

World TB Day — March 24, 2012

March 24 is World TB Day, which commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB), a leading cause of death from infectious disease worldwide. World TB Day provides an opportunity to raise awareness about TB-related problems and solutions and to support worldwide TB control efforts. The U.S. slogan for the 2012 observance is Stop TB in My Lifetime.

Despite the continued decline in U.S. TB cases and rates since 1993, the 2011 rate of 3.4 per 100,000 population has not achieved the 2010 goal of TB elimination (less than one case per 1,000,000) established in 1989 (1). Although TB cases and rates decreased among foreign-born and U.S.-born persons in 2011, foreign-born persons and U.S.-born racial/ethnic minorities continue to be affected disproportionately (2).

CDC is committed to a world free of TB. Progress toward TB elimination in the United States will require ongoing surveillance and improved TB control and prevention activities. Sustained focus on domestic TB control activities and further support of international TB control initiatives are needed to address persistent disparities between whites and nonwhites and between U.S.-born and foreign-born persons. Additional information about World TB Day and CDC's TB elimination activities is available at <http://www.cdc.gov/tb/events/worldtbdays>.

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1. CDC. A strategic plan for the elimination of tuberculosis in the United States. MMWR 1989;38(No. SS-3).
2. CDC. Trends in tuberculosis—United States, 2011. MMWR 2012;61:181–5.

Trends in Tuberculosis — United States, 2011

In 2011, a total of 10,521 new tuberculosis (TB) cases were reported in the United States, an incidence of 3.4 cases per 100,000 population, which is 6.4% lower than the rate in 2010. This is the lowest rate recorded since national reporting began in 1953 (1). The percentage decline is greater than the average 3.8% decline per year observed from 2000 to 2008 but not as large as the record decline of 11.4% from 2008 to 2009 (2). This report summarizes 2011 TB surveillance data reported to CDC's National Tuberculosis Surveillance System. Although TB cases and rates decreased among foreign-born and U.S.-born persons, foreign-born persons and racial/ethnic minorities continue to be affected disproportionately. The rate of incident TB cases (representing new infection and reactivation of latent infection) among foreign-born persons in the United States was 12 times greater than among U.S.-born persons. For the first time since the current reporting system began in 1993, non-Hispanic Asians surpassed persons of Hispanic ethnicity as the largest racial/ethnic group among TB patients in 2011. Compared with non-Hispanic whites, the TB rate among non-Hispanic Asians was 25 times greater, and rates among non-Hispanic blacks and Hispanics were eight and seven times greater, respectively. Among U.S.-born racial and ethnic groups, the greatest racial disparity in TB rates occurred

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among non-Hispanic blacks, whose rate was six times the rate for non-Hispanic whites. The need for continued awareness and surveillance of TB persists despite the continued decline in U.S. TB cases and rates. Initiatives to improve awareness, testing, and treatment of latent infection and TB disease in minorities and foreign-born populations might facilitate progress toward the elimination of TB in the United States.

Health departments in the 50 states and the District of Columbia electronically report to CDC verified TB cases that meet the CDC and Council of State and Territorial Epidemiologists surveillance case definition.* Reports include the patient's self-identified race, ethnicity (i.e., Hispanic or non-Hispanic), human immunodeficiency virus (HIV) status, treatment information, and drug-susceptibility test results. CDC calculates national and state TB rates overall and by racial/ethnic group, using U.S. Census Bureau population estimates (3). As of March 22, 2012, race/ethnicity intercensal population estimates were unavailable for 2011; therefore, 2010 population estimates were used as denominators to calculate 2011 case rates. The Current Population Survey provides the population denominators used to calculate TB rates and percentage changes according to national origin.† Because 2011 Current Population Survey data were available, 2011 population estimates were used for U.S.-born and foreign-born TB rates. 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.-citizen parent. In 2011, 0.4% of patients had unknown country of birth, and 0.7% had unknown race or ethnicity. 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.

Compared with the national TB case rate of 3.4 cases per 100,000 population, TB rates in reporting areas ranged widely, from 0.7 in Maine to 9.3 in Alaska (median: 2.4) (Figure 1). Thirty-four states had lower rates in 2011 than in 2010; 16 states and the District of Columbia had higher rates. As in 2010, four states (California, Florida, New York, and Texas) continued to report more than 500 cases each in 2011. Combined, these four states accounted for 5,299 TB cases or approximately half (50.4%) of all TB cases reported in 2011.

Among U.S.-born persons, the number and rate of TB cases declined in 2011. The 3,929 TB cases in U.S.-born persons (37.5% of all cases in persons with known national origin) represented a 9.9% decrease compared with 2010 and a 77.5% decrease compared with 1993 (Figure 2). The rate of 1.5 TB cases per 100,000 population among U.S.-born persons represented a 10.3% decrease since 2010 and an 80.1% decrease since 1993.

The difference between the proportion of U.S.-born and foreign-born persons with TB continued to increase, although the number and rate of TB cases among foreign-born persons

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

† Additional information available at <http://dataferrett.census.gov>.

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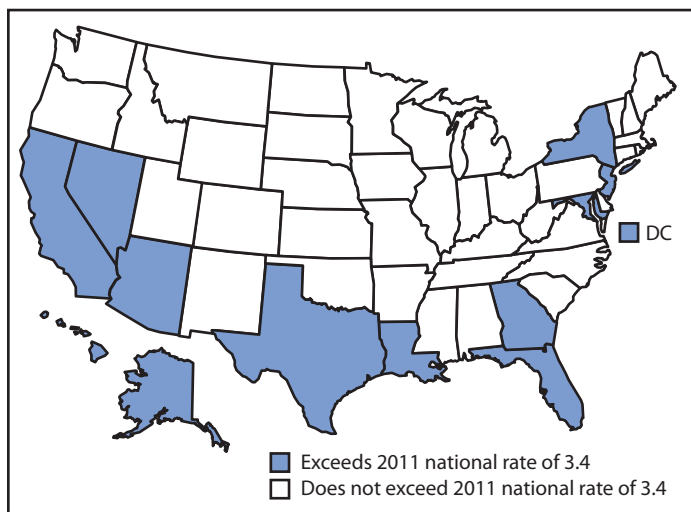
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FIGURE 1. Rate* of tuberculosis cases — United States, 2011†



* Per 100,000 population.
 † Data are provisional.

in the United States declined in 2011. A total of 6,546 TB cases were reported among foreign-born persons (62.5% of all cases in persons with known national origin), a 3.0% decrease from 2010. The 17.3 per 100,000 population TB rate among

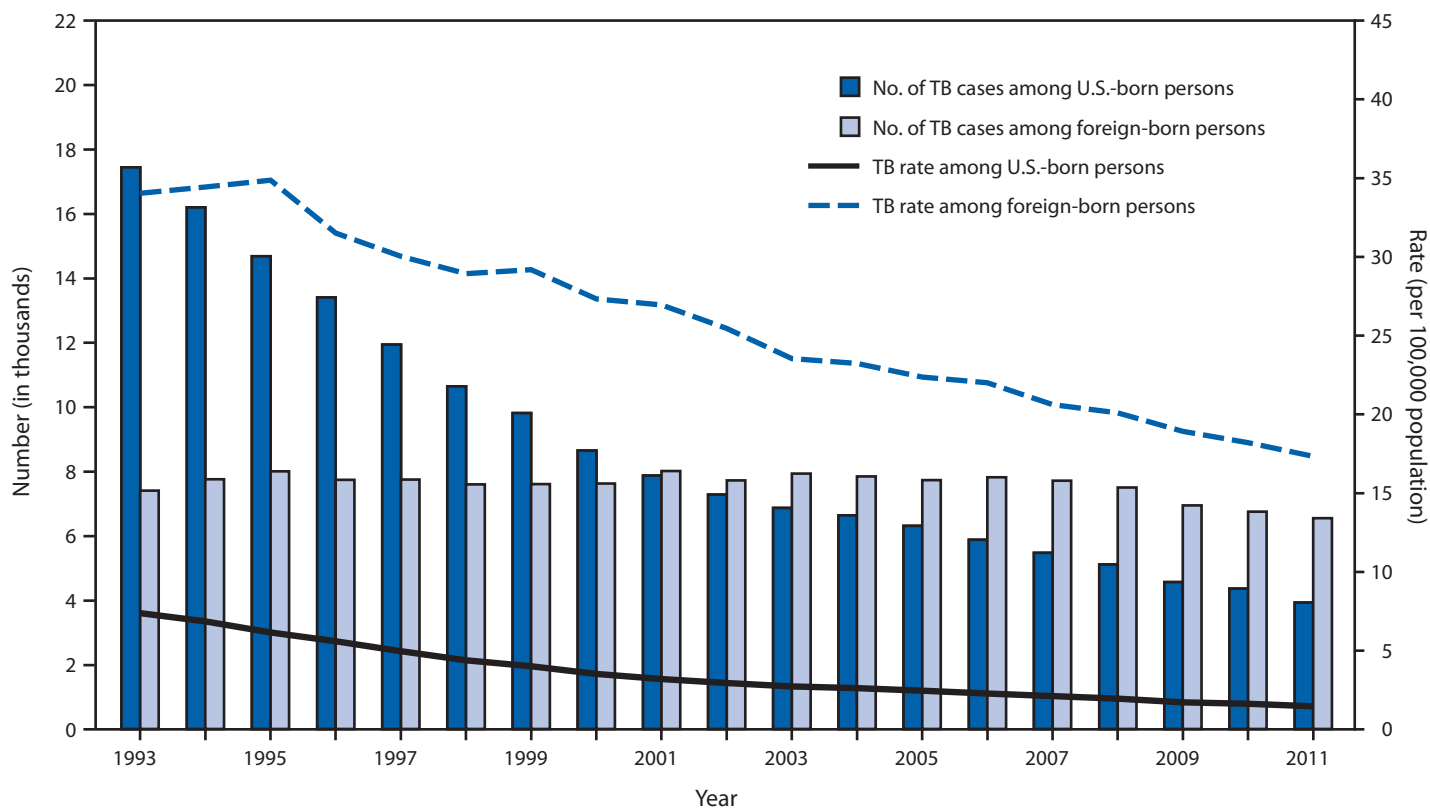
foreign-born persons was a 4.8% decrease since 2010 and a 49.0% decrease since 1993. In 2011, 54.1% of foreign-born persons with TB originated from five countries: Mexico (n = 1,392 [21.3%]), the Philippines (n = 750 [11.5%]), Vietnam (n = 537 [8.2%]), India (n = 498 [7.6%]), and China (n = 365 [5.6%]).

During the past 12 years, the proportion of TB cases occurring in Asians has increased steadily, from 20.5% in 2000 to 29.9% in 2011. More TB cases were reported among Asians than any other racial/ethnic group in the United States in 2011 (Table). From 2010 to 2011, TB rates decreased most for blacks, then Hispanics, whites, and Asians. Among persons with TB, 95.4% of Asians, 73.9% of Hispanics, 36.4% of blacks, and 20.9% of whites were foreign-born. Among U.S.-born persons, blacks were the racial/ethnic group with the greatest percentage of TB cases (38.6%) and the largest disparity compared with U.S.-born whites.

HIV test result reporting improved in 2011, with 81% of cases reported having a known HIV status. Among persons with TB who had a known HIV test result, 7.9% were coinfecting with HIV. Vermont data were not available.[§]

[§]Vermont no longer reports HIV status of TB patients to CDC.

