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State-Specific Prevalence and Trends in Adult Cigarette Smoking — United States, 1998–2007

Cigarette smoking in the United States results in an estimated 443,000 premature deaths and $193 billion in direct health-care expenditures and productivity losses each year (*1*). During 2007, an estimated 19.8% of adults in the United States were current smokers (*2*). To update 2006 state-specific estimates of cigarette smoking, CDC analyzed data from the 2007 Behavioral Risk Factor Surveillance System (BRFSS) survey and examined trends in cigarette smoking from 1998–2007. Results of these analyses indicated substantial variation in current cigarette smoking during 2007 (range: 8.7%–31.1%) among the 50 states, the District of Columbia (DC), Guam, Puerto Rico (PR), and the U.S. Virgin Islands (USVI). Trend analyses of 1998–2007 data indicated that smoking prevalence decreased in 44 states, DC, and PR, and six states had no substantial changes in prevalence after controlling for age, sex, and race/ethnicity. However, only Utah and USVI met the *Healthy People 2010* target for reducing adult smoking prevalence to 12% (objective 27-1a) (*3*). The Institute of Medicine (IOM) calls for full implementation of comprehensive, evidence-based tobacco control programs at CDC-recommended funding levels to achieve substantial reductions in tobacco use in all states and areas (*4*).

BRFSS conducts state-based, random-digit–dialed telephone surveys of the noninstitutionalized U.S. civilian population aged ≥18 years, collecting data on health conditions and health risk behaviors. The 2007 BRFSS survey was conducted in the 50 states, DC, Guam, PR, and USVI and included data from 430,912 respondents. Those respondents who answered "yes" to the question "Have you smoked at least 100 cigarettes in your entire life?" and answered "every day" or "some days" to the question "Do you now smoke cigarettes every day, some days, or not at all?" were classified as current cigarette smokers. These questions have been included in the survey each year since 1996; for this analysis, survey data from 1998–2007 were examined.

For each year, estimates were weighted to the respondent's probability of being selected and the age-, race-, and sex-specific populations from the census for the state or area. These weights were used to calculate the state smoking prevalence estimates; 95% confidence intervals also were calculated. BRFSS uses a multistage sampling design primarily to generate state/area estimates. The median prevalence among all states and DC is generally comparable to overall national estimates from other surveys (*2*). Response rates for BRFSS are calculated using Council of American Survey and Research Organizations (CASRO) guidelines.* Median survey response rates were 59.1% (range: 32.5%–76.7%) for 1998 and 50.6% (range: 26.9%–65.4%) for 2007. Median cooperation rates were 63.0% for 1998 (range: 38.3%–83.6%) and 72.1% (range: 49.6%–84.6%) for 2007. For comparisons of smoking prevalence between males and females during 2007, statistical significance ($p \leq 0.05$) was determined using a two-sided z-test. Logistic regression analysis was used to analyze temporal changes in current smoking during 1998–2007, controlling

* The response rate is the percentage of persons who completed interviews among all eligible persons, including those who were not successfully contacted. The cooperation rate is the percentage of persons who completed interviews among all eligible persons who were contacted.

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for changes in state and area distributions of sex, age, and race/ethnicity. Linear and quadratic trends over time were included in the models. Nonsignificant quadratic terms were dropped from the final models. Quadratic trends indicated a significant but nonlinear trend in smoking prevalence over time.†

Current Cigarette Smoking

In 2007, the median prevalence of adult current smoking in the 50 states and DC was 19.8% (Table 1). Among states, current smoking prevalence was highest in Kentucky (28.3%), West Virginia (27.0%), and Oklahoma (25.8%); and lowest in Utah (11.7%), California (14.3%), and Connecticut (15.5%). Smoking prevalence was 8.7% in USVI, 12.2% in PR, and 31.1% in Guam. Median smoking prevalence among the 50 states and DC was 21.3% (range: 15.5%–28.8%) for men and 18.4% (range: 8.0%–27.8%) for women. Men had a significantly higher prevalence of smoking than women in 30 states, DC, and all three territories.

Trends in Cigarette Smoking

During 1998–2007, linear decreases were observed in 28 states, DC, and PR (Table 2). Nonlinear trends were detected in 19 other states. Trends in smoking prevalence varied among these states; however, all had reached a peak prevalence before 2004 and then began to decrease. Among 16 of these 18 states, logistic regression models indicated that the prevalence decreased during 1998–2007; in the other two states no change in prevalence occurred. No change over time in smoking prevalence (quadratic or linear) was observed in Alabama, Arizona, Tennessee, and West Virginia.

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Editorial Note: *Healthy People 2010* calls for reducing adult cigarette smoking prevalence to 12% (*3*). Utah and USVI were the first state and territory to meet the *Healthy People 2010* target in 2003 and 2001, respectively, and have continued to meet this target each year. The first demographic subgroup to meet the *Healthy People 2010* target was women in PR in 1997. In 2007, cigarette smoking prevalence among women in California, PR, USVI, and Utah met the *Healthy People 2010* target. Cigarette smoking prevalence among men has continued to exceed the ≤12% target, except among men

† Quadratic trends indicate a significant but nonlinear trend in the data over time (e.g., whereas a linear trend is depicted with a straight line, a quadratic trend is depicted with a curve with one bend). Trends that include significant quadratic and linear components demonstrate nonlinear variation in addition to an overall increase or decrease over time.

TABLE 1. Estimated prevalence of current cigarette smoking among adults* by state/area and sex — Behavioral Risk Factor Surveillance System, United States, 2007

	Men		Women		Total	
State/Area	%	(95% CI†)	%	(95% CI)	%	(95% CI)
Alabama	25.7	(22.9–28.5)	19.7	(18.0–21.4)	**22.5**	**(20.9–24.2)**
Alaska	24.6	(20.1–29.1)	19.7	(16.7–22.6)	**22.2**	**(19.5–24.9)**
Arizona	23.4	(19.1–27.7)	16.3	(13.7–18.9)	**19.8**	**(17.3–22.4)**
Arkansas	24.8	(22.3–27.3)	20.2	(18.5–21.9)	**22.4**	**(20.9–23.9)**
California	18.1	(15.8–20.5)	10.6	(9.3–11.9)	**14.3**	**(13.0–15.7)**
Colorado	19.7	(18.1–21.3)	17.7	(16.5–18.8)	**18.7**	**(17.7–19.7)**
Connecticut	16.6	(14.6–18.6)	14.5	(13.0–15.9)	**15.5**	**(14.3–16.7)**
Delaware	17.6	(14.9–20.2)	20.3	(17.9–22.7)	**19.0**	**(17.2–20.8)**
District of Columbia	19.1	(16.4–21.8)	15.7	(13.9–17.5)	**17.3**	**(15.7–18.9)**
Florida	21.3	(19.6–22.9)	17.5	(16.4–18.6)	**19.3**	**(18.4–20.3)**
Georgia	21.2	(18.9–23.5)	17.5	(16.0–19.0)	**19.3**	**(18.0–20.7)**
Hawaii	19.8	(17.5–22.1)	14.3	(12.8–15.8)	**17.0**	**(15.7–18.4)**
Idaho	20.9	(18.3–23.5)	17.4	(15.7–19.2)	**19.2**	**(17.6–20.7)**
Illinois	22.1	(19.7–24.4)	18.4	(16.7–20.1)	**20.2**	**(18.7–21.6)**
Indiana	25.9	(23.3–28.4)	22.4	(20.4–24.4)	**24.1**	**(22.5–25.7)**
Iowa	21.4	(19.1–23.8)	18.3	(16.6–20.1)	**19.8**	**(18.4–21.3)**
Kansas	18.7	(16.8–20.5)	17.1	(15.8–18.5)	**17.9**	**(16.7–19.0)**
Kentucky	28.8	(25.8–31.7)	27.8	(25.7–29.9)	**28.3**	**(26.5–30.0)**
Louisiana	26.4	(23.8–28.9)	19.1	(17.6–20.5)	**22.6**	**(21.1–24.0)**
Maine	21.0	(19.1–23.0)	19.3	(17.5–21.0)	**20.1**	**(18.8–21.4)**
Maryland	18.4	(16.4–20.5)	16.0	(14.6–17.3)	**17.1**	**(15.9–18.3)**
Massachusetts	17.4	(16.0–18.8)	15.5	(14.6–16.5)	**16.4**	**(15.6–17.2)**
Michigan	23.5	(21.2–25.8)	19.0	(17.4–20.6)	**21.2**	**(19.8–22.6)**
Minnesota	18.3	(15.8–20.7)	14.7	(13.0–16.4)	**16.5**	**(15.0–18.0)**
Mississippi	27.8	(25.3–30.3)	20.5	(18.9–22.1)	**24.0**	**(22.5–25.5)**
Missouri	26.0	(22.8–29.1)	23.3	(20.9–25.6)	**24.6**	**(22.6–26.5)**
Montana	19.8	(17.4–22.1)	19.3	(17.6–21.1)	**19.5**	**(18.1–21.0)**
Nebraska	23.2	(20.3–26.1)	16.8	(15.0–18.6)	**19.9**	**(18.2–21.6)**
Nevada	23.4	(20.3–26.5)	19.6	(17.1–22.0)	**21.5**	**(19.5–23.5)**
New Hampshire	20.2	(18.0–22.4)	18.6	(17.0–20.2)	**19.4**	**(18.0–20.7)**
New Jersey	19.4	(16.9–21.9)	15.2	(13.8–16.6)	**17.2**	**(15.8–18.7)**
New Mexico	23.6	(21.2–26.0)	18.1	(16.4–19.8)	**20.8**	**(19.3–22.2)**
New York	21.6	(19.3–23.9)	16.5	(15.0–18.0)	**18.9**	**(17.5–20.3)**
North Carolina	25.3	(23.4–27.2)	20.7	(19.4–21.9)	**22.9**	**(21.8–24.1)**
North Dakota	22.2	(19.6–24.7)	19.8	(17.7–21.9)	**21.0**	**(19.3–22.6)**
Ohio	24.2	(22.2–26.3)	22.1	(20.6–23.5)	**23.1**	**(21.9–24.3)**
Oklahoma	28.0	(25.7–30.3)	23.8	(22.2–25.3)	**25.8**	**(24.5–27.2)**
Oregon	18.9	(16.5–21.4)	14.9	(13.2–16.6)	**16.9**	**(15.4–18.4)**
Pennsylvania	20.7	(18.6–22.9)	21.1	(19.5–22.7)	**20.9**	**(19.6–22.3)**
Rhode Island	17.8	(15.2–20.4)	16.3	(14.4–18.1)	**17.0**	**(15.4–18.6)**
South Carolina	25.3	(23.2–27.5)	18.8	(17.4–20.1)	**21.9**	**(20.7–23.2)**
South Dakota	20.1	(18.0–22.3)	19.5	(17.6–21.5)	**19.8**	**(18.4–21.2)**
Tennessee	25.7	(22.6–28.8)	22.9	(20.8–25.0)	**24.3**	**(22.4–26.1)**
Texas	22.0	(20.4–23.6)	16.9	(15.9–17.9)	**19.4**	**(18.5–20.4)**
Utah	15.5	(13.2–17.8)	8.0	(6.7–9.2)	**11.7**	**(10.4–13.0)**
Vermont	19.5	(17.3–21.6)	15.9	(14.4–17.4)	**17.6**	**(16.3–18.9)**
Virginia	20.3	(17.3–23.4)	16.9	(15.3–18.5)	**18.6**	**(16.9–20.3)**
Washington	18.0	(16.8–19.2)	15.7	(14.8–16.5)	**16.8**	**(16.1–17.5)**
West Virginia	28.6	(25.9–31.3)	25.5	(23.4–27.5)	**27.0**	**(25.3–28.7)**
Wisconsin	19.6	(17.3–21.9)	19.5	(17.6–21.5)	**19.6**	**(18.1–21.1)**
Wyoming	22.8	(20.5–25.1)	21.4	(19.6–23.2)	**22.1**	**(20.7–23.6)**
Median	*21.3*	—	*18.4*	—	***19.8***	**—**
Guam	38.5	(31.1–46.0)	23.3	(18.6–28.0)	**31.1**	**(26.6–35.6)**
Puerto Rico	17.1	(14.5–19.7)	7.8	(6.4–9.2)	**12.2**	**(10.7–13.6)**
U.S. Virgin Islands	11.2	(8.8–13.6)	6.5	(5.1–7.8)	**8.7**	**(7.3–10.0)**

* Persons aged ≥18 years who reported having smoked ≥100 cigarettes during their lifetime and currently smoke every day or some days. Data were weighted to be representative of the state/area population.
† Confidence interval.

TABLE 2. Current cigarette smoking prevalence (%) and trends among adults,* by state/area — Behavioral Risk Factor Surveillance System, 1998–2007

