wisconsin	—	2	21	—	73	—	0	0	—	—	—	0	1	—	—
W.N. Central	2	22	81	91	638	—	0	4	2	—	—	4	21	10	5
Iowa	—	1	4	4	13	—	0	0	—	—	—	0	1	1	—
Kansas§	—	5	13	20	43	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	3	—	11	—	0	0	—	—	—	0	0	—	—
Missouri	2	16	66	63	564	—	0	4	2	—	—	4	20	9	5
Nebraska§	—	1	10	3	4	—	0	1	—	—	—	0	1	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	2	1	3	—	0	0	—	—	—	0	0	—	—
S. Atlantic	35	58	123	581	372	—	1	7	4	7	—	7	60	20	55
Delaware§	—	0	2	—	26	—	0	0	—	1	—	0	3	1	3
District of Columbia	—	0	4	5	8	—	0	1	—	—	—	0	0	—	—
Florida§	31	26	55	381	126	—	0	1	1	—	—	0	2	4	—
Georgia	3	15	26	90	125	—	0	6	1	2	—	0	0	—	—
Maryland§	—	2	8	17	21	—	0	1	1	1	—	0	5	1	6
North Carolina	—	3	36	60	30	—	0	3	1	3	—	2	48	10	42
South Carolina§	—	1	5	9	21	—	0	1	—	—	—	0	2	1	2
Virginia§	1	2	8	19	15	—	0	2	—	—	—	2	12	3	2
West Virginia	—	0	66	—	—	—	0	0	—	—	—	0	0	—	—
E.S. Central	1	14	40	89	103	—	0	3	—	1	1	5	29	6	7
Alabama§	—	5	14	42	15	—	0	1	—	—	1	1	8	4	1
Kentucky	—	2	28	9	35	—	0	2	—	—	—	0	0	—	—
Mississippi	—	1	5	16	6	—	0	0	—	—	—	0	3	—	—
Tennessee§	1	4	14	22	47	—	0	2	—	1	—	4	20	2	6
W.S. Central	33	54	257	289	384	—	0	4	—	1	2	2	43	3	6
Arkansas§	1	1	6	5	11	—	0	2	—	—	1	1	29	1	1
Louisiana	—	6	13	23	35	—	0	0	—	—	—	0	1	—	—
Oklahoma	1	3	13	21	55	—	0	3	—	—	1	0	11	1	1
Texas§	31	44	240	240	283	—	0	1	—	1	—	0	3	1	4
Mountain	6	16	32	149	140	—	0	5	6	—	—	0	7	16	1
Arizona	—	8	19	38	79	—	0	4	6	—	—	0	7	16	—
Colorado§	1	2	8	24	18	—	0	1	—	—	—	0	1	—	—
Idaho§	—	0	3	6	4	—	0	0	—	—	—	0	1	—	—
Montana§	5	0	14	43	3	—	0	1	—	—	—	0	1	—	—
Nevada§	—	0	6	6	5	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	3	10	27	23	—	0	0	—	—	—	0	0	—	1
Utah	—	1	4	5	8	—	0	0	—	—	—	0	1	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Pacific	9	22	73	221	207	—	0	2	—	1	—	0	1	—	—
Alaska	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
California	9	19	58	183	175	—	0	2	—	1	—	0	0	—	—
Hawaii	—	1	4	16	9	N	0	0	N	N	N	0	0	N	N
Oregon	—	1	4	12	14	—	0	0	—	—	—	0	1	—	—
Washington	—	1	17	9	9	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	—	1	1	1	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
Puerto Rico	—	0	1	—	—	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
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† Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by Rickettsia rickettsii, is the most common and well-known spotted fever.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	*Streptococcus pneumoniae*,† invasive disease										Syphilis, primary and secondary				
	All ages					Age <5									
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	214	286	825	4,095	4,581	20	32	92	338	736	80	253	348	2,158	2,862
New England	6	9	99	64	131	—	1	14	5	25	5	9	20	82	89
Connecticut	—	0	91	—	—	—	0	12	—	—	—	1	8	11	17
Maine§	3	2	13	35	33	—	0	1	1	2	—	0	3	2	7
Massachusetts	1	1	5	9	29	—	0	3	2	19	4	5	15	53	55
New Hampshire	—	0	7	—	41	—	0	0	—	3	1	0	2	5	3
Rhode Island§	—	1	36	7	—	—	0	3	—	—	—	1	4	9	5
Vermont§	2	1	5	13	28	—	0	1	2	1	—	0	1	2	2