FIGURE 2. Number and rate of tuberculosis (TB) cases among U.S.-born and foreign-born persons, by year reported — United States, 1993–2011*



Source: National Tuberculosis Surveillance System.
 * Data are updated as of February 22, 2012. Data for 2011 are provisional.

TABLE. Number and rate* of tuberculosis cases and percentage change, by race/ethnicity — United States, 2010–2011†

Race/Ethnicity	2010		2011		% change 2010–2011		Population [§] in 2010
	No.	Rate	No.	Rate	No.	Rate	
Hispanic	3,230	6.4	2,999	5.9	-7.2	-7.2	50,810,213
Non-Hispanic							
Black	2,668	7.0	2,395	6.3	-10.2	-10.2	38,012,830
Asian	3,165	21.5	3,147	21.4	-0.6	-0.6	14,738,414
White	1,767	0.9	1,658	0.8	-6.2	-6.2	197,380,184
Other [¶]	278	3.3	248	2.9	-10.8	-10.8	8,408,048
Unknown	54	—	74	—			
Total	11,162	3.6	10,521	3.4	-5.7	-6.4	311,591,917**

* Per 100,000 population.

† Data are updated as of February 22, 2012. Data for 2011 are provisional.

§ Population figures for race/ethnicity in 2011 were unavailable as of the publication date. Population figures from 2010 were used to calculate 2010 and 2011 rates.

¶ Persons included in this category are American Indian/Alaskan Native (2011, n = 130, rate = 5.4 per 100,000; 2010, n = 152, rate = 6.4 per 100,000), Native Hawaiian or other Pacific Islander (2011, n = 84, rate = 16.8 per 100,000; 2010, n = 96, rate = 19.2 per 100,000), and multiple race (2011, n = 34, rate = 0.7 per 100,000; 2010, n = 30, rate = 0.6 per 100,000).

** Population total is from 2011 U.S. Census Bureau estimates for the entire U.S. population and thus is not limited to those with known race/ethnicity.

A total of 109 cases of multidrug-resistant TB (MDR TB)[¶] were reported in 2010, the most recent year for which complete drug-susceptibility data were available. Drug-susceptibility test results for isoniazid and rifampin were reported for 97.5% and 97.1% of culture-confirmed TB cases in 2009 and 2010, respectively. Among these cases, the percentage of MDR TB for 2010 (1.3% [109 of 8,422]) was unchanged from the percentage for 2009 (1.3%). 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 in 2010 was approximately four times greater than among persons not previously treated for TB. In 2010, foreign-born persons accounted for 90 (82.6%) of the 109 MDR TB cases. Four cases of extensively drug-resistant TB** (all occurring in foreign-born persons) have been reported for 2011.

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¶ Defined by the World Health Organization as a case of TB in a person with a *Mycobacterium tuberculosis* isolate resistant to at least isoniazid and rifampin. Additional information available at http://whqlibdoc.who.int/publications/2010/9789241599191_eng.pdf.

** Defined by the World Health Organization 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). Additional information available at http://whqlibdoc.who.int/publications/2010/9789241599191_eng.pdf.

Editorial Note

Despite the continued decline in U.S. TB cases and rates since 1993, the 6.4% decline from 2010 to 2011 to a rate of 3.4 per 100,000 falls short of the 2010 goal of TB elimination (less than one case per 1,000,000) set in 1989 (4). If current efforts are not improved or expanded, TB elimination is unlikely before the year 2100 (5).

In 2011, Asians became the largest single racial/ethnic group represented among TB cases, with a case rate 25 times that of non-Hispanic whites. Although the case rate among Asians declined in 2011 compared with 2010, this 0.6% decline was smaller than among any other racial/ethnic group. This finding underscores the need for increased TB awareness and prevention programs in Asian communities. A decrease in TB rates was associated with one such program, implemented in predominantly black and Hispanic neighborhoods in Texas, which raised TB awareness in the community while also treating anyone found to have latent TB infection (LTBI) (6). Moreover, because 95% of Asians with TB in 2011 were foreign-born, further support of global TB control will be important for reducing TB rates.

Addressing the increasing difference between TB rates in foreign-born and U.S.-born persons is critical for TB elimination. Most foreign-born persons with TB (78.8%) had their TB diagnosed after being in the United States for more than 2 years,^{††} consistent with reactivation of LTBI acquired abroad. Therefore, treating LTBI will be critical for accelerating the TB decline among foreign-born persons (5). In 2007, CDC published technical instructions for TB screening in prospective

†† The percentage of foreign-born persons with TB residing in the United States for more than 2 years was based on provisional 2011 National Tuberculosis Surveillance System data accessed on February 22, 2012.

What is already known on this topic?

Although tuberculosis (TB) has been on the decline in the United States since 1993, an increasing proportion of cases has been observed among the foreign-born. Racial and ethnic minorities have represented a higher proportion of cases among the U.S.-born.

What is added by this report?

Provisional 2011 surveillance data indicate a TB case rate of 3.4 cases per 100,000 persons, which is the lowest rate since 1993. For the first time since current reporting began in 1993, Asians have become the most widely represented racial/ethnic group among TB cases, even though case rates also have declined in this group. Reporting of human immunodeficiency (HIV) status at diagnosis has improved in the most recent reporting year, and HIV infection among TB cases is at an all-time low.

What are the implications for public health practice?

Continued awareness and surveillance of TB is needed despite the decline. Initiatives to improve awareness, testing, and treatment of latent infection and TB disease in minorities and foreign-born populations should facilitate progress toward the elimination of TB in the United States.

immigrants to the United States (7). As more high-TB burden countries adopt these technical instructions, screening and treating immigrants should improve. Persons screened overseas and found to have LTBI should receive preventive TB treatment upon arrival in the United States. A new, shorter regimen for LTBI requiring just 12 once-weekly drug administrations has been recommended by CDC and might result in better adherence to LTBI treatment in foreign-born and U.S.-born populations (8,9).

Approximately 81% of TB cases in 2011 had known HIV status at TB diagnosis. This increase (66.3% in 2010) is attributed to increased reporting from selected regions. The American Thoracic Society and the Infectious Disease Society of America recommend that all TB patients be counseled and tested for HIV (10).

This analysis is limited to reporting provisional TB cases and case rates for 2011. Case rates are based on estimates of

population denominators from either 2010 or 2011. CDC's annual TB surveillance report will provide final TB case rates based on updated denominators later this year.

Progress toward TB elimination in the United States will require ongoing surveillance and improved TB control and prevention activities. Sustained focus on domestic TB control activities and further support of global TB control initiatives is important to address persistent disparities between non-Hispanic whites and racial/ethnic minorities and between U.S.-born and foreign-born persons.

Acknowledgments

State and local TB control officials.

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Tuberculosis Outbreak Associated with a Homeless Shelter — Kane County, Illinois, 2007–2011

Despite the overall decline in tuberculosis (TB) incidence in the United States to a record low (1), outbreaks of TB among homeless persons continue to challenge TB control efforts. In January 2010, public health officials recognized an outbreak of TB after three overnight guests at a homeless shelter in Illinois received diagnoses of TB disease caused by *Mycobacterium tuberculosis* isolates with matching genotype patterns. As of September 2011, a total of 28 outbreak-associated cases involving shelter guests, dating back to 2007, had been recognized, indicating ongoing *M. tuberculosis* transmission. The subsequent investigation found that all patients were homeless and had been overnight shelter guests. Excess alcohol use was common (82%), and two bars emerged as additional sites of potential transmission. Patients with outbreak-associated TB were treated successfully for TB disease. To prevent future cases of TB, public health officials are implementing a program to offer 12 once-weekly doses of isoniazid and rifapentine under direct observation for treatment of latent tuberculosis infection (LTBI) (2) in this high-risk population. Although the United States has made progress toward TB elimination, this outbreak demonstrates the vulnerability of homeless persons to outbreaks of TB, highlighting the need for aggressive and sustained TB control efforts.

Initial Investigations

In April 2007, a man aged 55 years received a diagnosis of sputum smear–positive TB disease caused by an *M. tuberculosis* isolate with a genotype pattern* not documented previously in Kane County, Illinois. The man had been a frequent overnight guest at a Kane County facility that provided short-term shelter each night for approximately 180 persons whose housing situation was unstable. Subsequent case finding among other guests and staff members at the shelter identified no additional cases. In October 2009 and January 2010, two additional cases with the index patient's TB genotype pattern were identified among overnight shelter guests, alerting public health officials to a potential outbreak.

By March 2010, three additional cases with the outbreak genotype pattern had been identified among overnight shelter guests, leading county and state officials to request on-site epidemiologic assistance from CDC. Because all patients had been guests at the shelter, CDC recommended on-site case

finding among guests and staff members at the shelter. The average length of stay at the shelter for guests was 2 weeks. During contact investigations and four mass screenings at the shelter during May 2010–June 2011, public health officials evaluated 386 persons recently exposed to a person with an infectious outbreak case, finding six (2%) additional TB cases.

During April 2007–July 2011, a total of 25 cases with the outbreak genotype pattern were identified (Figure). All patients had stayed overnight at the shelter, raising concern about ongoing transmission. The local health department concurrently identified approximately 10 TB cases each year unrelated to the outbreak, and the increased load during 2010 and 2011 led officials to request on-site assistance from CDC again in September 2011.

Subsequent Investigation

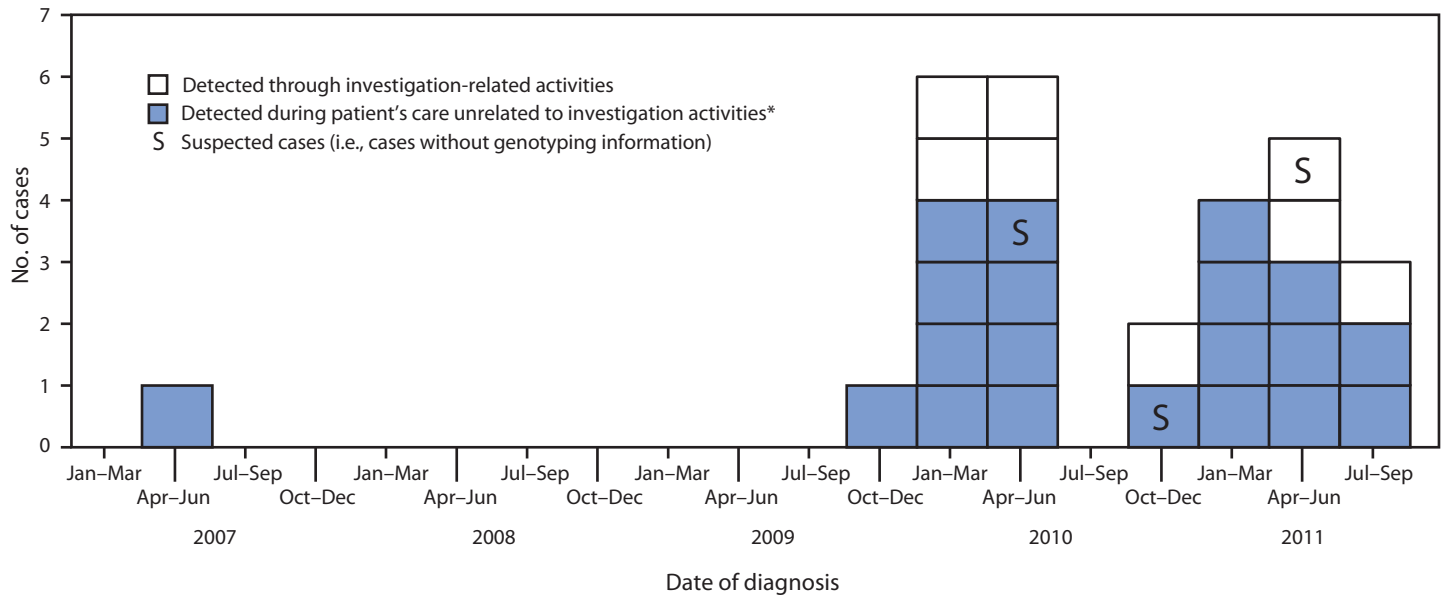
For the September 2011 investigation, a confirmed outbreak case was defined as TB disease having the outbreak genotype pattern diagnosed since April 2007 in a county resident. A suspected outbreak case was TB disease without an *M. tuberculosis* isolate available for genotyping (i.e., clinical disease), diagnosed since April 2007 in a county resident who had an epidemiologic link to a patient with a confirmed outbreak case. Investigators reviewed each eligible case to estimate infectious periods (3), identify potential sites of transmission, and determine epidemiologic linkages. Sources included medical records and interviews with patients or proxies, health department staff members, and shelter staff members.