State/Area	Year										Linear trend† p value	Quadratic trend† p value
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
Alabama	24.6	23.5	25.3	23.9	24.4	25.3	24.9	24.8	23.3	22.5	0.46	
Alaska	26.0	27.2	25.0	26.1	29.4	26.3	24.9	25.0	24.2	22.2	0.03	0.02
Arizona	21.9	20.0	18.6	21.5	23.5	21.0	18.6	20.4	18.2	19.8	0.15	
Arkansas	26.0	27.2	25.2	25.6	26.3	24.8	25.7	23.5	23.7	22.4	<0.01	
California	19.2	18.7	17.2	17.2	16.4	16.8	14.8	15.2	14.9	14.3	<0.01	
Colorado	22.8	22.5	20.1	22.4	20.4	18.5	20.1	19.9	17.9	18.7	<0.01	
Connecticut	21.1	22.8	20.0	20.8	19.5	18.7	18.1	16.5	17.0	15.5	<0.01	
Delaware	24.5	25.4	23.0	25.1	24.7	21.9	24.5	20.7	21.7	19.0	<0.01	0.03
District of Columbia	21.6	20.6	20.9	20.8	20.4	22.3	21.0	20.1	17.9	17.3	<0.01	
Florida	22.0	20.7	23.2	22.5	22.1	23.9	20.4	21.6	21.0	19.3	0.01	<0.01
Georgia	23.7	23.7	23.6	23.7	23.3	22.8	20.1	22.2	20.0	19.3	<0.01	
Hawaii	19.5	18.6	19.7	20.6	21.1	17.3	—§	17.1	17.6	17.0	<0.01	
Idaho	20.3	21.5	22.4	19.7	20.6	19.0	17.5	17.9	16.8	19.2	<0.01	
Illinois	23.1	24.2	22.3	23.6	22.9	24.3	22.2	19.9	20.5	20.2	<0.01	
Indiana	26.0	27.0	27.0	27.5	27.7	26.1	25.0	27.3	24.1	24.1	<0.01	0.02
Iowa	23.4	23.5	23.3	22.2	23.1	21.7	20.8	20.4	21.5	19.8	<0.01	
Kansas	21.2	21.1	21.1	22.2	22.1	20.4	19.8	17.8	20.0	17.9	<0.01	0.04
Kentucky	30.8	29.7	30.5	30.9	32.6	30.8	27.6	28.7	28.6	28.3	<0.01	
Louisiana	25.5	23.6	24.1	24.8	23.9	26.6	23.6	22.6	23.4	22.6	0.02	
Maine	22.4	23.3	23.8	24.0	23.6	23.6	21.0	20.9	20.9	20.1	0.01	0.03
Maryland	22.4	20.3	20.6	21.3	22.0	20.2	19.7	19.0	17.8	17.1	<0.01	
Massachusetts	20.9	19.4	20.0	19.7	19.0	19.2	18.5	18.1	17.9	16.4	<0.01	
Michigan	27.4	25.1	24.2	25.7	24.2	26.2	23.4	22.1	22.4	21.2	<0.01	
Minnesota	18.0	19.5	19.8	22.2	21.7	21.1	20.7	20.0	18.3	16.5	0.01	<0.01
Mississippi	24.1	23.0	23.5	25.4	27.4	25.6	24.6	23.7	25.1	24.0	0.52	0.03
Missouri	26.3	27.1	27.2	25.9	26.6	27.3	24.1	23.4	23.3	24.6	<0.01	
Montana	21.5	20.2	18.9	21.9	21.3	19.9	20.4	19.2	19.0	19.5	0.01	
Nebraska	22.1	23.3	21.4	20.4	22.8	21.3	20.3	21.3	18.6	19.9	<0.01	
Nevada	30.4	31.5	29.1	27.0	26.0	25.2	23.2	23.1	22.2	21.5	<0.01	
New Hampshire	23.3	22.4	25.4	24.1	23.2	21.2	21.8	20.5	18.7	19.4	<0.01	0.04
New Jersey	19.2	20.7	21.0	21.3	19.1	19.5	18.9	18.1	18.1	17.2	<0.01	
New Mexico	22.6	22.5	23.6	23.9	21.2	22.0	20.3	21.5	20.2	20.8	<0.01	
New York	24.3	21.9	21.6	23.4	22.4	21.6	20.0	20.5	18.3	18.9	<0.01	
North Carolina	24.7	25.2	26.1	25.9	26.4	24.8	23.2	22.7	22.1	22.9	<0.01	0.04
North Dakota	20.0	22.2	23.3	22.1	21.5	20.5	19.9	20.0	19.6	21.0	0.04	
Ohio	26.2	27.6	26.3	27.7	26.6	25.4	25.9	22.3	22.5	23.1	<0.01	0.04
Oklahoma	23.8	25.2	23.3	28.8	26.7	25.2	26.1	25.1	25.1	25.8	0.94	0.03
Oregon	21.1	21.5	20.8	20.5	22.4	21.0	20.0	18.5	18.5	16.9	<0.01	0.01
Pennsylvania	23.8	23.2	24.3	24.6	24.6	25.5	22.7	23.7	21.5	20.9	<0.01	<0.01
Rhode Island	22.7	22.4	23.5	24.0	22.5	22.4	21.3	19.8	19.3	17.0	<0.01	<0.01
South Carolina	24.7	23.6	24.9	26.2	26.6	25.5	24.5	22.6	22.3	21.9	<0.01	<0.01
South Dakota	27.3	22.5	22.0	22.4	22.6	22.7	20.3	19.8	20.4	19.8	<0.01	
Tennessee	26.1	24.9	25.7	24.4	27.8	25.7	26.1	26.8	22.6	24.3	0.13	
Texas	22.0	22.4	22.0	22.5	22.9	22.1	20.6	20.0	18.1	19.4	<0.01	0.01
Utah	14.2	13.9	12.9	13.3	12.7	12.0	10.5	11.5	9.8	11.7	<0.01	
Vermont	22.3	21.8	21.5	22.4	21.2	19.6	20.0	19.3	18.1	17.6	<0.01	
Virginia	22.9	21.2	21.5	22.5	24.6	22.1	20.9	20.6	19.3	18.6	0.02	
Washington	21.4	22.4	20.7	22.6	21.5	19.5	19.2	17.6	17.1	16.8	<0.01	0.02
West Virginia	27.9	27.1	26.1	28.2	28.4	27.4	26.9	26.6	25.7	27.0	0.30	
Wisconsin	23.4	23.7	24.1	23.6	23.4	22.1	22.0	20.8	20.8	19.6	<0.01	
Wyoming	22.8	23.9	23.8	22.2	23.7	24.6	21.7	21.3	21.6	22.1	0.02	
Median	*22.9*	*22.8*	*23.3*	*23.4*	*23.1*	*22.1*	*20.9*	*20.6*	*20.2*	*19.8*		
Guam	—	—	—	31.4	32.1	34.0	—	—	—	31.1	—	—
Puerto Rico	15.7	13.7	13.1	12.5	13.2	13.6	12.7	13.1	12.5	12.2	0.03	
U.S. Virgin Islands	—	—	—	9.8	9.5	10.0	9.5	8.3	9.1	8.7	—	—

* Persons aged ≥18 years who reported having smoked ≥100 cigarettes during their lifetime and currently smoke every day or some days. Data were weighted to be representative of the state/area population.

† Linear and quadratic trends for the relationship between time and smoking prevalence were assessed using logistic regression models controlling for sex, age, and race/ethnicity. Nonsignificant quadratic terms were dropped from the model and are not reported. Trends were not analyzed if data were missing for multiple years.

§ Data not available.

in USVI, whose prevalence declined from 12.1% in 2006 to 11.2% in 2007. Trends for 1998–2007 suggest that most states have shown declines in smoking prevalence; however, the present rate of decline likely will be too slow in nearly all states to reach the *Healthy People* target by 2010.

States varied substantially in current levels of smoking and in trends in smoking during 1998–2007. These variations might be attributed to a number of factors, including differences in population demographics, differing levels of tobacco control programs and policies, and variations in tobacco industry marketing and promotion (*5*). As part of CDC's National Tobacco Control Program, all states work to implement comprehensive tobacco control programs that include effective strategies for preventing smoking initiation and increasing cessation.[§] These programs contribute to reductions in smoking prevalence through increases in the unit price of tobacco products, sustaining media campaigns (e.g., encouraging cessation and preventing initiation), implementation of smoke-free policies, support for quitlines, and reduced patient costs for tobacco use treatment (*6*). State per-capita tobacco control program expenditures are one measure of the state's ability to implement effective tobacco control program components (*6*); during 1985–2003, states with higher expenditures had greater overall reductions in adult smoking prevalence (*5*).

The findings in this report are subject to at least six limitations. First, smoking prevalence might be underestimated because BRFSS does not survey persons in households without any telephone service (2.5%) or with wireless-only telephones (17.5%), and adults with wireless-only service are more likely (30.2%) than the rest of the U.S. population to be current smokers (*7*). Second, estimates for cigarette smoking are based on self-report and are not validated by biochemical tests. However, self-reported data on current smoking status have high validity (*8*). Third, the median response rate was 59.1% (range: 32.5%–76.7%) in 1998 and 50.6% (range: 26.8%–65.4%) in 2007. Lower response rates increase the potential for response bias, which could have affected the assessment of trends over time; however, BRFSS aggregated state estimates previously have been shown to be comparable to smoking estimates from other surveys with higher response rates (*8*). The 2007 median smoking rate of 19.8% reported in this analysis is the same as the national estimate of cigarette smoking reported from the 2007 National Health Interview Survey (19.8%) (*2*). Fourth, trend analyses for Guam and USVI could not be reported because data were not available for the full time span. Fifth, modeling was limited to linear and quadratic trends. However, examination of plots of predicted versus observed prevalence estimates showed that the models fit the data well for the majority of states. For some states, prevalence estimates indicate declines in smoking prevalence might have leveled off since 2005 (Table 2); future trend modeling might need to account for this emerging pattern. Finally, only trends in overall current cigarette smoking prevalence were examined; trends might vary among demographic subpopulations within a state. For example, national trends in current smoking prevalence have varied between non-Hispanic white and black women; cigarette use among these two populations was comparable in the mid-1990s, but use declined more rapidly among non-Hispanic black women than non-Hispanic white women during 2000 and 2001 (*9*). Assessing trends among subgroups is important for targeting interventions to those most at risk.

Despite declines in smoking prevalence during 1998–2007, cigarette smoking continues to cause large numbers of deaths each year across all states (*1*). From 2002 to 2005, states cut funding for tobacco prevention and cessation programs by 28% (approximately $200 million) (*10*). In fiscal year 2009, no state is funding comprehensive tobacco control programs at CDC-recommended funding levels, and only nine states are funding at least half of the recommended amount (*6,10*). In contrast, tobacco industry marketing expenditures nearly doubled from 1998 ($6.9 billion) to 2005 ($13.4 billion) (*10*). IOM concluded that substantial and enduring reductions in tobacco use depend on federal and state government steps to increase excise taxes, enact bans on smoking in public spaces, and increase health-care coverage for effective cessation interventions. IOM also called for full implementation of comprehensive tobacco control programs at CDC-recommended funding levels (*4*).

On April 1, 2009, the single largest federal tobacco excise tax increase in history will go into effect, raising the excise tax for cigarettes to $1.01 from the current rate of $0.39. This increase likely will prompt some smokers to make a quit attempt (*4–6*). To assist smokers with their quit attempts, health-care providers should follow the recommendations in the 2008 update to the Public Health Service's *Clinical Practice Guideline on Treating Tobacco Use and Dependence*.[¶] Health-care providers should ask all patients about their use of tobacco, advise tobacco users to quit, assess their willingness to quit, assist in their quit attempt by offering medication and providing referrals to telephone-based quitlines or other counseling services and arrange for follow-up. Telephone-based quitlines are available in every state through a toll-free access number (800-QUIT-NOW [800-784-8669]).

§ CDC's *Guide to Community Preventive Services* reviews the effectiveness of interventions to reduce or prevent tobacco use and is available at http://www.thecommunityguide.org/tobacco/index.html.

¶ Available at http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf.

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Investigation of a Genotype Cluster of Tuberculosis Cases — Detroit, Michigan, 2004–2007

In August 2007, the Detroit Department of Health and Wellness Promotion, Michigan Department of Community Health (MDCH), and CDC investigated a genotype cluster of eight tuberculosis (TB) cases in U.S.- born patients in the Detroit metropolitan area. The cases had been reported during December 2004–April 2007. The first case was reported in a patient (the index patient) whose drug-susceptible TB subsequently developed multidrug resistance. Seven additional cases were reported in patients with *Mycobacterium tuberculosis* genotypes that matched the genotype of the index patient. These included one case of multidrug-resistant (MDR) TB in a young relative of the index patient and one case in the index patient's parent, who died from TB meningitis. This report describes the investigation and illustrates the importance of ensuring that each case of TB disease is promptly recognized and successfully treated and that all close contacts of TB patients are identified, evaluated, and treated for latent TB infection if indicated (*1,2*).

TB genotyping is laboratory-based testing used to analyze the genetic material of TB bacteria. TB genotyping results, when combined with epidemiologic data, help identify persons with TB disease involved in the same chain of recent transmission. CDC's National Tuberculosis Genotyping Service was initiated in January 2004 to enable rapid genotyping of isolates from every patient in the United States with culture-positive TB (*3*). In 2007, genotyping information was available for 86% of culture-positive TB cases nationwide (*3*) and nearly 100% of cases in Michigan. The national service contracts with the MDCH laboratory, which provides *M. tuberculosis* genotyping results in 10–14 working days from two polymerase chain reaction (PCR)-based genotyping tests: spoligotyping and mycobacterial interspersed repetitive units (MIRU) typing (*4*). For this investigation, genotype-matched cases were defined as those whose isolates had matching spoligotype and MIRU patterns.* To further distinguish strains for isolates with identical PCR results, confirmatory restriction fragment length polymorphism (RFLP) testing (*4*) was conducted on isolates from both the early (December 2004) and later (July 2006) disease course for the index patient and from all seven suspected secondary cases in the TB cluster. All RFLP patterns matched, including both the index patient's early drug-susceptible TB isolate and later MDR TB isolate, implying that rather than being infected by a new MDR TB strain, the index patient remained infected with the initially drug-susceptible TB strain that developed resistance during the course of treatment. During December 2004–April 2007, when the eight genotype-matched cases were identified, approximately 350 additional cases of TB were diagnosed in the Detroit metropolitan area; however, none of those cases, nor any other Michigan cases, had isolates matching the genotype cluster described in this report.

In December 2004, the index patient, an unemployed adult with a history of excessive alcohol and illicit drug use and unstable housing arrangements (i.e., living with various friends and family members), was first evaluated in a local emergency department for cough, hemoptysis, fever, fatigue, and night sweats of 1-month duration. Acid fast-bacilli (AFB) smear-positive, cavitary TB was diagnosed, and the patient began standard treatment with the four first-line TB drugs (isoniazid, rifampin, pyrazinamide, and ethambutol) (*5*). Initial drug-susceptibility testing (DST) on an isolate from the patient indicated the patient's TB strain was susceptible to all first-line drugs.

The patient initially agreed to receive directly observed therapy (DOT), a mainstay of TB treatment in which patients are observed to ingest each dose of medication to maximize the likelihood of completion of therapy (*5*). Approximately

* Spoligotype 677737607760731 and MIRU patterns 224225163321 or 224225-63321.

5 weeks later, in February 2005, the patient began missing DOT appointments, and the local health department began exploring legal options, such as confinement via court order for treatment, to ensure patient adherence. However, during February–April 2005, the patient was lost to follow-up.

A contact investigation conducted during December 2004–January 2005, after the patient's disease was first diagnosed, included five household contacts, all of whom had negative initial tuberculin skin test (TST) results. A second round of skin testing was planned for 8–10 weeks after the initial round (*2*). Despite numerous attempts by health department staff members, four household contacts, including the patient's parent, declined a second evaluation. The one contact who was retested (with the permission of an adult in the home), the patient's child, had a second negative TST result in April 2005.

In April 2005, the index patient began picking up TB medications at the health department each month. The patient's AFB sputum smear test results were negative for the first time, but became positive again by June; DOT was not enforced during this period. From initial diagnosis through June 2005, the index patient's sputum specimens remained culture positive.

During July–December 2005, the patient again was lost to follow-up and received no treatment for TB. In January 2006, the patient returned to the health department with cough and malaise. At that time, the patient's radiographs showed worsening cavitary disease; the AFB sputum smear result was positive, and DST still indicated drug-susceptible TB. The patient was restarted on isoniazid, rifampin, and pyrazinamide but did not comply with DOT. In September 2006, DST results on an *M. tuberculosis* isolate collected from the index patient in July 2006 indicated MDR TB (i.e., resistance to isoniazid and rifampin). The isolate was susceptible to pyrazinamide, ethambutol, streptomycin, ciprofloxacin, kanamycin, ethionamide, cycloserine, and capreomycin. The patient was prescribed an MDR TB treatment regimen of ethambutol, pyrazinamide, moxifloxacin, and streptomycin. However, in December 2006, the patient's sputum remained AFB smear positive and culture positive for MDR TB, despite consistently taking prescribed medication via DOT during September–December 2006, according to clinic records.

In December 2006, a parent of the index patient died from unrecognized TB meningitis. The otherwise healthy parent had reported chronic headaches and lower back pain during the fall of 2006, progressing to weight loss, fatigue, and general debilitation; human immunodeficiency virus serologies were not tested. Mycobacteria culture results were not available until after the parent's death. Cerebrospinal fluid cultures revealed *M. tuberculosis* with a genotype that matched that of the index patient. DST results on the parent's isolate indicated drug-susceptible TB, suggesting that transmission from the index patient had occurred before July 2006, when the index patient was first known to have MDR TB. After the parent's culture and autopsy results became available, the health department decided to revisit and intensify the investigation of the index patient's contacts, focusing on family members because the index patient remained unwilling to name social contacts.