Mid. Atlantic	23	32	60	451	317	4	6	19	50	94	10	31	45	239	397
New Jersey	—	1	8	15	31	—	1	5	10	17	2	4	10	43	57
New York (Upstate)	5	2	11	24	46	3	1	9	14	35	—	2	18	36	17
New York City	10	15	33	230	99	—	2	14	9	23	2	15	31	80	232
Pennsylvania	8	12	22	182	141	1	1	5	17	19	6	7	16	80	91
E.N. Central	46	61	105	811	963	2	5	13	50	129	1	30	53	163	462
Illinois	—	1	6	13	40	—	1	4	13	34	1	13	25	31	242
Indiana	—	9	27	116	212	—	0	6	3	17	—	4	14	30	34
Michigan	7	13	29	169	206	—	1	4	10	34	—	4	9	22	68
Ohio	35	25	45	408	388	2	2	5	19	28	—	9	21	73	102
Wisconsin	4	7	19	105	117	—	0	4	5	16	—	1	3	7	16
W.N. Central	3	10	61	124	276	1	1	12	22	56	—	6	18	63	62
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	3	3	3
Kansas	—	2	6	24	34	—	0	2	2	5	—	0	3	2	4
Minnesota	—	0	46	—	142	—	0	8	—	25	—	3	10	31	13
Missouri	3	2	10	59	40	1	0	4	17	17	—	2	9	26	40
Nebraska§	—	2	9	41	47	—	0	2	3	5	—	0	2	1	2
North Dakota	—	0	11	—	4	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	2	—	9	—	0	2	—	4	—	0	1	—	—
S. Atlantic	51	62	133	1,062	1,191	5	8	23	84	195	36	61	153	600	593
Delaware	1	1	4	22	9	—	0	1	—	—	—	0	4	4	1
District of Columbia	—	0	2	4	12	—	0	2	1	3	—	3	15	34	30
Florida	35	26	68	532	547	4	3	13	42	77	3	23	43	228	221
Georgia	4	10	21	132	217	1	2	6	13	57	14	13	108	74	81
Maryland§	11	9	32	191	155	—	1	4	9	21	—	7	16	75	44
North Carolina	—	0	0	—	—	—	0	0	—	—	7	6	19	84	124
South Carolina§	—	8	25	167	197	—	1	4	5	20	5	3	10	49	33
Virginia§	—	1	4	14	16	—	1	4	14	14	7	4	22	52	56
West Virginia	—	1	11	—	38	—	0	4	—	3	—	0	2	—	3
E.S. Central	21	24	45	377	431	2	2	7	20	41	5	16	39	112	191
Alabama§	—	0	0	—	—	—	0	0	—	—	—	4	11	27	63
Kentucky	2	4	11	55	48	—	0	3	5	3	4	2	12	24	23
Mississippi	—	1	8	4	25	—	0	2	—	5	—	4	16	24	39
Tennessee§	19	21	39	318	358	2	1	6	15	33	1	5	17	37	66
W.S. Central	34	35	339	490	505	5	5	26	52	78	11	38	71	337	438
Arkansas§	15	3	23	79	50	1	0	3	8	8	4	3	10	35	70
Louisiana	—	2	10	60	39	—	0	2	5	11	—	9	36	59	73
Oklahoma	3	1	4	12	19	3	1	4	12	19	—	2	6	10	17
Texas§	16	28	310	339	397	1	3	19	27	40	7	23	33	233	278
Mountain	27	35	75	629	679	1	4	10	51	103	1	12	26	69	111
Arizona	14	12	44	309	345	1	1	5	23	48	1	4	9	6	43
Colorado	11	11	23	155	172	—	1	4	8	23	—	2	8	20	32
Idaho§	—	0	2	3	5	—	0	2	2	2	—	0	2	3	1
Montana§	—	0	2	3	5	—	0	1	—	—	—	0	2	1	—
Nevada§	—	2	8	30	27	—	0	1	3	3	—	2	9	23	19
New Mexico§	2	3	13	80	56	—	0	2	7	12	—	1	4	11	8
Utah	—	3	8	41	64	—	0	3	8	14	—	1	5	5	8
Wyoming§	—	0	15	8	5	—	0	1	—	1	—	0	0	—	—
Pacific	3	6	24	87	88	—	0	5	4	15	11	47	63	493	519
Alaska	—	2	11	38	43	—	0	2	3	11	—	0	1	—	1
California	3	3	23	48	45	—	0	5	1	4	6	40	57	434	438
Hawaii	—	0	3	1	—	—	0	0	—	—	—	0	5	1	11
Oregon	—	0	0	—	—	—	0	0	—	—	1	1	7	24	17
Washington	—	0	0	—	—	—	0	0	—	—	4	3	11	34	52
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	11	4	15	56	52
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 26, 2011, and March 27, 2010 (12th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010
United States	139	248	574	2,486	3,967	—	1	71	—	1	—	1	53	—	1
