

HIV Infection and HIV-Associated Behaviors Among Injecting Drug Users — 20 Cities, United States, 2009

Despite a recent reduction in the number of human immunodeficiency virus (HIV) infections attributed to injecting drug use in the United States (1), 9% of new U.S. HIV infections in 2009 occurred among injecting drug users (IDUs) (2). To monitor HIV-associated behaviors and HIV prevalence among IDUs, CDC's National HIV Behavioral Surveillance System (NHBS) conducts interviews and HIV testing in selected metropolitan statistical areas (MSAs). This report summarizes data from 10,073 IDUs interviewed and tested in 20 MSAs in 2009. Of IDUs tested, 9% had a positive HIV test result, and 45% of those testing positive were unaware of their infection. Among the 9,565 IDUs with HIV negative or unknown HIV status before the survey, 69% reported having unprotected vaginal sex, 34% reported sharing syringes, and 23% reported having unprotected heterosexual anal sex during the 12 previous months. Although these risk behavior prevalences appear to warrant increased access to HIV testing and prevention services, for the previous 12-month period, only 49% of the IDUs at risk for acquiring HIV infection reported having been tested for HIV, and 19% reported participating in a behavioral intervention. Increased HIV prevention and testing efforts are needed to further reduce HIV infections among IDUs.

NHBS monitors HIV-associated behaviors and HIV prevalence among populations at high risk for acquiring HIV. In 2009, NHBS staff members in 20 MSAs with high prevalence of acquired immunodeficiency syndrome (AIDS)* collected cross-sectional behavioral risk data and conducted HIV testing among IDUs using respondent-driven sampling, a peer-referral sampling method (3,4). Recruitment chains in each city began with one to 15 initial participants recruited by NHBS staff

members during formative assessment and planning. Initial participants who completed the interview were asked to recruit up to five other IDUs through use of a coded coupon system designed to track referrals. Recruitment continued for multiple waves; all participation was voluntary. Persons were eligible to participate if they had injected drugs during the previous 12 months, resided in the MSA, and could complete the interview in English or Spanish. After participants gave oral informed consent, in-person interviews were conducted by trained interviewers who administered a standardized, anonymous questionnaire about HIV-associated behaviors. All respondents were offered anonymous HIV testing, which was performed by collecting blood or oral specimens for either rapid testing in the field or laboratory-based testing. A nonreactive rapid test result was considered HIV negative; a reactive rapid test result was considered HIV positive if confirmed by Western blot or indirect immunofluorescence assay. Incentives were offered for participating in the interview, completing an HIV test, and for recruiting IDUs to participate.†

For this report, data on HIV testing and 13 HIV-associated behaviors were analyzed. Participants were asked whether, in the previous 12 months, they 1) had shared syringes; 2) had shared injection equipment other than syringes; 3) had vaginal

† The incentive format (cash or gift card) and amount varied by MSA based on formative assessment and local policy. A typical format included \$25 for completing the interview, \$25 for providing a specimen for HIV testing, and \$10 for each successful recruitment (maximum of five).

*The 20 MSAs were Atlanta, Georgia; Baltimore, Maryland; Boston, Massachusetts; Chicago, Illinois; Dallas, Texas; Denver, Colorado; Detroit, Michigan; Houston, Texas; Los Angeles, California; Miami, Florida; Nassau-Suffolk, New York; New Orleans, Louisiana; New York, New York; Newark, New Jersey; Philadelphia, Pennsylvania; San Diego, California; San Francisco, California; San Juan, Puerto Rico; Seattle, Washington; and Washington, District of Columbia.

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sex; 4) had unprotected vaginal sex; 5) had heterosexual anal sex; 6) had unprotected heterosexual anal sex; 7) had male-male anal sex; 8) had unprotected male-male anal sex; 9) had more than one opposite sex partner; 10) had been tested previously for HIV infection; and 11) had participated in an HIV behavioral intervention. In addition, participants were asked whether they had ever been tested for 12) HIV or 13) hepatitis C virus (HCV) infection.[§] IDUs who tested HIV positive during the survey were defined as unaware of their HIV infection if they had reported that their most recent previous HIV test result was negative, indeterminate, or unknown, or that they had never been tested. IDUs with self-reported negative, indeterminate, or unknown status (including those who tested positive during the survey), were considered to be at risk for acquiring HIV. Data from each MSA were analyzed using a respondent-driven sampling analysis tool that produces estimates adjusted for differences in peer recruitment patterns and size of participant

