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World TB Day — March 24, 2011

World TB Day is observed each year on March 24 to commemorate the date in 1882 when Robert Koch announced the discovery of *Mycobacterium tuberculosis*, the bacterium that causes tuberculosis (TB). Worldwide, TB remains one of the leading causes of death from infectious disease. World TB Day provides an opportunity for TB programs, nongovernmental organizations, and others to describe problems and solutions related to the TB pandemic and to support worldwide TB control efforts. The U.S. theme for 2011's observance is TB Elimination: Together We Can!

Despite a continued decline in U.S. TB rates, the national goal of TB elimination by 2010 was not met (*1*). TB case rates decreased among both foreign-born and U.S.-born persons, but the incidence of TB in the United States is disproportionally greater among foreign-born persons and racial/ethnic minorities.

CDC is committed to eliminating TB in the United States. Progress in meeting the goal of TB elimination will hinge on improving TB control and prevention activities among disproportionately affected populations (*2*). This progress also will require better diagnostic tests and screening strategies for persons with latent TB infection, shorter treatment regimens, an effective vaccine, and improvements in TB control globally. Additional information about World TB Day and CDC's TB elimination activities is available at http://www.cdc.gov/tb/events/worldtbday.

References

1. CDC. A strategic plan for the elimination of tuberculosis in the United States. MMWR 1989;38(No. S-3).
2. CDC. Trends in tuberculosis—United States, 2010. MMWR 2011;60:333–7.

Trends in Tuberculosis — United States, 2010

In 2010, a total of 11,181 tuberculosis (TB) cases were reported in the United States, for a rate of 3.6 cases per 100,000 population, which was a decline of 3.9% from 2009 and the lowest rate recorded since national reporting began in 1953 (*1*). This report summarizes provisional 2010 data from the National TB Surveillance System and describes trends since 1993. Despite an average decline in TB rates of 3.8% per year during 2000–2008, a record decline of 11.4% in 2009 (*2*), and the 2010 decline of 3.9%, the national goal of TB elimination (defined as <0.1 case per 100,000 population) by 2010 was not met (*3*). Although TB cases and rates decreased among foreign-born and U.S.-born persons, foreign-born persons and racial/ethnic minorities were affected disproportionately by TB in the United States. In 2010, the TB rate among foreign-born persons in the United States was 11 times greater than among U.S.-born persons. TB rates among Hispanics, non-Hispanic blacks, and Asians were seven, eight, and 25 times greater, respectively, than among non-Hispanic whites. Among U.S.-born racial and ethnic groups, the greatest racial disparity in TB rates was for non-Hispanic blacks, whose rate was seven times greater than the rate for non-Hispanic whites. Progress toward TB elimination in the United States will require ongoing surveillance and improved TB control and prevention activities to address persistent disparities between U.S.-born and foreign-born persons and between whites and minorities.

INSIDE

U.S. Department of Health and Human Services
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Health departments in the 50 states and the District of Columbia (DC) electronically report to CDC verified TB cases that meet the CDC and Council of State and Territorial Epidemiologists case definition.* Reports include the patient's self-identified race, ethnicity (i.e., Hispanic or non-Hispanic), treatment information, and, whenever available, drug-susceptibility test results. CDC calculates national and state TB rates overall and by racial/ethnic group using U.S. Census population estimates, with the national rate and percentage change from 2009 to 2010 based on U.S. Census annual estimates (*4,5*). The Current Population Survey provides the population denominators used to calculate TB rate and percentage changes according to national origin (U.S.-born versus foreign-born) (*6*). For TB surveillance, a U.S.-born person is defined as someone born in the United States or its associated jurisdictions, or someone born in a foreign country but having at least one U.S.-born parent; all other persons are considered foreign-born. For 2010, patients with unknown country of birth represented 0.9% (96 of 11,181) of total cases. For this report, persons of Hispanic ethnicity might be of any race; non-Hispanic persons are categorized as black, Asian, white, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, or of multiple races.

In 2010, a total of 11,181 tuberculosis (TB) cases were reported in the United States, equivalent to 3.6 cases per 100,000 population. TB rates in reporting areas ranged from 0.6 (Maine) to 8.8 (Hawaii) cases per 100,000 population (median: 2.5) (Figure 1). Thirty-two states had lower rates in 2010 than in 2009; 18 states and DC had higher rates. Four states (California, Texas, New York, and Florida) each reported more than 500 cases for 2010. Combined, these four states accounted for 5,503 TB cases, or nearly half (49.2%) of all TB cases in 2010.

Among U.S.-born persons, the number and rate of TB cases declined in 2010. The 4,378 TB cases in U.S.-born persons (39.5% of all cases in persons with known national origin) were a 3.7% decrease compared with 2009, and a 74.9% decrease compared with 1993 (Figure 2). The 1.6 cases per 100,000 population TB rate among U.S.-born persons represented a 4.6% decrease since 2009 and a 77.8% decrease since 1993.

Among foreign-born persons in the United States, the number and rate of TB cases declined in 2010. A total of 6,707 TB cases were reported among foreign-born persons (60.5% of all cases in persons with known national origin), a 3.4% decrease from 2009. The 18.1 per 100,000 population TB rate among foreign-born persons was a 4.3% decrease since 2009 and a 46.8% decrease since 1993. In 2010, four countries accounted for 50.3% of TB cases associated with foreign birth: Mexico (1,539 [23.0%]), the Philippines (738 [11.0%]), India (577 [8.6%]), and Vietnam (518 [7.7%]).

*Available at http://www.cdc.gov/osels/ph_surveillance/nndss/casedef/tuberculosis_current.htm.

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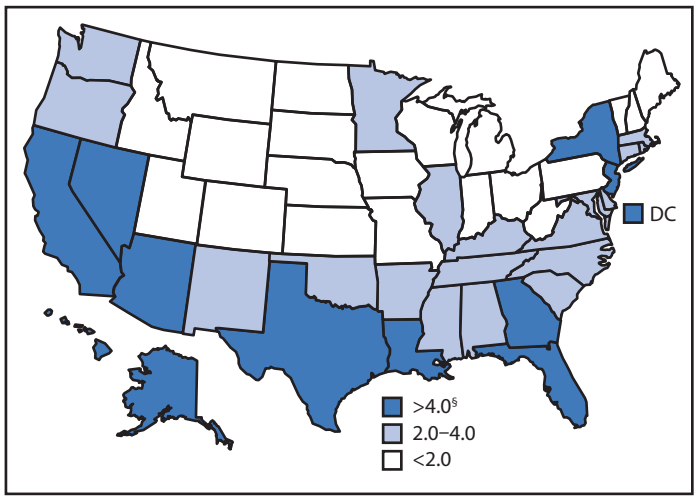
FIGURE 1. Rate* of tuberculosis (TB) cases, by state/area — United States, 2010†



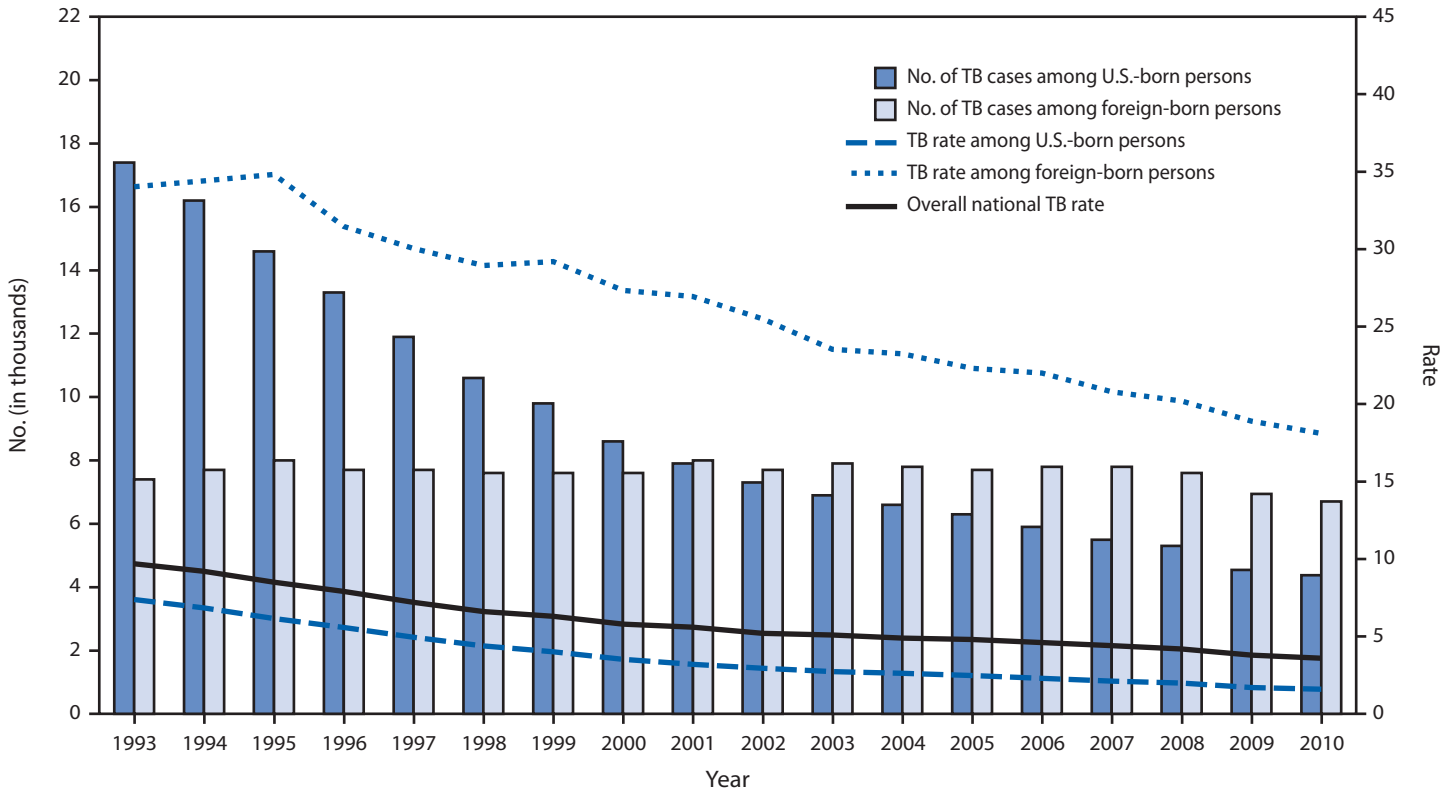
Source: National TB Surveillance System.
* Per 100,000 population.
† Provisional data as of February 26, 2011.
§ 20 states had TB case rates <2.0 (range: 0.61–1.88) per 100,000 population, 19 states had TB case rates of 2.0–4.0 (range: 2.07–3.92), and 11 states and the District of Columbia had TB case rates >4.0 (range: 4.15–8.77).

In 2010, more TB cases were reported among Hispanics than any other racial/ethnic group in the United States (Table). Asians had the highest TB case rate. From 2009 to 2010, TB rates decreased most for blacks, then Hispanics, Asians, and whites. Despite these declines, TB rates among Hispanics, blacks, and Asians were seven, eight, and 25 times greater, respectively, than among whites. Among persons with TB, approximately 95% of Asians, 75% of Hispanics, 34% of blacks, and 20% of whites were foreign-born. Among U.S.-born persons, blacks (40.0% [1,751 of 4,378]) were the racial/ethnic group with the greatest number of TB cases and the largest disparity with U.S.-born whites; the TB rate among U.S.-born blacks was seven times greater than among U.S.-born whites.

In 2010, among persons with TB who also had a known human immunodeficiency virus (HIV) test result, 8.6% (611 of 7,090) were coinfected with HIV. California and Vermont data were not available for these calculations.†

† Vermont no longer reports HIV status of TB cases to CDC, and California has not reported since 2004.

FIGURE 2. Number and rate* of tuberculosis (TB) cases among U.S.-born and foreign-born persons, by year — United States, 1993–2010†



Source: National TB Surveillance System.
* Per 100,000 population.
† Provisional data as of February 26, 2011.

TABLE. Number and rate* of tuberculosis cases and percentage change, by race and ethnicity — United States, 2009–2010†

Race/Ethnicity	2009		2010		% change from 2009 to 2010		Population§	
	No.	Rate	No.	Rate	No.	Rate	2009	2010
Hispanic	**3,377**	**7.0**	**3,246**	**6.5**	**-3.9**	**-6.7**	**48,419,324**	**49,876,874**
Non-Hispanic								
Black	2,869	7.6	2,660	7.0	-7.3	-8.2	37,681,544	38,045,114
Asian	3,202	23.4	3,149	22.5	-1.7	-4.0	13,686,083	14,021,770
White	1,826	0.9	1,776	0.9	-2.7	-2.9	199,851,240	200,140,743
Other¶	214	2.9	269	3.6	25.7	22.8	7,368,359	7,544,914
Unknown	43		81					
Total	**11,531**	**3.8**	**11,181**	**3.6**	**-3.0**	**-3.9**	**307,006,550**	**309,629,415**

* Per 100,000 population.
† Provisional data as of February 26, 2011.
§ Based on U.S. Census population data.
¶ Persons included in this category are American Indian or Alaskan Native (2009, n = 101, rate: 4.3 per 100,000 population; 2010, n = 146, rate: 6.1), Native Hawaiian or other Pacific Islander (2009, n = 75, rate: 16.7; 2010, n = 94, rate: 20.6), and multiple race (2009, n = 38, rate: 0.8; 2010, n = 29, rate: 0.6).

A total of 113 cases of multidrug-resistant TB (MDR TB)§ were reported in 2009, the most recent year for which complete drug-susceptibility data are available. Drug-susceptibility test results for isoniazid and rifampin were reported for 97.7% (9,810 of 10,039) and 96.9% (8,573 of 8,851) of culture-confirmed TB cases in 2008 and 2009, respectively. Among these cases, the percentage for 2009 that were MDR TB (1.3% [113 of 8,573]) was similar to the percentage for 2008 (1.1% [105 of 9,810]). The percentage of MDR TB cases among persons without a previous history of TB has remained stable at approximately 1.0% since 1997; for persons with a previous history of TB, the percentage with MDR TB is approximately five times greater. In 2009, foreign-born persons accounted for 101 (89.4%) of the 113 MDR TB cases. To date, one case of extensively drug-resistant TB (XDR TB)¶ has been reported in 2010.

The recommended length of drug therapy for most types of TB is 6–9 months. In 2007, the latest year for which end-of-treatment data are complete, 84.5% of patients for whom ≤1 year of treatment was indicated completed therapy within 1 year, compared with 83.9% in 2006. Ultimately, 93.6% of those patients who began treatment in 2007 completed treatment, compared with 93.0% in 2006.

§ Defined by the World Health Organization (WHO) as a case of TB in a person with a *Mycobacterium tuberculosis* isolate resistant to at least isoniazid and rifampin. Available at http://www.who.int/tb/publications/2008/drs_report4_26feb08.pdf.
¶ Defined by WHO as a case of TB in a person with an *M. tuberculosis* isolate with resistance to at least isoniazid and rifampin among first-line anti-TB drugs, resistance to any fluoroquinolone (e.g., ciprofloxacin or ofloxacin), and resistance to at least one second-line injectable drug (e.g., amikacin, capreomycin, or kanamycin). Available at http://www.who.int/tb/publications/2008/drs_report4_26feb08.pdf.

Reported by

R Pratt, S Price, R Miramontes, MPH, T Navin, MD, Div of TB Elimination, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; BK Abraham, MD, EIS Officer, CDC.

Editorial Note

In 1989, the Advisory Council for the Elimination of Tuberculosis, in partnership with the CDC's Division of Tuberculosis Elimination, set a strategic goal for the elimination of TB, defined as a TB case rate of <0.1 per 100,000 population, by 2010 (*3*). The goal of TB elimination remains unmet. The impact of the HIV/AIDS epidemic, which in the United States fueled the TB resurgence of the early 1990s (*7*), was underestimated when the TB elimination goal was set in 1989, as was the continued effect of the worldwide increase on TB rates among foreign-born persons in the United States.