As of September 23, 2011, a total of 28 outbreak cases had been identified (Table 1). Nearly one third of cases (29%) were detected through investigation-related activities (Figure, Table 1). Excluding one child, the median age was 49 years (range: 19–64 years) (Table 1). The one patient who had not slept in the men's sleeping area had known social connections (e.g., through alcohol consumption) to a patient who had slept in the men's sleeping area. Overall, 24 (86%) patients had connections through shared activities at the shelter or through shared behaviors (e.g., alcohol use at bar A). Of 25 with infectious pulmonary TB, 20 (80%) patients were present overnight at a location other than the shelter during their infectious periods, and the other five (20%) spent time at sites other than the shelter during the daytime.

To better understand the transmission dynamics, investigators conducted a case-control study. Because all outbreak

*Spoligotype 77777757760771 and 12-locus mycobacterial interspersed repetitive unit–variable number tandem repeat pattern 223326153324.

FIGURE. Number of outbreak cases of tuberculosis (TB), by date of diagnosis — Kane County, Illinois, April 2007–September 2011



* One patient received a diagnosis of TB during care unrelated to symptoms. The remainder received a diagnosis of TB during examination for TB-related symptoms.

patients had been overnight guests of the homeless shelter who had, with one exception, slept in the men's sleeping area, eligible case-patients were defined as men confirmed to be part of the outbreak (i.e., TB with the outbreak genotype) who had stayed overnight at the shelter at least once during August 2006 (i.e., the beginning of the index patient's infectious period) through July 2011 (i.e., the end of the last infectious period among men with confirmed outbreak TB). Controls were men who had stayed overnight at the shelter at least once during the same period but who had completed evaluations to exclude TB disease and LTBI (i.e., had a negative test for infection) and were asymptomatic at the time of interview.

Of the 25 patients eligible as case-patients, 17 (68%) enrolled in the case-control study. Of 72 men eligible as controls, 24 (35%) were located, and 23 (96%) met the inclusion criteria; all 23 enrolled. Although the small sample size limited the ability to detect statistically significant associations, longer duration of stay at the shelter, excess alcohol use, and occasional or frequent attendance at certain bars (A or B) had nonstatistically significant associations with being a case-patient (odds ratio ≥ 1.9) (Table 2). Because only 35% of eligible men could be located, selection bias of controls might have affected the outcome of this case-control study.

Public Health Interventions

In close collaboration with shelter staff members, public health officials have provided housing support, food, transportation, and treatment for TB disease by directly observed

therapy to 24 of the 28 patients (i.e., excluding two patients who received care from other health jurisdictions, one who died, and one who was never located); all of these 24 patients with TB disease had completed or were continuing treatment as of December 2011. Supportive resources alone (i.e., excluding costs of health-care services) to provide successful treatment for these 24 patients with TB disease cost \$204,500. Programmatic resources were not available to permit extension of these services to the 146 persons who had been exposed at the shelter and did not have TB disease but did have LTBI; 10 (7%) had completed LTBI treatment as of September 2011. Based on the subsequent investigation and case-control study, future case finding and LTBI treatment efforts will prioritize persons who slept in the men's area at the shelter and who socialized together at certain sites in the community. County and state officials have been working with the shelter to implement administrative control measures to reduce transmission at the shelter, including TB symptom screening upon admission to the shelter for overnight guests and evaluation for TB disease and infection for guests within 10 days of initial stay and annually. Although three additional outbreak cases were identified after the subsequent investigation, as of March 5, 2012, no further cases had been identified since December 2011.

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TABLE 1. Demographic and clinical characteristics and risk factors of 28 patients with outbreak-associated tuberculosis (TB) — Kane County, Illinois, April 2007–September 2011

Characteristic	No.	(%)
Country of birth		
United States	25	(89)
Mexico	2	(7)
Other	1	(4)
Race		
Black	14	(50)
White	14	(50)
Ethnicity		
Non-Hispanic	24	(86)
Hispanic	4	(14)
Homeless status		
For <1 yr before diagnosis	28	(100)
For ≥1 yr before diagnosis	23	(82)
Substance use*		
Smoked tobacco ≥1 yr	26	(93)
Any substance [†]	24	(86)
Excess alcohol	23	(82)
Injected drugs	3	(11)
Noninjected drugs	9	(32)
Medical history		
Diabetes	1	(4)
Human immunodeficiency disease infection	3	(11)
Mental illness [§]	12	(43)
TB case characteristics		
Cavitary disease	11	(39)
Sputum smear–positive disease	13	(46)
Method of case detection		
TB contact investigations	8	(29)
Other method [¶]	20	(71)
Duration of illness — median days (range)		
Infectious period**	162 (36–430)	
Hospitalization ^{††}	19 (2–55)	
Stay in alternative housing ^{§§}	91 (36–115)	

* Within 1 year of TB diagnosis.

[†] Not including tobacco. Includes excess alcohol, injected drugs, or noninjected drugs.[§] An Axis I clinical disorder other than a substance-related disorder, based on American Psychiatric Association classifications, as documented in a patient's medical record or report by a patient or proxy.[¶] One patient received a diagnosis of TB during care unrelated to symptoms. The remainder received a diagnosis of TB during examination for TB-related symptoms.** Estimated using methods recommended by CDC in the *Guidelines for the Investigation of Contacts of Persons With Infectious Tuberculosis: Recommendations From the National Tuberculosis Controllers Association and CDC*. Not estimated for one pediatric patient and two patients with extrapulmonary disease without pulmonary disease.^{††} Length of stay could not be calculated for six patients, including two patients missing hospital admission and discharge dates, and four patients missing discharge dates. The pediatric patient received outpatient treatment.^{§§} The pediatric patient did not require housing support from the health department.

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TABLE 2. Comparison between outbreak-associated tuberculosis case-patients and control subjects — Kane County, Illinois, 2007–2011

Characteristic	Case-patients (n = 17)		Controls (n = 23)		Odds ratio	(95% confidence interval)*
	No.	(%)	No.	(%)		
Age group (yrs)						
≥47	10	(59)	10	(43)	1.9	(0.5–6.6)
<47	7	(41)	13	(57)		
Duration of stay at shelter (days)						
≥250	11	(65)	9	(39)	2.9	(0.8–10.5)
<250	6	(35)	14	(61)		
Reported work history						
Yes	7	(41)	15	(65)	0.7	(0.1–1.4)
No	10	(59)	8	(35)		
Smoked tobacco ≥1 yr						
Yes	16	(94)	15	(65)	8.5	(1.0–77.6)
No	1	(6)	8	(35)		
Use of excess alcohol						
Yes	14	(82)	12	(52)	4.2	(1.0–19.0)
No	3	(18)	11	(48)		
Location frequented						
Bar A						
Occasionally/frequently	12	(71)	9	(39)	3.7	(0.9–14.2)
Never/rarely	5	(29)	14	(61)		
Bar B						
Occasionally/frequently	6	(35)	5	(22)	1.9	(0.5–8.0)
Never/rarely	11	(65)	18	(78)		
Hotel H						
Occasionally/frequently	1	(6)	5	(22)	0.2	(0.02–2.1)
Never/rarely	16	(94)	18	(78)		
Train station						
Occasionally/frequently	10	(59)	13	(57)	1.1	(0.3–3.9)
Never/rarely	7	(41)	10	(43)		
Library						
Occasionally/frequently	9	(53)	13	(57)	0.9	(0.3–3.1)
Never/rarely	8	(47)	10	(43)		

* All confidence intervals contain the null value of 1.

Editorial Note

Despite progress toward TB elimination (1), this outbreak demonstrates the vulnerability of persons affected by homelessness to outbreaks of TB, highlighting the need for aggressive and sustained TB control efforts. Outbreaks among persons experiencing homelessness are difficult to control, in part because of the challenges in finding and locating contacts and providing treatment for LTBI (4,5), as illustrated in this outbreak. Excess alcohol use and congregation in crowded shelters, which frequently are associated with homeless persons, increase their risk for TB (6–8). Of patients in this outbreak, 80% spent time at sites other than the shelter during their infectious periods, and attendance at certain bars had a nonstatistically significant association with being a case-patient, suggesting transmission was not limited to the shelter. Therefore, outbreaks of TB among homeless populations can pose a risk to entire communities.

What is already known on this topic?

Despite the recent decline in tuberculosis (TB) incidence in the United States to a record low, certain populations remain at risk for TB, including homeless persons.

What is added by this report?

During 2007–2011, a total of 28 persons associated with a homeless shelter in Illinois received a diagnosis of TB disease. *Mycobacterium tuberculosis* isolates were available from 25 of the 28 patients; all 25 isolates were submitted for genotyping analysis and found to have matching genotype patterns. This outbreak demonstrates the association between homelessness and outbreaks of TB.

What are the implications for public health practice?

Sustained efforts are needed to control TB among homeless persons. When outbreaks among homeless persons occur, TB case-finding at sites of transmission is needed to identify persons for treatment and to interrupt transmission. To prevent future cases of TB disease, homeless persons should be prioritized for testing and treatment for latent TB infection, even in the absence of outbreaks.

Organizations that provide shelter and other types of emergency housing for homeless persons should develop institutional TB control plans (9). Other strategies to reduce TB transmission in shelters have included ventilation system improvements (9). In May 2010, the National Institute for Occupational Health and Safety conducted an on-site assessment of the heating, ventilation, and air-conditioning (HVAC) systems of the shelter associated with this outbreak, and along with appropriate administrative controls, recommended HVAC renovations to reduce TB transmission at the shelter. As of March 5, 2012, shelter and public health officials had secured funding for this renovation project, scheduled to begin in June 2012.

The first priority in TB control is to find and treat persons with active TB, but the second is to find and treat persons with LTBI to avert active cases of TB (9). The standard treatment for LTBI in the United States has been 9 months of isoniazid, but adherence rates have been low (approximately 60%), even in the absence of factors such as homelessness or substance use. CDC recently published guidelines for a shorter course LTBI treatment alternative, 12 doses of once-weekly isoniazid and rifampine administered under direct observation (2), a regimen that public health officials in Illinois plan to offer persons exposed in this outbreak who have LTBI. Although large populations of homeless persons were not included in treatment trials (2), the practical advantages of this shorter regimen suggest the potential to transform the public health approach to LTBI.