In February 2007, a young relative of the index patient who spent considerable time in the same house (not the patient's child), had a positive TST result (25 mm induration). The child was asymptomatic, and a chest radiograph showed left hilar lymphadenopathy, which was not interpreted as TB. No medications were started, and the child was scheduled to return 2–3 weeks later for reevaluation. Six weeks later, this young patient was hospitalized for cough, fever, night sweats, and weight loss. The child's chest radiographs were consistent with TB pneumonia; sputum smear results were AFB negative. A sputum culture was positive for MDR TB, suggesting that the young relative had been infected by the index patient after July 2006, when the index patient was first known to have MDR TB.

Because of the death and pediatric MDR TB diagnosis associated with the index patient's TB, in August 2007 the health department invited MDCH and CDC to assist in its investigation of the other cases in this genotype cluster. During December 2004–April 2007, in addition to the index patient and the two relatives, five other patients had matching genotypes (Table 1). Three of the five had drug-susceptible TB: a known social contact of the index patient and two persons with unconfirmed social contact who frequented the same neighborhood. The other two patients had *M. tuberculosis* isolates with a different drug-resistance pattern (pyrazinamide monoresistance) and lacked any clear epidemiologic links to the index patient or the other cases. All patients except the index patient's parent and young relative reported excessive alcohol use (Table 2). The patients ranged in age from 15 to 47 years (median: 37.5 years). Five of the seven patients in this cluster who were eligible for DOT did not receive it consistently.

During the entire investigation, a total of 79 contacts of the eight patients in this cluster were identified. Fifty-one (65%) contacts were fully evaluated. Of these, two had a self-reported history of previous completion of TB treatment. Five (10%) of the 51 had a positive TST result and began therapy for latent TB infection. Of the 28 contacts who were not fully evaluated, 14 (50%) could not be located, 11 (39%) moved to another state, and three (11%) declined evaluation. No additional cases were identified.

As of February 2009, the index patient was clinically stable with negative AFB sputum smear and culture results and improvement noted on chest radiographs. The patient

TABLE 1. Clinical characteristics of a cluster of eight tuberculosis (TB) cases with matching genotypes — Detroit, Michigan, 2004–2007

Patient	Date of diagnosis	Site of disease	Result of AFB* sputum smear	Result of drug-susceptibility test†
1§	December 2004	Pulmonary, cavitary	Positive	Susceptible¶
	July 2006	Pulmonary, cavitary	Positive	MDR**
2	May 2005	Pulmonary, cavitary	Positive	Pyrazinamide resistant
3	April 2006	Pulmonary, cavitary	Positive	Pyrazinamide resistant
4	August 2006	Pulmonary, cavitary	Positive	Susceptible
5	October 2006	Pleural	Negative	Susceptible
6	December 2006	Disseminated, meningeal	Not available††	Susceptible
7	March 2007	Pulmonary, cavitary	Negative	Susceptible
8	April 2007	Pulmonary	Negative	MDR

* Acid-fast bacilli.
† Isolates from all eight patients were positive by culture.
§ Patient 1 had drug-susceptible TB that later developed multidrug resistance.
¶ Susceptible to all four first-line drugs (isoniazid, rifampin, pyrazinamide, and ethambutol).
** Multidrug resistant (i.e., resistant to isoniazid and rifampin).
†† The patient died from unsuspected TB meningitis before a sputum specimen could be collected for AFB testing. Cerebrospinal fluid culture results, available postmortem, showed TB with a genotype matching that of the index patient.

TABLE 2. Characteristics of patients in a cluster of eight tuberculosis cases with matching genotypes — Detroit, Michigan, 2004–2007

Characteristic	No.	(%)
U.S.-born	8	(100)
Sex		
Male	4	(50.0)
Female	3	(37.5)
Transsexual	1	(12.5)
Race		
Black	8	(100)
HIV* infection status		
Negative	6	(75.0)
Positive	1	(12.5)
Unknown	1	(12.5)
History of homelessness	1	(12.5)
History of incarceration	4	(50.0)
History of excessive alcohol use	6	(75.0)
History of illicit drug use	5	(62.5)

* Human immunodeficiency virus.

continues to receive MDR TB treatment by DOT. The patient will receive treatment through at least May 2009 to complete 18–24 months of appropriate TB therapy (*5*). The index patient's young relative with MDR TB and the remaining five patients in the cluster have all successfully completed TB treatment.

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Editorial Note: Results of this cluster investigation revealed that at least four, and likely six, TB patients were involved in the same chain of transmission. These patients included the index patient, a young relative with MDR TB, the index patient's parent who died of TB meningitis, a known social contact, and two persons with unconfirmed social contact who frequented the same neighborhood. TB genotyping can help detect TB outbreaks earlier by highlighting unsuspected relationships among patients (*6*). In this cluster, several patients were unwilling to name social contacts, and TB genotyping proved useful in establishing otherwise undisclosed relationships. The result of this more rigorous investigation demonstrated ongoing transmission among a larger group of patients than originally identified. However, although TB genotyping is useful in establishing connections between patients, it cannot be used without also pursuing epidemiologic links. Two of the eight patients described in this cluster probably were not part of the same transmission chain, based on having a unique DST pattern (resistance to pyrazinamide only) and no clear epidemiologic link to the other six patients in this cluster.

TB is a nationally notifiable infectious disease; successful treatment of TB benefits not only the individual but also the community (*5*). In this outbreak, the index patient probably was contagious for >1,000 days. Multiple interrelated factors contributed to treatment interruptions and inconsistent DOT, including the index patient's excessive alcohol and illicit drug use and unstable housing arrangements and a general misunderstanding and mistrust among patients and their contacts of the health department's responsibility for TB patient care. DOT is a key component and an important example of the many measures used in patient-centered case management. DOT ensures a patient's adherence to treatment, prevents development of drug resistance, and should be considered for all TB patients (*5*). The sufficiency of laws that authorize and support public health agencies' use of DOT and other roles in preventing the spread of TB can vary by jurisdiction (*7*). More recently, CDC and some of its public health partners have explored various approaches to strengthening public health agencies' legal preparedness for TB control and prevention. These approaches include 1) development of tools such as model legislative provisions that state policy makers and public health officials might use for examining existing laws regarding TB control, 2) table-top exercises for assessing understanding of jurisdiction-specific laws for TB control, and 3) informational guides, such as a handbook on TB control law, designed for public health practitioners and their legal counsel.

This cluster also demonstrates the importance of TB contact investigations to prevent disease. A key challenge in the control of TB in the United States is conducting thorough investigations to protect the contacts of persons with infectious TB. Suboptimal contact investigations might occur when the persons with TB, such as those described in this report, are unable or unwilling to cooperate with the health department, or when public health resources for TB control measures are limited (*2*).

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Simian Malaria in a U.S. Traveler — New York, 2008

Four species of intraerythrocytic protozoa of the genus *Plasmodium* (*P. falciparum, P. vivax, P. ovale,* and *P. malariae*) are known to cause malaria in humans. However, recent reports from Asia suggest the possibility that a fifth malaria species, *Plasmodium knowlesi*, is emerging as an important zoonotic human pathogen. Although more than 20 species of *Plasmodium* can infect nonhuman primates, until recently, naturally acquired human infections of simian malaria were viewed as rare events lacking public health significance. When viewed by light microscopy (the gold standard for laboratory diagnosis of malaria), many of the simian species are almost indistinguishable from the four *Plasmodium* species that cause infection in humans (Table). Molecular techniques, such as polymerase chain reaction (PCR) amplification and microsatellite analysis, are needed for definitive species determination. This report describes the first recognized case of imported simian malaria in several decades in the United States, diagnosed in 2008 in a patient from New York who had traveled to the Philippines. Atypical features of the parasite seen on light microscopy triggered further molecular testing, which confirmed the diagnosis of *P. knowlesi*. To date, all simian malaria species have been susceptible to chloroquine treatment. Molecular analysis of certain malaria parasites isolated from ill travelers returning to the United States from Asia or South America can more accurately assess the burden of simian malaria parasite infections in humans.

The first recognized case of naturally acquired simian malaria was a 1965 case of *P. knowlesi* infection in an employee of the U.S. Army who had returned home from an assignment in Southeast Asia (*1*); subsequent reports were few and unconfirmed. In 2002, investigators in Malaysia noted an increasing number of *P. malariae* cases with atypical features, including increased clinical severity and higher parasitemia (*2*). By using a nested PCR assay, more than 50% of these malaria cases were determined to be *P. knowlesi*; none were *P. malariae,* as originally determined by microscopy (*2*). In a retrospective evaluation by the same investigators during 2001–2006, 28% of 960 specimens from patients in Sarawak, Malaysian Borneo, were found to be *P. knowlesi*, after being morphologically diagnosed most often as *P. malariae* (*3*). The group also reported four unusual fatalities attributed to severe malaria caused by *P. malariae* that was later confirmed as *P. knowlesi* by PCR. Additional cases of naturally occurring *P. knowlesi* infection in humans have been reported from Singapore (*4*), the Thai-Burma border (*5*), the Philippines (*6*), Yunnan Province in China (*7*), and Finland, where a returning traveler from

TABLE. Simian malaria species in Asia and South America with their associated geographic distribution and morphologic similarity to one of four human *Plasmodium* species*

Simian *Plasmodium* species	Geography	Human species they resemble
Asia		
P. coatneyi	Malaysia, Philippines	*P. falciparum*
P. cynomolgi	India, Indonesia, Malaysia, Sri Lanka, Taiwan	*P. vivax*
P. eylesi	Malaysia	*P. vivax*
P. fieldi	Malaysia	*P. ovale*
P. fragile	India, Sri Lanka	*P. falciparum*
P. hylobati	Indonesia	*P. vivax*
P. inui	India, Indonesia, Malaysia, Phillipines, Sri Lanka, Taiwan	*P. malariae*
P. jeffreyi	Indonesia, Malaysia	*P. vivax*
P. knowlesi	China, Indonesia, Malaysia, Philippines, Singapore, Thailand, Taiwan	*P. malariae, P. falciparum*
P. pitheci	Malaysia	*P. vivax*
P. simiovale	Sri Lanka	*P. ovale*
P. silvaticum	Malaysia	*P. vivax*
P. youngi	Malaysia	*P. vivax*
South America		
P. brasilianum	Brazil, Colombia, Mexico, Panama, Peru, Venezuela	*P. malariae*
P. simium	Brazil	*P. vivax*

* Four species of intraerythrocytic protozoa of the genus *Plasmodium* (*P. falciparum, P. vivax, P. ovale,* and *P. malariae*) are known to cause malaria in humans.

Malaysia was misdiagnosed initially as having infection with *P. falciparum* (*8*).

Case Report

In the recent U.S. case, a woman aged 50 years with no previous history of malaria who was born in the Philippines but had lived in the United States for 25 years, returned to her home country to visit friends and relatives on October 17, 2008. While there, she stayed on the island of Palawan in a cabin located at the edge of a forested area known to be a habitat for long-tailed macaques. She had not taken malaria chemoprophylaxis and had not used any mosquito-avoidance measures, both of which are recommended preventive measures for travelers to this area.

The woman returned to the United States on October 30, 2008, and noted the onset of a headache. Fever and chills ensued, and symptoms persisted for several days, after which she sought medical attention. In the emergency department, she was noted to be hypotensive and to have thrombocytopenia. Examination of thick and thin malaria smears (Figure 1) was ordered, and an initial, erroneous diagnosis of babesiosis was made by a laboratory technician. Upon review by the laboratory supervisor the following morning, the diagnosis was reassessed as malaria with 2.9% of red cells parasitized. However, the atypical appearance of the *Plasmodium* sp. seen in the smears prevented a species-specific diagnosis. The woman was treated successfully with atovaquone-proguanil and primaquine for *Plasmodium* of undetermined species.

An ethylenediaminetetraacetic acid (EDTA) blood tube and two stained smears were sent to New York state's Wadsworth Center Parasitology Reference Laboratory for confirmation of malaria and molecular determination of species by PCR. The Wadsworth Center confirmed the presence of atypical rings and schizonts of a *Plasmodium* species (Figure 1), but conventional PCR targeting the small subunit (SSU) of rRNA did not yield a product consistent with any of the four species of *Plasmodium* known to infect humans. The specimen also was negative for the variants of *P. ovale*, which are commonly seen in Southeast Asia. However, primers specific for the SSU rDNA of the genus *Plasmodium* yielded a 1,055-bp PCR product that was sequenced and noted to be a 99% match over its full length to the SSU rRNA gene from *P. knowlesi* (H strain) (*9*). These data confirmed that the infection was caused by *P. knowlesi*.

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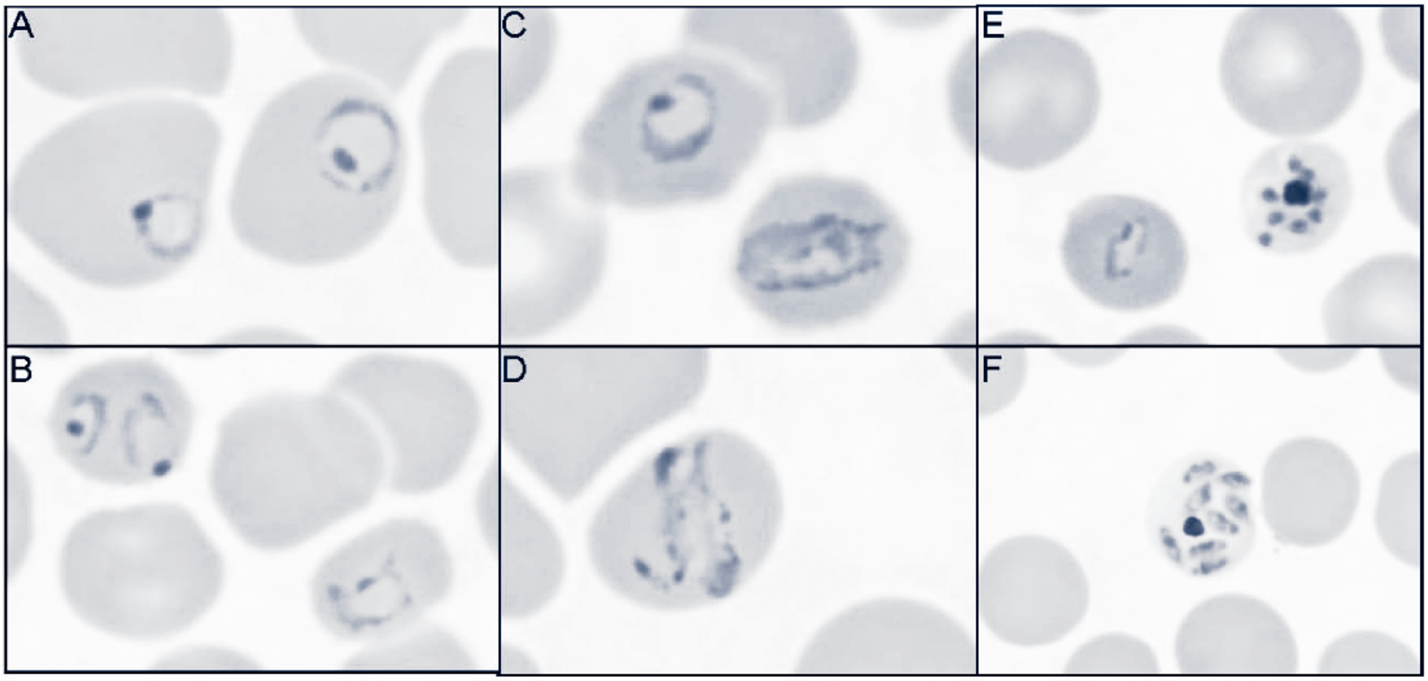
Editorial Note: Several conditions need to coincide for simian species of *Plasmodium* to infect humans: 1) human erythrocytes must be susceptible to invasion by simian parasites, 2) humans must be near or in forests where nonhuman simians are infected, and 3) anopheline mosquitoes that feed on both humans and nonhuman simians must be present (*10*). Many areas in Asia and South America have overlapping populations of nonhuman primates that serve as reservoirs for simian malaria and competent *Anopheles* mosquito vectors that are necessary to transmit the infection to humans (Table, Figure 2) (*1*). For *P. knowlesi* in Asia, the normal hosts are long-tailed and pig-tailed macaques and mitered-leaf monkeys, which are

FIGURE 1. Giemsa-stained blood smears (1,000x magnification) from a reported case of *Plasmodium knowlesi* infection, highlighting the various features that often are mistaken for *Plasmodium malariae* or *Plasmodium falciparum — New York, 2008**



* **Panel A**. An infected red blood cell (RBC) with trophozoites resembling *P. malariae*. **Panel B**. Multiple infected RBCs, which are more commonly observed with *P. falciparum*. **Panels C and D.** Infected RBCs with "band-form" trophozoite resembling *P. malariae*. **Panel E**. RBC with eight merozoites in rosette-pattern resembling *P. malariae*. **Panel F**. *P. knowlesi* merozoites, although similar in appearance to *P. malariae,* are smaller and occupy less space in the infected RBC.