New England	3	21	46	160	252	—	0	3	—	—	—	0	2	—	—
Connecticut	—	5	20	—	62	—	0	2	—	—	—	0	2	—	—
Maine¶	—	4	16	42	68	—	0	0	—	—	—	0	0	—	—
Massachusetts	3	5	17	75	60	—	0	2	—	—	—	0	1	—	—
New Hampshire	—	2	9	9	40	—	0	1	—	—	—	0	0	—	—
Rhode Island¶	—	1	4	6	2	—	0	0	—	—	—	0	0	—	—
Vermont¶	—	2	13	28	20	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	20	28	62	245	421	—	0	19	—	—	—	0	13	—	—
New Jersey	—	6	30	58	139	—	0	3	—	—	—	0	6	—	—
New York (Upstate)	N	0	0	N	N	—	0	9	—	—	—	0	7	—	—
New York City	—	0	0	—	1	—	0	7	—	—	—	0	4	—	—
Pennsylvania	20	18	41	187	281	—	0	3	—	—	—	0	3	—	—
E.N. Central	39	78	154	827	1,503	—	0	15	—	—	—	0	7	—	—
Illinois	3	18	43	171	380	—	0	10	—	—	—	0	4	—	—
Indiana¶	—	5	24	59	165	—	0	2	—	—	—	0	2	—	—
Michigan	11	27	53	273	487	—	0	6	—	—	—	0	1	—	—
Ohio	25	21	58	323	378	—	0	1	—	—	—	0	1	—	—
Wisconsin	—	5	22	1	93	—	0	0	—	—	—	0	1	—	—
W.N. Central	4	12	32	62	210	—	0	7	—	—	—	0	11	—	—
Iowa	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
Kansas¶	—	2	19	38	90	—	0	1	—	—	—	0	3	—	—
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	3	—	—
Missouri	—	7	23	10	102	—	0	1	—	—	—	0	0	—	—
Nebraska¶	N	0	0	N	N	—	0	3	—	—	—	0	7	—	—
North Dakota	4	0	10	11	14	—	0	2	—	—	—	0	2	—	—
South Dakota	—	0	7	3	4	—	0	2	—	—	—	0	3	—	—
S. Atlantic	24	32	100	316	488	—	0	6	—	—	—	0	4	—	1
Delaware¶	—	0	4	2	3	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	4	5	1	—	0	1	—	—	—	0	1	—	—
Florida¶	20	15	57	234	248	—	0	3	—	—	—	0	1	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	3	—	1
Maryland¶	N	0	0	N	N	—	0	3	—	—	—	0	2	—	—
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina¶	—	0	13	—	44	—	0	1	—	—	—	0	0	—	—
Virginia¶	4	10	29	75	99	—	0	1	—	—	—	0	1	—	—
West Virginia	—	6	26	—	93	—	0	0	—	—	—	0	0	—	—
E.S. Central	2	6	22	72	57	—	0	1	—	1	—	0	3	—	—
Alabama¶	2	5	22	69	57	—	0	1	—	—	—	0	1	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Mississippi	—	0	2	3	—	—	0	1	—	1	—	0	2	—	—
Tennessee¶	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
W.S. Central	47	41	202	480	670	—	0	16	—	—	—	0	3	—	—
Arkansas¶	—	2	32	29	35	—	0	3	—	—	—	0	1	—	—
Louisiana	—	2	4	13	19	—	0	3	—	—	—	0	1	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Texas¶	47	38	191	438	616	—	0	15	—	—	—	0	2	—	—
Mountain	—	17	50	271	344	—	0	18	—	—	—	0	15	—	—
Arizona	—	0	0	—	—	—	0	13	—	—	—	0	9	—	—
Colorado¶	—	7	31	107	117	—	0	5	—	—	—	0	11	—	—
Idaho¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
Montana¶	—	3	28	72	67	—	0	0	—	—	—	0	0	—	—
Nevada¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
New Mexico¶	—	1	8	11	24	—	0	6	—	—	—	0	2	—	—
Utah	—	4	26	81	133	—	0	1	—	—	—	0	1	—	—
Wyoming¶	—	0	3	—	3	—	0	1	—	—	—	0	1	—	—
Pacific	—	2	16	53	22	—	0	8	—	—	—	0	6	—	—
Alaska	—	1	5	21	10	—	0	0	—	—	—	0	0	—	—
California	—	0	13	23	2	—	0	8	—	—	—	0	6	—	—
Hawaii	—	1	4	9	10	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
Washington	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	8	1	—	0	0	—	—	—	0	0	—	—
Puerto Rico	6	8	30	49	103	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.