IDU peer networks. Results from these analyses were aggregated and weighted by the size of the IDU population in each MSA (5) to obtain estimates overall.[¶]

In 2009, a total of 13,186 persons were recruited to participate; of these, 2,687 (20%) were found ineligible. An additional 426 (3%) eligible participants were excluded from analysis.** Data for the remaining 10,073 participants were used in the analysis of HIV prevalence and participant awareness of serostatus (Table 1). To focus the analysis of HIV-associated behaviors on persons at risk for acquiring HIV infection, 508 participants who reported that they previously had tested positive for HIV were excluded (Table 2).

Among 10,073 IDUs, 9% tested positive for HIV. Prevalence of HIV infection was higher among Hispanics (12%) and non-Hispanic blacks (11%) than non-Hispanic whites (6%). IDUs in the Northeast and South regions had higher HIV prevalence (12% and 11%) than those in the Midwest and West regions

[§] Sharing syringes was defined as “using needles that someone else had already injected with.” Sharing injection equipment was defined as using cookers, cottons, or water to rinse needles or prepare drugs “that someone else had already used.” Unprotected vaginal and anal sex were defined as “sex without a condom.” Male-male anal sex was restricted to males and includes both insertive and receptive anal sex. Participating in an individual or group HIV behavioral intervention (e.g., a one-on-one conversation with a counselor or an organized discussion regarding HIV prevention) did not include counseling received as part of an HIV test. Testing for HCV infection was measured as ever tested or ever received a diagnosis of hepatitis C.

[¶] City-level estimates with inadequate sample size for analysis (five or fewer observations) were excluded from aggregation. For city-level estimates for which confidence intervals could not be calculated, maximally wide confidence intervals (0–1) were used in aggregation. Such estimates represented <4% of the analysis.

** Data from 426 participants were excluded because of missing recruitment data (five participants), lost data during electronic upload (142), incomplete survey data (25), survey responses with questionable validity (63), invalid HIV test results (130), could not be identified as male or female (53), or other reason (eight). Reasons for exclusion were not mutually exclusive and were applied hierarchically in the order listed.

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TABLE 1. Estimated prevalence of human immunodeficiency virus (HIV) infection among injecting drug users (IDUs) (N = 10,073), by selected characteristics — National HIV Behavioral Surveillance System,* United States, 2009

Characteristic	Overall [†]		HIV prevalence [†]	
	%	(95% CI)	%	(95% CI)
Overall	100	—	9	(8–11)
Sex				
Men	71	(69–73)	9	(8–10)
Women	29	(27–31)	10	(8–13)
Race/Ethnicity				
Hispanic	22	(20–25)	12	(9–15)
Black, non-Hispanic	42	(40–44)	11	(10–13)
White, non-Hispanic	31	(29–34)	6	(4–8)
Other [‡]	4	(4–5)	—	—
Age group (yrs)				
18–29	11	(10–13)	3	(0–10)
30–39	19	(18–21)	10	(6–13)
40–49	32	(30–34)	11	(9–13)
≥50	38	(36–39)	10	(7–12)
Education				
Less than high school diploma	36	(34–38)	13	(10–15)
High school diploma	39	(37–41)	8	(6–10)
More than high school diploma	25	(24–27)	7	(5–9)
Poverty level				
At or below federal poverty level	81	(80–83)	10	(8–11)
Above federal poverty level	19	(17–20)	7	(4–9)
Drug injected most frequently				
Heroin only	64	(62–66)	7	(4–9)
Other/Multiple [¶]	36	(34–38)	14	(12–16)
Region**				
Northeast	34	(21–48)	12	(9–14)
South	27	(13–40)	11	(9–14)
Midwest	8	(0–22)	5	(2–7)
West	28	(15–42)	6	(4–8)

Abbreviation: CI = confidence interval.