Although the United States has yet to achieve TB elimination, substantial and consistent gains in the reduction of TB incidence have been realized. TB incidence has decreased by 65.2% since the peak of the resurgence experienced between 1985 and 1992 (*7*). Furthermore, the record 11.4% decrease in the reported TB rate in 2009 raised the possibility of a more accelerated downward trend (*2*). However, 2010 provisional surveillance demonstrates a less substantial TB rate decline of 3.9%, a level similar to the average rate of decline of 3.8% during 2000–2008. Supporting the hypothesis that the large and unprecedented decline in 2009 was an aberration resulting partly from changing migration patterns, the decline in the TB case rate among foreign-born persons was more pronounced than usual that year (*2*). Other factors, such as improved TB control and changes in health-care access and use, also might have played a role.

What is already known on the topic?

In 1989, the Strategic Plan for Elimination of Tuberculosis in the United States set a target date of 2010 to achieve its goal, defined as an annual tuberculosis (TB) case rate of <0.1 per 100,000 population.

What is added by this report?

For 2010, preliminary data show a national TB case rate of 3.6 per 100,000 population, a decrease of 3.9% from 2009, but the goal of eliminating TB in the United States by 2010 was not achieved, and foreign-born persons and racial/ethnic minorities continued to be affected disproportionately.

What are the implications for public health practice?

Ongoing surveillance and improved TB control and prevention activities, especially among disproportionately affected populations, are needed to eliminate TB in the United States.

During 1993–2008, the number of TB cases among foreign-born persons remained stable (approximately 7,000–8,000 cases annually), while the number among U.S.-born persons declined steadily (*1*). As a result of these differing trends, the gap in TB rates between U.S.-born and foreign-born populations has grown. Consistent with 2009 findings, national TB surveillance in 2010 reported fewer TB cases among foreign-born persons than during 1993–2008. Even with the decline in cases among foreign-born persons, the TB case rate among foreign-born persons in 2010 was 11 times greater than among U.S.-born persons. Disparities along ethnic and racial lines also remained notable.

The findings in this report are subject to at least two limitations. First, the analysis was based on provisional 2010 data. Additionally, TB case counts and HIV data were incomplete at the time of this report. Second, population denominator data are drawn from multiple U.S. Census sources, and estimates are subject to periodic adjustment. CDC's annual TB surveillance summary (*1*), scheduled for publication in fall 2011, will provide final 2010 surveillance data.

TB elimination in the United States was not achieved by 2010, the target for the nation set in 1989. Continued progress in meeting the goal of TB elimination will hinge on improving TB control and prevention activities among disproportionately affected populations, including foreign-born persons, blacks, and Hispanics. Better diagnostic tests and screening strategies for persons with latent TB infection, shorter treatment regimens, a new and effective vaccine, and improvements in global TB control also are needed. Ongoing surveillance activities will be paramount in identifying any changes in trends, which in turn should affect TB control strategies. CDC will work with the Advisory Council for the Elimination of Tuberculosis, the National TB Controllers Association, state and local health departments, and other partners to set new, realistic target dates for TB elimination that take into account factors likely to affect the future burden of TB in the United States.

References

1. CDC. Reported tuberculosis in the United States, 2009. Atlanta, GA: US Department of Health and Human Services, CDC; 2010. Available at http://www.cdc.gov/tb/statistics/reports/2009/default.htm. Accessed March 22, 2011.
2. CDC. Decrease in reported tuberculosis cases—United States, 2009. MMWR 2010;59:289–94.
3. CDC. A strategic plan for the elimination of tuberculosis in the United States. MMWR 1989;38(No. S-3).
4. US Census Bureau. Preliminary annual estimates of the resident population for the United States, regions, states, and Puerto Rico: April 1, 2000 to July 1, 2010. Washington, DC: US Census Bureau; 2011. Available at http://www.census.gov/popest/eval-estimates/eval-est2010.html. Accessed March 17, 2011.
5. US Census Bureau. National population estimates for the 2000s: monthly postcensal resident population, by single year of age, sex, race, and Hispanic origin. Washington, DC: US Census Bureau; 2011. Available at http://www.census.gov/popest/national/asrh/2009-nat-res.html. Accessed March 17, 2011.
6. US Census Bureau. Current population survey: annual estimates of the United States foreign-born and native resident populations. Washington, DC: US Census Bureau; 2011. Available at http://dataferrett.census.gov. Accessed March 17, 2011.
7. Cantwell MF, Snider DE, Cauthen GM, Onorato IM. Epidemiology of tuberculosis in the United States, 1985 through 1992. JAMA 1994;272:535–9.

Assessment of Declines in Reported Tuberculosis Cases — Georgia and Pennsylvania, 2009

In 2009, the largest single-year percentage decrease in tuberculosis (TB) cases was reported since national TB surveillance began in the United States in 1953. Overall, TB rates decreased 11.4% to 3.8 cases per 100,000 population, compared with an average annual decline of 3.8% each year since 2000 (*1,2*). Georgia and Pennsylvania were among 36 states reporting decreases from 2008; TB case rates fell 14.3% (from 4.9 to 4.2) in Georgia and 38.7% (from 3.1 to 1.9) in Pennsylvania. Concerned about the possibility of unidentified TB cases, the Georgia Division of Public Health and the Pennsylvania Department of Health, in collaboration with CDC, conducted investigations centering on four hypotheses for the declines: 1) surveillance artifact, 2) underreporting, 3) underdiagnosis, and 4) actual decline. This report summarizes the results of those investigations, which found no evidence of surveillance artifact, underreporting, or underdiagnosis substantial enough to account for the magnitude of the declines. Instead, a decrease in the number of laboratory-confirmed *Mycobacterium tuberculosis* complex diagnoses and a decrease in the percentage of suspected TB cases ultimately counted as meeting the TB case definition; both suggested a true decline in TB in 2009. The population groups with the largest declines were foreign-born persons and children. Continued TB surveillance, including vigilance in suspecting, diagnosing, and reporting TB cases to public health departments, will help clarify the cause of this decline and determine long-term TB trends in the United States.

The investigations in the two states were conducted during March–May 2010 and included systematically assessing changes in TB surveillance practices, cross-matching health department data with records from reporting entities and secondary sources, reviewing laboratory records, and analyzing state TB registries for epidemiologic changes. Reports of suspected TB cases sent by health-care providers and laboratories to public health departments in Georgia and Pennsylvania are entered into Georgia's State Electronic Notifiable Disease Surveillance System (SENDSS) and Pennsylvania's version of the National Electronic Disease Surveillance System (PA-NEDSS). In Pennsylvania, electronic reports also are downloaded automatically from laboratory databases into PA-NEDSS. Once a report is investigated locally, designated health department officials determine whether it meets Council of State and Territorial Epidemiologists criteria to be counted as a case.*

To assess for surveillance artifact (i.e., whether case counts were artificially low as a result of changes or delays in reporting, investigating, or counting, including changes in criteria for counting reports as cases) in 2009, public health staff members in both states were interviewed, and trend analyses of SENDSS and PA-NEDSS data were conducted. The number of suspected TB case reports, the proportion of those reports ultimately counted as cases, and selected surveillance quality measures (e.g., mean time from initial report to count inclusion) were evaluated for 2008–2009 in Georgia and 2007–2009 in Pennsylvania (where 2007 was the comparison year because delayed counting of cases first reported in 2005–2007 was known to have inflated the 2008 case count artificially). In Georgia, officials in the 13 counties with declines of three or more reported cases provided their independent case counts to determine concordance with SENDSS. In addition, paper reports not yet entered into SENDSS were reviewed to identify additional cases. Similarly, suspected TB reports included in PA-NEDSS that had not been counted as cases were reexamined if they had laboratory or clinical characteristics suggestive of TB.

To assess for underreporting, SENDSS and PA-NEDSS records were cross-matched with line lists from different sources of patients with potential TB diagnoses in 2008 and 2009. Both state public health laboratories participated, as did the City of Philadelphia public health laboratory and 43 (46%) of 92 licensed private laboratories in Georgia and 131 (81%) of 161 in Pennsylvania that provided these data as part of a survey. Additional cross-matching in Georgia included infection-control records from the 13 Atlanta hospitals that reported the most cases of TB. Records of patients with a TB-related code from the *International Classification of Diseases, Ninth Revision* (ICD-9)† in the state's hospital discharge database, but not in SENDSS (i.e., unmatched patients), also were assessed further.

To assess for underdiagnosis, the public health laboratories serving the two states ran systematic queries on the total number of patients who had specimens tested for *M. tuberculosis* complex (e.g., *M. tuberculosis, M. bovis, or M. africanum*) by culture or by nucleic acid amplification testing and the proportion with *M. tuberculosis* complex confirmed by either test. Investigators also assessed whether any changes in laboratory policies or practices might account for the unexpected drop in reported TB. Similar data were gathered via a survey sent

*Available at http://www.cdc.gov/osels/ph_surveillance/nndss/casedef/tuberculosis_current.htm.

†ICD-9 codes (http://www.cdc.gov/nchs/icd/icd9.htm) for TB are 010–019; code 011 is specific for pulmonary TB disease.

to licensed private laboratories in the two states. In Georgia, 57 (62%) of 92 private laboratories responded with these data, as did 131 (81%) of 161 in Pennsylvania. Nonresponding laboratories in Pennsylvania did not have fewer PA-NEDSS reports in 2009 compared with 2008; in Georgia, such changes could not be assessed. In addition, TB diagnosis trends in the hospital discharge records provided by the Pennsylvania Health Care Cost Containment Council for Southeastern Pennsylvania, which covers approximately 40% of the state's population (*3*), were examined; ICD-9 codes were used to identify possible TB-related hospitalizations.

To assess the evidence supporting an actual decline in TB, Georgia and Pennsylvania TB cases counted in 2009 were compared with 2008 cases for changes in patient characteristics that could affect the likelihood of having laboratory-confirmed TB (e.g., age and site of disease). Linear regression of log-transformed case counts during 1999–2009 was used to determine the expected numbers of cases among U.S.-born and foreign-born persons; observed numbers outside the 95% prediction interval were considered significant.

Investigation of Surveillance Artifact

No changes or delays in surveillance practices were found in Georgia. Excluding results of overseas TB screening in newly arriving immigrants, the number of suspected TB reports in 2008 was comparable to that in 2009. The mean numbers of days between initial report, entry into SENDSS, and inclusion in the state case count also were comparable. However, despite no changes in the criteria for counting suspected TB as cases, the percentage of initial reports ultimately counted as cases declined, from 77% (478 of 623) in 2008 to 66% (415 of 619) in 2009. The independent counts in the 13 counties with the largest declines were concordant with SENDSS data; one uncounted TB case was found among paper reports not yet entered into SENDSS.

Similarly, surveillance practices in Pennsylvania did not appear to change substantially in 2009. Delayed counting of cases first reported during 2005–2007 is known to have artificially inflated the 2008 case count in Pennsylvania. One suspected TB report from 2005, three from 2006, and 48 from 2007 were not counted as cases until 2008 (Figure 1). However, even after adjusting Pennsylvania's 2008 case count for this known surveillance artifact (i.e., subtracting 52 cases), a 30% annual decline was still observed in 2009, and the number of suspected TB reports to public health authorities remained stable. The mean number of days between initial report and investigation was comparable during 2007–2009. However, as in Georgia, the percentage of initial reports ultimately counted as TB cases declined from 14% (276 of 1,995) in 2007 to 12% (236 of 2,030) in 2009. (Pennsylvania has a larger number of suspected TB reports, compared with Georgia, because of automatic downloads from laboratory databases into PA-NEDSS.) Among the suspected TB reports not counted as cases in Pennsylvania in 2009, a total of 409 met the criteria for further investigation, but only six were determined to be verified and countable.

What is already known on this topic?

In 2009, tuberculosis (TB) incidence in the United States decreased to 3.8 cases per 100,000 population, the lowest recorded rate since national TB surveillance began in 1953. The 11.4% decrease from 2008 was the greatest single-year decrease ever recorded.

What is added by this report?

Findings from systematic investigations in Georgia and Pennsylvania, two states that experienced unexpectedly large decreases in TB incidence in 2009, indicate that the decline in new TB disease in those states appeared actual and not attributable to surveillance artifact, health-care provider underdiagnosis, or underreporting.

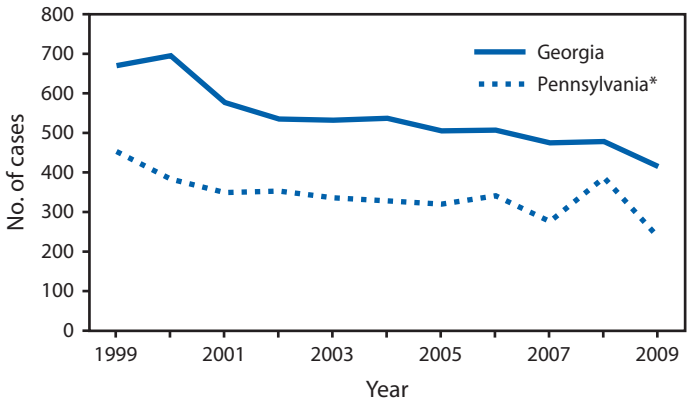
What are the implications for public health practice?

The TB surveillance systems in Georgia and Pennsylvania appear to be functioning appropriately. Current efforts to diagnose, treat, and report TB cases should be vigorously maintained as the United States moves closer to the goal of TB elimination.

Investigation of Underreporting

In Georgia, the SENDSS cross-match with line lists of patients with positive TB results from the state public health laboratory, 43 private laboratories, and 13 hospitals detected no unreported cases. Among patients with TB ICD-9 codes in the hospital discharge database, 45% (244 of 539) in 2008 and 43% (178 of 416) in 2009 (fourth quarter data unavailable)

FIGURE 1. Counted cases of tuberculosis — Georgia and Pennsylvania, 1999–2009



* Delayed counting of cases artificially inflated the 2008 case count in Pennsylvania. One suspected TB case from 2005, three from 2006, and 48 from 2007 were not counted as cases until 2008. Subtracting these 52 cases from the 2008 Pennsylvania total reduced the decrease in 2009 from 38.7% to 29.6%.

were not found in SENDSS. Seventy-three of these 422 unmatched patients were selected for further review based on having ICD-9 codes that corresponded to countable TB for >50% of hospital records.[§] Further medical review was possible for 28 (85%) of 33 unmatched records in 2008 and for 37 (93%) of 40 in 2009. One unreported 2009 case (culture-negative TB pleurisy) was found.

In Pennsylvania, the PA-NEDSS cross-match with line lists of patients with positive *M. tuberculosis* complex results from public health laboratories and from 58 private laboratories found 13 potentially unreported cases, of which none proved to be countable (seven were in non-Pennsylvania residents, and six were nontuberculous mycobacteria).

Investigation of Underdiagnosis

Review of 2008 and 2009 laboratory data in both states showed that the total number of patients who had specimens tested for mycobacteria increased in the public health laboratories (i.e., 4.7% in Georgia and 11.6% in Pennsylvania), but the proportion of patients with specimens that tested positive for *M. tuberculosis* complex decreased 19.8% in the Georgia State Public Health Laboratory and 28.8% in Pennsylvania public health laboratories (Table). In the 10 private laboratories that provided these data in response to the Georgia survey, a parallel decline was noted. Among 131 private laboratories responding to the Pennsylvania survey, similar numbers of specimens were received for *M. tuberculosis* complex testing annually during 2007–2009, but the proportion that tested positive for *M. tuberculosis* complex decreased 36% from 2008 to 2009 (Figure 2). In neither state were changes noted in the types of specimens processed or in the methods or procedures (at public health labs) for laboratory diagnosis of TB.

Analysis of the southeastern Pennsylvania hospital discharge dataset showed that the total number of inpatient hospitalizations was stable, with 707,601; 699,893; and 696,846 discharges in 2007, 2008, and 2009, respectively. Time-trend analysis revealed that the percentage of all hospitalizations with either pulmonary or extrapulmonary TB as a primary or secondary diagnosis was approximately 0.04% each year; further subset analyses by TB-related ICD-9 codes revealed no other TB diagnosis-related changes during this period.