TB outbreaks among homeless persons are resource-intensive, requiring provision of housing and other supportive services to patients (as in this outbreak), ongoing outreach, and TB case finding (7). Because this outbreak occurred during an economic downturn, available public health resources were constrained. Local policymakers had reorganized the health department in November 2010, transferring some health services to other health entities, reducing the health department's workforce by 50% (10). The dynamics of constrained resources have required close collaboration among local, state, and federal officials and the shelter to implement interventions. The extent to which *M. tuberculosis* was transmitted among persons experiencing homelessness in this outbreak provides a warning about the potential for loss of progress toward TB elimination if resources are shifted from TB control, particularly among vulnerable populations.

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Progress Toward Global Polio Eradication — Africa, 2011

By January 2012, 23 years after the Global Polio Eradication Initiative (GPEI) was begun, indigenous wild poliovirus (WPV) transmission had been interrupted in all countries except Afghanistan, Pakistan, and Nigeria (1,2). However, importation of WPV into 29 previously polio-free African countries during 2003–2011 (3,4) led to reestablished WPV transmission (i.e., lasting >12 months) in Angola, Chad, Democratic Republic of the Congo (DRC), and Sudan (although the last confirmed case in Sudan occurred in 2009) (5). This report summarizes progress toward polio eradication in Africa. In 2011, 350 WPV cases were reported by 12 African countries, a 47% decrease from the 657 cases reported in 2010. From 2010 to 2011, the number of cases decreased in Angola (from 33 to five) and DRC (from 100 to 93) and increased in Nigeria (from 21 to 62) and Chad (from 26 to 132). New WPV outbreaks were reported in 2011 in eight African countries, and transmission subsequently was interrupted in six of those countries. Ongoing endemic transmission in Nigeria poses a major threat to the success of GPEI. Vigilant surveillance and high population immunity levels must be maintained in all African countries to prevent and limit new outbreaks.

Methods for Tracking Progress

WPV cases are identified through acute flaccid paralysis (AFP) surveillance and testing of stool specimens for polioviruses in World Health Organization–accredited laboratories. The Global Polio Laboratory Network provides comprehensive genomic sequencing of WPV isolates, which enables tracing of the probable origins of viruses imported into previously polio-free areas (6).*

Polio-Endemic Country

Nigeria. In 2011, Nigeria reported 62 WPV cases (47 WPV type 1 [WPV1] and 15 WPV type 3 [WPV3]), compared with 21 WPV cases (eight WPV1, 13 WPV3) in 2010 (Table 1).[†] Three foci of WPV transmission were observed: northwestern states (Kebbi/Sokoto/Zamfara), north central states (Kano/Katsina/Jigawa), and northeastern states (Borno/Yobe). One WPV1 case in 2011 followed an importation from Chad.

Countries with Reestablished Transmission

Angola. During 2005–2007, three separate WPV importations into Angola were traced to WPV from India. WPV1 transmission was reestablished and has persisted since the latest importation in 2007 (5). In 2011, four WPV1 cases linked with reestablished transmission were reported in the southern province of Kuando-Kubango (onset of the most recent case was March 2011). A fifth WPV1 case with onset in July 2011 in the northern province of Uige resulted from a new importation from DRC (Tables 1 and 2).

Chad. Reestablished transmission of WPV3, first imported from Nigeria in 2007 (5) has continued in Chad. Subsequently, WPV1 transmission was reestablished following a 2010 importation from Nigeria (Table 2). In 2010, 11 WPV1 cases were reported in four regions, and 15 WPV3 cases were reported in seven regions (Table 1).[§] In 2011, 129 WPV1 cases were reported in 15 regions (onset of the most recent case was in December 2011), and three WPV3 cases were reported in the eastern border region of Ouaddai (onset of the most recent case was March 2011).

DRC. In 2011, 93 WPV1 cases were reported in Kasai Occidental, Bandundu, Katanga, Bas-Congo, Kinshasa, and Maniema provinces, compared with 100 WPV1 cases in 2010 reported in the first five provinces (Table 1). Genetic sequencing has indicated five foci of transmission during 2010–2011. The late 2010–early 2011 Bandundu and Kasai Occidental outbreaks were related to WPV1 introduced from northern Angola in 2010 (Table 2). Cases in western Bas-Congo Province were related to WPV1 circulating in Angola and Republic of the Congo (ROC). WPV1 that caused the 2010–2011 Kinshasa Province outbreak were imported from ROC, Angola, and neighboring Bandundu Province, and the outbreak at the Bas-Congo/Bandundu provincial border (May–September 2011) was related to virus circulating in Kinshasa earlier in 2011. From October to December 2011, confirmed WPV circulation was restricted to Katanga and Maniema provinces, which had a combined total of 14 cases in 2011, all related to transmission reestablished in eastern DRC in 2008 or earlier, following importation from Angola.

*Countries with no evidence of indigenous WPV transmission for >12 months and subsequent cases determined to be importations by genomic sequencing.

[†]In 2012, five WPV1 and one WPV3 cases had been reported as of March 8, compared with one WPV1 case during January 1–March 8, 2011.

[§]In 2012, one WPV1 case had been reported as of March 8, compared with 12 WPV1 cases during January 1–March 8, 2011.

TABLE 1. Reported wild poliovirus type 1 (WPV1) and type 3 (WPV3) cases, by category of polio-affected country — Africa, 2010–2011*

Category/Country	2010			2011		
	WPV1	WPV3	Total	WPV1	WPV3	Total
Polio-endemic country						
Nigeria	8	13	21	47	15	62
Countries with reestablished transmission						
Angola	33	—	33	5	—	5
Chad	11	15	26	129	3	132
Democratic Republic of Congo	100	—	100	93	—	93
Total	144	15	159	227	3	230
Countries affected by outbreaks						
West Africa						
Cote d'Ivoire	—	—	—	—	36	36
Guinea	—	—	—	—	3	3
Liberia	2	—	2	—	—	—
Mali	3	1	4	—	7	7
Mauritania	5	—	5	—	—	—
Niger	—	2	2	4	1	5
Senegal	18	—	18	—	—	—
Sierra Leone	1	—	1	—	—	—
Horn of Africa						
Kenya	—	—	—	1	—	1
Uganda	4	—	4	—	—	—
Central Africa						
Central African Republic	—	—	—	4	—	4
Republic of Congo [†]	441	—	441	1	—	1
Gabon	—	—	—	1	—	1
Total	474	3	477	11	47	58
Africa overall	626	31	657	285	65	350

* Data as of March 8, 2012.

[†] 2010 total includes cases with inadequate specimens that were classified as confirmed polio based on their association with the WPV1 outbreak.

Countries with WPV Outbreaks

West Africa. During 2010, transmission continued after 2009 WPV1 outbreaks in Mali, Mauritania, and Sierra Leone (Tables 1 and 2). In 2010, new WPV1 outbreaks occurred in Liberia, Mali, and Senegal, and new WPV3 outbreaks occurred in Mali and Niger. The first case in the 2010 WPV3 outbreak in Mali was confirmed in October 2010; three cases occurred in 2011, the latest related case in June 2011. In 2011 there were four WPV1 importations into Niger (from Chad and Nigeria), and Nigeria (from Chad), resulting in a total of five cases. In 2011, seven WPV3 importations into Cote d'Ivoire (from Nigeria), Guinea (from Cote d'Ivoire), Mali (from Nigeria and Cote d'Ivoire), and Niger (from Nigeria) were reported (Table 2), resulting in a total of 44 cases.

Horn of Africa. In 2011, one WPV1 case was detected in Nyanza Province in western Kenya (Table 2); the isolate was most closely related to WPV1 circulating during 2010 in eastern Uganda and was distantly related to WPV1 circulating in northern Kenya during 2009 that was imported from Sudan (with origin in Nigeria). Genetic sequencing of WPV1 isolates indicated that undetected transmission occurred during two periods of at least 8 months each during 2009–2011 in the Kenya-Uganda border area.

Central Africa. In January 2011, the last WPV1 case was reported in ROC related to a 2010 outbreak, bringing the outbreak total to 442 cases. A single WPV1 case was reported in Gabon in 2011 that was related to the 2010 WPV1 outbreak in ROC (4). In 2011, Central African Republic reported four WPV1 cases related to transmission in Chad (Table 2).

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Editorial Note

During 2011, the efforts to eradicate polio in Africa have had mixed results. Although outbreaks were interrupted within 6 months of confirmation in six of eight countries in 2011, WPV transmission persisted in Angola, Chad, DRC, and Nigeria, and the number of WPV cases increased in Chad and Nigeria.

TABLE 2. Outbreaks secondary to importation of wild poliovirus (WPV) type 1 (WPV1) and type 3 (WPV3), by characteristics and category of polio-affected country — Africa, 2010–2011*

Category/Country	WPV importation type	Onset date of first imported WPV case	Date laboratory confirmed WPV case	Onset date of most recent WPV case	WPV origin by genomic sequencing	No. WPV confirmed cases
2009 outbreaks that carried into 2010						
Mauritania	WPV1	October 7, 2009	October 29, 2009	April 28, 2010	Cote d'Ivoire	18
Mali	WPV1	November 12, 2009	January 4, 2010	March 30, 2010	Guinea	2
Sierra Leone	WPV1	July 15, 2009	August 14, 2009	February 28, 2010	Guinea	12
New outbreaks in 2010						
West Africa						
Chad	WPV1	September 17, 2010	November 29, 2010	January 9, 2012	Nigeria	141
	WPV3	January 6, 2010	February 12, 2010	January 6, 2010	Nigeria	1
Liberia	WPV1	March 3, 2010	April 14, 2010	September 8, 2010	Guinea	2
Mali	WPV3	September 17, 2010	October 15, 2010	June 23, 2011	Niger	4
	WPV1	May 1, 2010	June 30, 2010	May 1, 2010	Mauritania	1
	WPV1	March 6, 2010	April 14, 2010	March 6, 2010	Burkina Faso	1
Niger	WPV3	March 8, 2010	April 22, 2010	April 1, 2010	Nigeria	2
Senegal	WPV1	January 5, 2010	January 18, 2010	April 30, 2010	Mauritania	10
	WPV1	January 12, 2010	February 2, 2010	April 7, 2010	Guinea	3
	WPV1	February 14, 2010	March 3, 2010	March 28, 2010	Guinea	5
Horn of Africa						
Uganda	WPV1	September 28, 2010	October 18, 2010	November 15, 2010	Kenya	4
Central Africa						
Republic of Congo (ROC) [†]	WPV1	September 28, 2010	November 3, 2010	January 22, 2011	Angola	442
Democratic Republic of Congo (DRC)	WPV1	November 11, 2010	November 29, 2010	September 29, 2011	ROC	62 [§]
	WPV1	May 25, 2010	June 28, 2010	May 9, 2011	Angola	79
	WPV1	July 11, 2010	August 3, 2010	July 11, 2010	Angola	1
	WPV1	September 13, 2010	October 15, 2010	September 13, 2010	Angola	1
	WPV1	December 19, 2010	January 2, 2010	December 19, 2011	ROC	1
	WPV1	August 6, 2010	September 10, 2010	January 25, 2011	Angola	26
New outbreaks in 2011						
West Africa						
Cote d'Ivoire	WPV3	January 27, 2011	April 5, 2011	July 24, 2011	Nigeria	36
Guinea	WPV3	May 14, 2011	June 1, 2011	August 3, 2011	Cote d'Ivoire	1
	WPV3	July 27, 2011	August 10, 2011	July 27, 2011	Cote d'Ivoire	1
	WPV3	August 3, 2011	September 16, 2011	August 3, 2011	Cote d'Ivoire	1
Mali	WPV3	February 8, 2011	March 31, 2011	June 10, 2011	Nigeria	3
	WPV3	May 8, 2011	June 9, 2011	May 8, 2011	Cote d'Ivoire	1
Niger	WPV3	January 19, 2011	March 14, 2011	January 19, 2011	Nigeria	1
	WPV1	July 9, 2011	August 24, 2011	December 12, 2011	Chad	1
	WPV1	November 17, 2011	December 14, 2011	November 21, 2011	Nigeria	2 [¶]
	WPV1	December 22, 2011	January 19, 2012	December 22, 2011	Nigeria	1
Nigeria	WPV1	November 29, 2011	December 21, 2011	November 29, 2011	Chad	1
Horn of Africa						
Kenya	WPV1	July 30, 2011	August 25, 2011	July 30, 2011	Uganda	1
Central Africa						
Angola	WPV1	July 7, 2011	October 26, 2011	July 7, 2011	DRC	1
Central African Republic	WPV1	September 19, 2011	October 4, 2011	December 8, 2011	Chad	4
Gabon	WPV1	January 15, 2011	February 20, 2011	January 15, 2011	ROC	1