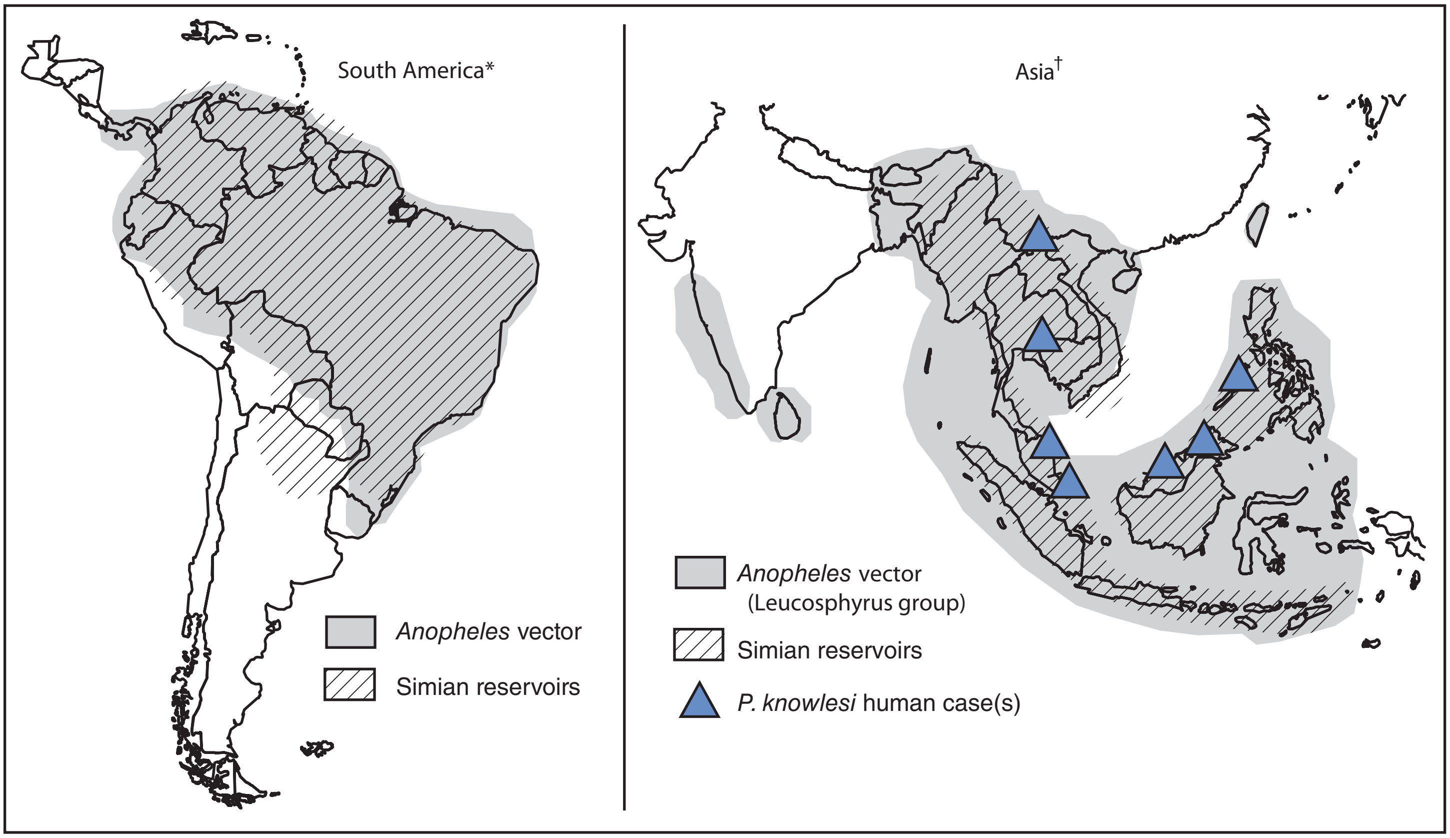
found with *Anopheles* mosquito vectors of the Leucosphyrus group, enabling transmission of infection (*1*). Other simian malaria species known to infect humans include *P. simium* and *P. brasilianum* in South America and *P. cynomolgi* and *P. inui* in Asia (*1,10*).

Most simian malaria infections in humans can cause mild or moderate disease but often are self-limited, not requiring antimalarial therapy (*1*). However, *P. knowlesi,* with its 24-hour asexual replication cycle, can result in large parasite burden and severe, life-threatening disease (*3*). Severe malaria imported from Asia should alert the physician to the possibility of infection with *P. knowlesi*. Health-care providers also should consider hospitalization if the patient with malaria reports travel to forested areas of Asia, where *P. knowlesi* transmission occurs. Simian *Plasmodium* species are susceptible to all available antimalarials in the United States. Although definitive diagnosis as a simian species of *Plasmodium* cannot be made in time to guide selection of antimalarials at the initiation of therapy, treatment for undetermined *Plasmodium* species will effectively treat all simian species. Use of current treatment and chemoprophylaxis guidelines are appropriate for treating and preventing simian malaria infections in humans.

Health-care providers of patients with malaria and laboratories that diagnose malaria imported from Asia or non-falciparum malaria from South America should refer appropriate specimens to a Clinical Laboratory Improvement Amendments (CLIA)-verified state health reference laboratory or CDC's Division of Parasitic Diseases Reference Laboratory for species confirmation by molecular testing. In the United States, approximately 1,500 malaria cases are reported each year, almost all imported from areas where malaria is endemic; approximately 200 of these cases are imported from Asia or South America. In the United States, the potential for not recognizing a *Plasmodium* infection of simian origin is high because diagnosis usually relies on microscopic examination of Giemsa-stained smears rather than diagnosis by molecular techniques. Only a few laboratories (including state and federal public health reference and commercial laboratories) routinely use molecular assays, and even fewer have the capacity to confirm simian species.

The substantial number of recent human cases of simian malaria reported in Malaysia and the wider region (including the travel-associated case described in this report) underscores the need to define the scope and magnitude of the problem (*2–8*). Persons wishing to send specimens for species confirmation by CDC should collect pretreatment blood in EDTA or acid citrate dextrose blood collection tubes. Instructions and specimen submission forms are available online at http://www.

FIGURE 2. Overlapping distributions of competent *Anopheles* vectors and potential simian reservoirs for *Plasmodium brasilianum* and *Plasmodium simium* in South America and *Plasmodium knowlesi* in Asia



* Distribution of competent *Anopheles* and various simian reservoirs known to be infected with either *P. brasilianum* or *P. simium*.

† Distribution of *Anopheles* mosquitoes of the Leucosphyrus group and various simian reservoirs necessary for *P. knowlesi* human infection. Both single and clusters of human cases of *P. knowlesi* were reported from Malaysian Borneo, Peninsular Malaysia, China, Philippines, Singapore, and Thailand during 2001–2006.

cdc.gov/malaria/smscs.htm. Contact information for local or state health department laboratories is available at http://www.aphl.org/aboutaphl/aboutphls/pages/memberlabs.aspx. As with all suspected cases of malaria, health-care providers with questions regarding diagnosis or treatment should call the CDC Malaria Hotline at 770-488-7788 (Monday–Friday, 8:30 a.m. to 4:30 p.m., EST). Health-care providers seeking emergency consultation after hours should call 770-488-7100 and request to speak with a CDC Malaria Branch clinician.

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Notice to Readers

Release of 1999–2005 United States Cancer Statistics Web-Based Report

CDC and the National Cancer Institute (NCI) have combined their cancer incidence data to produce *United States Cancer Statistics (USCS): 1999–2005 Incidence and Mortality Data*, a web-based report. The report is produced in collaboration with the North American Association of Central Cancer Registries.

Data from population-based central cancer registries that meet selected quality criteria are included in this web-based report, which provides annual state-specific and regional data for cancer cases diagnosed during 1999–2005 and for 2001–2005 combined. The data from 2005 are the most recent year for which incidence data are available. The report also provides cancer mortality data for all 50 states and the District of Columbia.

Data collected by state cancer registries help public health professionals understand and address the nation's cancer burden. Health agencies use information regarding cancer cases and cancer deaths to report on cancer trends, assess the effect of cancer prevention and control efforts, participate in research, and respond to reports of suspected increases in cancer occurrence.

The report is available at http://www.cdc.gov/uscs. Information also is available by telephone (800-CDC-INFO [800-232-4636]), or by e-mail (cdcinfo@cdc.gov).

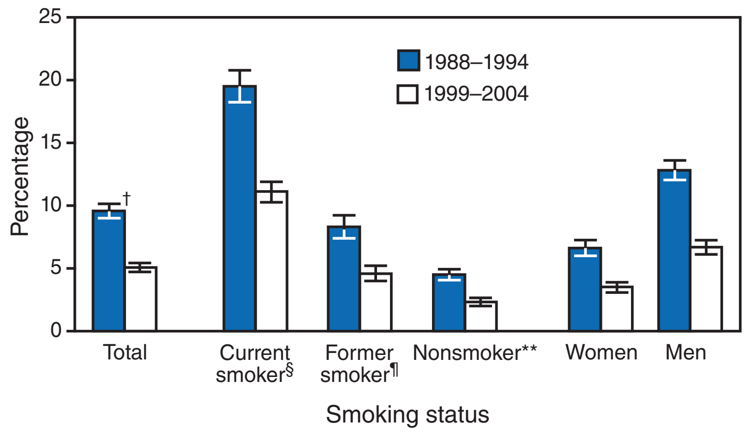
Errata: Vol. 58, No. 6

In the report, "*Clostridium perfringens* Infection Among Inmates at a County Jail — Wisconsin, August 2008," errors occurred in the last sentence beginning on page 139. The sentence should read: "The sanitarian determined that food temperatures had not been obtained or recorded consistently, and documentation of cooling temperatures for both the ground beef and macaroni, where cooling from 70°F to 41°F (**21°C** to **5°C**) is a vital step, could not be provided."

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Adults Aged 20–64 Years with Periodontitis,* by Smoking Status and Sex — National Health and Nutrition Examination Survey, United States, 1988–1994 and 1999–2004



* Based on the CDC and American Academy of Periodontology definition of moderate and severe periodontitis.
† 95% confidence interval.
§ Defined as persons who reported smoking cigarettes currently.
¶ Defined as persons who reported that they had smoked at least 100 cigarettes in their lifetime but no longer smoked.
** Defined as persons who reported never smoking.

Although the overall prevalence of moderate and severe periodontitis declined substantially among adults aged 20–64 years, from nearly 10% during 1988–1994 to 5% during 1999–2004, current smokers continued to be nearly five times as likely to have periodontitis compared with nonsmokers. Approximately 19% of current smokers had periodontitis during 1988–1994, compared with 4% of nonsmokers. The prevalence of periodontitis decreased substantially for all adults regardless of smoking status to 11% for smokers and 2% for nonsmokers during 1999–2004. Likewise, periodontitis decreased regardless of sex, and men remained twice as likely to have periodontitis as women.

SOURCES: Page RL, Eke PI. Case definition for use in population-based surveillance of periodontitis. J Periodontol 2007;78:1387–99.

National Health and Nutrition Examination Survey, 1988–2004. Available at http://www.cdc.gov/nchs/nhanes.htm.