Evidence Suggesting Actual Declines in TB

Because the investigations in Georgia and Pennsylvania found little evidence to support the first three hypotheses for the decline in reported TB cases, more consideration was given to whether the surveillance findings represented an actual decline in 2009. The relative proportions of counted TB cases that met the national case definition based on laboratory criteria essentially were unchanged: from 362 (76%) of Georgia's 478 TB cases in 2008 to 303 (73%) of 415 in 2009, and from 214 (78%) of Pennsylvania's 276 TB cases in 2007 to 190 (81%) of 236 in 2009. In both states, the declines noted from 2008 to 2009 by site of disease appeared approximately consistent (i.e., a 15% decline in pulmonary and 13% decline in extrapulmonary in Georgia, with declines of 36% and 45%,

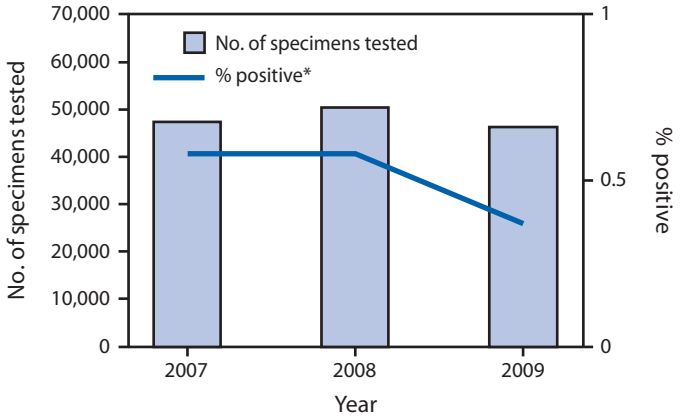
[§] Georgia investigators estimated which ICD-9 codes corresponded to countable TB on the basis of the counted 2008–2009 TB cases (i.e., known to have TB) in SENDSS. First, they recorded the frequency of all the TB-related ICD-9 codes that appeared in hospital discharge records. For each ICD-9 code with a frequency greater than three, the numerator for the estimate was the number of hospital records with that ICD-9 code that also matched a counted TB case in SENDSS, and the denominator was the total number of records with that ICD-9 code. The discharge diagnosis codes estimated to correspond to countable TB for >50% of records were 011.2, 011.23, 011.24, 011.26, 011.6, 011.63, 011.64, 011.66, 011.91, 011.92, 011.93, 011.94, 011.96, 012.0, 012.04, 013.0, 013.04, 015.53, 017.2, and 018.9.

TABLE. Results of mycobacterial laboratory testing — Georgia and Pennsylvania, 2008 versus 2009

	Georgia								Pennsylvania			
	State laboratory				Private laboratories (n = 10)				State and Philadelphia public health laboratories (n = 2)*			
Data type	2008	2009	Absolute change	% change	2008	2009	Absolute change	% change	2008	2009	Absolute change	% change
No. of primary clinical specimens[†]	9,098	8,975	-123	-1.4	14,622	14,240	-382	-2.6	2,266	2,370	104	+4.6
No. of patients who had specimens tested by mycobacterial culture	2,788	2,919	+131	+4.7	8,257	7,523	-734	-8.9	536	598	62	+11.6
No. of patients who had specimens that tested positive by mycobacterial culture	253	212	-41	-16.2	68	46	-22	-32.4	116	85	31	-26.7
Percentage of patients who had specimens with positive *Mycobacterium tuberculosis* complex cultures	9.1%	7.3%	-1.8 % pts	-19.8	0.8%	0.6%	-0.2 % pts	-25.0	22.6%	16.1%	-6.5 % pts	-28.8

* Patient-level data were not available from private laboratories in Pennsylvania.
† Raw specimens that had not undergone culturing process previously.

FIGURE 2. Number of specimens tested* and percentage of positive results for *Mycobacterium tuberculosis* complex from 131 private laboratories — Pennsylvania, 2007–2009



* The presence of *Mycobacterium tuberculosis* complex was determined using either culture with identification or nucleic acid amplification testing.

respectively, in Pennsylvania). Also in both states, children aged <15 years were the age group that experienced the largest decrease in reported TB cases (by 38% in Georgia and 79% in Pennsylvania) in 2009. Linear regression analysis of cases during 1999–2009 showed that observed case counts among foreign born-persons declined significantly in both states in 2009. Based on the prediction interval for the number of TB cases reported among foreign-born persons, Georgia would have expected 182–247, but observed 176; Pennsylvania would have expected 131–239, but observed 127. Among U.S.-born persons, smaller declines were not statistically significant. For U.S.-born persons, the 235 observed cases were within the 201–295 prediction interval in Georgia, and 108 observed cases were within the 94–197 prediction interval in Pennsylvania.

Reported by

K Viner, PhD, CC Johnson, MD, EC Newbern, PhD, B Dickman, MPA, Philadelphia Dept of Public Health; L Dettinger, MT, K Waller, MD, Pennsylvania Dept of Health. R Sales, MPH, Georgia Dept of Community Health. K Mitruka, MD, E Magee, MPH, J Grant, MD, L Manangan, MPH, R Yelk-Woodruff, MPH, J Ershova, PhD, B Metchock, DrPH, D Bedell, MBA, W Avant, D Dohony, MPH, TC Cropper, M Haddad, MSN, Div of TB Elimination, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; J Jones, T Rosen, MD, Scientific Education and Professional Development Program Office, Office of Surveillance, Epidemiology, and Laboratory Services; E Click, MD, M Willis, MD, B Abraham, MD, EIS officers, CDC.

Editorial Note

After unexpected declines in 2009 in the number of TB cases reported in Georgia and Pennsylvania, investigations in the two states applied an extensive systematic approach to assess whether the declines were actual. Although the investigations did not reexamine every initial report of suspected TB to determine whether it was or was not counted properly, hundreds of such reports and thousands of statewide hospital and laboratory records were reexamined, ultimately finding only two uncounted cases in Georgia and six in Pennsylvania that should have been counted in 2009; of these eight cases, all except one Georgia case had been reported to public health authorities but not recorded in the surveillance system. The results of these investigations provide strong evidence against underreporting as the cause for the decline. The results are similar to those of a previous study of TB case-reporting completeness in seven U.S. states during 1994–1995, which found few unreported cases (*4*).

The investigations determined that, whereas the number of positive TB results declined, the total number of individual patients and specimens tested for TB remained stable or increased in the public health laboratories serving the two states. A similar trend in the states' private laboratories also suggested that the decline in TB diagnoses in Georgia and Pennsylvania was not the consequence of health-care providers' failing to consider a diagnosis of TB in 2009. Pennsylvania's stable percentage of hospitalizations with TB-related diagnoses during 2007–2009 provides further evidence against underdiagnosis and might suggest a decline in less severe manifestations of TB disease that do not require hospitalization.

The findings in this report are subject to at least three limitations. First, this investigation could not examine whether underdiagnosis occurred because of failure of patients to seek medical attention for TB symptoms. For example, factors affecting patient access to medical care, such as immigration status or financial constraints, were not assessed (*5*). Second, neither state assessed underdiagnosis or underreporting at outpatient provider sites where patients with less severe disease might have been managed. Finally, one of the methods used to assess whether hospitals might have underreported TB cases relied on how well ICD-9 codes corresponded to known TB cases without medical record reviews to test the validity of the ICD-9 code itself.

The findings in both Georgia and Pennsylvania of a decrease in the percentage of suspected TB reports that ultimately were counted as cases and a decrease in the proportion of tested specimens yielding *M. tuberculosis* complex support an actual

decline in incident TB disease in 2009. The decreased proportion of laboratory-confirmed TB cannot be explained by a commensurate increase in the types of cases typically associated with culture-negative TB (e.g., pediatric or extrapulmonary TB [*6,7*]). Children experienced the largest decline in reported TB, a finding suggesting either less TB transmission or changes in immigration patterns. Similarly, the decline in TB cases among foreign-born persons might reflect an actual decline because of changes in migration following the economic downturn (i.e., decreased immigration or increased emigration of job-seekers) or improved preimmigration TB detection and treatment among U.S.-bound immigrants per CDC's technical instructions for prevention and treatment of TB among immigrants (*8*). Varying implementation dates and the small number of cases in Georgia and Pennsylvania from countries that have implemented the revised instructions prevented an assessment of the impact of these overseas screening changes.

Although recent changes in migration patterns or in overseas TB screening of new immigrants are possible explanations for an actual U.S. decline in TB in 2009, clinicians and health systems should maintain vigilance for TB and promptly report new TB cases to public health authorities. A decline because of delayed diagnosis resulting from obstacles to care also remains a possibility, although preliminary 2010 TB surveillance data did not demonstrate a compensatory increase in the number of cases (*9*). Monitoring for patients with more advanced disease is important to prevent worse morbidity and increased mortality from TB. Continued analyses of new public health surveillance and other data sources will help to better discern long-term trends in TB in the United States.

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References

1. CDC. Decrease in reported tuberculosis cases—United States, 2009. MMWR 2010;59:289–94.
2. CDC. Reported tuberculosis in the United States, 2009. Atlanta, GA: US Department of Health and Human Services, CDC; 2010. Available at http://www.cdc.gov/tb/statistics/reports/2009/default.htm. Accessed March 22, 2011.
3. Pennsylvania Health Care Cost Containment Council. Services: data requests. Harrisburg, PA: Pennsylvania Health Care Cost Containment Council; 2011. Available at http://www.phc4.org/services/datarequests. Accessed March 22, 2011.
4. Curtis AB, McCray E, McKenna M, Onorato IM. Completeness and timeliness of tuberculosis case reporting: a multistate study. Am J Prev Med 2001;20:108–12.
5. Johnson A, Rockoff JD, Mathews W. Americans cut back on visits to doctor. The Wall Street Journal. July 29, 2010.
6. Peto HM, Pratt RH, Harrington TA, LoBue PA, Armstrong LR. Epidemiology of extrapulmonary tuberculosis in the United States, 1993–2006. Clin Infect Dis 2009;49:1350–7.
7. Cruz AT, Starke JR. Clinical manifestations of tuberculosis in children. Paediatr Respir Rev 2007;8:107–17.
8. CDC. CDC immigration requirements: technical instructions for tuberculosis screening and treatment. Using cultures and directly observed therapy. Atlanta, GA: US Dept of Health and Human Services, CDC; 2009. Available at http://www.cdc.gov/immigrantrefugeehealth/pdf/tuberculosis-ti-2009.pdf. Accessed March 22, 2011.
9. CDC. Trends in tuberculosis—United States, 2010. MMWR 2011;60:333–7.

Vitamin B12 Deficiency in Resettled Bhutanese Refugees — United States, 2008–2011

Since 2008, approximately 30,000 Bhutanese refugees have been resettled in the United States. Routine medical examinations of refugees after arrival in resettlement states indicated hematologic and neurologic disorders caused by vitamin B12 deficiency. These cases were reported by examining physicians and state health departments to CDC, which initiated an investigation. This report summarizes the results of that investigation. Sera from overseas medical examinations, postarrival examinations in three state health departments (Minnesota, Utah, and Texas), and medical records and interviews at a health clinic in St. Paul, Minnesota, were evaluated. Vitamin B12 deficiency, defined as serum vitamin B12 concentration <203 pg/mL, was found in 64% (63 of 99) of overseas specimens, 27% (17 of 64) of postarrival medical screenings, and 32% (19 of 60) of Bhutanese refugees screened for vitamin B12 deficiency at the St. Paul clinic. Although the deficiencies might be multifactorial, the main cause is thought to be the diet consumed by these refugees for nearly two decades in Nepal, which lacked meat, eggs, and dairy products, the major dietary sources of vitamin B12. Additionally, infection with *Helicobacter pylori* might play a role. Clinicians should be aware of the risk for vitamin B12 deficiency in Bhutanese refugees. All Bhutanese refugees should be given nutrition advice and should receive supplemental vitamin B12 upon arrival in the United States. In addition, refugees with clinical manifestations suggestive of deficiency should be tested for adequate serum vitamin B12 concentrations and, if found to have a B12 deficiency, screened for underlying causes, treated with parenteral vitamin B12 or high-dose oral supplements, and evaluated for response to therapy.

Approximately 108,000 ethnic Nepalis were forced from their longstanding homes in Bhutan in the early 1990s and have since been living in Nepal. Since March 2008, approximately 30,000 Bhutanese refugees have arrived in the United States, with many more expected. In the Nepalese camps, rations provided by the World Food Programme and the United Nations High Commissioner for Refugees consist of rice, lentils, chickpeas, vegetable oil, sugar, salt, and fresh vegetables (*1*). Only certain refugees, including young and malnourished children, pregnant and lactating women, and active tuberculosis patients, receive additional rations and multivitamin supplements. A locally made, fortified, blended food containing vitamin B12 and other micronutrients is available in Nepalese camps but might not be consumed regularly by all refugees. Other micronutrient deficiencies, including vitamin B2 (riboflavin), have been identified in this population (*2*).

This investigation examined three sources of data: 1) test results from sera collected during overseas medical examinations, 2) results of postarrival examinations collected by three state health departments, and 3) medical records and interviews at a health clinic in St. Paul. CDC's Migrant Serum Bank contains de-identified surplus serum specimens collected during mandatory overseas medical screening examinations for refugees. Serum vitamin B12 concentrations were tested in 99 randomly selected specimens from adult Bhutanese refugees collected during December 2007–November 2008. Total serum vitamin B12 was measured using the Roche E-170 automated electrochemiluminescence immunoassay. Vitamin B12 deficiency, defined as a serum concentration of <203 pg/mL (150 pmol/L) (*3*), was detected in 63 (64%) refugees, including 28 (60%) females and 35 (67%) males (Table 1).

Serum vitamin B12 concentrations were measured during the postarrival medical screening examinations for all resettled refugees in three states during September 2010–January 2011. The 326 refugees screened came from 12 countries of origin, including Bhutan (Table 2). Of the Bhutanese tested, 32% (17 of 53) of persons aged ≥15 years were B12 deficient. None of the 13 children aged <15 years were B12 deficient, and the median level decreased with increasing age group. Other than the Bhutanese, only the Somali population had any B12-deficient persons (10 [12%] of 82 screened).

Medical records were reviewed for 141 Bhutanese refugees seen at a health clinic in St. Paul during June 2009–January 2011; 60 had serum vitamin B12 levels tested, and 19 (32%) were B12 deficient. Only one (7%) of 14 children aged <15 years was B12 deficient. None of the 19 B12-deficient patients were anemic; however, four (21%) had macrocytosis, and two (11%) had peripheral neuropathy (Table 3). Of six B12-deficient patients tested for antibodies to *H. pylori*, a potential cause of vitamin B12 deficiency, five were positive, whereas only one of four nondeficient patients was positive.

TABLE 1. Vitamin B12 deficiency in adult Bhutanese refugees undergoing overseas medical screening examinations, by age group and sex — Nepal, 2007–2008

Characteristic	B12 <203 pg/mL* No.	(%)
Sex		
Female	28/47	(60)
Male	35/52	(67)
Age group (yrs)		
15–29	26/44	(59)
30–49	14/30	(47)
≥50	23/25	(92)
Total	**63/99**	**(64)**

Source: CDC Migrant Serum Bank.
* Serum total vitamin B12 was measured at CDC using the Roche E-170 automated electrochemiluminescence immunoassay.

TABLE 2. Proportion of refugees with vitamin B12 deficiency (with median and interquartile range of vitamin B12 concentrations), by country and by age group and sex for Bhutanese refugees — Minnesota, Utah, and Texas — September 2010–January 2011

Characteristic	B12 <203 pg/mL No.	(%)	B12 pg/mL Median	Interquartile range
Country				
Bhutan	17/64	(27)	262	(197–323)
Burma	0/107	—	480	(365–636)
Democratic Republic of the Congo	0/1	—	413	(413–413)
Cuba	0/3	—	278	(253–294)
Eritrea	0/5	—	401	(235–421)
Ethiopia	0/15	—	363	(297–526)
Iraq	0/33	—	368	(304–457)
Kyrgyzstan	0/4	—	695	(432–1,120)
Laos/Hmong	0/9	—	712	(247–753)
Liberia	0/2	—	881	(791–970)
Somalia	10/82	(12)	350	(257–498)
Sudan	0/1	—	486	(486–486)
Total	**27/326**	**(8)**	**369**	**(272–517)**
Age group (yrs) (Bhutanese)				
<15	0/13	—	315	(270–431)
15–29	9/28	(32)	259	(193–321)
30–49	7/16	(44)	238	(190–292)
≥50	1/7	(14)	233	(206–282)
Sex (Bhutanese)				
Female	9/31	(29)	258	(194–330)
Male	8/33	(24)	273	(206–310)

Sources: Minnesota Department of Health, Utah Department of Health, and Texas Department of State Health Services.