* Data as of March 8, 2012.

[†] 2010 total includes cases with inadequate specimens that were exceptionally classified as confirmed polio based on their association with the WPV1 outbreak.[§] The 62 cases resulted from nine independent importations.[¶] Sequence data pending for most recent case.

In 2011, after earlier outbreaks, ongoing WPV transmission was detected in Chad, DRC, Kenya, Mali, and ROC; as of March 8, 2012, WPV transmission had been interrupted (i.e., >6 months since the last case) in Kenya, Mali, and ROC.

Milestones established in the 2010–2012 GPEI Strategic Plan included stopping WPV transmission 1) following importation in countries with outbreaks in 2009 by mid-2010,

2) following importation in countries with outbreaks in subsequent years <6 months after confirmation of the outbreak, 3) in countries with reestablished transmission by the end of 2010, 4) in at least two of the four polio-endemic countries by the end of 2011, and 5) in all countries by the end of 2012 (7). Substantial obstacles have prevented achievement of these milestones in Africa.

What is already known on this topic?

Indigenous wild poliovirus transmission has never been interrupted in Afghanistan, Nigeria, and Pakistan. During 2003–2011, outbreaks occurred following importation of the virus in 29 previously polio-free African countries. Before 2010, Nigeria was the source of most of the outbreaks in other African countries.

What is added by this report?

In 2011, the Global Polio Eradication Initiative experienced both successes and setbacks. The number of wild poliovirus cases in African countries decreased 47% from the number in 2010. However, transmission continued in Angola, Chad, Democratic Republic of the Congo, and Nigeria in 2011, and the number of cases increased in Chad and Nigeria.

What are the implications for public health practice?

Interrupting wild poliovirus transmission in Nigeria is key to the success of the global initiative, but the goal of global polio eradication by the end of 2012 is in serious jeopardy. CDC and polio eradication partners are assisting the remaining polio-affected countries in Africa by taking urgent steps to enhance the implementation of polio eradication activities, reach more children in mass campaigns, and interrupt transmission.

The first milestone was met for 14 of the 15 countries with outbreaks occurring in 2009. However, transmission persisted during 2009–2011 in areas of Kenya and Uganda, indicating gaps in field surveillance quality and population immunity; these gaps currently are being addressed. Multiple countries in the Horn of Africa remain at risk for transmission. For example, civil conflict has prevented vaccination of children for the last 18 months in south-central Somalia, and displaced Somali refugees have contributed to additional resource needs throughout neighboring countries in the Horn of Africa. The second milestone was met, or is within reach, for all outbreaks reported during 2010–2011, except for one outbreak in Mali and two in DRC that persisted >6 months after confirmation. New outbreaks in 2011 generally were detected early and interrupted rapidly because of prompt, large-scale responses; in contrast, the large ROC outbreak in 2010 progressed because of delayed detection and response (4). The four genetic lineages of WPV3 identified in the 2011 West Africa outbreaks all were related to WPV3 found earlier in northern Nigeria and were detected after prolonged circulation. AFP surveillance systems in many countries of western, central, and the Horn of Africa must be improved to meet certification standards (8) to reliably detect ongoing WPV transmission and to rapidly detect and respond to new outbreaks.

With reestablished transmission continuing into 2011 in Angola, Chad, and DRC, GPEI failed to meet the third milestone. Persistent WPV circulation in Angola caused outbreaks in western DRC during 2010–2011 (returning to northeastern

Angola in 2011). Angola now appears to be on track to interrupt transmission, 7 years after the first WPV importation from India in 2005 (5). In Chad, importations from Nigeria resulted in reestablished WPV3 transmission from November 2007 to March 2011 and reestablished WPV1 transmission since September 2010. All countries with reestablished transmission substantially increased the number of national and international staff members working on polio eradication in 2011 to address chronic gaps in surveillance and low population immunity. Although the refusal of religious communities to vaccinate children in northern Katanga was brought to international attention in 2011 and has contributed to the percentage of children missed during polio supplementary immunization activities (SIAs), overall SIA quality in this province has been noted as poor.

Regarding the fourth and fifth milestones, India has not detected a WPV case since January 2011 and is no longer considered a polio-endemic country (2). However, setbacks occurred in 2011 in the three countries where polio remains endemic (Afghanistan, Pakistan, and Nigeria). Nigeria remains the only country in Africa that has never interrupted transmission. CDC and GPEI's Independent Monitoring Board (9,10) have indicated that Nigeria and Pakistan pose the greatest risk to the success of global polio eradication and that the 2012 goal of interruption of WPV transmission everywhere is clearly in jeopardy.

Multiple polio outbreaks in Africa since 2003 have been traced to importations from Nigeria (3,4). Interruption of endemic WPV transmission in Nigeria is critical to successfully eradicating polio in Africa. Operational and managerial challenges to implementing routine immunization services and high-quality SIAs are the main reasons children remain unvaccinated and undervaccinated in northern Nigeria, and these were complicated in 2011 by serious new security challenges. In a concerted effort with GPEI partners, the Nigerian government has developed an emergency plan[†] aimed at restoring the programmatic momentum evident during 2009–2010. Many innovative approaches to improve microplanning and implementation are being instituted, as well as those addressing migrant communities at high risk.

In December 2011, the CDC Emergency Operations Center was activated to consolidate and reinforce CDC's polio eradication activities; other GPEI partners have taken similar steps to accelerate polio eradication efforts. Together, partners have taken steps to enhance coordination of their activities, and have jointly increased technical assistance, accountability, and performance. In May 2012, the World Health Assembly will

[†]National Primary Healthcare Development Agency. Nigeria eradication emergency plan – draft; 2012.

consider a resolution declaring polio eradication an emergency for global public health. Urgent action is needed to strengthen SIA implementation and surveillance in the polio-affected countries of Nigeria, Chad, and DRC. All other countries in Africa need to urgently strengthen surveillance systems and attain high levels of population immunity to reliably detect WPV and prevent or limit the impact of new outbreaks.

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Notes from the Field

Multistate Outbreak of *Salmonella* Altona and Johannesburg Infections Linked to Chicks and Ducklings from a Mail-Order Hatchery — United States, February–October 2011

Salmonella infections from contact with live poultry (chickens, ducks, turkeys, and geese) continue to be a public health problem. In summer 2011, two clusters of human *Salmonella* infections were identified (1) through PulseNet, a molecular subtyping network for foodborne disease surveillance. Standard outbreak and traceback investigations were conducted. From February 25 to October 10, 2011, a cluster of 68 cases caused by *Salmonella* serotype Altona and a cluster of 28 cases caused by *Salmonella* Johannesburg were identified in 24 states. Among persons infected, 32% of those with *Salmonella* Altona and 75% of those with *Salmonella* Johannesburg were aged ≤5 years. Forty-two of 57 (74%) *Salmonella* Altona patients and 17 of 24 (71%) of *Salmonella* Johannesburg patients had contact with live poultry in the week preceding illness. Most patients or their parents reported purchasing chicks or ducklings from multiple locations of an agricultural feed store chain that was supplied by a single mail-order hatchery. Live poultry were purchased for either backyard flocks or as pets.

Live poultry are commonly purchased from agricultural feed stores or directly from mail-order hatcheries; approximately 50 million chicks are sold annually in the United States. Since 1990, approximately 35 outbreaks of human *Salmonella* infections linked to contact with live poultry from mail-order hatcheries have been reported. These outbreaks highlight the ongoing risk for human *Salmonella* infections associated with live poultry contact, especially for young children.

In response to this ongoing public health problem, officials with local, state, and federal public and animal health agencies, the U.S. Department of Agriculture's National Poultry Improvement Plan (USDA-NPIP), the mail-order hatchery

industry, and other partners have collaborated to develop and implement a comprehensive *Salmonella* control strategy. Mail-order hatcheries should comply with management and sanitation practices outlined in the USDA-NPIP *Salmonella* guidelines (2) and should avoid the shipment of hatched chicks between multiple hatcheries before shipping to customers. Educational materials warning customers of the risk for *Salmonella* infection from live poultry contact are available (3) and should be distributed with all live poultry purchases. Preventing these infections will require an integrated approach at the hatchery, agricultural feed store, and consumer levels.

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Announcement

International Course in Applied Epidemiology

CDC and Rollins School of Public Health at Emory University will cosponsor the International Course in Applied Epidemiology, from September 24 to October 19, 2012, in Atlanta, Georgia. This basic course in applied epidemiology is designed for public health professionals who work abroad and public health professionals from countries other than the United States.

Course content will include epidemiologic principles, basic statistical analysis, public health surveillance, field investigations, surveys and sampling, and the epidemiologic aspects of current major public health problems in global health. Small group discussions of epidemiologic case exercises based on field investigations also will be conducted. Participants are encouraged to give a short presentation reviewing some epidemiologic data from their own country. Computer training using Epi Info 7, a software program developed at CDC for epidemiologists, will be included.