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

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

TABLE III. Deaths in 122 U.S. cities,* week ending March 26, 2011 (12th week)

Reporting area	All causes, by age (years)						P&I†
	All Ages	≥65	45–64	25–44	1–24	<1	Total
New England	487	337	107	28	7	8	42
Boston, MA	143	99	31	6	3	4	11
Bridgeport, CT	23	18	4	1	—	—	2
Cambridge, MA	16	11	4	1	—	—	3
Fall River, MA	11	9	2	—	—	—	—
Hartford, CT	49	35	8	5	—	1	4
Lowell, MA	31	21	9	1	—	—	2
Lynn, MA	14	7	6	1	—	—	3
New Bedford, MA	31	17	10	4	—	—	—
New Haven, CT	38	29	5	3	1	—	4
Providence, RI	66	48	13	1	1	3	5
Somerville, MA	2	2	—	—	—	—	—
Springfield, MA	34	20	8	4	2	—	4
Waterbury, CT	29	21	7	1	—	—	4
Worcester, MA	U	U	U	U	U	U	U
Mid. Atlantic	2,269	1,555	500	138	41	35	130
Albany, NY	49	36	9	1	1	2	1
Allentown, PA	25	22	3	—	—	—	—
Buffalo, NY	75	44	23	4	—	4	7
Camden, NJ	40	26	11	2	—	1	2
Elizabeth, NJ	23	16	7	—	—	—	5
Erie, PA	47	32	10	2	2	1	7
Jersey City, NJ	17	9	4	4	—	—	3
New York City, NY	1,084	752	234	68	19	11	53
Newark, NJ	27	14	9	3	1	—	1
Paterson, NJ	23	17	3	2	1	—	2
Philadelphia, PA	480	301	117	37	13	12	22
Pittsburgh, PA§	31	18	10	2	1	—	5
Reading, PA	27	23	3	—	—	1	2
Rochester, NY	87	60	19	5	1	2	6
Schenectady, NY	23	17	6	—	—	—	3
Scranton, PA	20	17	2	—	—	1	1
Syracuse, NY	122	101	17	4	—	—	9
Trenton, NJ	27	16	7	3	1	—	—
Utica, NY	15	13	1	—	1	—	—
Yonkers, NY	27	21	5	1	—	—	1
E.N. Central	2,298	1,531	589	107	37	34	212
Akron, OH	56	43	10	1	2	—	4
Canton, OH	45	35	10	—	—	—	11
Chicago, IL	260	165	75	15	5	—	18
Cincinnati, OH	98	62	27	8	1	—	9
Cleveland, OH	298	207	75	9	3	4	23
Columbus, OH	399	265	99	22	3	10	38
Dayton, OH	120	88	24	7	1	—	11
Detroit, MI	117	65	41	4	3	4	5
Evansville, IN	47	35	11	1	—	—	4
Fort Wayne, IN	63	47	11	4	—	1	4
Gary, IN	14	7	6	1	—	—	1
Grand Rapids, MI	65	47	13	3	1	1	12
Indianapolis, IN	233	138	74	11	5	5	28
Lansing, MI	43	26	13	2	1	1	5
Milwaukee, WI	77	49	22	5	1	—	9
Peoria, IL	72	50	15	3	1	3	9
Rockford, IL	63	37	16	4	4	2	5
South Bend, IN	59	36	18	2	3	—	3
Toledo, OH	108	74	25	5	2	2	8
Youngstown, OH	61	55	4	—	1	1	5
W.N. Central	807	522	213	37	20	13	99
Des Moines, IA	192	143	32	8	4	5	19
Duluth, MN	4	2	1	1	—	—	4
Kansas City, KS	28	13	14	1	—	—	2
Kansas City, MO	110	62	37	5	3	3	9
Lincoln, NE	49	37	9	2	—	1	5
Minneapolis, MN	10	8	2	—	—	—	10
Omaha, NE	95	68	17	7	1	2	9
St. Louis, MO	231	127	81	10	10	1	24
St. Paul, MN	9	7	1	—	—	1	9
Wichita, KS	79	55	19	3	2	—	8
S. Atlantic	1,237	797	308	79	26	26	92
Atlanta, GA	179	123	43	4	8	1	10
Baltimore, MD	160	89	47	13	4	7	18