TABLE 3. Bhutanese refugees tested for vitamin B12 deficiency, by sex and medical condition — St. Paul, Minnesota, June 2009–January 2011

Characteristic	B12 <203 pg/mL No.	(%)	B12 ≥203 pg/mL No.	(%)	Total No.	(%)
Female sex	8/19	(42)	27/41	(66)	35/60	(58)
Anemia*	0/19	—	5/41	(12)	5/60	(8)
Macrocytosis†	4/19	(21)	0/41	—	4/60	(7)
Peripheral neuropathy	2/19	(11)	0/41	—	2/60	(3)
Helicobacter pylori§	5/6	(83)	1/4	(25)	6/10	(60)

Source: HealthPartners Center for International Health, St. Paul, Minnesota.
* Hemoglobin <12 g/dL.
† Mean corpuscular volume >100 fL.
§ *H. pylori* antibody or antigen positive.

Reported by

PF Walker, MD, HealthPartners Center for International Health, St. Paul; A O'Fallon, MA, K Nelson, MPH, B Mamo, MPH, S Dicker, MS, MPH, S Chute, MPP, R Lynfield, MD, Minnesota Dept of Health. P Swoboda, MD, M Rabin, MD, Salt Lake Family Health Center, Salt Lake City, Utah. S Householder, MPH, Texas Dept of State Health Svcs. J Painter, DVM, W Zhou, MD, PhD, Div of Global Migration and Quarantine, National Center for Emerging and Zoonotic Infectious Diseases; CM Pfeiffer, PhD , Div of Laboratory Sciences, National Center for Environmental Health; SE Dunkle, DVM, JL Foltz, MD, EIS officers, CDC.

Editorial Note

Vitamin B12, or cobalamin, is obtained naturally only from products of animal origin, including meat, eggs, and dairy products, but also is supplied in Western diets by fortified cereals. The recommended dietary allowance for adults is 2.4 μg/day.* Vitamin B12 deficiencies lead to delayed DNA synthesis resulting in megaloblastic anemia, peripheral neuropathy, and other neurologic signs (*4,5*). The deficiency commonly is caused by low dietary intake or food-cobalamin malabsorption disorder, which usually is associated with atrophic gastritis, with or without *H. pylori* infection (*4*). The deficiency also can be caused by an inherited or acquired lack of the intrinsic factor required for absorption of vitamin B12, a condition known as pernicious anemia. A recent World Health Organization Technical Consultation recommends a threshold of <203 pg/mL (150 pmol/L) for describing population-level deficiencies;

* Additional information available at http://ods.od.nih.gov/factsheets/vitaminb12.

What is already known on this topic?

Vitamin B12 deficiency is rare in the United States, except among the elderly. It is more common in the developing world because of lack of access to products of animal origin and fortified foods. Vitamin B12 deficiency leads to megaloblastic anemia, peripheral neuropathy, and other neurologic conditions that can become untreatable with supplementation after long-term deficits.

What is added by this report?

Approximately 30,000 Bhutanese refugees have resettled to the United States since 2008, with many more expected before resettlement is complete. A substantial proportion (approximately 30%–60%) of Bhutanese refugees are deficient in vitamin B12, most likely because of a lack of vitamin B12 in their diet in refugee camps in Nepal.

What are the implications for public health practice?

All Bhutanese refugees should be given nutrition advice and should receive supplemental vitamin B12 upon arrival in the United States. Refugees with clinical manifestations suggestive of B12 deficiency should be tested for adequate serum vitamin B12 concentrations and, if found to have a B12 deficiency, screened for underlying causes, treated with parenteral vitamin B12 or high-dose oral supplements, and evaluated for response to therapy.

however, clinical deficiencies occasionally can be observed at higher serum levels (*3*). In the United States, the prevalence of deficiency is low (<1%–6%) (*6*). In the developing world, deficiencies are more common because of limited access to products of animal origin (*7*). In a survey of pregnant Nepali women conducted during 1994–1995, 49% demonstrated dietary B12 deficiency, with serum B12 concentrations <150 pmol/L (*8*).

Analysis of the three data sources described in this report suggests prevalent vitamin B12 deficiency in the Bhutanese refugee population. The highest proportion of B12 deficiencies (64%) was observed in the testing results from serum collected in overseas screening examinations during 2007–2008. Lower proportions (27% and 32%) were observed in samples collected in the United States during 2009–2011. This might be explained by possible recent improvement in nutrition in the camps (although no official ration changes were made) or a higher proportion of children aged <15 years in the domestic samples from 2009 to 2011 (approximately 5–10 years are required for body stores of vitamin B12 to become depleted) (*4*). Of concern in this population is the unusually high proportion of young and middle-aged adults affected; breast-fed infants of mothers who have vitamin B12 deficiency can develop permanent neurologic damage (*9*). The most likely cause of the deficiency in this population is inadequate dietary intake; however, other secondary causes, such as chronic gastritis, potentially caused by *H. pylori* infection, cannot be ruled out. Infection with *H. pylori* was more prevalent among B12-deficient patients in a small group that was tested. Further investigations will seek the underlying cause and determine the prevalence of other micronutrient deficiencies in this population.

The findings in this report are subject to at least three limitations. First, the three-state postarrival screening data sample was incomplete. Only one clinic in Texas participated, although numerous clinics conduct refugee screening in that state. In Minnesota, vitamin B12 concentrations were returned for only 49% (231 of 476) of refugees screened during the investigation period because of delayed reporting. Second, the limited screening data available for Bhutanese children aged <15 years make drawing conclusions about vitamin B12 deficiency in this age group difficult. However, because children and nursing mothers receive micronutrient supplementation in the camps (*1*) and deficiency takes years to develop, children might be less likely to be deficient. Finally, because refugees are at risk for serious health problems other than micronutrient deficiencies that are a priority for clinicians during screening examinations, underscreening or underrecording in the St. Paul medical records of any potential clinical manifestations of vitamin B12 deficiency might have occurred. The prevalence of the signs and symptoms of vitamin B12 deficiency most likely is underestimated in this report.

The results of this investigation suggest that all Bhutanese refugees should be provided with nutrition advice that emphasizes consumption of foods containing vitamin B12 and should receive oral supplementation for a minimum of 30 days upon arrival in the United States. Although no specific guidelines exist, two recent studies indicate that the lowest dose of oral cyanocobalamin needed to normalize metabolites in subclinical vitamin B12 deficiency is 500–1,000 μg daily.[†] During postarrival medical screening and follow-up examinations, this population should be screened for clinical signs and symptoms of the deficiency, such as megaloblastic anemia, peripheral neuropathy, and other neurologic disorders (*4,5*). Those exhibiting these conditions should be tested for adequate serum vitamin B12 concentrations and underlying causes of vitamin B12 deficiency (e.g., *H. pylori*). B12-deficient patients should be treated with parenteral or high-dose oral vitamin B12, given appropriate treatments for underlying causes, and carefully monitored to assess response to therapy (*10*). In addition, clinicians should consider that other nutritional deficiencies are a concern in Bhutanese and other refugee populations.

[†] Additional information available at http://www.cdc.gov/ncbddd/b12/documents/b12-030910.pdf.

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References

1. Brennan M, Biluhka O, Bosmans M, et al. Refugee health in Nepal: Joint UNHCR-WHO evaluation of health and health programmes in Bhutanese refugee camps in Nepal. New York, NY: United Nations High Commissioner for Refugees; 2005.
2. Blanck HM, Bowman BA, Serdula MK, et al. Angular stomatitis and riboflavin status among adolescent Bhutanese refugees living in south-eastern Nepal. Am J Clin Nutr 2002;76:430–5.
3. De Benoist B. Conclusions of a WHO technical consultation on folate and vitamin B12 deficiencies. Food Nutr Bull 2008;29:S238–44.
4. Dali-Youcef N, Andres E. An update on cobalamin deficiency in adults. QJM 2009;102:17–28.
5. Lindenbaum J, Healton EB, Savage DG, et al. Neuropsychiatric disorders caused by cobalamin deficiency in the absence of anemia or macrocytosis. N Engl J Med 1988;318:1720–8.
6. Allen LH. How common is vitamin B-12 deficiency? Am J Clin Nutr 2009;89(Suppl):693–6S.
7. Stabler SP, Allen RH. Vitamin B12 deficiency as a worldwide problem. Annu Rev Nutr 2004;24:299–326.
8. Bondevik GT, Schneed J, Refsum H, et al. Homocysteine and methylmalonic acid levels in pregnant Nepali women. Should cobalamin supplementation be considered? Eur J Clin Nutr 2001;55:856–64.
9. Rasmussen SA, Fernhoff P, Scanlon KS. Vitamin B12 deficiency in children and adolescents. J Pediatr 2001;138:10–7.
10. Butler CC, Vidal-Alaball J, Cannings-John R, et al. Oral vitamin B12 versus intramuscular vitamin B12 for vitamin B12 deficiency: a systematic review of randomized controlled trials. Fam Pract 2006;23:279–85.

Notes from the Field

Contamination of Alcohol Prep Pads with *Bacillus cereus* Group and *Bacillus* Species — Colorado, 2010

In October 2010, a child at The Children's Hospital (TCH) in Aurora, Colorado, with newly diagnosed leukemia developed clinical sepsis 24 hours after insertion of an implanted vascular access device. The child also developed extensive cellulitis at the insertion site, requiring surgical debridement, intensive care, antibiotics, prolonged wound management, and outpatient treatment. Cultures of the child's blood and tissue specimens grew *Bacillus cereus*. An investigation found neither breach of infection control procedures nor any violations of sterile surgical technique.

In November 2010, an afebrile infant with congenital heart disease was admitted to TCH for respiratory distress and developed fever and became clinically septic 4 days after an internal jugular line was placed. Four blood cultures from the infant grew *B. cereus*. The line was removed, and the infant had an extended hospital stay for treatment with intravenous antibiotics before being discharged.

The subsequent TCH investigation into the two cases focused on the following three single-use, disposable items used in the treatment of both patients: 1) sterile syringes prefilled with sterile saline solution, 2) sterile applicators packaged with a 2% chlorhexidine gluconate/70% alcohol solution for skin preparation, and 3) pledgets packaged with 70% isopropyl alcohol (alcohol prep pads [APPs]). The APPs were not labeled as either sterile or nonsterile on the outside of the individual APP packages or the box the APPs were contained in. Bacterial cultures of samples from three saline syringes and the liquid and pads from nine packages of chlorhexidine gluconate/alcohol skin preparation applicators were negative. The internal alcohol pads from 60 APPs, obtained from various locations around TCH, also were cultured. Hospital investigators found that 40 of 60 pads, representing eight of 10 different manufacturing lots, yielded *B. cereus* or *Bacillus* spp. All of the pads were supplied by a single manufacturer. TCH contacted the Colorado Department of Public Health and Environment, which notified CDC and the Food and Drug Administration and performed confirmatory testing of TCH laboratory findings.

Twenty-nine *B. cereus* isolates, 21 from cultured APPs and eight from TCH patients with positive cultures during May–November 2010, were characterized by pulsed-field gel electrophoresis. Wide diversity was observed among the isolates, and no patient isolates matched APP isolates. Given this diversity and the time lapse between positive patient specimens and subsequent APP sampling, the lack of a match between the two groups was not considered to rule out APPs as the source of the *B. cereus* isolated from patients.

APPs are supplied both as sterile and nonsterile products. Sterile products are clearly labeled as such and should not be mistaken and/or interchanged for nonsterile products. *B. cereus* group and *Bacillus* species are resistant to killing by alcohol (*1*) and have caused health-care–associated outbreaks of invasive disease (*2,3*). Pseudoinfections caused by *B. cereus*–contaminated products also have been reported (*4*). Health-care facilities, health-care providers, and users of APPs should know whether the APPs in clinical use are sterile or nonsterile and be aware of the risk for iatrogenic infection if nonsterile APPs are used. Manufacturers should know the importance of clearly labeling their products as sterile or nonsterile to avoid misuse by health-care facilities and health-care providers.

Based on the findings in this investigation, on November 19, TCH halted any use of nonsterile APPs and began using sterile APPs exclusively from another manufacturer. In January 2011, the manufacturer voluntarily recalled all of its alcohol wipe products because of potential contamination (*5*).

Reported by

SA Dolan, MS, E Dowell, C Littlehorn, MP Glode, MD, JK Todd, MD, The Children's Hospital, Univ of Colorado School of Medicine, Aurora, Colorado; W Bamberg, MD, MK Cichon, Colorado Dept of Public Health and Environment.

References

1. Hsueh PR, Teng LJ, Yang PC, Pan HL, Ho SW, Luh KT. Nosocomial pseudoepidemic caused by *Bacillus cereus* traced to contaminated ethyl alcohol from a liquor factory. J Clin Microbiol 1999;37:2280–4.
2. Bryce EA, Smith JA, Tweeddale M, Andruschak BJ, Maxwell MR. Dissemination of *Bacillus cereus* in an intensive care unit. Infect Control Hosp Epidemiol 1993;14:459–62.
3. Meites E, Taur Y, Marino L, et al. Investigation of increased rates of isolation of *Bacillus* species. Infect Control Hosp Epidemiol 2010;31:1257–63.
4. Berger SA. Pseudobacteremia due to contaminated alcohol swabs. J Clin Microbiol 1983;18:974–5.
5. Food and Drug Administration. Triad Group issues a voluntary nationwide recall of all lots of alcohol prep pads, alcohol swabs, and alcohol swabsticks due to potential microbial contamination. Silver Spring, MD: US Department of Health and Human Services, Food and Drug Administration; 2011. Available at http://www.fda.gov/safety/recalls/ucm239219.htm. Accessed March 3, 2011.

Announcement

Epi Info Training — May 26–28, 2011

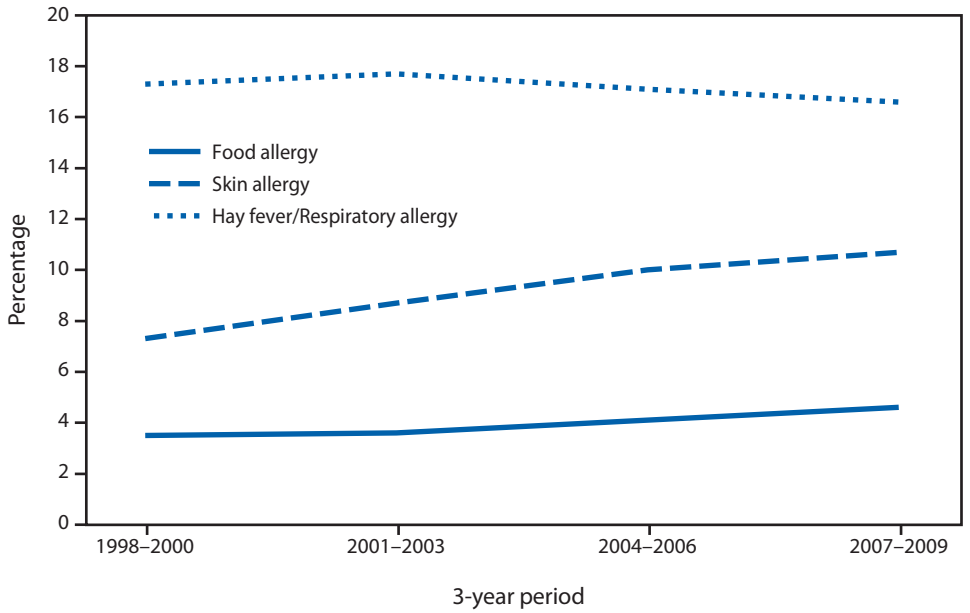
Emory University's Rollins School of Public Health and CDC's Office of Surveillance, Epidemiology, and Laboratory Services will cosponsor Epi Info training, to be held May 26–28, 2011, at Emory University. Tuition is charged. This course is designed for public health professionals who wish to develop software applications using Epi Info for Windows. This basic level course covers MakeView, Analysis, Enter, Epi Map, and Epi Report modules.