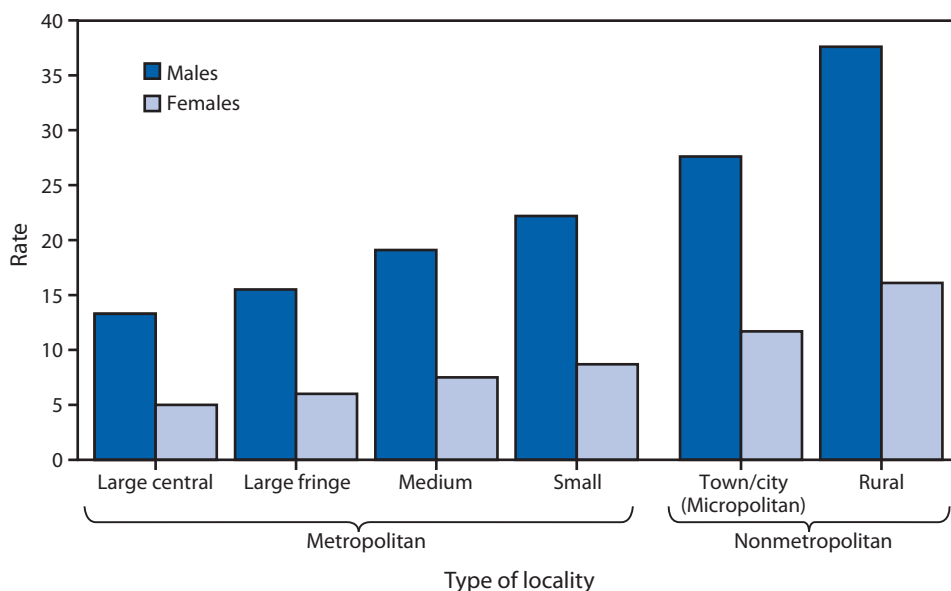
Prerequisites for enrollment include familiarity with the vocabulary and principles of basic epidemiology, or completion of CDC's Principles of Epidemiology home-study course or equivalent. Preference will be given to applicants whose work involves priority public health problems in global health. Tuition is charged.

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

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Age-Adjusted Motor Vehicle Accident Death Rates,* by Sex and Type of Locality† — United States, 2007–2009



* Per 100,000 standard population. Deaths from motor vehicle accidents are those coded V02–V04, V09.0, V09.2, V12–V14, V19.0–V19.2, V19.4–V19.6, V20–V79, V80.3–V80.5, V81.0–V81.1, V82.0–V82.1, V83–V86, V87.0–V87.8, V88.0–V88.8, V89.0, or V89.2 in *International Classification of Diseases, 10th Revision*.

† Counties were classified into urbanization levels based on a classification scheme that considers metropolitan-nonmetropolitan status, population, and other factors.

Death rates from motor vehicle accidents progressively increase across the six urbanization levels, with the lowest rates in large central metropolitan counties and the highest rates in rural counties. For males, the 2007–2009 age-adjusted motor vehicle accident death rate was nearly three times as high in the most rural counties as in the most urban counties (37.6 versus 13.3 per 100,000 population). For females, the rate was just over three times as high in the most rural counties as in the most urban counties (16.1 versus 5.0). For each urbanization level, motor vehicle accident death rates for females were consistently less than half those for males.

Sources: National Vital Statistics System. County-level mortality file. Available at <http://www.cdc.gov/nchs/deaths.htm> and <http://wonder.cdc.gov/mortsql.html>.

Ingram DD, Franco SJ. NCHS urban-rural classification scheme for counties. *National Center for Health Statistics. Vital Health Stat* 2012;2(154).

Reported by: Deborah D. Ingram, PhD, ddingram@cdc.gov, 301-458-4733; Sheila J. Franco.

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 17, 2012 (11th week)*

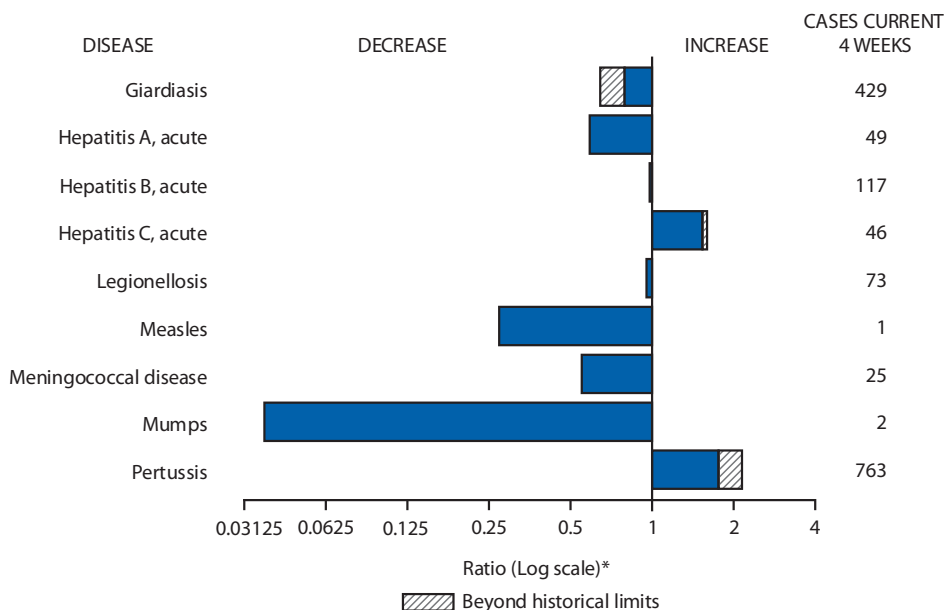
Disease	Current week	Cum 2012	5-year weekly average [†]	Total cases reported for previous years					States reporting cases during current week (No.)
				2011	2010	2009	2008	2007	
Anthrax	—	—	—	1	—	1	—	1	
Arboviral diseases ^{§, ¶} :									
California serogroup virus disease	—	—	0	134	75	55	62	55	
Eastern equine encephalitis virus disease	—	—	—	4	10	4	4	4	
Powassan virus disease	—	—	—	16	8	6	2	7	
St. Louis encephalitis virus disease	—	—	0	6	10	12	13	9	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	1	13	0	806	NN	NN	NN	NN	NY (1)
Botulism, total	1	18	2	140	112	118	145	144	
foodborne	—	3	0	17	7	10	17	32	
infant	1	13	2	92	80	83	109	85	PA (1)
other (wound and unspecified)	—	2	0	31	25	25	19	27	
Brucellosis	—	16	2	83	115	115	80	131	
Chancroid	—	4	1	28	24	28	25	23	
Cholera	—	—	0	36	13	10	5	7	
Cyclosporiasis [§]	—	5	1	154	179	141	139	93	
Diphtheria	—	—	—	—	—	—	—	—	
<i>Haemophilus influenzae</i> ,** invasive disease (age <5 yrs):									
serotype b	—	3	1	11	23	35	30	22	
nonsensory type b	—	30	5	115	200	236	244	199	
unknown serotype	1	42	5	255	223	178	163	180	MS (1)
Hansen disease [§]	—	9	2	51	98	103	80	101	
Hantavirus pulmonary syndrome [§]	—	2	0	23	20	20	18	32	
Hemolytic uremic syndrome, postdiarrheal [§]	1	10	2	221	266	242	330	292	NY (1)
Influenza-associated pediatric mortality ^{§, ††}	3	8	4	118	61	358	90	77	WI (1), OK (1), CA (1)
Listeriosis	5	78	10	840	821	851	759	808	OH (3), FL (1), CA (1)
Measles ^{§§}	—	24	3	219	63	71	140	43	
Meningococcal disease, invasive ^{¶¶} :									
A, C, Y, and W-135	1	20	9	201	280	301	330	325	GA (1)
serogroup B	—	11	4	122	135	174	188	167	
other serogroup	—	2	1	19	12	23	38	35	
unknown serogroup	9	84	13	387	406	482	616	550	PA (1), OH (1), MO (2), DE (1), FL (1), CA (3)
Novel influenza A virus infections ^{***}	—	—	0	8	4	43,774	2	4	
Plague	—	—	0	2	2	8	3	7	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Polio virus Infection, nonparalytic [§]	—	—	—	—	—	—	—	—	
Psittacosis [§]	—	—	0	2	4	9	8	12	
Q fever, total [§]	—	13	2	119	131	113	120	171	
acute	—	10	1	95	106	93	106	—	
chronic	—	3	0	24	25	20	14	—	
Rabies, human	—	—	0	2	2	4	2	1	
Rubella ^{†††}	—	—	0	4	5	3	16	12	
Rubella, congenital syndrome	—	1	—	—	—	2	—	—	
SARS-CoV [§]	—	—	—	—	—	—	—	—	
Smallpox [§]	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome [§]	2	32	5	142	142	161	157	132	VT (1), OH (1)
Syphilis, congenital (age <1 yr) ^{§§§}	—	7	8	288	377	423	431	430	
Tetanus	—	—	0	12	26	18	19	28	
Toxic-shock syndrome (staphylococcal) [§]	—	11	2	80	82	74	71	92	
Trichinellosis	—	2	0	11	7	13	39	5	
Tularemia	—	1	0	141	124	93	123	137	
Typhoid fever	3	48	7	379	467	397	449	434	OH (1), WA (1), CA (1)
Vancomycin-intermediate <i>Staphylococcus aureus</i> [§]	1	6	1	65	91	78	63	37	FL (1)
Vancomycin-resistant <i>Staphylococcus aureus</i> [§]	—	—	0	—	2	1	—	2	
Vibriosis (noncholera <i>Vibrio</i> species infections) [§]	5	39	4	787	846	789	588	549	NC (3), FL (1), TN (1)
Viral hemorrhagic fever ^{¶¶¶}	—	—	—	—	1	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 17, 2012 (11th week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts.
 * Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf.
 † Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/5yearweeklyaverage.pdf.
 ‡ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table except starting in 2007 for the arboviral diseases, STD data, TB data, and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/infdis.htm.
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
 ** Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
 †† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 2, 2011, eight influenza-associated pediatric deaths occurring during the 2011-12 influenza season have been reported.
 ‡‡ No measles cases were reported for the current week.
 ¶¶ 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 eight cases 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 are 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 were no cases of viral hemorrhagic fever reported during the current week. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 17, 2012, 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	
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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 17, 2012, and March 19, 2011 (11th week)*