Dye BA, Tan S, Smith V, et al. Trends in oral health status: United States, 1988–1994 and 1999–2004. Vital Health Stat 2007;11(248). Available at http://www.cdc.gov/nchs/data/series/sr_11/sr11_248.pdf.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 7, 2009 (9th week)*

Disease	Current week	Cum 2009	5-year weekly average†	Total cases reported for previous years 2008	2007	2006	2005	2004	States reporting cases during current week (No.)
Anthrax	—	—	0	—	1	1	—	—	
Botulism:									
foodborne	—	4	—	14	32	20	19	16	
infant	1	6	2	100	85	97	85	87	OH (1)
other (wound and unspecified)	1	4	0	19	27	48	31	30	WA (1)
Brucellosis	2	5	2	82	131	121	120	114	GA (1), FL (1)
Chancroid	—	5	1	29	23	33	17	30	
Cholera	—	—	—	3	7	9	8	6	
Cyclosporiasis§	—	18	3	134	93	137	543	160	
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases§,¶:									
California serogroup	—	—	0	47	55	67	80	112	
eastern equine	—	—	—	3	4	8	21	6	
Powassan	—	—	—	2	7	1	1	1	
St. Louis	—	—	—	10	9	10	13	12	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,**:									
Ehrlichia chaffeensis	2	17	2	909	828	578	506	338	NC (1), FL (1)
Ehrlichia ewingii	—	—	—	8	—	—	—	—	
Anaplasma phagocytophilum	—	5	1	595	834	646	786	537	
undetermined	—	2	0	70	337	231	112	59	
Haemophilus influenzae,††									
invasive disease (age <5 yrs):									
serotype b	2	5	0	29	22	29	9	19	OK (1), NV (1)
nonserotype b	3	34	4	188	199	175	135	135	MN (1), NC (1), WA (1)
unknown serotype	3	31	4	184	180	179	217	177	PA (1), NC (1), FL (1)
Hansen disease§	—	10	2	75	101	66	87	105	
Hantavirus pulmonary syndrome§	—	—	0	17	32	40	26	24	
Hemolytic uremic syndrome, postdiarrheal§	1	8	2	266	292	288	221	200	CA (1)
Hepatitis C viral, acute	5	95	13	852	845	766	652	720	OH (1), IA (1), WV (1), TX (1), WA (1)
HIV infection, pediatric (age <13 years)§§	—	—	4	—	—	—	380	436	
Influenza-associated pediatric mortality§,¶¶	5	27	3	88	77	43	45	—	IL (1), NYC (1), TX (2), UT (1)
Listeriosis	4	73	9	719	808	884	896	753	DE (1), GA (1), OK (1), CA (1)
Measles***	—	3	1	137	43	55	66	37	
Meningococcal disease, invasive†††:									
A, C, Y, and W-135	4	38	10	324	325	318	297	—	OH (1), FL (2), WA (1)
serogroup B	2	19	4	178	167	193	156	—	OH (1), WA (1)
other serogroup	—	3	1	30	35	32	27	—	
unknown serogroup	6	67	19	595	550	651	765	—	PA (1), MN (1), MO (1), NC (1), GA (1), FL (1)
Mumps	6	47	20	411	800	6,584	314	258	IN (2), MO (2), WA (1), CA (1)
Novel influenza A virus infections	—	1	—	2	4	N	N	N	
Plague	—	—	0	1	7	17	8	3	
Poliomyelitis, paralytic	—	—	—	—	—	—	1	—	
Polio virus infection, nonparalytic§	—	—	—	—	—	N	N	N	
Psittacosis§	1	2	0	11	12	21	16	12	CA (1)
Q fever total§,§§§:	3	9	2	98	171	169	136	70	
acute	2	6	1	88	—	—	—	—	CA (2)
chronic	1	3	0	10	—	—	—	—	NY (1)
Rabies, human	—	—	—	1	1	3	2	7	
Rubella¶¶¶	—	—	0	18	12	11	11	10	
Rubella, congenital syndrome	—	1	0	—	—	1	1	—	
SARS-CoV§,****	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	2	15	3	137	132	125	129	132	WV (2)
Syphilis, congenital (age <1 yr)	—	12	6	312	430	349	329	353	
Tetanus	—	1	0	19	28	41	27	34	
Toxic-shock syndrome (staphylococcal)§	—	12	2	74	92	101	90	95	
Trichinellosis	—	6	0	37	5	15	16	5	
Tularemia	—	3	0	115	137	95	154	134	
Typhoid fever	3	50	6	427	434	353	324	322	OH (1), MN (1), CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	—	5	0	46	37	6	2	—	
Vancomycin-resistant *Staphylococcus aureus*§	—	—	—	—	2	1	3	1	
Vibriosis (noncholera *Vibrio* species infections)§	3	23	1	487	549	N	N	N	OH (1), FL (1), CA (1)
Yellow fever	—	—	—	—	—	—	—	—	

See Table I 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 7, 2009 (9th week)*

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

* Incidence data for reporting year 2008 and 2009 are provisional, whereas data for 2004, 2005, 2006, and 2007 are finalized.

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

§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except 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/epo/dphsi/phs/infdis.htm.

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

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

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

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

¶¶ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Twenty-six influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.

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

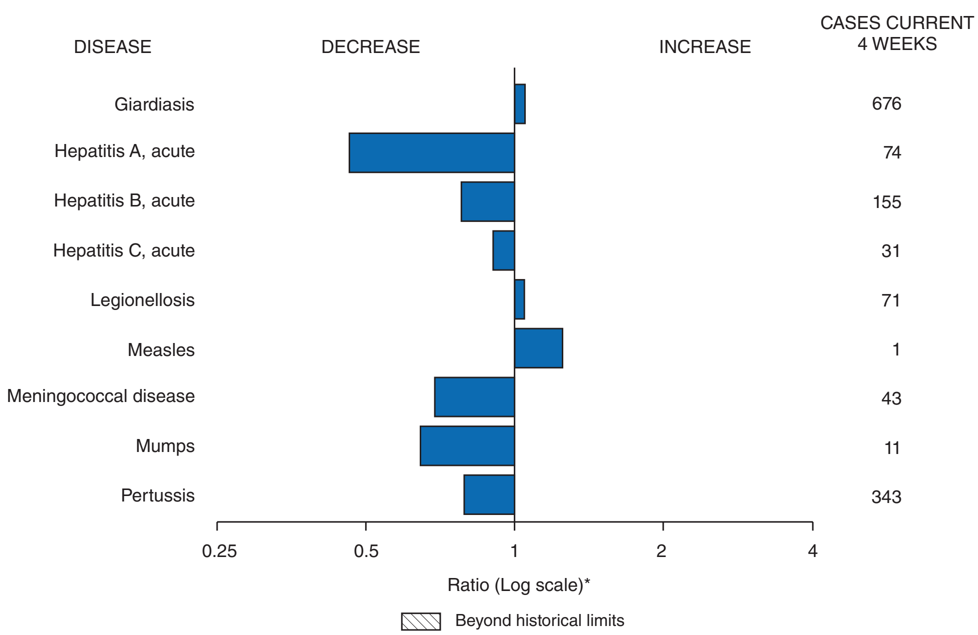
††† Data for meningococcal disease (all serogroups) are available in Table II.

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

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

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

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 7, 2009, 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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Deborah A. Adams — Rosaline Dhara

Willie J. Anderson — Michael S. Wodajo

Lenee Blanton — Pearl C. Sharp

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

Reporting area	Chlamydia†					Coccidiodomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008
United States	11,880	21,398	24,771	165,618	204,489	164	123	343	1,196	1,264	36	107	465	519	571
New England	731	708	1,657	6,744	5,672	—	0	0	—	1	3	5	23	29	68
Connecticut	293	220	1,307	1,906	1,164	N	0	0	N	N	—	0	3	3	38
Maine§	47	50	72	475	450	N	0	0	N	N	—	1	6	2	—
Massachusetts	327	326	956	3,506	3,103	N	0	0	N	N	3	2	13	19	16
New Hampshire	3	39	63	161	393	—	0	0	—	1	—	1	4	3	5
Rhode Island§	41	53	208	507	538	—	0	0	—	—	—	0	3	—	—
Vermont§	20	19	53	189	24	N	0	0	N	N	—	1	7	2	9
Mid. Atlantic	1,339	2,747	6,463	22,378	20,645	—	0	0	—	—	7	13	34	65	70
New Jersey	181	417	661	2,355	3,928	N	0	0	N	N	—	0	2	—	6
New York (Upstate)	670	555	4,225	4,508	3,392	N	0	0	N	N	1	5	17	23	11
New York City	—	1,102	3,403	9,200	5,774	N	0	0	N	N	—	1	8	11	20
Pennsylvania	488	770	1,073	6,315	7,551	N	0	0	N	N	6	5	15	31	33
E.N. Central	1,202	2,994	3,672	20,863	50,540	2	1	3	4	6	10	25	125	114	129
Illinois	—	640	1,122	4,891	27,333	N	0	0	N	N	—	2	13	5	14
Indiana	315	379	713	3,361	3,737	N	0	0	N	N	—	3	13	8	11
Michigan	592	837	1,225	7,654	7,676	—	0	3	—	4	2	5	13	31	33
Ohio	48	804	1,300	2,543	7,976	2	0	2	4	2	6	6	59	47	32
Wisconsin	247	293	488	2,414	3,818	N	0	0	N	N	2	9	46	23	39
W.N. Central	926	1,280	1,541	10,411	11,353	—	0	2	—	—	6	16	68	59	84
Iowa	153	174	250	1,571	1,524	N	0	0	N	N	2	4	30	10	22
Kansas	261	181	406	1,784	1,581	N	0	0	N	N	2	1	8	7	10
Minnesota	—	271	311	1,311	2,633	—	0	0	—	—	—	4	14	12	22
Missouri	449	490	566	4,466	4,004	—	0	2	—	—	—	3	13	15	9
Nebraska§	—	81	245	614	792	N	0	0	N	N	2	1	8	11	13
North Dakota	11	29	60	129	346	N	0	0	N	N	—	0	2	—	1
South Dakota	52	57	85	536	473	N	0	0	N	N	—	1	9	4	7
S. Atlantic	1,768	3,830	6,325	28,580	33,228	—	0	1	3	1	7	19	47	146	99
Delaware	63	67	151	834	654	—	0	1	1	—	—	0	1	—	3
District of Columbia	—	126	201	858	1,153	—	0	0	—	—	—	0	2	—	2
Florida	1,247	1,370	1,571	12,544	11,361	N	0	0	N	N	4	8	35	50	52
Georgia	5	692	1,274	2,311	5,743	N	0	0	N	N	3	5	13	66	21
Maryland§	417	444	692	3,891	3,556	—	0	1	2	1	—	1	4	4	—
North Carolina	—	0	460	—	2,352	N	0	0	N	N	—	0	16	20	7
South Carolina§	—	480	3,038	3,641	4,314	N	0	0	N	N	—	1	4	3	5
Virginia§	—	618	1,059	3,865	3,469	N	0	0	N	N	—	1	4	2	5
West Virginia	36	61	102	636	626	N	0	0	N	N	—	0	3	1	4
E.S. Central	1,286	1,581	2,022	13,859	13,979	—	0	0	—	—	—	2	9	12	21
Alabama§	—	418	531	2,379	4,407	N	0	0	N	N	—	1	6	3	12
Kentucky	257	245	373	2,089	2,021	N	0	0	N	N	—	0	4	3	3
Mississippi	387	413	765	4,031	3,005	N	0	0	N	N	—	0	2	3	2
Tennessee§	642	538	790	5,360	4,546	N	0	0	N	N	—	1	6	3	4
W.S. Central	1,657	2,864	3,510	24,012	24,342	—	0	1	—	1	—	7	166	18	21
Arkansas§	275	276	455	2,721	2,419	N	0	0	N	N	—	1	7	2	1
Louisiana	81	425	775	2,514	2,723	—	0	1	—	1	—	1	5	3	5
Oklahoma	102	199	399	949	1,825	N	0	0	N	N	—	1	16	5	8
Texas§	1,199	1,933	2,469	17,828	17,375	N	0	0	N	N	—	3	153	8	7
Mountain	678	1,257	1,952	8,185	12,639	126	87	181	881	870	2	8	38	29	34
Arizona	43	462	650	2,366	3,978	125	86	179	865	847	—	1	9	3	9
Colorado	186	176	588	942	3,193	N	0	0	N	N	—	1	12	6	5
Idaho§	81	66	314	642	732	N	0	0	N	N	2	1	5	5	8
Montana§	60	56	87	492	540	N	0	0	N	N	—	1	3	2	5
Nevada§	227	176	415	1,795	1,783	1	0	6	13	10	—	0	1	4	—
New Mexico§	17	152	455	1,316	1,214	—	0	3	1	6	—	2	24	6	3
Utah	21	105	253	222	1,032	—	0	1	2	7	—	0	6	—	3
Wyoming§	43	33	94	410	167	—	0	1	—	—	—	0	4	3	1
Pacific	2,293	3,692	4,428	30,586	32,091	36	35	172	308	385	1	8	30	47	45
Alaska	66	82	188	698	733	N	0	0	N	N	—	0	1	1	—
California	1,733	2,876	3,285	24,630	24,639	36	35	172	308	385	—	5	14	32	33
Hawaii	—	102	162	775	947	N	0	0	N	N	—	0	1	—	—
Oregon§	260	186	631	1,790	1,802	N	0	0	N	N	—	1	4	11	8
Washington	234	395	502	2,693	3,970	N	0	0	N	N	1	1	17	3	4
American Samoa	—	0	14	—	37	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	4	24	—	16	—	0	0	—	—	—	0	0	—	—
Puerto Rico	180	123	333	1,297	763	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	12	23	—	112	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.
† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive All ages, all serotypes†				
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	151	306	621	2,051	2,359	2,783	5,691	6,607	39,537	62,294	33	47	90	405	596
New England	2	28	65	164	223	98	101	301	884	783	1	3	10	27	34
Connecticut	—	5	14	33	46	53	51	275	393	241	—	0	7	5	—
Maine§	—	3	12	31	16	2	2	6	17	15	—	0	2	2	3
Massachusetts	1	11	27	64	101	35	38	113	404	444	1	1	5	15	26
New Hampshire	—	3	11	11	18	2	2	5	16	17	—	0	1	3	2
Rhode Island§	—	1	8	8	18	6	5	13	48	64	—	0	7	1	—
Vermont§	1	3	15	17	24	—	1	3	6	2	—	0	3	1	3
Mid. Atlantic	30	60	108	362	433	309	608	1,094	4,613	4,684	5	10	22	78	107
New Jersey	—	3	14	—	82	48	93	167	497	1,004	—	1	5	2	23
New York (Upstate)	21	22	72	162	121	157	115	621	920	869	2	3	18	26	26
New York City	2	16	30	111	121	—	205	587	1,736	897	—	1	6	7	16
Pennsylvania	7	16	46	89	109	104	205	267	1,460	1,914	3	4	10	43	42
E.N. Central	17	47	88	257	381	527	1,015	1,318	6,934	20,153	—	7	18	45	91
Illinois	—	11	32	30	103	—	190	412	1,566	11,209	—	2	7	9	34
Indiana	N	0	7	N	N	121	147	254	1,211	1,585	—	1	13	9	10
Michigan	1	12	22	71	75	327	301	657	2,676	3,067	—	0	2	3	4
Ohio	13	17	31	127	137	16	271	531	756	3,151	—	2	6	21	34
Wisconsin	3	8	20	29	66	63	79	141	725	1,141	—	0	2	3	9
W.N. Central	20	28	143	179	238	173	316	392	2,354	2,915	4	3	12	28	43
Iowa	6	6	18	44	47	14	29	53	205	275	—	0	1	—	1
Kansas	—	3	11	20	17	69	41	83	444	387	—	0	3	2	1
Minnesota	—	0	106	1	82	—	55	78	230	644	2	0	10	7	9
Missouri	11	8	22	78	55	87	149	193	1,207	1,308	2	1	4	13	25
Nebraska§	3	4	10	25	22	—	24	49	193	236	—	0	2	6	6
North Dakota	—	0	3	—	5	—	2	7	5	25	—	0	3	—	1
South Dakota	—	2	10	11	10	3	8	20	70	40	—	0	0	—	—
S. Atlantic	51	58	107	558	360	492	1,279	1,874	8,034	12,147	15	12	24	133	163
Delaware	—	1	3	4	5	22	18	35	178	222	1	0	2	1	1
District of Columbia	—	1	5	—	6	—	54	101	364	386	—	0	2	—	3
Florida	51	28	57	325	165	350	434	518	3,673	4,144	9	3	8	51	39
Georgia	—	9	62	143	86	8	257	484	734	2,254	2	2	9	27	45
Maryland§	—	5	10	32	40	109	117	210	1,010	1,102	—	1	5	17	31
North Carolina	N	0	0	N	N	—	0	203	—	1,224	3	1	9	15	9
South Carolina§	—	2	6	12	15	—	175	829	1,081	1,655	—	1	7	4	9
Virginia§	—	8	29	36	31	—	182	486	892	1,016	—	1	5	8	20
West Virginia	—	1	5	6	12	3	13	26	102	144	—	0	3	10	6
E.S. Central	—	8	22	35	67	353	544	764	4,207	5,152	—	3	8	20	27
Alabama§	—	4	12	18	39	—	161	213	769	1,803	—	0	2	5	5
Kentucky	N	0	0	N	N	62	88	153	604	788	—	0	1	1	—
Mississippi	N	0	0	N	N	124	140	253	1,293	1,157	—	0	2	—	3
Tennessee§	—	3	13	17	28	167	166	297	1,541	1,404	—	2	6	14	19
W.S. Central	—	7	21	30	36	432	956	1,299	6,902	8,632	4	2	17	15	20
Arkansas§	—	2	8	6	11	49	87	167	767	781	—	0	2	1	—
Louisiana	—	2	10	13	14	36	165	317	874	1,488	—	0	1	1	2
Oklahoma	—	3	11	11	11	31	82	142	350	761	4	1	16	13	17
Texas§	N	0	0	N	N	316	610	728	4,911	5,602	—	0	2	—	1
Mountain	2	27	62	147	196	83	195	338	965	1,977	3	5	12	47	84
Arizona	1	3	8	22	19	5	62	84	264	619	1	2	6	27	41
Colorado	—	10	27	48	69	30	56	101	134	505	—	1	5	6	16
Idaho§	—	4	14	17	25	—	3	13	20	37	—	0	4	1	1
Montana§	—	2	9	16	10	1	2	6	13	16	—	0	1	1	1
Nevada§	1	1	8	7	13	40	35	129	363	475	1	0	2	5	3
New Mexico§	—	1	8	6	21	2	24	48	142	224	1	1	4	5	10
Utah	—	6	18	25	33	1	7	19	12	93	—	0	5	2	12
Wyoming§	—	0	3	6	6	4	2	9	17	8	—	0	2	—	—
Pacific	29	56	148	319	425	316	583	705	4,644	5,851	1	2	6	12	27
Alaska	—	2	10	7	9	15	11	20	116	74	—	0	1	3	4
California	23	35	59	244	315	241	484	591	3,897	4,809	—	0	3	—	8
Hawaii	—	0	4	1	5	—	11	22	76	97	—	0	2	4	3
Oregon§	—	7	18	31	77	27	23	48	219	263	—	1	4	4	12
Washington	6	8	95	36	19	33	55	82	336	608	1	0	2	1	—
American Samoa	—	0	0	—	—	—	0	1	—	1	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	15	—	5	—	0	0	—	—
Puerto Rico	1	2	13	15	15	3	4	25	31	46	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	2	6	—	18	N	0	0	N	N