Additional information and applications are available by mail (Emory University, Rollins School of Public Health [Attn: Pia], 1518 Clifton Rd. NE, CNR Bldg. Rm. 7038, Atlanta, GA 30322); by fax (404-727-4590); online (http://www.sph.emory.edu/epicourses); or by e-mail (pvaleri@sph.emory.edu).

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Children Aged <18 Years with Reported Food, Skin, or Hay Fever/Respiratory Allergies* — National Health Interview Survey, United States, 1998–2009†



* Based on positive responses to the questions "During the past 12 months, has your child had any kind of food or digestive allergy?" and "During the past 12 months, has your child had eczema or any kind of skin allergy?" and a positive response to either "During the past 12 months, has your child had hay fever?" or "During the past 12 months, has your child had any kind of respiratory allergy?"

† Estimates are based on household interviews of a sample of the noninstitutionalized U.S. civilian population. One child aged <18 years was randomly selected per family; a parent or other knowledgeable adult provided information for each child. Denominators for each category exclude persons for whom data were missing. Estimates are presented as 3-year annual averages to increase reliability.

From 1998–2000 to 2007–2009, the percentage of children who were reported to have a food allergy during the preceding 12 months increased from 3.5% to 4.6%, and the percentage who were reported to have a skin allergy increased from 7.3% to 10.7%. The percentage of children reported to have hay fever and/or respiratory allergy was 16.6% during 2007–2009, a level that did not differ substantially from earlier years.

Sources: National Health Interview Survey data. Available at http://www.dcd.gov/nchs/nhis.htm.

Health Data Interactive. Available at http://www.cdc.gov/nchs/hdi.htm.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 19, 2011 (11th week)*

Disease	Current week	Cum 2011	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2010	2009	2008	2007	2006	
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	—	—	—	8	6	2	7	1	
St. Louis encephalitis virus disease	—	—	0	10	12	13	9	10	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	—	4	1	NN	NN	NN	NN	NN	
Botulism, total	—	15	2	110	118	145	144	165	
foodborne	—	2	0	7	10	17	32	20	
infant	—	10	2	78	83	109	85	97	
other (wound and unspecified)	—	3	0	25	25	19	27	48	
Brucellosis	1	8	2	129	115	80	131	121	CA (1)
Chancroid	—	4	1	32	28	25	23	33	
Cholera	—	12	0	12	10	5	7	9	
Cyclosporiasis§	1	22	1	173	141	139	93	137	NY (1)
Diphtheria	—	—	—	—	—	—	—	—	
Haemophilus influenzae,** invasive disease (age <5 yrs):									
serotype b	—	1	1	23	35	30	22	29	
nonserotype b	—	14	5	187	236	244	199	175	
unknown serotype	6	58	3	228	178	163	180	179	PA (2), OH (1), NE (1), NC (1), FL (1)
Hansen disease§	—	12	2	66	103	80	101	66	
Hantavirus pulmonary syndrome§	—	4	0	18	20	18	32	40	
Hemolytic uremic syndrome, postdiarrheal§	2	9	2	234	242	330	292	288	NY (2)
Influenza-associated pediatric mortality§,††	6	73	4	61	358	90	77	43	CA (1), IL (1), ME (1), NY (1), TX (1), VT (1)
Listeriosis	2	74	11	775	851	759	808	884	CA (2)
Measles§§	5	26	2	61	71	140	43	55	NYC (2), TN (2), CA (1)
Meningococcal disease, invasive¶¶:									
A, C, Y, and W-135	1	33	10	260	301	330	325	318	TX (1)
serogroup B	—	20	5	122	174	188	167	193	
other serogroup	—	1	1	10	23	38	35	32	
unknown serogroup	5	113	15	408	482	616	550	651	OH (1), VA (2), OR (1), CA (1)
Novel influenza A virus infections***	—	1	0	4	43,774	2	4	NN	
Plague	—	—	0	2	8	3	7	17	
Poliomyelitis, paralytic	—	—	—	—	1	—	—	—	
Polio virus Infection, nonparalytic§	—	—	—	—	—	—	—	NN	
Psittacosis§	—	1	0	4	9	8	12	21	
Q fever, total§	1	12	3	119	113	120	171	169	
acute	—	5	1	95	93	106	—	—	
chronic	1	7	0	24	20	14	—	—	VA (1)
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§	—	25	5	172	161	157	132	125	
Syphilis, congenital (age <1 yr)§§§	—	23	7	264	423	431	430	349	
Tetanus	—	—	0	11	18	19	28	41	
Toxic-shock syndrome (staphylococcal)§	1	15	2	77	74	71	92	101	MO (1)
Trichinellosis	—	3	0	6	13	39	5	15	
Tularemia	—	2	0	113	93	123	137	95	
Typhoid fever	2	55	7	429	397	449	434	353	GA (1), CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	2	13	1	100	78	63	37	6	MO (1), VA (1)
Vancomycin-resistant *Staphylococcus aureus*§	—	—	0	1	1	—	2	1	
Vibriosis (noncholera *Vibrio* species infections)§	2	33	3	798	789	588	549	NN	MD (1), FL (1)
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 19, 2011 (11th 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/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf.

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

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

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

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

†† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 3, 2010, 77 influenza-associated pediatric deaths occurring during the 2010-11 influenza season have been reported.

§§ Of the five measles cases reported for the current week, four were imported, and one was indigenous.

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

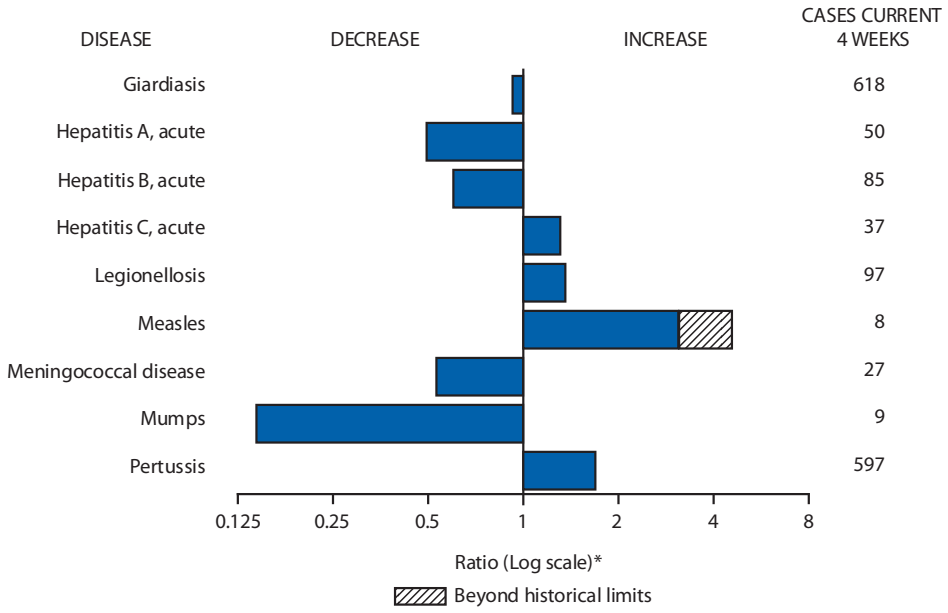
*** CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC. 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 19, 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.

Notifiable Disease Data Team and 122 Cities Mortality Data Team

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

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 19, 2011, and March 20, 2010 (11th week)*

Reporting area	*Chlamydia trachomatis* infection					Coccidioidomycosis					Cryptosporidiosis				
	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	12,076	24,361	26,962	240,801	264,788	143	0	504	2,600	NN	44	121	356	748	1,139
New England	910	801	2,046	8,426	7,394	1	0	0	1	NN	1	7	19	33	139
Connecticut	369	171	1,558	1,165	1,450	N	0	0	N	NN	—	0	8	8	77
Maine†	—	54	100	578	542	N	0	0	N	NN	—	1	7	1	13
Massachusetts	456	402	876	4,724	4,040	N	0	0	N	NN	—	3	9	16	25
New Hampshire	34	54	113	639	393	1	0	0	1	NN	—	1	5	3	10
Rhode Island†	51	70	154	1,034	707	—	0	0	—	NN	—	0	2	1	4
Vermont†	—	23	84	286	262	N	0	0	N	NN	1	1	5	4	10
Mid. Atlantic	2,085	3,360	5,211	33,961	34,576	—	0	0	—	NN	9	15	38	111	103
New Jersey	479	514	701	5,458	5,420	N	0	0	N	NN	—	0	4	—	4
New York (Upstate)	807	706	2,028	7,135	5,888	N	0	0	N	NN	4	4	13	32	13
New York City	220	1,192	2,777	10,973	13,388	N	0	0	N	NN	—	2	6	14	9
Pennsylvania	579	953	1,189	10,395	9,880	N	0	0	N	NN	5	8	26	65	77
E.N. Central	719	3,714	4,470	33,711	41,458	1	0	3	6	NN	7	30	130	172	289
Illinois	27	922	1,071	6,864	11,255	N	0	0	N	NN	—	3	21	12	44
Indiana	—	410	1,153	4,095	2,908	N	0	0	N	NN	—	4	10	22	42
Michigan	525	941	1,375	10,027	11,483	—	0	1	1	NN	—	5	18	35	66
Ohio	167	995	1,134	8,891	10,939	1	0	3	5	NN	7	7	24	69	63
Wisconsin	—	425	518	3,834	4,873	N	0	0	N	NN	—	9	65	34	74
W.N. Central	225	1,357	1,600	12,470	15,542	—	0	0	—	NN	6	19	83	63	137
Iowa	14	198	237	1,930	2,340	N	0	0	N	NN	—	4	24	7	37
Kansas	64	183	286	1,921	2,066	N	0	0	N	NN	1	2	9	12	12
Minnesota	—	290	354	1,976	3,336	—	0	0	—	NN	—	0	16	—	35
Missouri	145	505	619	4,844	5,545	—	0	0	—	NN	2	4	30	21	23
Nebraska†	—	93	185	986	1,147	N	0	0	N	NN	3	3	26	21	16
North Dakota	—	40	88	188	424	N	0	0	N	NN	—	0	9	—	—
South Dakota	2	61	91	625	684	N	0	0	N	NN	—	1	6	2	14
S. Atlantic	3,271	4,791	5,829	51,505	52,765	—	0	0	—	NN	12	19	39	166	174
Delaware	70	84	220	920	914	—	0	0	—	NN	—	0	1	2	1
District of Columbia	131	99	161	983	1,093	—	0	0	—	NN	—	0	1	2	1
Florida	631	1,457	1,705	14,594	15,531	N	0	0	N	NN	3	7	19	53	67
Georgia	—	657	1,020	5,945	7,929	N	0	0	N	NN	4	5	11	45	58
Maryland†	258	494	1,106	3,662	4,322	—	0	0	—	NN	1	1	3	10	7
North Carolina	839	750	1,436	10,553	10,483	N	0	0	N	NN	—	0	12	21	16
South Carolina†	461	530	847	5,621	5,504	N	0	0	N	NN	3	2	8	25	8
Virginia†	809	662	970	8,255	6,228	N	0	0	N	NN	1	2	8	8	12
West Virginia	72	76	124	972	761	N	0	0	N	NN	—	0	3	—	4
E.S. Central	1,116	1,764	2,413	16,795	18,050	—	0	0	—	NN	3	4	19	24	41
Alabama†	—	538	780	4,049	5,014	N	0	0	N	NN	—	2	13	5	12
Kentucky	302	266	614	2,372	2,708	N	0	0	N	NN	1	1	6	9	14
Mississippi	503	384	780	4,467	4,388	N	0	0	N	NN	1	0	2	4	4
Tennessee†	311	577	800	5,907	5,940	N	0	0	N	NN	1	1	5	6	11
W.S. Central	596	3,154	4,242	30,596	37,913	—	0	1	1	NN	—	7	31	23	55
Arkansas†	384	299	439	3,403	3,180	N	0	0	N	NN	—	0	3	2	9
Louisiana	—	356	757	3,645	5,941	—	0	1	1	NN	—	1	6	4	10
Oklahoma	212	252	1,373	1,902	2,642	N	0	0	N	NN	—	1	8	—	8
Texas†	—	2,297	3,112	21,646	26,150	N	0	0	N	NN	—	5	24	17	28
Mountain	462	1,482	1,980	14,468	17,190	60	0	421	1,861	NN	3	10	30	77	98
Arizona	124	472	699	2,329	5,411	60	0	416	1,830	NN	—	1	3	4	5
Colorado	—	339	684	4,908	4,299	N	0	0	N	NN	1	3	6	27	22
Idaho†	32	66	199	600	874	N	0	0	N	NN	1	2	7	10	21
Montana†	24	63	81	610	613	N	0	0	N	NN	1	1	4	8	12
Nevada†	178	189	375	2,291	1,883	—	0	4	15	NN	—	0	7	2	2
New Mexico†	77	194	1,253	2,093	2,272	—	0	4	11	NN	—	2	12	16	18
Utah	22	122	158	1,292	1,383	—	0	2	2	NN	—	1	5	6	12
Wyoming†	5	39	90	345	455	—	0	2	3	NN	—	0	2	4	6
Pacific	2,692	3,664	5,353	38,869	39,900	81	0	103	731	NN	3	11	29	79	103
Alaska	35	113	156	1,190	1,270	N	0	0	N	NN	—	0	3	3	2
California	2,335	2,835	4,675	31,109	29,924	81	0	103	731	NN	2	7	18	49	62
Hawaii	—	108	158	855	1,346	N	0	0	N	NN	—	0	0	—	1
Oregon	—	211	496	2,257	2,855	N	0	0	N	NN	1	3	13	26	28
Washington	322	397	505	3,458	4,505	N	0	0	N	NN	—	1	7	1	10
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	NN	N	0	0	N	NN
C.N.M.I.	—	—	—	—	—	—	—	—	—	NN	—	—	—	—	—
Guam	—	9	31	71	5	—	0	0	—	NN	—	0	0	—	—
Puerto Rico	—	103	252	1,081	1,264	N	0	0	N	NN	N	0	0	N	NN
U.S. Virgin Islands	—	12	29	—	110	—	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.
* 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/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 19, 2011, and March 20, 2010 (11th 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	5	59	—	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	22	—	0	1	—	1
New Jersey	—	0	5	—	3	—	0	0	—	—
New York (Upstate)	—	0	5	—	1	—	0	1	—	—
New York City	—	1	17	—	13	—	0	1	—	1
Pennsylvania	—	0	3	2	5	—	0	0	—	—
E.N. Central	—	1	7	2	9	—	0	1	—	—
Illinois	—	0	2	—	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	1	—	1	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	1	—	—
S. Atlantic	—	2	19	—	12	—	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	—	1	—	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	1	6	—	0	0	—	—
Alaska	—	0	1	—	1	—	0	0	—	—
California	—	0	5	—	2	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	2	1	3	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	104	523	159	998	—	2	18	—	22
U.S. Virgin Islands	—	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/ncphi/disss/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 19, 2011, and March 20, 2010 (11th 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	9	40	—	13	60	5	16	1	1	10	2	1
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	—	1	10	—	6	—	4	15	2	1	1	0	1	1	—
New Jersey	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
New York (Upstate)	—	0	10	—	2	—	4	15	2	1	1	0	1	1	—
New York City	—	0	3	—	3	—	0	1	—	—	—	0	0	—	—
Pennsylvania	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
E.N. Central	—	0	4	1	3	—	4	41	—	5	—	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	—	3	—	4	41	—	5	—	0	4	—	—
W.N. Central	1	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	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	—	3	17	6	26	—	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	—	0	2	1	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	18	—	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	1	—	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	—	—