Reporting area	<i>Chlamydia trachomatis</i> infection					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	11,011	26,852	28,852	224,031	289,943	54	405	588	3,123	4,663	52	134	399	880	1,072
New England	645	892	1,471	6,652	8,797	—	0	1	—	1	—	6	21	37	61
Connecticut	63	239	889	115	1,465	N	0	0	N	N	—	1	8	5	13
Maine	44	59	99	634	643	N	0	0	N	N	—	1	4	5	7
Massachusetts	531	427	680	4,263	4,668	N	0	0	N	N	—	2	8	15	29
New Hampshire	1	58	90	349	664	—	0	1	—	1	—	1	5	5	6
Rhode Island	—	79	187	1,025	1,035	—	0	0	—	—	—	0	1	—	1
Vermont	6	27	66	266	322	N	0	0	N	N	—	1	5	7	5
Mid. Atlantic	1,981	3,155	4,093	31,447	35,071	—	0	0	—	—	6	15	44	86	145
New Jersey	157	540	898	5,135	5,166	N	0	0	N	N	—	1	4	1	10
New York (Upstate)	822	721	2,022	7,073	7,073	N	0	0	N	N	2	4	16	17	34
New York City	228	1,001	1,315	7,789	12,039	N	0	0	N	N	—	1	6	14	17
Pennsylvania	774	1,057	1,598	11,450	10,793	N	0	0	N	N	4	8	27	54	84
E.N. Central	897	4,219	4,691	33,875	47,235	—	1	5	11	10	20	33	148	228	239
Illinois	—	1,219	1,475	6,513	13,681	N	0	0	N	N	—	3	26	13	25
Indiana	201	574	732	5,221	6,333	N	0	0	N	N	—	3	14	12	45
Michigan	369	930	1,210	9,158	11,263	—	1	3	7	5	—	7	14	49	44
Ohio	206	1,030	1,180	8,713	11,112	—	0	2	4	5	19	12	95	110	68
Wisconsin	121	465	561	4,270	4,846	N	0	0	N	N	1	8	65	44	57
W.N. Central	94	1,514	1,823	3,973	16,334	—	0	2	—	—	5	15	85	84	118
Iowa	—	211	439	2,082	2,316	N	0	0	N	N	—	5	19	27	51
Kansas	—	204	281	128	2,134	N	0	0	N	N	—	0	11	4	—
Minnesota	—	328	408	—	3,648	—	0	0	—	—	—	0	0	—	—
Missouri	—	526	759	—	5,719	—	0	0	—	—	4	5	61	27	31
Nebraska	94	122	214	1,200	1,270	—	0	2	—	—	1	2	12	10	26
North Dakota	—	45	76	5	491	N	0	0	N	N	—	0	12	—	—
South Dakota	—	62	89	558	756	N	0	0	N	N	—	2	13	16	10
S. Atlantic	4,168	5,451	7,545	57,042	60,073	—	0	2	1	—	10	21	61	195	221
Delaware	79	84	182	801	920	—	0	0	—	—	—	0	4	6	2
District of Columbia	—	110	217	1,220	1,240	—	0	0	—	—	—	0	1	—	3
Florida	800	1,505	1,697	15,507	15,806	N	0	0	N	N	4	7	17	86	86
Georgia	821	1,100	1,563	10,950	9,834	N	0	0	N	N	1	5	12	37	53
Maryland	542	492	787	2,999	5,230	—	0	2	1	—	—	1	7	23	15
North Carolina	1,246	991	1,688	10,506	10,601	N	0	0	N	N	4	0	46	4	21
South Carolina	—	532	1,344	5,877	7,291	N	0	0	N	N	1	2	6	17	27
Virginia	579	665	1,778	8,127	8,196	N	0	0	N	N	—	3	8	21	14
West Virginia	101	81	146	1,055	955	N	0	0	N	N	—	0	5	1	—
E.S. Central	983	1,924	2,804	19,981	19,447	—	0	0	—	—	2	8	25	53	41
Alabama	—	542	1,566	4,275	5,434	N	0	0	N	N	2	2	7	23	19
Kentucky	260	315	557	3,320	2,367	N	0	0	N	N	—	1	17	4	10
Mississippi	457	419	792	5,874	5,155	N	0	0	N	N	—	1	4	8	4
Tennessee	266	605	824	6,512	6,491	N	0	0	N	N	—	2	6	18	8
W.S. Central	279	3,255	4,311	25,045	36,853	—	0	1	—	2	2	9	44	68	53
Arkansas	279	317	412	3,600	3,407	N	0	0	N	N	—	0	2	3	3
Louisiana	—	346	1,071	1,566	4,530	—	0	1	—	2	—	1	9	13	6
Oklahoma	—	103	675	883	2,596	N	0	0	N	N	—	2	6	13	9
Texas	—	2,351	3,108	18,996	26,320	N	0	0	N	N	2	6	40	39	35
Mountain	583	1,702	2,412	16,142	19,057	45	306	460	2,617	3,617	2	10	29	60	100
Arizona	150	552	784	5,148	5,723	41	301	457	2,581	3,565	—	1	4	3	4
Colorado	—	400	845	3,704	5,240	N	0	0	N	N	—	2	11	5	28
Idaho	—	90	274	653	767	N	0	0	N	N	—	1	9	12	11
Montana	62	67	91	805	725	N	0	0	N	N	2	1	6	15	10
Nevada	216	208	285	1,847	2,360	4	2	5	27	19	—	0	2	2	2
New Mexico	142	222	336	2,430	2,314	—	1	4	2	22	—	2	9	16	27
Utah	13	137	190	1,447	1,458	—	0	4	5	8	—	1	5	3	9
Wyoming	—	28	67	108	470	—	0	2	2	3	—	0	3	4	9
Pacific	1,381	4,048	5,047	29,874	47,076	9	94	172	494	1,033	5	9	23	69	94
Alaska	54	109	152	1,197	1,330	N	0	0	N	N	—	0	3	—	3
California	673	3,086	4,065	21,006	36,693	9	94	172	494	1,033	1	6	16	51	45
Hawaii	—	114	142	603	1,288	N	0	0	N	N	—	0	1	2	—
Oregon	251	280	412	3,165	2,833	N	0	0	N	N	3	2	10	9	36
Washington	403	437	612	3,903	4,932	N	0	0	N	N	1	1	17	7	10
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	6	26	—	153	—	0	0	—	—	—	0	0	—	—
Puerto Rico	176	109	348	1,352	1,189	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	15	27	117	166	—	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 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/ndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 17, 2012, and March 19, 2011 (11th week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever†					Dengue Hemorrhagic Fever§				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
	Med	Max				Med	Max			
United States	—	2	17	—	46	—	0	1	—	—
New England	—	0	1	—	2	—	0	0	—	—
Connecticut	—	0	0	—	1	—	0	0	—	—
Maine	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island	—	0	0	—	—	—	0	0	—	—
Vermont	—	0	1	—	1	—	0	0	—	—
Mid. Atlantic	—	1	6	—	15	—	0	0	—	—
New Jersey	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	—	0	2	—	1	—	0	0	—	—
New York City	—	0	4	—	8	—	0	0	—	—
Pennsylvania	—	0	2	—	6	—	0	0	—	—
E.N. Central	—	0	2	—	5	—	0	1	—	—
Illinois	—	0	1	—	1	—	0	1	—	—
Indiana	—	0	1	—	1	—	0	0	—	—
Michigan	—	0	2	—	1	—	0	0	—	—
Ohio	—	0	1	—	—	—	0	0	—	—
Wisconsin	—	0	1	—	2	—	0	0	—	—
W.N. Central	—	0	2	—	1	—	0	0	—	—
Iowa	—	0	1	—	—	—	0	0	—	—
Kansas	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	1	—	1	—	0	0	—	—
Missouri	—	0	0	—	—	—	0	0	—	—
Nebraska	—	0	0	—	—	—	0	0	—	—
North Dakota	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—
S. Atlantic	—	1	9	—	9	—	0	1	—	—
Delaware	—	0	2	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	1	7	—	5	—	0	0	—	—
Georgia	—	0	1	—	1	—	0	0	—	—
Maryland	—	0	2	—	1	—	0	0	—	—
North Carolina	—	0	1	—	1	—	0	0	—	—
South Carolina	—	0	1	—	—	—	0	0	—	—
Virginia	—	0	1	—	1	—	0	1	—	—
West Virginia	—	0	0	—	—	—	0	0	—	—
E.S. Central	—	0	3	—	—	—	0	0	—	—
Alabama	—	0	1	—	—	—	0	0	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee	—	0	2	—	—	—	0	0	—	—
W.S. Central	—	0	2	—	1	—	0	0	—	—
Arkansas	—	0	0	—	—	—	0	0	—	—
Louisiana	—	0	1	—	1	—	0	0	—	—
Oklahoma	—	0	0	—	—	—	0	0	—	—
Texas	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	1	—	2	—	0	0	—	—
Arizona	—	0	1	—	1	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—
Idaho	—	0	0	—	—	—	0	0	—	—
Montana	—	0	0	—	—	—	0	0	—	—
Nevada	—	0	1	—	—	—	0	0	—	—
New Mexico	—	0	1	—	1	—	0	0	—	—
Utah	—	0	1	—	—	—	0	0	—	—
Wyoming	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	4	—	11	—	0	0	—	—
Alaska	—	0	0	—	—	—	0	0	—	—
California	—	0	2	—	3	—	0	0	—	—
Hawaii	—	0	1	—	5	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	1	—	3	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	9	83	—	183	—	0	3	—	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.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.

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 17, 2012, and March 19, 2011 (11th week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	<i>Ehrlichia chaffeensis</i>					<i>Anaplasma phagocytophilum</i>					Undetermined				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
	Med	Max				Med	Max				Med	Max			
United States	1	9	90	17	14	2	16	58	25	23	—	2	8	4	5
New England	—	0	1	1	—	—	3	28	5	15	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Maine	—	0	1	—	—	—	0	3	1	1	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	1	18	—	1	—	0	0	—	—
New Hampshire	—	0	1	—	—	—	0	5	1	—	—	0	1	—	—
Rhode Island	—	0	1	1	—	—	0	15	3	13	—	0	1	—	—
Vermont	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	1	5	1	2	2	6	51	15	3	—	0	2	1	1
New Jersey	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	—	0	4	—	—	2	3	51	12	2	—	0	2	1	1
New York City	—	0	2	1	2	—	1	5	3	1	—	0	0	—	—
Pennsylvania	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
E.N. Central	—	0	5	—	2	—	0	2	1	1	—	0	6	—	3
Illinois	—	0	4	—	1	—	0	2	1	—	—	0	1	—	2
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	4	—	1
Michigan	—	0	2	—	—	—	0	0	—	—	—	0	2	—	—
Ohio	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Wisconsin	—	0	0	—	—	—	0	1	—	1	—	0	1	—	—
W.N. Central	—	1	16	1	2	—	0	6	—	—	—	0	6	—	—
Iowa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Kansas	—	0	2	—	—	—	0	1	—	—	—	0	1	—	—
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Missouri	—	1	16	1	2	—	0	5	—	—	—	0	6	—	—
Nebraska	—	0	1	—	—	—	0	1	—	—	—	0	1	—	—
North Dakota	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
South Dakota	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
S. Atlantic	1	4	33	13	8	—	1	8	2	3	—	0	2	2	—
Delaware	—	0	2	—	1	—	0	1	—	—	—	0	0	—	—
District of Columbia	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Florida	1	0	3	3	1	—	0	3	—	—	—	0	0	—	—
Georgia	—	0	3	6	1	—	0	2	2	—	—	0	1	1	—
Maryland	—	0	3	1	3	—	0	2	—	1	—	0	1	1	—
North Carolina	—	0	17	1	2	—	0	6	—	2	—	0	0	—	—
South Carolina	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
Virginia	—	1	13	2	—	—	0	3	—	—	—	0	1	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	1	8	1	—	—	0	2	2	1	—	0	3	—	—
Alabama	—	0	2	—	—	—	0	1	2	1	N	0	0	N	N
Kentucky	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
Tennessee	—	0	5	1	—	—	0	1	—	—	—	0	3	—	—
W.S. Central	—	0	30	—	—	—	0	3	—	—	—	0	0	—	—
Arkansas	—	0	13	—	—	—	0	3	—	—	—	0	0	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	25	—	—	—	0	1	—	—	—	0	0	—	—
Texas	—	0	1	—	—	—	0	2	—	—	—	0	0	—	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	—	1
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	—	1
Colorado	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Idaho	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Montana	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Nevada	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
New Mexico	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Utah	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Wyoming	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	0	—	—	—	0	1	—	—	—	0	2	1	—
Alaska	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
California	—	0	0	—	—	—	0	0	—	—	—	0	2	1	—
Hawaii	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Puerto Rico	N	0	0	N	N	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 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

† Cumulative total *E. ewingii* cases reported for year 2011 = 13, and 0 case reports for 2012.