* The National HIV Behavioral Surveillance System covers the following 20 metropolitan statistical areas (MSAs): Atlanta, Georgia; Baltimore, Maryland; Boston, Massachusetts; Chicago, Illinois; Dallas, Texas; Denver, Colorado; Detroit, Michigan; Houston, Texas; Los Angeles, California; Miami, Florida; Nassau-Suffolk, New York; New Orleans, Louisiana; New York, New York; Newark, New Jersey; Philadelphia, Pennsylvania; San Diego, California; San Francisco, California; San Juan, Puerto Rico; Seattle, Washington; and Washington, District of Columbia.

[†] Percentages were weighted to adjust for differences in recruitment, the size of participants' networks of IDUs, and the size of the population of IDUs in each MSA.

[‡] Includes American Indian/Alaska Natives, Asians, Native Hawaiian or other Pacific Islanders, and persons of multiple races.

[¶] Other drugs injected alone or two or more drugs injected with the same frequency.

** The Northeast region includes the MSAs of Boston, Massachusetts; Nassau-Suffolk, New York; New York, New York; Newark, New Jersey; and Philadelphia, Pennsylvania. South region includes Atlanta, Georgia; Baltimore, Maryland; Dallas, Texas; Houston, Texas; Miami, Florida; New Orleans, Louisiana; and Washington, District of Columbia. Midwest region includes Chicago, Illinois and Detroit, Michigan. West region includes Denver, Colorado; Los Angeles, California; San Diego, California; San Francisco, California; and Seattle, Washington. San Juan, Puerto Rico, was not included.

(5% and 6%). Those with less than a high school education had higher HIV prevalence (13%) than IDUs who completed high school (8%) or had more than high school education (7%)

What is already known on this topic?

Injecting drug users (IDUs) in the United States are at increased risk for acquiring human immunodeficiency virus (HIV) infection. Surveys of IDUs entering drug treatment centers during 1993–1997 found local HIV prevalence ranging from 1% to 37% and an overall prevalence of 18%.

What is added by this report?

The National HIV Behavioral Surveillance System recruited 10,073 IDUs from 20 U.S. metropolitan statistical areas to be interviewed and tested for HIV infection in 2009. Nine percent tested positive for HIV, of whom 45% were unaware of their infection. Among those at risk for acquiring HIV infection, 34% reported sharing syringes, and 69% reported having unprotected vaginal sex in the previous 12 months.

What are the implications for public health practice?

Many IDUs are at risk for acquiring HIV infection because of their drug use practices and sexual behaviors, and a substantial percentage of IDUs in urban areas with high HIV prevalence are already infected but unaware of their infection. To prevent infections, IDUs need ready access to HIV testing, new sterile syringes, condoms, and substance abuse treatment.

(Table 1). Among HIV-infected IDUs, 45% (95% confidence interval [CI] = 38%–51%) were unaware of their infection.

Among the 9,565 IDUs at risk for acquiring HIV infection and responding to questions regarding HIV-associated behaviors in the previous 12 months, 34% reported sharing syringes, 46% reported multiple opposite sex partners, 69% reported unprotected vaginal sex, and 23% reported unprotected heterosexual anal sex. In addition, 19% reported participating in an HIV behavioral intervention, and 49% reported having had an HIV test (Table 2).

Among the IDUs at risk for acquiring HIV infection, 72% reported ever being tested for HCV infection (Table 2), and 89% (CI = 88%–90%) reported ever having an HIV test. Among male IDUs at risk for acquiring HIV infection, 7% (CI = 5%–8%) reported male-male anal sex in the previous 12 months, and 5% (CI = 3%–7%) reported unprotected male-male anal sex in the previous 12 months.

The prevalence of HIV-associated risk behaviors in the previous 12 months generally decreased with increasing age. For example, among persons aged 18–29 years, 52% reported sharing syringes, compared with 39% aged 30–39 years, 34% aged 40–49 years, and 25% aged ≥50 years. A higher percentage of IDUs with less than a high school education reported sharing syringes (38%), compared with high school graduates (32%) or those with higher education (31%). Lower percentages of IDUs with less than a high school education reported participation in HIV interventions (16%) and testing for HCV infection (67%), compared with those with a high school education (20% and 73%, respectively) and those with higher