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/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† 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 19, 2011, and March 20, 2010 (11th 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	164	330	491	2,395	3,518	2,588	5,692	6,560	54,363	60,672	31	57	112	602	710
New England	4	28	55	160	314	93	102	206	1,010	989	—	3	9	30	32
Connecticut	—	4	12	—	74	40	40	169	400	436	—	0	6	—	—
Maine§	3	4	11	20	38	—	3	7	32	51	—	0	2	5	1
Massachusetts	—	14	25	95	122	45	48	80	477	405	—	2	6	18	23
New Hampshire	—	2	10	9	35	—	3	7	22	32	—	0	1	3	4
Rhode Island§	—	1	7	7	12	8	5	15	74	55	—	0	2	3	3
Vermont§	1	4	10	29	33	—	0	17	5	10	—	0	3	1	1
Mid. Atlantic	20	60	106	480	588	398	713	1,175	7,350	6,963	9	11	26	123	160
New Jersey	—	4	18	—	79	113	117	174	1,407	1,147	—	2	5	20	23
New York (Upstate)	16	21	58	175	207	117	110	260	1,057	883	5	3	15	28	41
New York City	2	17	33	163	153	50	234	540	2,311	2,595	1	2	6	25	31
Pennsylvania	2	16	27	142	149	118	262	366	2,575	2,338	3	4	11	50	65
E.N. Central	19	53	90	342	648	211	1,016	1,301	8,895	11,018	2	10	20	84	118
Illinois	—	11	32	38	150	13	236	308	1,697	2,579	—	3	7	5	31
Indiana	—	5	11	30	89	—	106	347	1,076	855	—	1	7	10	23
Michigan	1	12	25	79	139	136	248	483	2,633	3,183	—	1	3	16	7
Ohio	18	16	29	147	173	62	318	383	2,749	3,437	2	2	6	38	24
Wisconsin	—	8	33	48	97	—	93	156	740	964	—	2	5	15	33
W.N. Central	16	24	101	201	230	62	288	367	2,574	2,930	1	3	14	24	27
Iowa	—	5	11	42	55	4	34	57	340	352	—	0	1	—	—
Kansas	3	3	10	31	48	4	40	62	338	384	—	0	2	2	4
Minnesota	—	0	75	—	—	—	38	62	261	507	—	0	9	—	3
Missouri	9	8	26	79	65	54	141	181	1,328	1,351	—	2	4	12	16
Nebraska§	4	4	9	39	46	—	22	50	203	226	1	0	3	10	2
North Dakota	—	0	5	—	—	—	2	9	17	31	—	0	2	—	2
South Dakota	—	1	7	10	16	—	8	20	87	79	—	0	0	—	—
S. Atlantic	51	72	114	486	713	891	1,348	1,807	13,732	15,531	9	15	26	165	164
Delaware	—	0	5	6	9	15	19	48	215	207	—	0	1	1	2
District of Columbia	—	0	5	4	9	47	34	66	351	435	—	0	1	—	—
Florida	23	41	75	253	357	171	383	486	3,689	4,176	6	4	9	60	40
Georgia	23	10	25	110	162	—	224	365	1,816	2,475	1	3	7	36	44
Maryland§	1	5	11	47	62	42	137	243	957	1,183	1	1	5	14	8
North Carolina	N	0	0	N	N	341	245	596	3,639	3,544	1	2	9	17	23
South Carolina§	3	3	9	19	22	147	151	261	1,612	1,676	—	1	5	13	25
Virginia§	1	8	30	47	83	111	136	223	1,258	1,741	—	2	6	24	18
West Virginia	—	0	6	—	9	17	13	26	195	94	—	0	3	—	4
E.S. Central	1	4	12	25	57	259	471	697	4,457	4,878	3	3	10	35	41
Alabama§	1	4	11	23	28	—	159	236	1,262	1,438	—	1	4	9	5
Kentucky	N	0	0	N	N	66	72	160	613	752	2	1	3	9	7
Mississippi	N	0	0	N	N	128	110	216	1,171	1,236	—	0	2	2	4
Tennessee§	—	0	4	2	29	65	144	195	1,411	1,452	1	2	5	15	25
W.S. Central	2	6	14	33	73	179	864	1,188	8,011	10,105	3	2	21	36	38
Arkansas§	2	2	7	16	17	121	92	137	1,031	923	1	0	3	8	5
Louisiana	—	3	8	17	34	—	94	263	1,008	1,698	—	0	4	14	10
Oklahoma	—	0	5	—	22	58	78	332	605	768	2	1	17	14	20
Texas§	N	0	0	N	N	—	598	866	5,367	6,716	—	0	1	—	3
Mountain	13	30	52	214	350	71	178	245	1,736	1,941	3	5	11	66	100
Arizona	—	3	8	21	34	28	54	81	411	656	—	2	6	23	43
Colorado	12	12	27	101	151	—	51	93	470	595	3	1	5	19	22
Idaho§	—	4	9	31	44	—	2	14	19	27	—	0	2	3	3
Montana§	1	2	7	6	23	2	2	5	17	30	—	0	1	2	—
Nevada§	—	2	11	16	12	36	33	103	488	334	—	0	1	4	4
New Mexico§	—	2	6	4	15	4	25	100	274	230	—	1	3	10	11
Utah	—	4	11	26	56	1	5	15	46	61	—	0	3	5	12
Wyoming§	—	0	5	9	15	—	1	4	11	8	—	0	1	—	5
Pacific	38	52	131	454	545	424	631	810	6,598	6,317	1	3	19	39	30
Alaska	—	2	6	11	21	9	21	35	185	305	—	0	2	7	7
California	36	32	57	313	347	373	523	686	5,670	5,080	—	0	16	7	—
Hawaii	—	1	4	3	14	—	13	26	100	169	—	0	2	5	5
Oregon	2	9	20	85	108	—	19	30	206	239	1	1	5	20	16
Washington	—	9	71	42	55	42	53	86	437	524	—	0	2	—	2
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	0	5	1	—	—	0	0	—	—
Puerto Rico	—	1	8	5	15	—	6	14	70	54	—	0	0	—	1
U.S. Virgin Islands	—	0	0	—	—	—	2	7	—	22	—	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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† 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 19, 2011, and March 20, 2010 (11th 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	11	29	43	229	340	14	61	122	405	610	7	15	24	138	148
New England	—	1	6	10	31	—	0	4	3	15	—	0	4	3	16
Connecticut	—	0	4	5	7	—	0	2	1	4	—	0	4	1	9
Maine†	—	0	1	1	1	—	0	1	1	4	—	0	1	1	—
Massachusetts	—	0	5	1	19	—	0	2	—	5	—	0	1	—	7
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	—	—	—	0	1	1	—
Mid. Atlantic	2	4	10	36	46	1	5	10	44	54	1	1	5	11	14
New Jersey	—	0	1	—	6	—	1	5	6	15	—	0	2	—	3
New York (Upstate)	2	1	4	8	9	—	1	8	10	4	—	1	4	7	8
New York City	—	1	7	14	20	—	1	4	13	22	—	0	1	—	—
Pennsylvania	—	1	3	14	11	1	2	5	15	13	1	0	3	4	3
E.N. Central	1	4	9	35	58	—	9	22	62	119	1	2	7	27	21
Illinois	—	1	3	2	14	—	2	7	10	22	—	0	1	—	—
Indiana	—	0	3	7	5	—	1	6	4	19	—	0	4	13	7
Michigan	—	1	5	12	12	—	2	5	21	26	1	1	6	14	12
Ohio	1	1	5	13	10	—	1	16	22	22	—	0	1	—	1
Wisconsin	—	0	2	1	17	—	1	5	5	30	—	0	2	—	1
W.N. Central	—	1	13	9	12	—	2	8	21	30	—	0	8	2	—
Iowa	—	0	3	1	4	—	0	1	1	5	—	0	0	—	—
Kansas	—	0	2	1	4	—	0	1	2	2	—	0	1	—	—
Minnesota	—	0	12	—	—	—	0	7	—	—	—	0	6	—	—
Missouri	—	0	2	3	3	—	1	3	13	16	—	0	2	—	—
Nebraska†	—	0	4	2	1	—	0	3	4	7	—	0	1	2	—
North Dakota	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	2	—	—	0	1	1	—	—	0	0	—	—
S. Atlantic	1	6	14	46	65	9	17	33	129	163	2	3	6	31	26
Delaware	—	0	1	1	2	—	0	2	—	7	U	0	0	U	U
District of Columbia	—	0	0	—	1	—	0	1	—	1	—	0	1	—	1
Florida	1	3	7	19	25	5	5	11	43	59	1	0	3	9	—
Georgia	—	1	4	12	5	—	3	8	27	43	—	0	2	3	2
Maryland†	—	0	3	4	5	—	1	5	11	16	—	1	3	5	6
North Carolina	—	0	5	3	9	2	2	16	23	13	—	1	3	10	12
South Carolina†	—	0	3	2	11	—	1	4	5	9	—	0	1	—	—
Virginia†	—	1	6	5	6	2	2	7	20	10	1	0	2	4	4
West Virginia	—	0	5	—	1	—	0	12	—	5	—	0	5	—	1
E.S. Central	1	0	5	5	10	1	8	13	78	74	2	3	8	31	25
Alabama†	—	0	2	—	3	—	1	4	12	18	—	0	1	—	1
Kentucky	—	0	5	2	4	—	3	8	27	26	1	2	6	15	21
Mississippi	—	0	1	—	—	—	0	3	3	4	U	0	0	U	U
Tennessee†	1	0	2	3	3	1	3	8	36	26	1	1	5	16	3
W.S. Central	3	2	13	16	29	3	10	54	40	59	1	2	7	17	11
Arkansas†	—	0	1	—	—	—	1	4	3	8	—	0	0	—	—
Louisiana	—	0	2	1	3	—	1	3	9	14	—	0	2	4	1
Oklahoma	—	0	4	—	—	1	2	8	12	8	1	0	6	7	2
Texas†	3	2	9	15	26	2	5	43	16	29	—	0	3	6	8
Mountain	1	2	8	18	35	—	2	7	13	30	—	1	4	8	16
Arizona	—	1	4	7	18	—	0	2	2	8	U	0	0	U	U
Colorado	1	0	2	6	9	—	0	5	1	8	—	0	3	1	4
Idaho†	—	0	2	1	2	—	0	1	2	1	—	0	2	4	3
Montana†	—	0	1	2	1	—	0	0	—	—	—	0	1	1	—
Nevada†	—	0	2	—	2	—	1	3	7	8	—	0	1	—	—
New Mexico†	—	0	1	1	1	—	0	1	—	2	—	0	1	2	6
Utah	—	0	2	—	2	—	0	1	1	3	—	0	2	—	3
Wyoming†	—	0	3	1	—	—	0	1	—	—	—	0	0	—	—
Pacific	2	5	16	54	54	—	5	23	15	66	—	1	8	8	19
Alaska	—	0	1	—	—	—	0	1	1	1	U	0	0	U	U
California	2	4	16	47	43	—	3	18	3	49	—	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	8	12	—	0	3	3	7
Washington	—	0	2	4	2	—	1	5	2	3	—	0	5	2	3
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	6	1	1	—	1	6	7	9	—	0	7	3	6
Puerto Rico	—	0	2	1	3	—	0	2	—	6	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	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/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 19, 2011, and March 20, 2010 (11th 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	19	57	122	332	440	37	411	1,675	1,092	2,669	9	27	81	180	241
New England	—	4	16	19	20	1	128	504	118	843	—	1	11	6	13
Connecticut	—	0	6	—	3	—	48	213	—	356	—	0	11	—	—
Maine†	—	0	3	2	—	—	11	62	35	36	—	0	1	—	—
Massachusetts	—	2	10	13	11	—	40	223	35	283	—	1	4	4	12
New Hampshire	—	0	5	2	1	1	24	69	30	144	—	0	2	—	1
Rhode Island†	—	0	4	1	4	—	1	40	4	13	—	0	4	—	—
Vermont†	—	0	2	1	1	—	4	28	14	11	—	0	1	2	—
Mid. Atlantic	4	14	48	78	91	25	181	736	667	1,238	2	7	18	48	61
New Jersey	—	1	11	1	14	—	47	220	110	368	—	0	1	—	—
New York (Upstate)	3	5	19	31	25	8	36	159	94	126	1	1	6	8	16
New York City	—	2	17	19	23	—	1	9	2	31	—	4	14	31	32
Pennsylvania	1	6	19	27	29	17	92	386	461	713	1	1	3	9	13
E.N. Central	—	12	44	60	112	—	26	326	11	118	—	2	9	14	21
Illinois	—	1	15	1	14	—	1	18	2	7	—	0	7	—	8
Indiana	—	2	7	6	24	—	0	7	1	11	—	0	2	2	2
Michigan	—	3	20	15	14	—	1	14	1	—	—	0	4	3	3
Ohio	—	4	15	38	38	—	0	9	3	5	—	1	5	8	8
Wisconsin	—	1	5	—	22	—	22	298	4	95	—	0	2	1	—
W.N. Central	—	2	9	4	15	—	1	11	—	3	—	1	4	2	15
Iowa	—	0	2	—	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	—	—	—	0	5	—	—	—	0	1	—	—
South Dakota	—	0	2	1	2	—	0	1	—	—	—	0	2	—	—
S. Atlantic	9	10	27	56	72	10	57	177	260	414	2	7	44	64	80
Delaware	—	0	3	—	3	4	10	33	65	117	—	0	1	—	1
District of Columbia	—	0	4	—	—	—	0	4	3	1	—	0	2	1	1
Florida	4	3	9	33	28	—	2	10	19	9	2	2	7	19	28
Georgia	—	1	4	1	11	—	0	2	1	1	—	1	7	10	14
Maryland†	1	2	6	8	17	3	22	106	87	186	—	1	24	10	11
North Carolina	2	1	7	7	3	—	1	9	6	30	—	0	13	8	14
South Carolina†	—	0	2	1	1	—	0	3	1	5	—	0	1	—	1
Virginia†	2	1	9	6	8	3	18	82	78	60	—	1	5	16	10
West Virginia	—	0	3	—	1	—	0	29	—	5	—	0	1	—	—
E.S. Central	—	2	10	11	22	—	0	4	1	8	—	0	3	2	4
Alabama†	—	0	2	1	3	—	0	1	—	—	—	0	1	1	1
Kentucky	—	0	4	4	6	—	0	1	—	1	—	0	1	—	2
Mississippi	—	0	3	1	2	—	0	0	—	—	—	0	2	—	—
Tennessee†	—	1	6	5	11	—	0	4	1	7	—	0	2	1	1
W.S. Central	1	3	8	17	12	1	2	22	3	7	1	1	15	8	16
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†	1	2	7	10	10	1	2	22	3	7	1	1	14	7	12
Mountain	—	3	10	13	31	—	0	3	2	2	—	1	4	9	10
Arizona	—	1	7	6	8	—	0	1	1	—	—	0	3	3	3
Colorado	—	0	2	1	10	—	0	1	—	—	—	0	3	3	2
Idaho†	—	0	1	1	—	—	0	2	—	1	—	0	1	—	—
Montana†	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Nevada†	—	0	2	1	5	—	0	1	—	—	—	0	2	2	2
New Mexico†	—	0	2	—	1	—	0	2	1	—	—	0	1	1	—
Utah	—	0	2	4	6	—	0	1	—	1	—	0	0	—	3
Wyoming†	—	0	2	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	5	5	15	74	65	—	4	11	30	36	4	4	10	27	21
Alaska	—	0	2	—	—	—	0	1	—	1	—	0	2	2	—
California	5	4	14	67	63	—	3	8	23	20	4	2	9	19	16
Hawaii	—	0	1	1	—	N	0	0	N	N	—	0	1	—	—
Oregon	—	0	3	1	—	—	0	3	7	15	—	0	3	3	2
Washington	—	0	5	5	2	—	0	3	—	—	—	0	5	3	3
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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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 19, 2011, and March 20, 2010 (11th 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	6	14	36	167	205	6	15	220	67	892	222	537	1,999	2,730	2,420
New England	—	0	3	5	2	—	0	2	1	14	—	9	24	64	56
Connecticut	—	0	1	1	—	—	0	1	—	9	—	1	8	—	6
Maine§	—	0	1	1	—	—	0	1	—	1	—	1	8	27	4
Massachusetts	—	0	2	3	1	—	0	2	1	4	—	5	13	25	38
New Hampshire	—	0	0	—	—	—	0	1	—	—	—	0	3	8	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	19	22	4	6	209	9	812	24	38	122	296	132
New Jersey	—	0	1	—	7	—	1	16	4	180	—	2	9	1	27
New York (Upstate)	—	0	4	7	2	—	1	44	1	512	7	12	85	95	42
New York City	—	0	3	6	6	4	0	201	4	115	7	0	12	7	—
Pennsylvania	—	0	2	6	7	—	0	16	—	5	10	18	70	193	63
E.N. Central	1	2	9	18	34	—	1	7	15	28	8	114	194	700	604
Illinois	—	0	3	5	7	—	1	2	7	6	—	22	52	112	82
Indiana	—	0	2	2	9	—	0	1	—	2	—	12	26	44	56
Michigan	—	0	4	2	2	—	0	1	2	11	—	30	57	217	170
Ohio	1	0	2	7	8	—	0	5	6	4	8	34	80	261	225
Wisconsin	—	0	3	2	8	—	0	2	—	5	—	12	24	66	71
W.N. Central	—	1	5	12	12	1	1	14	8	9	18	35	394	172	177
Iowa	—	0	3	2	4	—	0	7	—	3	—	12	34	35	33
Kansas	—	0	2	1	1	—	0	1	2	1	—	2	9	17	33
Minnesota	—	0	1	—	1	—	0	4	—	1	—	0	386	—	—
Missouri	—	0	4	5	5	1	0	3	5	3	7	7	44	80	87
Nebraska§	—	0	2	3	1	—	0	10	1	1	1	4	13	25	10
North Dakota	—	0	1	—	—	—	0	1	—	—	10	0	30	13	—
South Dakota	—	0	1	1	—	—	0	1	—	—	—	0	2	2	14
S. Atlantic	2	2	7	27	43	—	0	5	—	13	7	40	77	335	306
Delaware	—	0	1	—	1	—	0	0	—	—	—	0	4	5	—
District of Columbia	—	0	0	—	—	—	0	1	—	1	—	0	2	1	1
Florida	—	1	5	8	17	—	0	3	—	1	5	6	28	71	41
Georgia	—	0	2	1	3	—	0	2	—	—	—	5	13	52	44
Maryland§	—	0	1	2	1	—	0	1	—	4	—	2	6	23	36
North Carolina	—	0	3	7	7	—	0	2	—	1	1	3	35	72	123
South Carolina§	—	0	1	3	4	—	0	2	—	1	—	6	25	37	37
Virginia§	2	0	2	6	9	—	0	2	—	3	1	7	38	74	20
West Virginia	—	0	1	—	1	—	0	0	—	2	—	1	21	—	4
E.S. Central	—	1	3	9	9	—	0	2	3	3	2	14	35	89	175
Alabama§	—	0	1	5	1	—	0	2	1	1	—	4	8	24	52
Kentucky	—	0	2	—	3	—	0	1	—	—	—	5	16	37	57
Mississippi	—	0	1	1	2	—	0	1	2	—	—	1	8	2	15
Tennessee§	—	0	2	3	3	—	0	1	—	2	2	4	11	26	51
W.S. Central	1	1	10	17	29	—	2	16	23	8	5	54	231	154	561
Arkansas§	—	0	1	4	2	—	0	1	—	—	1	3	17	10	28
Louisiana	—	0	2	3	6	—	0	2	—	—	—	1	3	3	9
Oklahoma	—	0	7	2	11	—	0	1	—	—	—	0	63	2	1
Texas§	1	1	9	8	10	—	2	15	23	8	4	47	156	139	523
Mountain	—	1	6	11	14	—	0	4	1	2	17	39	99	463	217
Arizona	—	0	2	5	5	—	0	1	—	1	—	11	29	138	78
Colorado	—	0	4	—	3	—	0	1	—	1	16	10	67	197	20
Idaho§	—	0	1	3	1	—	0	1	—	—	—	3	15	24	37
Montana§	—	0	1	—	1	—	0	0	—	—	1	2	16	41	5
Nevada§	—	0	1	—	1	—	0	1	—	—	—	0	7	7	1
New Mexico§	—	0	1	—	2	—	0	2	1	—	—	2	11	11	26
Utah	—	0	1	3	1	—	0	1	—	—	—	6	13	43	49
Wyoming§	—	0	1	—	—	—	0	1	—	—	—	0	2	2	1
Pacific	2	3	15	49	40	1	0	18	7	3	141	144	1,019	457	192
Alaska	—	0	1	—	—	1	0	0	1	1	—	0	6	13	5
California	1	2	10	35	28	—	0	18	—	—	140	126	879	337	103
Hawaii	—	0	1	2	—	—	0	2	3	1	1	1	6	7	16
Oregon	1	1	3	9	9	—	0	1	3	1	—	6	12	35	47
Washington	—	0	4	3	3	—	0	2	—	—	—	8	132	65	21
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	15	4	4	—	0	3	4	—
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 19, 2011, and March 20, 2010 (11th 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	36	62	143	276	584	208	930	1,765	4,467	6,078	38	92	215	492	479
New England	2	3	11	15	51	1	33	81	201	723	1	2	13	17	77
Connecticut	—	0	7	—	19	—	0	59	59	490	—	0	7	7	60
Maine§	1	1	3	5	16	—	3	8	22	14	1	0	3	2	1
Massachusetts	—	0	0	—	—	—	23	52	87	170	—	1	9	3	11
New Hampshire	—	0	6	1	4	—	3	12	16	26	—	0	2	5	5
Rhode Island§	—	0	4	2	1	—	2	18	9	17	—	0	1	—	—
Vermont§	1	1	3	7	11	1	2	5	8	6	—	0	2	—	—
Mid. Atlantic	5	18	41	46	188	32	95	218	458	692	4	9	32	57	44
New Jersey	—	0	0	—	—	—	16	57	50	135	—	1	9	8	8
New York (Upstate)	5	8	19	46	83	16	25	63	115	138	2	4	12	18	14
New York City	—	0	12	—	65	—	23	56	133	178	—	1	7	7	7
Pennsylvania	—	8	24	—	40	16	31	81	160	241	2	3	13	24	15
E.N. Central	2	2	27	9	6	15	91	253	407	704	3	13	44	68	73
Illinois	—	1	11	4	1	—	33	124	107	252	—	2	9	6	16
Indiana	—	0	0	—	—	—	13	62	34	82	—	2	10	12	5
Michigan	—	1	5	2	3	1	16	49	83	129	—	3	16	15	20
Ohio	2	0	12	3	2	14	24	47	153	171	3	3	11	24	9
Wisconsin	—	0	0	—	—	—	10	48	30	70	—	4	17	11	23
W.N. Central	—	4	36	7	31	14	45	97	236	311	4	11	39	36	53
Iowa	—	0	3	—	1	1	10	34	59	39	—	2	16	8	9
Kansas	—	1	4	3	13	2	7	18	37	55	—	1	5	6	6
Minnesota	—	0	34	—	8	—	0	32	—	69	—	0	7	—	14
Missouri	—	1	6	—	1	8	13	44	105	93	3	4	27	13	16
Nebraska§	—	1	4	4	8	3	4	13	23	29	1	1	6	9	6
North Dakota	—	0	3	—	—	—	0	13	—	2	—	0	10	—	—
South Dakota	—	0	0	—	—	—	2	17	12	24	—	0	4	—	2
S. Atlantic	23	19	38	166	246	90	264	611	1,382	1,638	19	15	33	150	69
Delaware	—	0	0	—	—	—	3	11	18	13	—	0	2	2	—
District of Columbia	—	0	0	—	—	—	1	6	4	12	—	0	1	1	1
Florida	—	0	9	20	96	32	108	226	543	743	12	5	23	70	26
Georgia	—	0	0	—	—	15	41	146	263	201	—	2	8	11	10
Maryland§	5	6	15	41	75	14	18	57	103	126	1	2	9	21	9
North Carolina	—	0	0	—	—	22	29	240	228	334	3	2	10	22	6
South Carolina§	—	0	0	—	—	3	25	99	99	91	—	0	3	3	1
Virginia§	18	12	25	105	62	4	21	68	124	93	3	3	8	20	16
West Virginia	—	1	7	—	13	—	1	13	—	25	—	0	3	—	—
E.S. Central	1	3	7	13	19	8	55	177	302	294	—	5	22	28	28
Alabama§	—	1	4	11	1	3	20	52	100	105	—	1	4	3	9
Kentucky	1	0	4	2	—	—	11	32	50	54	—	1	6	6	3
Mississippi	—	0	1	—	—	—	18	67	55	46	—	0	12	3	3
Tennessee§	—	1	4	—	18	5	17	53	97	89	—	2	7	16	13
W.S. Central	1	0	30	5	8	6	127	388	406	468	1	7	80	32	24
Arkansas§	1	0	7	2	6	1	12	43	58	32	1	0	5	4	5
Louisiana	—	0	0	—	—	—	20	49	59	125	—	0	2	—	4
Oklahoma	—	0	30	3	2	5	12	39	51	43	—	0	24	4	1
Texas§	—	0	0	—	—	—	81	337	238	268	—	5	56	24	14
Mountain	1	1	7	2	9	17	51	112	329	430	—	11	34	35	57
Arizona	—	0	0	—	—	1	16	43	103	150	—	1	13	11	13
Colorado	—	0	0	—	—	9	10	24	97	105	—	3	21	5	16
Idaho§	—	0	2	—	1	2	3	9	35	25	—	2	7	6	7
Montana§	1	0	3	2	—	2	1	5	8	21	—	1	5	2	4
Nevada§	—	0	2	—	—	—	5	22	21	25	—	0	5	2	1
New Mexico§	—	0	2	—	3	—	6	19	27	48	—	0	6	3	7
Utah	—	0	2	—	—	—	5	17	29	43	—	1	7	6	8
Wyoming§	—	0	4	—	5	3	1	8	9	13	—	0	3	—	1
Pacific	1	2	13	13	26	25	116	290	746	818	6	12	52	69	54
Alaska	1	0	2	9	8	1	1	4	11	18	—	0	1	—	1
California	—	0	12	—	14	20	79	217	577	611	6	6	32	55	31
Hawaii	—	0	0	—	—	2	6	14	63	55	—	0	3	—	10
Oregon	—	0	2	4	4	2	8	48	51	75	—	2	11	6	5
Washington	—	0	0	—	—	—	14	71	44	59	—	3	18	8	7
Territories															
American Samoa	N	0	0	N	N	—	0	1	—	1	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	3	3	—	—	0	0	—	—
Puerto Rico	—	1	3	6	13	—	8	21	11	127	—	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/ncphi/disss/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 19, 2011, and March 20, 2010 (11th week)*