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 17, 2012, and March 19, 2011 (11th week)*

Reporting area	Giardiasis					Gonorrhea					<i>Haemophilus influenzae</i> , invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	106	273	455	2,092	2,855	2,553	6,000	6,817	52,511	64,793	24	65	116	645	752
New England	3	26	64	123	275	84	106	178	701	1,226	1	4	9	41	49
Connecticut	—	4	10	30	53	17	44	91	25	625	—	1	5	14	13
Maine	3	3	10	18	20	9	5	18	78	37	1	0	2	8	5
Massachusetts	—	12	29	47	141	49	47	78	452	461	—	2	7	16	23
New Hampshire	—	2	8	7	17	7	2	8	28	23	—	0	2	2	4
Rhode Island	—	0	10	10	12	—	7	35	102	74	—	0	2	1	3
Vermont	—	3	19	11	32	2	0	6	16	6	—	0	2	—	1
Mid. Atlantic	27	55	91	416	602	496	739	1,021	7,812	7,789	6	16	33	146	141
New Jersey	—	0	14	—	72	46	149	217	1,404	1,363	—	2	6	6	29
New York (Upstate)	20	20	50	146	175	173	117	402	1,306	1,050	6	3	18	41	28
New York City	5	18	30	168	193	55	231	315	1,797	2,664	—	4	9	46	30
Pennsylvania	2	14	30	102	162	222	272	492	3,305	2,712	—	5	15	53	54
E.N. Central	15	50	93	373	508	227	1,076	1,292	8,352	12,353	5	11	22	79	132
Illinois	—	11	20	51	115	—	308	409	1,519	3,478	—	2	11	2	40
Indiana	—	5	13	30	68	45	135	172	1,224	1,656	—	2	6	13	18
Michigan	2	10	22	104	103	83	238	375	2,266	2,879	—	1	5	14	18
Ohio	12	15	30	136	146	66	313	403	2,431	3,449	5	4	7	43	38
Wisconsin	1	8	22	52	76	33	92	118	912	891	—	1	5	7	18
W.N. Central	8	18	50	156	192	16	313	386	731	3,161	2	2	9	26	23
Iowa	—	4	15	43	46	—	36	110	364	425	—	0	1	—	—
Kansas	—	2	9	13	22	—	42	65	47	395	—	0	2	3	2
Minnesota	—	0	0	—	—	—	46	62	—	445	—	0	0	—	—
Missouri	2	6	17	55	64	—	149	204	—	1,483	2	1	5	18	11
Nebraska	6	3	11	33	43	16	26	52	246	239	—	0	2	5	10
North Dakota	—	0	12	—	—	—	5	14	—	48	—	0	6	—	—
South Dakota	—	1	8	12	17	—	11	20	74	126	—	0	1	—	—
S. Atlantic	24	53	116	450	517	1,064	1,483	1,958	14,768	16,086	7	14	31	170	184
Delaware	—	0	3	3	6	20	15	35	177	215	—	0	2	—	1
District of Columbia	—	1	5	2	9	—	38	105	442	464	—	0	1	—	—
Florida	21	23	69	187	248	197	376	473	3,814	3,989	2	4	12	46	60
Georgia	—	12	51	140	114	230	322	456	2,993	2,962	3	2	6	28	41
Maryland	2	6	15	54	60	109	120	187	769	1,331	1	2	6	22	19
North Carolina	N	0	0	N	N	376	312	548	3,208	3,651	—	1	7	20	22
South Carolina	1	2	8	25	22	—	152	421	1,625	2,026	1	1	5	24	15
Virginia	—	5	17	39	56	122	129	353	1,601	1,253	—	2	8	20	26
West Virginia	—	0	8	—	2	10	14	29	139	195	—	0	5	10	—
E.S. Central	1	3	8	34	28	253	524	789	5,298	5,154	2	4	12	53	46
Alabama	1	3	8	34	28	—	167	408	1,177	1,620	—	1	3	11	14
Kentucky	N	0	0	N	N	56	77	151	783	613	1	1	4	14	12
Mississippi	N	0	0	N	N	107	116	242	1,604	1,354	1	0	3	7	3
Tennessee	N	0	0	N	N	90	151	257	1,734	1,567	—	2	8	21	17
W.S. Central	1	5	15	43	38	69	858	1,173	6,444	9,591	—	2	10	35	42
Arkansas	1	2	8	16	16	69	87	124	983	1,029	—	0	3	6	8
Louisiana	—	2	10	27	22	—	103	255	453	1,314	—	0	4	11	20
Oklahoma	—	0	0	—	—	—	29	196	225	836	—	1	9	18	14
Texas	N	0	0	N	N	—	591	828	4,783	6,412	—	0	1	—	—
Mountain	3	22	41	123	218	81	212	324	2,050	2,265	—	5	9	62	87
Arizona	1	2	7	18	28	33	93	128	922	774	—	1	5	21	37
Colorado	—	7	23	43	62	—	40	77	419	542	—	1	3	5	21
Idaho	—	3	9	18	34	—	2	15	3	29	—	0	2	4	3
Montana	2	2	5	10	8	1	1	5	21	18	—	0	1	2	2
Nevada	—	1	4	10	22	38	36	57	283	494	—	0	2	5	4
New Mexico	—	1	6	8	15	8	35	73	333	344	—	1	3	14	15
Utah	—	3	9	10	40	1	6	10	65	48	—	0	3	10	5
Wyoming	—	0	2	6	9	—	0	3	4	16	—	0	1	1	—
Pacific	24	47	196	374	477	263	637	758	6,355	7,168	1	3	9	33	48
Alaska	—	2	7	12	11	8	18	31	141	198	—	0	3	2	6
California	16	31	52	254	333	198	530	634	5,440	5,934	—	1	5	10	15
Hawaii	—	0	4	3	8	—	12	24	60	153	—	0	3	5	6
Oregon	4	6	21	59	86	16	27	60	276	267	1	1	6	16	21
Washington	4	6	159	46	39	41	49	79	438	616	—	0	1	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	6	—	0	0	—	—
Puerto Rico	—	1	8	—	20	11	6	14	59	78	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	2	10	28	37	—	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 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

† Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 17, 2012, and March 19, 2011 (11th week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	9	24	43	206	261	21	49	105	456	583	11	21	48	192	192
New England	1	1	5	5	16	—	1	8	4	29	—	1	5	3	18
Connecticut	—	0	3	3	5	—	0	2	1	5	—	0	4	3	13
Maine	1	0	2	1	1	—	0	2	2	3	—	0	2	—	3
Massachusetts	—	0	3	—	6	—	0	6	—	20	—	0	2	—	1
New Hampshire	—	0	1	1	—	—	0	1	1	1	N	0	0	N	N
Rhode Island	—	0	1	—	2	U	0	0	U	U	U	0	0	U	U
Vermont	—	0	2	—	2	—	0	0	—	—	—	0	1	—	1
Mid. Atlantic	2	4	8	37	49	1	5	11	45	63	1	2	6	26	15
New Jersey	—	1	3	1	8	—	1	4	14	12	—	0	2	2	—
New York (Upstate)	2	1	4	15	8	1	1	4	10	10	1	1	5	10	7
New York City	—	1	4	10	18	—	1	5	10	21	—	0	1	1	2
Pennsylvania	—	1	5	11	15	—	2	4	11	20	—	1	4	13	6
E.N. Central	—	4	7	27	47	4	5	36	61	84	1	3	8	26	33
Illinois	—	1	5	6	11	—	1	3	1	21	—	0	2	1	1
Indiana	—	0	1	2	7	—	1	4	7	13	—	0	5	4	23
Michigan	—	1	6	15	14	1	1	6	13	24	1	2	5	20	8
Ohio	—	0	2	1	13	3	1	30	35	24	—	0	1	1	—
Wisconsin	—	0	1	3	2	—	0	2	5	2	—	0	1	—	1
W.N. Central	—	1	7	12	11	—	2	9	21	21	—	0	4	2	—
Iowa	—	0	1	—	1	—	0	1	1	2	—	0	0	—	—
Kansas	—	0	1	1	2	—	0	2	—	3	—	0	1	1	—
Minnesota	—	0	7	—	—	—	0	7	—	—	—	0	2	—	—
Missouri	—	0	3	7	4	—	1	4	18	11	—	0	0	—	—
Nebraska	—	0	1	4	2	—	0	2	2	4	—	0	1	1	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	2	—	0	0	—	1	—	0	0	—	—
S. Atlantic	1	4	11	41	48	13	12	57	145	143	6	5	14	57	41
Delaware	—	0	1	1	1	—	0	2	3	—	U	0	0	U	U
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	—	1	8	18	17	1	4	8	45	41	2	1	5	24	10
Georgia	—	1	5	6	14	—	2	7	21	30	—	1	3	3	11
Maryland	—	0	4	4	3	2	1	5	17	12	—	1	3	4	4
North Carolina	—	0	3	4	4	—	1	8	11	31	4	1	7	12	10
South Carolina	—	0	2	1	2	—	1	3	8	8	—	0	1	—	—
Virginia	1	0	3	6	5	—	1	6	11	21	—	0	3	4	5
West Virginia	—	0	2	1	2	10	0	43	29	—	—	0	7	10	1
E.S. Central	2	1	6	6	6	3	10	21	99	106	—	5	10	38	39
Alabama	—	0	2	2	—	—	2	6	12	20	—	0	3	3	1
Kentucky	—	0	2	—	2	2	3	10	33	38	—	2	8	14	21
Mississippi	—	0	1	—	1	—	1	4	7	10	U	0	0	U	U
Tennessee	2	0	5	4	3	1	4	10	47	38	—	2	5	21	17
W.S. Central	1	3	7	30	17	—	6	15	45	59	1	1	5	9	17
Arkansas	—	0	2	2	—	—	1	4	7	10	—	0	0	—	—
Louisiana	—	0	2	—	1	—	0	2	6	14	—	0	1	—	4
Oklahoma	—	0	2	—	—	—	1	9	6	13	—	0	4	1	8
Texas	1	3	7	28	16	—	3	13	26	22	1	0	4	8	5
Mountain	—	2	6	19	25	—	1	4	12	28	2	1	5	13	17
Arizona	—	1	6	7	12	—	0	1	2	5	U	0	0	U	U
Colorado	—	0	2	4	7	—	0	2	—	7	—	0	2	—	4
Idaho	—	0	1	4	1	—	0	0	—	2	—	0	2	4	6
Montana	—	0	0	—	3	—	0	0	—	—	—	0	4	—	1
Nevada	—	0	3	3	—	—	0	3	10	9	2	0	2	5	1
New Mexico	—	0	1	1	1	—	0	2	—	2	—	0	2	—	2
Utah	—	0	1	—	—	—	0	1	—	3	—	0	2	4	3
Wyoming	—	0	1	—	1	—	0	0	—	—	—	0	1	—	—
Pacific	2	3	12	29	42	—	3	10	24	50	—	2	13	18	12
Alaska	1	0	1	1	—	—	0	1	—	2	U	0	0	U	U
California	—	3	9	17	36	—	2	6	13	36	—	1	5	8	6
Hawaii	1	0	2	3	1	—	0	1	2	3	U	0	0	U	U
Oregon	—	0	2	2	1	—	0	4	5	7	—	0	2	7	4
Washington	—	0	4	6	4	—	0	5	4	2	—	0	12	3	2
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	—	6	—	2	3	—	22	—	0	1	—	9
Puerto Rico	—	0	3	—	2	—	0	3	—	4	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 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

Morbidity and Mortality Weekly Report

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