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

	Hepatitis (viral, acute), by type†										Legionellosis				
	A					B									
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	20	44	77	241	444	46	70	111	470	617	22	49	148	249	318
New England	2	2	8	13	26	—	1	3	3	18	—	3	18	9	12
Connecticut	2	0	4	5	3	—	0	2	2	9	—	0	5	4	3
Maine§	—	0	5	—	2	—	0	2	1	2	—	0	2	—	—
Massachusetts	—	1	4	7	15	—	0	1	—	6	—	1	7	3	3
New Hampshire	—	0	2	1	—	—	0	2	—	1	—	0	5	—	3
Rhode Island§	—	0	2	—	6	—	0	1	—	—	—	0	14	1	1
Vermont§	—	0	1	—	—	—	0	1	—	—	—	0	1	1	2
Mid. Atlantic	2	4	10	26	76	3	8	15	36	92	5	14	59	61	75
New Jersey	—	1	3	4	18	—	1	5	2	38	—	1	8	2	8
New York (Upstate)	1	1	4	7	13	1	1	10	14	8	3	5	21	22	14
New York City	—	2	6	5	21	—	2	6	4	9	—	1	12	2	13
Pennsylvania	1	1	4	10	24	2	2	8	16	37	2	6	33	35	40
E.N. Central	3	6	16	34	64	2	8	17	66	80	2	9	41	50	84
Illinois	—	2	10	5	19	—	2	7	4	20	—	1	13	—	15
Indiana	—	0	4	3	2	—	1	7	8	4	—	1	6	4	4
Michigan	—	2	5	12	32	2	3	7	19	28	—	2	16	10	22
Ohio	3	1	4	13	7	—	2	14	35	24	2	3	18	34	41
Wisconsin	—	0	2	1	4	—	0	1	—	4	—	0	3	2	2
W.N. Central	4	3	16	18	46	2	2	10	27	14	—	2	8	2	16
Iowa	—	1	7	—	18	—	0	3	4	4	—	0	2	1	3
Kansas	1	0	3	1	4	—	0	3	—	2	—	0	1	1	1
Minnesota	2	0	10	4	2	2	0	10	4	—	—	0	4	—	1
Missouri	—	1	3	8	9	—	1	5	13	7	—	1	7	—	5
Nebraska§	1	0	5	5	12	—	0	3	6	1	—	0	3	—	5
North Dakota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	1	—	1	—	0	0	—	—	—	0	1	—	1
S. Atlantic	6	7	15	65	61	24	18	34	184	170	6	9	22	63	58
Delaware	—	0	1	—	—	—	0	2	—	5	—	0	2	—	1
District of Columbia	U	0	0	U	U	U	0	0	U	U	—	0	2	—	2
Florida	6	3	8	41	26	5	6	11	55	57	5	3	7	26	26
Georgia	—	1	4	7	9	—	3	8	26	27	1	1	5	14	4
Maryland§	—	1	4	7	7	—	2	5	17	19	—	2	10	10	13
North Carolina	—	0	9	6	9	19	0	17	75	24	—	0	7	12	3
South Carolina§	—	0	3	2	2	—	1	4	1	17	—	0	2	—	1
Virginia§	—	1	5	2	6	—	2	8	7	11	—	1	5	1	5
West Virginia	—	0	1	—	2	—	1	4	3	10	—	0	3	—	3
E.S. Central	1	1	9	5	7	—	7	13	38	67	—	2	10	15	17
Alabama§	—	0	2	1	1	—	2	6	12	21	—	0	2	2	1
Kentucky	—	0	3	—	3	—	1	5	8	22	—	1	4	5	10
Mississippi	1	0	2	3	—	—	1	3	4	6	—	0	1	—	—
Tennessee§	—	0	6	1	3	—	3	8	14	18	—	0	5	8	6
W.S. Central	—	4	12	6	30	4	12	25	50	97	1	1	15	5	5
Arkansas§	—	0	1	1	—	—	0	4	—	3	—	0	2	—	—
Louisiana	—	0	2	1	1	—	1	4	5	15	—	0	2	1	—
Oklahoma	—	0	5	1	1	—	2	10	9	7	—	0	6	—	—
Texas§	—	4	11	3	28	4	7	17	36	72	1	1	14	4	5
Mountain	1	3	12	17	33	1	4	12	19	28	—	2	8	12	18
Arizona	1	2	11	10	13	—	1	5	7	14	—	0	2	6	4
Colorado	—	0	2	2	9	—	0	3	2	3	—	0	2	—	3
Idaho§	—	0	3	—	4	—	0	2	1	—	—	0	1	—	1
Montana§	—	0	1	2	—	—	0	1	—	—	—	0	2	2	1
Nevada§	—	0	3	2	—	1	0	3	6	7	—	0	2	3	2
New Mexico§	—	0	3	1	3	—	0	2	3	2	—	0	2	—	2
Utah	—	0	2	—	2	—	0	3	—	2	—	0	2	1	5
Wyoming§	—	0	1	—	2	—	0	1	—	—	—	0	0	—	—
Pacific	1	9	25	57	101	10	7	42	47	51	8	4	10	32	33
Alaska	—	0	1	1	—	—	0	2	1	—	—	0	1	1	—
California	1	7	25	50	81	10	5	28	40	39	8	3	8	26	27
Hawaii	—	0	2	1	1	—	0	1	1	2	—	0	1	1	1
Oregon§	—	0	2	2	9	—	0	3	3	7	—	0	2	2	4
Washington	—	0	6	3	10	—	1	14	2	3	—	0	4	2	1
American Samoa	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	2	1	4	—	0	4	—	12	—	0	1	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Data for acute hepatitis C, viral are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serotypes				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008
United States	47	481	1,652	921	1,307	5	23	47	119	143	12	17	48	127	245
New England	1	78	529	69	235	—	1	6	7	6	—	0	4	6	8
Connecticut	—	0	0	—	—	—	0	3	—	—	—	0	0	—	1
Maine§	—	5	73	8	10	—	0	0	—	1	—	0	1	1	1
Massachusetts	—	34	357	17	175	—	0	4	6	3	—	0	3	4	6
New Hampshire	—	13	141	27	45	—	0	2	—	1	—	0	1	1	—
Rhode Island§	—	0	0	—	—	—	0	1	—	1	—	0	1	—	—
Vermont§	1	4	41	17	5	—	0	1	1	—	—	0	0	—	—
Mid. Atlantic	41	251	1,143	499	663	—	4	14	21	31	1	2	6	13	23
New Jersey	1	29	211	87	205	—	0	0	—	—	—	0	2	—	4
New York (Upstate)	29	99	1,089	132	59	—	0	10	7	3	—	0	3	—	7
New York City	—	1	7	—	8	—	3	10	9	22	—	0	2	3	2
Pennsylvania	11	97	533	280	391	—	1	3	5	6	1	1	5	10	10
E.N. Central	—	11	147	21	44	1	2	7	9	29	2	3	8	25	47
Illinois	—	1	13	—	2	—	1	5	1	14	—	1	5	2	20
Indiana	—	0	8	—	—	—	0	2	—	1	—	0	4	5	4
Michigan	—	1	10	1	3	—	0	2	1	5	—	0	3	2	9
Ohio	—	0	5	2	2	1	0	2	7	8	2	1	4	13	9
Wisconsin	—	9	129	18	37	—	0	3	—	1	—	0	2	3	5
W.N. Central	—	8	218	10	4	—	1	10	5	2	2	2	6	15	27
Iowa	—	1	8	3	4	—	0	3	1	—	—	0	2	1	8
Kansas	—	0	1	2	—	—	0	2	1	—	—	0	2	3	1
Minnesota	—	5	218	4	—	—	0	8	1	—	1	0	4	4	7
Missouri	—	0	1	—	—	—	0	3	2	1	1	0	2	7	8
Nebraska§	—	0	2	—	—	—	0	2	—	1	—	0	1	—	2
North Dakota	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	1	1	—	—	0	0	—	—	—	0	1	—	1
S. Atlantic	2	70	223	286	326	2	5	15	53	41	5	3	9	24	35
Delaware	1	12	37	56	72	—	0	1	1	—	—	0	1	—	—
District of Columbia	—	2	11	—	12	—	0	2	—	—	—	0	0	—	—
Florida	—	2	10	15	4	—	1	7	15	13	3	1	4	13	12
Georgia	1	0	6	12	—	2	1	5	10	9	1	0	2	3	3
Maryland§	—	27	161	168	206	—	1	7	16	15	—	0	3	1	2
North Carolina	—	0	5	7	2	—	0	7	8	2	1	0	3	5	3
South Carolina§	—	0	2	3	2	—	0	1	1	1	—	0	2	1	8
Virginia§	—	15	53	21	25	—	1	3	2	1	—	0	2	1	7
West Virginia	—	1	11	4	3	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	1	5	3	1	—	0	2	5	2	—	0	6	1	14
Alabama§	—	0	2	—	—	—	0	1	1	1	—	0	2	—	—
Kentucky	—	0	2	—	—	—	0	1	—	1	—	0	1	—	4
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	2	—	3
Tennessee§	—	0	3	3	1	—	0	2	4	—	—	0	3	1	7
W.S. Central	—	2	9	—	2	—	1	11	—	7	—	2	7	9	26
Arkansas§	—	0	0	—	—	—	0	0	—	—	—	0	2	2	2
Louisiana	—	0	1	—	—	—	0	1	—	—	—	0	2	3	11
Oklahoma	—	0	1	—	—	—	0	2	—	1	—	0	3	1	3
Texas§	—	2	9	—	2	—	1	11	—	6	—	1	6	3	10
Mountain	—	0	16	2	4	—	0	3	—	7	—	1	3	9	16
Arizona	—	0	2	—	2	—	0	2	—	2	—	0	2	3	2
Colorado	—	0	1	1	—	—	0	1	—	2	—	0	1	2	3
Idaho§	—	0	1	1	1	—	0	1	—	—	—	0	1	2	2
Montana§	—	0	16	—	—	—	0	0	—	—	—	0	1	—	1
Nevada§	—	0	2	—	—	—	0	0	—	3	—	0	1	2	1
New Mexico§	—	0	2	—	1	—	0	1	—	—	—	0	1	—	3
Utah	—	0	1	—	—	—	0	1	—	—	—	0	1	—	3
Wyoming§	—	0	1	—	—	—	0	0	—	—	—	0	1	—	1
Pacific	3	4	19	31	28	2	3	11	19	18	2	4	19	25	49
Alaska	—	0	2	—	—	—	0	2	—	—	—	0	2	2	—
California	3	3	8	28	27	1	2	8	15	13	—	2	19	14	39
Hawaii	N	0	0	N	N	—	0	1	—	1	—	0	1	1	—
Oregon§	—	1	3	3	1	—	0	1	1	3	—	1	3	3	6
Washington	—	0	12	—	—	1	0	7	3	1	2	0	5	5	4
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	—	—	0	1	—	—
U.S. Virgin Islands	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† 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 7, 2009, and March 1, 2008 (9th week)*