Reporting area	Shigellosis					Spotted Fever Rickettsiosis (including RMSF)†									
						Confirmed					Probable				
	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	92	274	382	1,550	2,855	—	2	10	10	9	1	27	98	54	71
New England	—	4	17	32	115	—	0	0	—	—	—	0	1	1	—
Connecticut	—	0	5	5	69	—	0	0	—	—	—	0	0	—	—
Maine§	—	0	1	1	2	—	0	0	—	—	—	0	1	—	—
Massachusetts	—	3	16	25	39	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	2	—	3	—	0	0	—	—	—	0	1	—	—
Rhode Island§	—	0	4	—	1	—	0	0	—	—	—	0	1	1	—
Vermont§	—	0	1	1	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	3	25	70	101	430	—	0	1	—	—	—	1	4	2	6
New Jersey	—	4	16	13	73	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	3	3	15	25	35	—	0	1	—	—	—	0	3	—	—
New York City	—	5	14	45	72	—	0	1	—	—	—	0	4	2	6
Pennsylvania	—	10	55	18	250	—	0	0	—	—	—	0	3	—	—
E.N. Central	2	24	45	107	632	—	0	1	—	—	—	1	10	2	1
Illinois	—	8	20	29	462	—	0	1	—	—	—	0	5	—	—
Indiana§	—	1	4	9	8	—	0	1	—	—	—	0	5	—	1
Michigan	—	5	10	22	42	—	0	0	—	—	—	0	1	1	—
Ohio	2	5	18	47	57	—	0	0	—	—	—	0	2	1	—
Wisconsin	—	2	21	—	63	—	0	0	—	—	—	0	1	—	—
W.N. Central	3	23	81	87	584	—	0	4	—	—	—	4	21	8	4
Iowa	—	1	4	4	13	—	0	0	—	—	—	0	1	1	—
Kansas§	—	5	13	20	38	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	3	—	8	—	0	0	—	—	—	0	0	—	—
Missouri	2	16	66	59	518	—	0	4	—	—	—	4	20	7	4
Nebraska§	1	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	36	57	123	544	333	—	1	7	4	6	1	7	60	20	50
Delaware§	—	0	2	—	25	—	0	0	—	1	—	0	3	1	3
District of Columbia	—	0	4	5	4	—	0	1	—	—	—	0	0	—	—
Florida§	26	26	55	350	115	—	0	1	1	—	—	0	2	4	—
Georgia	5	15	26	86	110	—	0	6	1	2	—	0	0	—	—
Maryland§	1	2	8	17	20	—	0	1	1	—	—	1	5	1	2
North Carolina	2	3	36	60	30	—	0	3	1	3	1	2	48	10	41
South Carolina§	—	1	5	9	19	—	0	1	—	—	—	0	2	1	2
Virginia§	2	2	8	17	10	—	0	2	—	—	—	2	12	3	2
West Virginia	—	0	66	—	—	—	0	0	—	—	—	0	0	—	—
E.S. Central	1	14	40	80	94	—	0	3	—	1	—	5	29	4	4
Alabama§	1	5	14	41	14	—	0	1	—	—	—	1	8	2	1
Kentucky	—	2	28	8	33	—	0	2	—	—	—	0	0	—	—
Mississippi	—	1	5	12	6	—	0	0	—	—	—	0	3	—	—
Tennessee§	—	4	14	19	41	—	0	2	—	1	—	4	20	2	3
W.S. Central	20	54	144	252	348	—	0	4	—	1	—	2	43	1	5
Arkansas§	—	1	6	4	10	—	0	2	—	—	—	1	29	—	1
Louisiana	—	6	13	21	29	—	0	0	—	—	—	0	1	—	—
Oklahoma	3	4	13	20	48	—	0	3	—	—	—	0	11	—	—
Texas§	17	43	127	207	261	—	0	1	—	1	—	0	3	1	4
Mountain	16	15	32	137	126	—	0	5	6	—	—	0	7	16	1
Arizona	—	8	19	36	73	—	0	4	6	—	—	0	7	16	—
Colorado§	2	2	8	23	18	—	0	1	—	—	—	0	1	—	—
Idaho§	—	0	3	5	4	—	0	0	—	—	—	0	1	—	—
Montana§	14	0	8	38	2	—	0	1	—	—	—	0	1	—	—
Nevada§	—	0	6	6	3	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	3	10	24	20	—	0	0	—	—	—	0	0	—	1
Utah	—	1	4	5	6	—	0	0	—	—	—	0	1	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Pacific	11	22	73	210	193	—	0	2	—	1	—	0	1	—	—
Alaska	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
California	11	19	58	173	166	—	0	2	—	1	—	0	0	—	—
Hawaii	—	1	4	16	8	N	0	0	N	N	N	0	0	N	N
Oregon	—	1	4	11	12	—	0	0	—	—	—	0	1	—	—
Washington	—	1	17	9	7	—	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	—	—	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	—	—