Charlotte, NC	114	77	23	8	4	2	11
Jacksonville, FL	159	106	38	14	—	1	11
Miami, FL	84	54	19	9	2	—	5
Norfolk, VA	51	31	9	5	—	6	—
Richmond, VA	63	42	18	3	—	—	9
Savannah, GA	52	32	14	3	2	1	3
St. Petersburg, FL	69	45	17	4	1	2	6
Tampa, FL	176	115	44	12	—	4	7
Washington, D.C.	116	71	35	4	4	2	11
Wilmington, DE	14	12	1	—	1	—	1
E.S. Central	876	588	198	51	21	18	86
Birmingham, AL	166	107	33	13	4	9	15
Chattanooga, TN	111	77	27	2	3	2	13
Knoxville, TN	126	83	33	7	3	—	10
Lexington, KY	86	59	21	5	—	1	10
Memphis, TN	153	106	31	9	6	1	18
Mobile, AL	62	48	8	4	1	1	6
Montgomery, AL	22	15	7	—	—	—	2
Nashville, TN	150	93	38	11	4	4	12
W.S. Central	1,414	931	341	88	28	26	109
Austin, TX	102	70	19	8	2	3	10
Baton Rouge, LA	60	46	10	2	2	—	—
Corpus Christi, TX	79	51	24	—	4	—	8
Dallas, TX	248	153	66	13	8	8	20
El Paso, TX	71	48	15	3	1	4	6
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	195	105	56	24	4	6	14
Little Rock, AR	90	64	19	5	—	2	1
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	293	191	73	23	3	3	26
Shreveport, LA	141	100	34	6	1	—	10
Tulsa, OK	135	103	25	4	3	—	14
Mountain	1,237	831	285	71	25	22	95
Albuquerque, NM	111	72	26	10	1	2	8
Boise, ID	74	56	14	3	—	1	7
Colorado Springs, CO	79	50	23	2	2	2	3
Denver, CO	120	79	27	7	4	3	12
Las Vegas, NV	297	208	64	17	6	2	16
Ogden, UT	46	36	8	1	—	1	6
Phoenix, AZ	200	126	48	13	5	6	21
Pueblo, CO	36	27	8	1	—	—	3
Salt Lake City, UT	122	75	27	11	4	5	11
Tucson, AZ	152	102	40	6	3	—	8
Pacific	1,712	1,201	376	75	35	25	204
Berkeley, CA	9	7	1	—	—	1	—
Fresno, CA	123	76	35	11	1	—	16
Glendale, CA	37	26	9	1	—	1	6
Honolulu, HI	28	18	9	1	—	—	1
Long Beach, CA	103	73	19	6	4	1	21
Los Angeles, CA	273	190	59	15	5	4	41
Pasadena, CA	19	16	2	1	—	—	2
Portland, OR	104	71	26	5	—	2	5
Sacramento, CA	184	130	38	8	6	2	19
San Diego, CA	150	107	30	4	6	3	15
San Francisco, CA	123	88	27	6	—	2	12
San Jose, CA	205	144	49	5	5	2	24
Santa Cruz, CA	29	24	5	—	—	—	4
Seattle, WA	117	84	20	4	3	6	14
Spokane, WA	70	56	11	2	1	—	10
Tacoma, WA	138	91	36	6	4	1	14
Total¶	**12,337**	**8,293**	**2,917**	**674**	**240**	**207**	**1,069**

U: Unavailable. —: No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

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Data presented by the Notifiable Disease Data Team and 122 Cities Mortality Data Team in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. 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.*

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☆ U.S. Government Printing Office: 2011-723-011/21036 Region IV ISSN: 0149-2195