	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	79	196	796	1,479	1,323	13	92	159	332	613	6	42	145	111	34
New England	2	17	36	91	213	4	7	21	36	37	—	0	2	1	1
Connecticut	—	0	4	—	19	2	3	17	16	21	—	0	0	—	—
Maine†	—	1	7	20	12	—	1	5	6	3	—	0	1	1	—
Massachusetts	2	13	29	57	166	—	0	0	—	—	—	0	1	—	1
New Hampshire	—	1	4	8	6	—	0	3	1	5	—	0	1	—	—
Rhode Island†	—	1	8	2	5	—	0	4	5	4	—	0	2	—	—
Vermont†	—	0	2	4	5	2	1	6	8	4	—	0	0	—	—
Mid. Atlantic	6	18	52	118	154	4	33	67	59	160	—	1	28	—	3
New Jersey	—	1	6	3	11	—	0	0	—	—	—	0	2	—	2
New York (Upstate)	1	6	41	22	44	4	9	20	39	41	—	0	27	—	—
New York City	—	0	4	—	24	—	0	2	—	5	—	0	2	—	1
Pennsylvania	5	9	34	93	75	—	21	52	20	114	—	0	2	—	—
E.N. Central	21	36	174	379	394	—	3	29	6	1	—	1	15	2	1
Illinois	—	11	45	75	26	—	1	21	1	1	—	1	11	1	1
Indiana	—	1	96	12	3	—	0	2	—	—	—	0	3	—	—
Michigan	2	6	21	97	27	—	1	9	5	—	—	0	1	1	—
Ohio	19	10	57	190	325	—	1	7	—	—	—	0	4	—	—
Wisconsin	—	2	7	5	13	N	0	0	N	N	—	0	1	—	—
W.N. Central	14	21	204	306	108	3	3	13	21	14	—	4	32	3	1
Iowa	—	3	21	14	20	—	0	5	—	1	—	0	2	—	—
Kansas	1	1	13	21	6	—	0	3	14	—	—	0	0	—	—
Minnesota	—	2	177	—	—	3	0	10	5	7	—	0	0	—	—
Missouri	9	9	50	230	70	—	1	8	1	—	—	4	31	3	1
Nebraska†	4	2	32	38	10	—	0	0	—	—	—	0	4	—	—
North Dakota	—	0	1	—	—	—	0	7	—	3	—	0	0	—	—
South Dakota	—	0	7	3	2	—	0	2	1	3	—	0	1	—	—
S. Atlantic	18	19	71	226	109	2	26	77	162	355	6	15	69	98	22
Delaware	—	0	3	4	1	—	0	0	—	—	—	0	5	—	—
District of Columbia	—	0	1	—	2	—	0	0	—	—	—	0	2	—	—
Florida	7	6	20	60	21	2	0	8	27	139	—	0	3	1	1
Georgia	—	2	9	4	5	—	4	47	61	54	—	1	8	3	4
Maryland†	—	2	8	8	17	—	7	17	6	65	—	1	7	5	4
North Carolina	10	0	65	112	35	N	0	4	N	N	6	7	55	81	11
South Carolina†	—	2	11	16	11	—	0	0	—	—	—	1	9	3	—
Virginia†	—	3	24	19	16	—	11	24	63	84	—	2	15	4	—
West Virginia	1	0	2	3	1	—	1	9	5	13	—	0	1	1	2
E.S. Central	3	8	29	99	46	—	3	7	12	16	—	3	23	5	2
Alabama†	—	1	4	9	16	—	0	0	—	—	—	1	8	3	1
Kentucky	3	3	12	64	6	—	1	4	12	3	—	0	1	—	—
Mississippi	—	2	5	14	18	—	0	1	—	1	—	0	3	1	—
Tennessee†	—	2	14	12	6	—	2	6	—	12	—	2	19	1	1
W.S. Central	4	32	249	118	60	—	1	11	4	8	—	2	41	1	3
Arkansas†	—	1	20	1	14	—	0	6	2	7	—	0	14	1	—
Louisiana	—	1	7	7	1	—	0	0	—	—	—	0	1	—	2
Oklahoma	—	0	29	6	1	—	0	10	2	—	—	0	26	—	—
Texas†	4	27	205	104	44	—	0	1	—	1	—	1	6	—	1
Mountain	5	14	34	76	158	—	2	9	15	7	—	1	3	1	1
Arizona	3	3	10	14	43	N	0	0	N	N	—	0	2	—	—
Colorado	—	3	13	34	40	—	0	0	—	—	—	0	1	—	—
Idaho†	2	1	5	12	3	—	0	0	—	—	—	0	1	—	—
Montana†	—	0	11	3	15	—	0	3	4	—	—	0	1	—	—
Nevada†	—	0	7	5	1	—	0	4	—	—	—	0	2	—	—
New Mexico†	—	1	8	7	4	—	0	3	5	6	—	0	1	—	1
Utah	—	3	17	1	49	—	0	6	—	—	—	0	1	1	—
Wyoming†	—	0	2	—	3	—	0	4	6	1	—	0	2	—	—
Pacific	6	25	81	66	81	—	4	13	17	15	—	0	1	—	—
Alaska	2	3	21	15	19	—	0	2	3	8	N	0	0	N	N
California	—	8	23	—	26	—	3	12	14	7	—	0	1	—	—
Hawaii	—	0	3	5	2	—	0	0	—	—	N	0	0	N	N
Oregon†	—	3	15	30	21	—	0	2	—	—	—	0	1	—	—
Washington	4	6	77	16	13	—	0	0	—	—	—	0	0	—	—
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	0	—	—	2	1	5	8	7	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

	Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†					Shigellosis				
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	297	945	1,486	4,350	4,798	20	87	250	310	390	115	440	614	2,161	2,204
New England	2	31	86	221	676	—	4	14	17	63	—	3	10	18	58
Connecticut	—	0	60	60	484	—	0	6	6	44	—	0	2	2	38
Maine§	—	2	8	14	20	—	0	3	—	2	—	0	6	—	—
Massachusetts	1	19	52	105	131	—	2	11	7	13	—	2	9	15	15
New Hampshire	1	2	10	20	16	—	1	3	4	2	—	0	1	1	1
Rhode Island§	—	2	9	14	14	—	0	3	—	—	—	0	1	—	3
Vermont§	—	1	7	8	11	—	0	6	—	2	—	0	2	—	1
Mid. Atlantic	29	90	177	446	560	4	6	192	22	33	10	47	96	341	186
New Jersey	—	10	30	14	118	—	0	3	2	6	—	15	38	109	61
New York (Upstate)	21	27	64	138	120	4	3	188	14	11	4	11	35	20	25
New York City	—	22	54	114	147	—	1	5	4	8	1	13	35	76	80
Pennsylvania	8	28	78	180	175	—	0	8	2	8	5	6	24	136	20
E.N. Central	24	96	194	529	532	2	11	75	37	46	19	81	128	514	519
Illinois	—	26	72	61	172	—	1	10	3	9	—	17	35	60	179
Indiana	—	9	53	19	33	1	1	14	4	3	1	8	39	10	149
Michigan	5	18	38	116	105	—	2	43	10	8	—	4	24	43	10
Ohio	13	27	65	223	135	1	3	17	13	8	18	42	80	340	118
Wisconsin	6	15	50	110	87	—	4	20	7	18	—	7	33	61	63
W.N. Central	47	50	150	326	276	2	12	59	38	41	7	16	40	74	121
Iowa	6	8	16	46	56	—	2	21	8	12	—	4	12	24	8
Kansas	5	7	31	41	24	—	1	7	2	2	3	1	5	22	2
Minnesota	2	11	69	71	75	1	2	21	12	8	—	5	25	10	21
Missouri	4	14	48	66	76	1	2	11	11	15	3	3	14	12	47
Nebraska§	28	5	18	74	30	—	2	30	5	2	1	0	3	5	—
North Dakota	—	0	7	—	3	—	0	1	—	—	—	0	4	—	12
South Dakota	2	3	12	28	12	—	1	4	—	2	—	0	9	1	31
S. Atlantic	102	249	456	1,282	1,226	7	14	51	81	64	30	58	100	353	473
Delaware	—	2	9	3	14	—	0	2	2	—	1	0	1	4	—
District of Columbia	—	1	4	—	9	—	0	1	—	2	—	0	3	—	3
Florida	50	97	174	569	643	5	2	11	32	21	10	13	34	92	187
Georgia	16	43	86	221	130	—	1	7	7	2	5	19	48	95	180
Maryland§	—	13	36	73	86	—	2	9	10	11	—	2	8	38	11
North Carolina	30	23	106	237	123	2	1	21	22	9	8	4	27	59	12
South Carolina§	1	18	55	87	101	—	1	4	2	4	5	8	32	28	71
Virginia§	—	20	75	72	87	—	3	27	5	9	—	4	57	32	9
West Virginia	5	3	6	20	33	—	0	3	1	6	1	0	3	5	—
E.S. Central	4	58	138	246	292	—	5	12	13	44	—	35	67	130	310
Alabama§	—	15	46	76	97	—	1	3	2	23	—	6	18	35	82
Kentucky	4	10	18	63	51	—	1	7	3	7	—	3	24	14	38
Mississippi	—	14	57	38	60	—	0	2	1	1	—	3	18	5	96
Tennessee§	—	14	60	69	84	—	2	7	7	13	—	18	47	76	94
W.S. Central	8	137	359	249	280	1	7	27	7	37	13	98	223	390	261
Arkansas§	—	11	40	53	34	—	1	3	2	4	—	11	27	30	22
Louisiana	—	17	50	34	63	—	0	1	—	1	—	11	26	28	50
Oklahoma	7	15	36	42	37	1	1	19	4	2	6	3	43	27	21
Texas§	1	93	298	120	146	—	5	13	1	30	7	65	196	305	168
Mountain	8	60	110	304	351	1	10	39	52	47	12	23	52	172	111
Arizona	5	20	44	128	116	—	1	5	1	8	9	14	33	126	47
Colorado	—	12	43	54	85	—	4	18	36	9	—	2	11	16	18
Idaho§	1	3	15	24	19	1	2	15	4	17	—	0	2	—	1
Montana§	—	2	8	16	7	—	0	3	1	4	—	0	1	—	—
Nevada§	2	3	9	34	29	—	0	2	1	2	3	4	13	17	31
New Mexico§	—	7	32	16	45	—	1	6	6	6	—	2	12	12	9
Utah	—	6	19	29	38	—	1	9	2	1	—	1	3	1	2
Wyoming§	—	1	4	3	12	—	0	1	1	—	—	0	1	—	3
Pacific	73	111	530	747	605	3	9	59	43	15	24	31	82	169	165
Alaska	1	1	4	9	8	—	0	1	—	—	—	0	1	2	—
California	65	80	516	582	480	1	6	39	36	12	19	27	75	140	147
Hawaii	2	5	15	52	38	—	0	2	1	1	1	1	3	4	6
Oregon§	—	7	20	48	45	—	1	8	—	2	—	1	10	9	9
Washington	5	12	154	56	34	2	2	43	6	—	4	2	28	14	3
American Samoa	—	0	1	—	1	—	0	0	—	—	2	0	1	3	1
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	—	1	—	0	0	—	—	—	0	3	—	2
Puerto Rico	3	8	29	46	92	—	0	1	—	—	—	0	4	—	3
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

Reporting area	Streptococcal diseases, invasive, group A					*Streptococcus pneumoniae*, invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008
United States	72	94	182	905	1,145	21	36	57	291	412
New England	—	5	31	50	65	—	1	12	7	26
Connecticut	—	0	26	11	—	—	0	11	—	—
Maine§	—	0	3	2	8	—	0	1	—	1
Massachusetts	—	3	9	24	47	—	1	3	4	21
New Hampshire	—	0	4	7	7	—	0	1	2	4
Rhode Island§	—	0	8	1	—	—	0	2	—	—
Vermont§	—	0	3	5	3	—	0	1	1	—
Mid. Atlantic	18	17	38	175	238	3	4	19	37	68
New Jersey	—	1	11	1	50	—	1	4	4	15
New York (Upstate)	9	6	23	64	63	3	2	19	25	20
New York City	—	4	12	37	51	—	0	5	—	22
Pennsylvania	9	7	15	73	74	—	1	3	8	11
E.N. Central	15	16	42	181	229	6	6	11	53	76
Illinois	—	4	16	34	62	—	1	5	8	23
Indiana	1	2	19	26	25	—	0	5	3	7
Michigan	2	3	9	27	46	—	1	5	12	20
Ohio	10	5	14	72	64	5	1	4	26	14
Wisconsin	2	1	10	22	32	1	0	2	4	12
W.N. Central	1	5	39	59	76	2	2	11	24	26
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	1	0	8	16	11	—	0	3	3	2
Minnesota	—	0	35	—	20	1	0	9	9	6
Missouri	—	2	8	28	29	1	1	2	9	13
Nebraska§	—	1	3	9	9	—	0	1	1	2
North Dakota	—	0	3	—	3	—	0	2	—	1
South Dakota	—	0	2	6	4	—	0	1	2	2
S. Atlantic	20	21	36	220	241	6	6	13	64	80
Delaware	—	0	1	5	4	—	0	0	—	—
District of Columbia	—	0	4	—	6	—	0	1	—	—
Florida	7	5	13	62	59	1	1	3	12	11
Georgia	11	5	14	64	56	4	1	6	27	23
Maryland§	—	3	10	31	46	—	1	3	10	21
North Carolina	2	2	9	20	19	—	0	0	—	—
South Carolina§	—	1	5	14	14	1	1	6	12	10
Virginia§	—	2	9	19	27	—	0	4	—	14
West Virginia	—	0	2	5	10	—	0	2	3	1
E.S. Central	—	3	9	45	39	—	2	6	9	19
Alabama§	N	0	0	N	N	—	0	0	—	—
Kentucky	—	1	2	12	10	—	0	0	—	—
Mississippi	N	0	0	N	N	—	0	3	—	5
Tennessee§	—	3	7	33	29	—	1	5	9	14
W.S. Central	14	9	53	81	74	2	5	31	46	37
Arkansas§	—	0	2	4	—	—	0	3	7	3
Louisiana	—	0	2	3	5	—	0	3	6	1
Oklahoma	11	2	13	40	27	2	1	7	10	16
Texas§	3	6	40	34	42	—	4	22	23	17
Mountain	4	9	20	75	155	1	4	11	43	68
Arizona	3	3	8	24	46	—	2	9	28	33
Colorado	—	2	10	30	45	—	1	4	7	14
Idaho§	1	0	2	1	6	1	0	1	2	1
Montana§	N	0	0	N	N	—	0	1	—	—
Nevada§	—	0	1	2	2	—	0	1	—	1
New Mexico§	—	2	6	16	41	—	0	2	5	9
Utah	—	1	4	1	15	—	0	3	1	10
Wyoming§	—	0	2	1	—	—	0	1	—	—
Pacific	—	3	8	19	28	1	1	5	8	12
Alaska	—	0	4	2	7	—	0	4	6	7
California	N	0	0	N	N	—	0	0	—	—
Hawaii	—	2	8	17	21	1	0	2	2	5
Oregon§	N	0	0	N	N	—	0	0	—	—
Washington	N	0	0	N	N	—	0	0	—	—
American Samoa	—	0	12	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDSS event code 11717).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