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/ncphi/disss/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† 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 19, 2011, and March 20, 2010 (11th 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	222	298	809	3,744	4,116	24	31	87	305	670	67	252	346	1,873	2,592
New England	1	9	99	50	122	1	1	14	5	24	4	9	20	72	81
Connecticut	—	0	91	—	—	—	0	12	—	—	3	1	8	10	17
Maine§	—	2	13	31	31	—	0	1	1	2	—	0	3	2	6
Massachusetts	—	1	5	6	25	—	0	3	2	18	1	5	15	45	49
New Hampshire	—	0	7	—	39	—	0	0	—	3	—	0	2	4	3
Rhode Island§	—	0	36	2	—	—	0	3	—	—	—	1	4	9	4
Vermont§	1	1	5	11	27	1	0	1	2	1	—	0	1	2	2
Mid. Atlantic	21	31	60	407	283	9	6	19	43	87	21	32	45	216	357
New Jersey	—	1	8	14	26	—	1	5	9	14	5	4	10	40	50
New York (Upstate)	1	3	11	19	45	—	1	9	11	34	7	2	18	36	14
New York City	10	14	33	207	91	9	1	14	9	20	1	15	31	68	212
Pennsylvania	10	12	22	167	121	—	1	5	14	19	8	7	16	72	81
E.N. Central	46	61	104	725	876	2	6	13	47	120	—	30	53	122	424
Illinois	—	1	6	13	38	—	1	4	13	33	—	14	25	24	228
Indiana	—	10	27	105	195	—	0	6	3	16	—	3	14	23	26
Michigan	6	13	29	146	183	1	1	4	10	31	—	4	9	20	63
Ohio	40	25	45	373	355	1	2	5	17	27	—	9	20	52	94
Wisconsin	—	7	19	88	105	—	0	4	4	13	—	1	3	3	13
W.N. Central	9	10	61	115	215	2	1	12	21	44	2	7	18	60	56
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	3	2	2
Kansas	—	2	7	22	30	—	0	2	2	4	—	0	3	2	4
Minnesota	—	0	46	—	97	—	0	8	—	17	—	3	10	30	12
Missouri	4	2	10	52	37	1	0	4	16	15	2	2	9	26	37
Nebraska§	5	2	9	41	42	1	0	2	3	4	—	0	2	—	1
North Dakota	—	0	11	—	—	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	2	—	9	—	0	2	—	4	—	0	1	—	—
S. Atlantic	72	62	133	1,005	1,099	2	8	20	76	178	19	61	112	525	539
Delaware	—	1	4	21	7	—	0	1	—	—	—	0	4	4	1
District of Columbia	—	0	2	3	11	—	0	2	—	3	1	3	15	34	25
Florida	33	26	68	497	511	1	3	13	38	67	3	23	44	202	200
Georgia	6	11	21	125	199	—	2	6	12	55	—	11	67	46	60
Maryland§	20	9	32	180	139	1	1	6	9	17	3	7	16	75	38
North Carolina	—	0	0	—	—	—	0	0	—	—	8	6	19	77	124
South Carolina§	13	8	25	167	183	—	1	4	5	19	3	3	10	42	32
Virginia§	—	1	4	12	16	—	1	4	12	14	1	4	22	45	56
West Virginia	—	1	9	—	33	—	0	4	—	3	—	0	2	—	3
E.S. Central	21	25	48	347	392	—	2	7	17	38	4	16	39	105	174
Alabama§	—	0	0	—	—	—	0	0	—	—	—	4	11	27	58
Kentucky	—	4	16	51	41	—	0	3	5	3	1	2	12	20	21
Mississippi	—	1	8	4	25	—	0	2	—	5	3	4	16	24	34
Tennessee§	21	21	39	292	326	—	1	6	12	30	—	4	17	34	61
W.S. Central	16	35	337	424	438	2	4	26	43	71	5	38	68	278	393
Arkansas§	1	3	23	62	47	—	0	3	7	8	2	3	10	31	62
Louisiana	—	2	9	53	39	—	0	2	5	11	—	8	33	40	65
Oklahoma	—	1	4	9	17	—	1	4	9	17	3	2	6	10	14
Texas§	15	28	308	300	335	2	3	19	22	35	—	23	33	197	252
Mountain	34	35	75	585	613	6	3	10	49	93	—	10	25	68	90
Arizona	14	12	44	283	310	2	1	6	21	44	—	2	8	5	34
Colorado	13	11	23	144	152	3	1	4	8	19	—	2	8	20	30
Idaho§	—	0	2	3	4	—	0	2	2	1	—	0	2	3	1
Montana§	1	0	2	3	4	—	0	1	—	—	—	0	2	1	—
Nevada§	—	2	8	30	26	—	0	1	3	3	—	2	9	23	10
New Mexico§	5	3	13	73	53	1	0	2	7	12	—	1	4	11	7
Utah	—	3	8	41	60	—	0	3	8	14	—	1	5	5	8
Wyoming§	1	0	15	8	4	—	0	1	—	—	—	0	0	—	—
Pacific	2	5	24	86	78	—	0	5	4	15	12	47	63	427	478
Alaska	2	2	11	41	39	—	0	2	3	11	—	0	1	—	—
California	—	3	23	44	39	—	0	5	1	4	9	40	57	380	407
Hawaii	—	0	3	1	—	—	0	0	—	—	—	0	5	—	8
Oregon	—	0	0	—	—	—	0	0	—	—	—	1	7	17	15
Washington	—	0	0	—	—	—	0	0	—	—	3	4	11	30	48
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	4	15	41	49
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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† 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 19, 2011, and March 20, 2010 (11th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	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	127	255	575	2,282	3,609	—	1	71	—	1	—	1	53	—	1
New England	2	21	46	143	224	—	0	3	—	—	—	0	2	—	—
Connecticut	—	5	20	—	54	—	0	2	—	—	—	0	2	—	—
Maine¶	—	4	16	42	61	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	5	16	58	53	—	0	2	—	—	—	0	1	—	—
New Hampshire	—	2	9	9	38	—	0	1	—	—	—	0	0	—	—
Rhode Island¶	—	1	4	6	2	—	0	0	—	—	—	0	0	—	—
Vermont¶	2	2	13	28	16	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	13	30	62	219	375	—	0	19	—	—	—	0	13	—	—
New Jersey	—	7	30	52	119	—	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	13	19	41	167	255	—	0	3	—	—	—	0	3	—	—
E.N. Central	31	81	176	764	1,381	—	0	15	—	—	—	0	8	—	—
Illinois	5	18	45	159	354	—	0	10	—	—	—	0	5	—	—
Indiana¶	—	5	30	58	154	—	0	2	—	—	—	0	2	—	—
Michigan	6	28	62	248	441	—	0	6	—	—	—	0	1	—	—
Ohio	20	23	58	298	349	—	0	1	—	—	—	0	1	—	—
Wisconsin	—	6	22	1	83	—	0	0	—	—	—	0	1	—	—
W.N. Central	9	13	32	56	196	—	0	7	—	—	—	0	11	—	—
Iowa	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
Kansas¶	2	2	22	36	90	—	0	1	—	—	—	0	3	—	—
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	3	—	—
Missouri	—	7	23	10	95	—	0	1	—	—	—	0	0	—	—
Nebraska¶	N	0	0	N	N	—	0	3	—	—	—	0	7	—	—
North Dakota	7	0	10	7	7	—	0	2	—	—	—	0	2	—	—
South Dakota	—	0	7	3	4	—	0	2	—	—	—	0	3	—	—
S. Atlantic	25	33	100	284	456	—	0	6	—	—	—	0	4	—	1
Delaware¶	—	0	3	2	2	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	4	2	1	—	0	1	—	—	—	0	1	—	—
Florida¶	14	16	57	214	226	—	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¶	11	10	29	66	90	—	0	1	—	—	—	0	1	—	—
West Virginia	—	6	26	—	93	—	0	0	—	—	—	0	0	—	—
E.S. Central	8	5	22	65	49	—	0	1	—	1	—	0	3	—	—
Alabama¶	8	5	22	62	49	—	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	34	43	200	430	590	—	0	16	—	—	—	0	3	—	—
Arkansas¶	5	2	32	29	32	—	0	3	—	—	—	0	1	—	—
Louisiana	—	2	4	13	18	—	0	3	—	—	—	0	1	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Texas¶	29	39	190	388	540	—	0	15	—	—	—	0	2	—	—
Mountain	4	17	50	270	322	—	0	18	—	—	—	0	15	—	—
Arizona	—	0	0	—	—	—	0	13	—	—	—	0	9	—	—
Colorado¶	—	7	31	107	110	—	0	5	—	—	—	0	11	—	—
Idaho¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
Montana¶	4	3	28	72	63	—	0	0	—	—	—	0	0	—	—
Nevada¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
New Mexico¶	—	1	8	10	21	—	0	6	—	—	—	0	2	—	—
Utah	—	4	26	81	126	—	0	1	—	—	—	0	1	—	—
Wyoming¶	—	0	3	—	2	—	0	1	—	—	—	0	1	—	—
Pacific	1	2	16	51	16	—	0	8	—	—	—	0	6	—	—
Alaska	1	1	5	19	5	—	0	0	—	—	—	0	0	—	—
California	—	0	13	23	2	—	0	8	—	—	—	0	6	—	—
Hawaii	—	1	4	9	9	—	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	1	1	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	8	30	37	95	—	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/ncphi/disss/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/ncphi/disss/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 19, 2011 (11th week)

Reporting area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
New England	552	371	127	33	11	10	67
Boston, MA	135	85	39	6	2	3	15
Bridgeport, CT	25	18	6	—	—	1	4
Cambridge, MA	21	16	4	1	—	—	2
Fall River, MA	20	14	5	1	—	—	5
Hartford, CT	60	38	16	4	—	2	11
Lowell, MA	23	20	2	1	—	—	5
Lynn, MA	6	5	—	1	—	—	—
New Bedford, MA	27	21	4	1	1	—	5
New Haven, CT	51	25	17	5	3	1	4
Providence, RI	71	49	14	6	1	1	4
Somerville, MA	7	5	1	1	—	—	—
Springfield, MA	39	27	7	3	1	1	2
Waterbury, CT	27	20	4	2	1	—	4
Worcester, MA	40	28	8	1	2	1	6
Mid. Atlantic	1,974	1,382	440	90	36	26	103
Albany, NY	41	30	9	2	—	—	5
Allentown, PA	41	36	5	—	—	—	4
Buffalo, NY	68	46	10	5	4	3	5
Camden, NJ	24	13	7	3	1	—	1
Elizabeth, NJ	16	9	5	—	1	1	1
Erie, PA	51	39	9	1	—	2	7
Jersey City, NJ	26	18	7	—	1	—	2
New York City, NY	1,087	769	243	46	16	13	42
Newark, NJ	40	23	13	4	—	—	1
Paterson, NJ	25	12	7	5	—	1	—
Philadelphia, PA	198	109	65	16	5	3	9
Pittsburgh, PA§	42	27	9	1	4	1	4
Reading, PA	42	41	1	—	—	—	2
Rochester, NY	75	58	14	1	1	1	5
Schenectady, NY	25	20	4	1	—	—	2
Scranton, PA	26	22	4	—	—	—	—
Syracuse, NY	85	71	11	1	1	1	10
Trenton, NJ	29	16	10	2	1	—	1
Utica, NY	14	12	1	1	—	—	1
Yonkers, NY	19	11	6	1	1	—	1
E.N. Central	2,009	1,366	471	105	33	34	177
Akron, OH	55	40	8	4	2	1	7
Canton, OH	34	24	7	2	—	1	4
Chicago, IL	253	172	62	13	6	—	27
Cincinnati, OH	97	54	20	8	5	10	9
Cleveland, OH	264	197	55	7	1	4	16
Columbus, OH	90	67	14	4	4	1	6
Dayton, OH	144	102	34	4	3	1	7
Detroit, MI	173	88	57	16	8	4	8
Evansville, IN	62	44	16	2	—	—	6
Fort Wayne, IN	82	63	14	2	—	3	7
Gary, IN	9	7	1	1	—	—	1
Grand Rapids, MI	64	48	13	2	—	1	9
Indianapolis, IN	195	128	50	10	1	6	18
Lansing, MI	48	30	15	3	—	—	3
Milwaukee, WI	89	64	19	5	1	—	6
Peoria, IL	66	52	10	4	—	—	13
Rockford, IL	58	42	15	1	—	—	7
South Bend, IN	55	34	13	5	2	1	5
Toledo, OH	100	63	30	6	—	1	9
Youngstown, OH	71	47	18	6	—	—	9
W.N. Central	643	404	171	40	11	17	58
Des Moines, IA	—	—	—	—	—	—	—
Duluth, MN	32	23	8	1	—	—	2
Kansas City, KS	28	14	12	2	—	—	2
Kansas City, MO	87	49	26	8	2	2	8
Lincoln, NE	53	46	6	—	—	1	7
Minneapolis, MN	58	37	13	4	3	1	6
Omaha, NE	96	66	18	8	—	4	7
St. Louis, MO	116	55	43	9	3	6	9
St. Paul, MN	60	39	15	2	2	2	5
Wichita, KS	113	75	30	6	1	1	12

Reporting area (*Continued*)	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
S. Atlantic	1,308	806	368	84	34	16	88
Atlanta, GA	159	96	45	14	3	1	4
Baltimore, MD	155	84	57	8	5	1	13
Charlotte, NC	116	77	29	8	1	1	14
Jacksonville, FL	161	112	40	7	1	1	16
Miami, FL	120	78	28	10	4	—	9
Norfolk, VA	42	25	12	1	4	—	2
Richmond, VA	78	50	20	3	4	1	7
Savannah, GA	68	45	13	7	2	1	4
St. Petersburg, FL	55	33	16	2	2	2	4
Tampa, FL	216	132	55	18	4	7	8
Washington, D.C.	120	62	47	6	4	1	7
Wilmington, DE	18	12	6	—	—	—	—
E.S. Central	1,081	704	260	60	26	30	122
Birmingham, AL	224	153	47	8	3	13	21
Chattanooga, TN	119	79	29	8	2	1	11
Knoxville, TN	140	92	35	7	4	2	21
Lexington, KY	87	63	17	4	1	2	12
Memphis, TN	164	97	46	12	6	3	21
Mobile, AL	102	68	20	8	3	2	9
Montgomery, AL	60	41	14	3	—	2	3
Nashville, TN	185	111	52	10	7	5	24
W.S. Central	1,168	773	272	70	21	32	83
Austin, TX	103	69	20	11	2	1	8
Baton Rouge, LA	72	55	12	4	1	—	—
Corpus Christi, TX	63	46	13	3	1	—	7
Dallas, TX	232	139	62	15	6	10	22
El Paso, TX	115	87	22	2	3	1	6
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	107	57	31	6	—	13	9
Little Rock, AR	90	60	27	2	1	—	—
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	221	142	55	16	3	5	17
Shreveport, LA	61	46	12	3	—	—	2
Tulsa, OK	104	72	18	8	4	2	12
Mountain	1,100	771	227	58	29	15	99
Albuquerque, NM	131	93	29	6	2	1	18
Boise, ID	68	54	10	3	1	—	6
Colorado Springs, CO	71	49	10	5	4	3	5
Denver, CO	114	78	28	4	1	3	8
Las Vegas, NV	315	205	70	26	10	4	26
Ogden, UT	41	29	7	2	1	2	4
Phoenix, AZ	U	U	U	U	U	U	U
Pueblo, CO	41	31	8	1	1	—	4
Salt Lake City, UT	124	82	28	8	5	1	11
Tucson, AZ	195	150	37	3	4	1	17
Pacific	1,790	1,255	381	92	31	29	204
Berkeley, CA	18	10	5	2	—	1	2
Fresno, CA	124	80	30	6	3	5	20
Glendale, CA	33	27	6	—	—	—	8
Honolulu, HI	51	44	6	1	—	—	6
Long Beach, CA	80	49	21	5	2	3	10
Los Angeles, CA	278	190	59	20	6	3	41
Pasadena, CA	27	23	3	—	—	1	2
Portland, OR	151	104	38	6	3	—	15
Sacramento, CA	218	154	42	14	5	2	29
San Diego, CA	209	146	42	8	5	7	20
San Francisco, CA	120	84	22	10	2	2	18
San Jose, CA	180	127	42	7	2	2	15
Santa Cruz, CA	38	31	5	2	—	—	5
Seattle, WA	142	97	33	7	3	2	2
Spokane, WA	47	36	8	2	—	1	5
Tacoma, WA	74	53	19	2	—	—	6
Total¶	**11,625**	**7,832**	**2,717**	**632**	**232**	**209**	**1,001**

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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