Reporting area	*Streptococcus pneumoniae*, invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Aged <5 years									
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2009	Cum 2008
United States	59	55	100	631	734	13	8	22	79	77	106	244	356	1,834	2,166
New England	—	1	48	10	14	—	0	5	—	1	3	5	14	52	41
Connecticut	—	0	48	—	—	—	0	5	—	—	1	0	4	8	3
Maine§	—	0	2	3	3	—	0	1	—	—	—	0	2	1	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	1	4	11	36	33
New Hampshire	—	0	3	4	—	—	0	0	—	—	1	0	2	7	3
Rhode Island§	—	0	2	—	7	—	0	1	—	—	—	0	5	—	2
Vermont§	—	0	2	3	4	—	0	1	—	1	—	0	2	—	—
Mid. Atlantic	3	4	13	19	62	1	0	2	2	—	4	34	53	287	288
New Jersey	—	0	0	—	—	—	0	0	—	—	1	4	10	33	46
New York (Upstate)	3	1	6	9	10	1	0	1	2	—	2	2	8	14	16
New York City	—	1	5	—	25	—	0	0	—	—	—	23	38	198	163
Pennsylvania	—	1	9	10	27	N	0	2	N	N	1	5	11	42	63
E.N. Central	9	10	40	106	141	1	1	6	12	13	9	17	33	163	359
Illinois	N	0	0	N	N	—	0	0	—	—	—	2	11	29	256
Indiana	2	2	31	11	45	—	0	5	—	3	2	3	10	28	18
Michigan	—	0	3	5	5	—	0	1	—	1	6	3	18	39	22
Ohio	7	7	18	90	91	1	1	4	12	9	—	6	17	56	51
Wisconsin	—	0	0	—	—	—	0	0	—	—	1	1	4	11	12
W.N. Central	3	2	7	19	60	1	0	2	2	2	1	7	14	44	83
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	3	2
Kansas	2	0	4	6	26	N	0	1	N	N	1	0	3	2	5
Minnesota	—	0	0	—	—	—	0	0	—	—	—	2	6	12	21
Missouri	1	1	4	13	33	1	0	1	2	1	—	4	10	25	54
Nebraska§	—	0	0	—	—	—	0	0	—	—	—	0	2	2	1
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	1	—	1	—	0	1	—	1	—	0	1	—	—
S. Atlantic	42	22	52	369	319	10	4	14	54	44	27	57	183	432	336
Delaware	1	0	1	4	—	—	0	0	—	—	—	0	4	6	1
District of Columbia	N	0	0	N	N	N	0	0	N	N	—	2	9	26	21
Florida	29	14	36	234	172	8	2	13	38	24	10	19	37	175	139
Georgia	8	7	23	110	122	2	1	5	16	16	—	13	160	36	20
Maryland§	—	0	2	2	2	—	0	0	—	1	8	8	14	51	51
North Carolina	N	0	0	N	N	N	0	0	N	N	9	5	19	86	52
South Carolina§	—	0	0	—	—	—	0	0	—	—	—	2	6	9	18
Virginia§	N	0	0	N	N	N	0	0	N	N	—	5	16	42	34
West Virginia	4	1	7	19	23	—	0	2	—	3	—	0	1	1	—
E.S. Central	1	5	22	72	84	—	1	4	4	6	12	22	37	184	183
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	52	89
Kentucky	1	1	6	19	16	N	0	2	N	N	—	1	10	10	11
Mississippi	—	0	2	—	—	—	0	1	—	—	6	3	18	32	16
Tennessee§	—	3	20	53	68	—	0	3	4	6	6	8	19	90	67
W.S. Central	—	2	7	17	29	—	0	1	3	6	31	44	75	347	345
Arkansas§	—	0	4	10	4	—	0	1	1	2	5	3	35	41	11
Louisiana	—	1	6	7	25	—	0	1	2	4	3	10	33	35	76
Oklahoma	N	0	0	N	N	—	0	0	—	—	—	1	7	10	20
Texas§	—	0	0	—	—	—	0	0	—	—	23	28	41	261	238
Mountain	1	2	11	17	24	—	0	4	2	4	3	8	25	33	95
Arizona	—	0	0	—	—	—	0	0	—	—	—	4	13	2	52
Colorado	—	0	0	—	—	—	0	0	—	—	—	1	5	2	20
Idaho§	N	0	1	N	N	—	0	1	—	—	—	0	2	1	1
Montana§	—	0	1	—	—	N	0	0	N	N	—	0	7	—	—
Nevada§	1	1	3	12	10	—	0	1	1	1	3	1	7	19	19
New Mexico§	—	0	1	—	—	—	0	0	—	—	—	1	4	9	3
Utah	—	1	10	1	14	—	0	4	1	3	—	0	18	—	—
Wyoming§	—	0	2	4	—	—	0	0	—	—	—	0	1	—	—
Pacific	—	0	1	2	1	—	0	1	—	1	16	45	73	292	436
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
California	N	0	0	N	N	N	0	0	N	N	9	41	67	260	387
Hawaii	—	0	1	2	1	—	0	1	—	1	—	0	3	9	7
Oregon§	N	0	0	N	N	N	0	0	N	N	1	0	3	7	4
Washington	N	0	0	N	N	N	0	0	N	N	6	2	9	16	38
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	N	0	0	N	N	—	3	11	29	20
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 7, 2009, and March 1, 2008 (9th week)*

	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
		Previous 52 weeks					Previous 52 weeks					Previous 52 weeks			
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	191	442	1,010	3,167	5,361	—	1	75	—	2	—	2	74	—	2
New England	4	10	22	51	118	—	0	2	—	—	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	2	—	—	—	0	1	—	—
Maine¶	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
New Hampshire	4	4	10	33	69	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Vermont¶	—	5	17	18	49	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	33	41	81	334	538	—	0	8	—	—	—	0	4	—	—
New Jersey	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
New York (Upstate)	N	0	0	N	N	—	0	5	—	—	—	0	2	—	—
New York City	—	0	0	—	—	—	0	2	—	—	—	0	2	—	—
Pennsylvania	33	41	81	334	538	—	0	2	—	—	—	0	1	—	—
E.N. Central	91	146	312	1,420	1,271	—	0	8	—	—	—	0	3	—	—
Illinois	—	37	71	340	49	—	0	4	—	—	—	0	2	—	—
Indiana	—	0	3	9	—	—	0	1	—	—	—	0	1	—	—
Michigan	29	58	116	453	612	—	0	4	—	—	—	0	2	—	—
Ohio	57	46	106	555	595	—	0	3	—	—	—	0	1	—	—
Wisconsin	5	6	50	63	15	—	0	2	—	—	—	0	1	—	—
W.N. Central	18	19	71	259	318	—	0	6	—	1	—	0	21	—	—
Iowa	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
Kansas	6	5	26	57	172	—	0	2	—	1	—	0	3	—	—
Minnesota	—	0	0	—	—	—	0	2	—	—	—	0	4	—	—
Missouri	12	11	51	202	130	—	0	3	—	—	—	0	1	—	—
Nebraska¶	N	0	0	N	N	—	0	1	—	—	—	0	8	—	—
North Dakota	—	0	39	—	4	—	0	2	—	—	—	0	11	—	—
South Dakota	—	0	2	—	12	—	0	5	—	—	—	0	6	—	—
S. Atlantic	39	74	173	383	1,070	—	0	3	—	—	—	0	3	—	—
Delaware	—	1	5	1	5	—	0	0	—	—	—	0	1	—	—
District of Columbia	—	0	3	—	4	—	0	0	—	—	—	0	0	—	—
Florida	34	29	87	283	355	—	0	2	—	—	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Maryland¶	N	0	0	N	N	—	0	2	—	—	—	0	2	—	—
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina¶	1	11	67	20	138	—	0	0	—	—	—	0	1	—	—
Virginia¶	—	18	60	1	407	—	0	0	—	—	—	0	1	—	—
West Virginia	4	11	33	78	161	—	0	1	—	—	—	0	0	—	—
E.S. Central	—	14	101	16	200	—	0	7	—	—	—	0	9	—	2
Alabama¶	—	14	101	16	198	—	0	3	—	—	—	0	2	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	2	—	2	—	0	4	—	—	—	0	8	—	1
Tennessee¶	N	0	0	N	N	—	0	2	—	—	—	0	3	—	1
W.S. Central	—	93	435	447	1,388	—	0	8	—	—	—	0	7	—	—
Arkansas¶	—	6	61	19	149	—	0	1	—	—	—	0	1	—	—
Louisiana	—	1	5	7	28	—	0	3	—	—	—	0	5	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Texas¶	—	87	422	421	1,211	—	0	6	—	—	—	0	4	—	—
Mountain	2	33	89	224	441	—	0	12	—	1	—	0	22	—	—
Arizona	—	0	0	—	—	—	0	10	—	1	—	0	8	—	—
Colorado	—	14	44	90	204	—	0	4	—	—	—	0	10	—	—
Idaho¶	N	0	0	N	N	—	0	1	—	—	—	0	6	—	—
Montana¶	—	5	27	61	49	—	0	0	—	—	—	0	2	—	—
Nevada¶	N	0	0	N	N	—	0	2	—	—	—	0	3	—	—
New Mexico¶	—	3	17	26	46	—	0	1	—	—	—	0	1	—	—
Utah	2	10	55	47	138	—	0	2	—	—	—	0	5	—	—
Wyoming¶	—	0	4	—	4	—	0	0	—	—	—	0	2	—	—
Pacific	4	3	8	33	17	—	0	38	—	—	—	0	23	—	—
Alaska	1	2	6	22	3	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	37	—	—	—	0	20	—	—
Hawaii	3	1	5	11	14	—	0	0	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	2	—	—	—	0	4	—	—
Washington	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	2	17	—	11	—	0	0	—	—	—	0	0	—	—
Puerto Rico	3	6	20	47	99	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.
§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except 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/epo/dphsi/phs/infdis.htm.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,* week ending March 7, 2009 (9th week)

Reporting area	All causes, by age (years) All Ages	≥65	45–64	25–44	1–24	<1	P&I† Total
New England	529	388	109	18	4	10	63
Boston, MA	145	98	36	6	2	3	20
Bridgeport, CT	15	12	2	1	—	—	3
Cambridge, MA	18	16	2	—	—	—	3
Fall River, MA	32	24	8	—	—	—	4
Hartford, CT	60	36	17	3	2	2	8
Lowell, MA	19	14	4	1	—	—	3
Lynn, MA	7	5	2	—	—	—	—
New Bedford, MA	25	20	3	2	—	—	2
New Haven, CT	U	U	U	U	U	U	U
Providence, RI	70	52	13	2	—	3	8
Somerville, MA	2	2	—	—	—	—	—
Springfield, MA	42	32	6	2	—	2	3
Waterbury, CT	22	17	4	1	—	—	—
Worcester, MA	72	60	12	—	—	—	9
Mid. Atlantic	2,042	1,423	430	108	38	42	102
Albany, NY	65	49	14	2	—	—	3
Allentown, PA	24	21	3	—	—	—	1
Buffalo, NY	88	60	20	6	1	1	11
Camden, NJ	25	17	4	1	—	3	1
Elizabeth, NJ	17	13	3	1	—	—	3
Erie, PA	51	37	5	7	2	—	3
Jersey City, NJ	21	13	6	1	—	1	2
New York City, NY	1,039	731	219	52	18	18	43
Newark, NJ	27	11	11	2	2	1	1
Paterson, NJ	13	5	1	2	1	4	1
Philadelphia, PA	316	196	82	23	7	8	10
Pittsburgh, PA§	38	24	9	1	2	2	4
Reading, PA	23	17	4	2	—	—	1
Rochester, NY	137	112	17	3	4	1	7
Schenectady, NY	23	15	5	2	1	—	1
Scranton, PA	23	13	8	2	—	—	—
Syracuse, NY	55	49	4	1	—	1	6
Trenton, NJ	23	15	7	—	—	1	1
Utica, NY	18	14	4	—	—	—	1
Yonkers, NY	16	11	4	—	—	1	2
E.N. Central	1,897	1,247	432	128	51	38	128
Akron, OH	54	30	13	7	2	2	1
Canton, OH	37	28	8	—	—	1	5
Chicago, IL	393	223	109	38	13	9	31
Cincinnati, OH	94	50	32	6	3	3	9
Cleveland, OH	226	164	43	13	3	3	12
Columbus, OH	122	86	21	9	4	2	13
Dayton, OH	125	87	25	6	4	3	14
Detroit, MI	U	U	U	U	U	U	U
Evansville, IN	56	44	5	6	1	—	5
Fort Wayne, IN	62	41	15	4	1	1	1
Gary, IN	15	10	3	—	2	—	—
Grand Rapids, MI	52	34	13	3	2	—	2
Indianapolis, IN	189	111	47	15	8	8	14
Lansing, MI	57	44	9	3	1	—	3
Milwaukee, WI	97	55	32	7	1	2	8
Peoria, IL	49	29	13	4	1	2	2
Rockford, IL	53	41	7	2	2	1	1
South Bend, IN	44	35	9	—	—	—	4
Toledo, OH	100	76	19	2	2	1	2
Youngstown, OH	72	59	9	3	1	—	1
W.N. Central	651	437	152	31	16	15	49
Des Moines, IA	80	62	15	2	—	1	5
Duluth, MN	35	22	12	—	1	—	2
Kansas City, KS	31	20	4	3	3	1	3
Kansas City, MO	106	80	20	1	4	1	8
Lincoln, NE	38	31	6	1	—	—	5
Minneapolis, MN	70	44	19	3	3	1	7
Omaha, NE	89	58	21	6	2	2	7
St. Louis, MO	66	35	19	5	1	6	4
St. Paul, MN	53	31	17	3	1	1	2
Wichita, KS	83	54	19	7	1	2	6
S. Atlantic	1,491	976	355	100	35	25	91
Atlanta, GA	189	117	54	12	2	4	9
Baltimore, MD	176	109	48	11	4	4	14
Charlotte, NC	123	81	30	8	1	3	8
Jacksonville, FL	239	158	52	20	6	3	23
Miami, FL	162	116	27	12	4	3	12
Norfolk, VA	76	47	17	7	3	2	3
Richmond, VA	59	33	18	5	2	1	5
Savannah, GA	42	29	13	—	—	—	2
St. Petersburg, FL	63	38	15	5	3	2	3
Tampa, FL	232	165	46	16	4	1	9
Washington, D.C.	117	71	34	4	6	2	—
Wilmington, DE	13	12	1	—	—	—	3
E.S. Central	931	610	215	65	26	15	68
Birmingham, AL	196	115	52	14	8	7	18
Chattanooga, TN	73	54	14	4	1	—	4
Knoxville, TN	102	77	15	5	3	2	6
Lexington, KY	73	49	17	5	2	—	7
Memphis, TN	169	107	39	14	6	3	15
Mobile, AL	96	69	20	6	1	—	6
Montgomery, AL	79	52	19	5	3	—	7
Nashville, TN	143	87	39	12	2	3	5
W.S. Central	1,559	943	403	126	45	42	83
Austin, TX	83	55	23	4	—	1	2
Baton Rouge, LA	82	49	18	15	—	—	—
Corpus Christi, TX	70	50	16	3	1	—	5
Dallas, TX	210	108	57	26	7	12	16
El Paso, TX	132	89	32	7	4	—	6
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	431	237	133	33	15	13	16
Little Rock, AR	102	62	27	3	6	4	3
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	274	184	54	18	10	8	23
Shreveport, LA	55	34	12	6	1	2	4
Tulsa, OK	120	75	31	11	1	2	8
Mountain	1,072	696	259	67	29	21	83
Albuquerque, NM	U	U	U	U	U	U	U
Boise, ID	51	37	12	1	1	—	4
Colorado Springs, CO	57	38	7	10	1	1	1
Denver, CO	90	50	25	6	3	6	6
Las Vegas, NV	267	162	69	24	8	4	20
Ogden, UT	34	24	6	1	2	1	3
Phoenix, AZ	236	144	64	13	8	7	16
Pueblo, CO	43	25	15	2	1	—	4
Salt Lake City, UT	129	96	23	5	3	2	11
Tucson, AZ	165	120	38	5	2	—	18
Pacific	1,704	1,219	344	76	30	35	191
Berkeley, CA	21	13	2	—	1	5	1
Fresno, CA	133	100	20	9	1	3	15
Glendale, CA	32	27	4	1	—	—	4
Honolulu, HI	101	67	23	4	5	2	11
Long Beach, CA	80	56	18	2	2	2	13
Los Angeles, CA	276	196	58	10	5	7	49
Pasadena, CA	29	23	5	1	—	—	2
Portland, OR	109	78	21	6	2	2	11
Sacramento, CA	197	135	46	9	3	4	26
San Diego, CA	173	131	28	9	1	4	23
San Francisco, CA	U	U	U	U	U	U	U
San Jose, CA	174	123	42	6	2	1	11
Santa Cruz, CA	31	21	8	1	1	—	2
Seattle, WA	142	91	36	10	2	3	13
Spokane, WA	75	58	12	3	2	—	7
Tacoma, WA	131	100	21	5	3	2	3
Total¶	**11,876**	**7,939**	**2,699**	**719**	**274**	**243**	**858**

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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