TABLE 2. Estimated percentage* of injecting drug users at risk for acquiring human immunodeficiency virus (HIV) infection (n = 9,565)[†] who engaged in behaviors[§] associated with HIV infection, by selected characteristics — National HIV Behavioral Surveillance System,[¶] United States, 2009

Characteristic	Shared syringes (95% CI)	Shared injection equipment (95% CI)	Had vaginal sex (95% CI)	Had unprotected vaginal sex (95% CI)	Had heterosexual anal sex (95% CI)	Had unprotected heterosexual anal sex (95% CI)	Had more than one opposite sex partner (95% CI)	Was tested for HIV infection (95% CI)	Participated in behavioral intervention (95% CI)	Was ever tested for hepatitis C** (95% CI)
Overall	34 (32–36)	58 (56–60)	80 (78–82)	69 (67–71)	29 (27–31)	23 (21–24)	46 (44–48)	49 (47–51)	19 (18–21)	72 (70–74)
Sex										
Men	32 (30–34)	57 (54–59)	79 (77–81)	67 (65–69)	29 (27–31)	23 (21–25)	45 (43–48)	47 (45–50)	18 (17–20)	71 (69–73)
Women	38 (35–42)	60 (57–64)	81 (79–84)	73 (70–76)	28 (25–31)	22 (20–25)	47 (43–50)	52 (48–55)	22 (19–25)	73 (70–77)
Race/Ethnicity										
Hispanic	34 (30–38)	59 (55–63)	81 (78–85)	67 (62–71)	40 (35–44)	31 (27–35)	45 (40–50)	48 (44–53)	17 (13–20)	71 (67–75)
Black, non-Hispanic	27 (24–29)	54 (51–57)	81 (79–84)	69 (67–72)	24 (22–27)	19 (17–21)	47 (44–50)	52 (49–54)	21 (18–23)	67 (64–70)
White, non-Hispanic	43 (39–47)	62 (58–66)	80 (76–83)	72 (68–76)	29 (26–32)	23 (20–26)	45 (42–49)	44 (40–48)	20 (17–22)	78 (74–81)
Other ^{††}	40 (31–50)	58 (50–67)	71 (61–80)	59 (50–67)	23 (16–30)	16 (11–21)	47 (39–56)	52 (43–61)	18 (13–23)	80 (72–87)
Age group (yrs)										
18–29	52 (47–57)	73 (69–78)	92 (88–97)	83 (79–88)	44 (38–49)	35 (30–40)	62 (57–67)	52 (46–58)	23 (18–27)	70 (65–75)
30–39	39 (34–44)	64 (60–68)	88 (85–91)	79 (75–83)	41 (37–45)	35 (30–39)	51 (46–56)	48 (43–53)	19 (16–23)	72 (67–76)
40–49	34 (31–38)	55 (52–59)	79 (76–82)	69 (65–72)	28 (25–31)	22 (19–25)	45 (41–48)	54 (51–58)	19 (16–22)	71 (68–75)
≥50	25 (23–28)	52 (49–55)	72 (70–75)	59 (56–62)	19 (16–21)	14 (12–15)	39 (36–42)	43 (40–46)	19 (16–22)	73 (70–76)
Education										
Less than high school diploma	38 (35–42)	59 (56–62)	81 (78–83)	69 (67–72)	32 (29–35)	26 (23–29)	47 (43–50)	47 (43–50)	16 (14–18)	67 (63–70)
High school diploma	32 (30–35)	57 (54–60)	79 (76–82)	68 (65–71)	27 (24–30)	21 (19–23)	43 (40–46)	50 (47–53)	20 (18–23)	73 (70–75)
More than high school diploma	31 (27–35)	57 (53–61)	81 (78–84)	69 (66–73)	28 (24–31)	22 (18–25)	49 (46–53)	49 (45–53)	24 (20–27)	78 (74–81)
Poverty level										
At or below federal poverty level	35 (33–38)	58 (56–60)	80 (78–82)	68 (66–70)	28 (26–30)	22 (20–24)	46 (43–49)	48 (46–50)	20 (18–22)	70 (68–72)
Above federal poverty level	27 (23–31)	55 (51–59)	81 (77–85)	71 (67–75)	30 (26–34)	24 (21–28)	43 (39–48)	52 (48–57)	18 (15–21)	78 (75–82)

See table footnotes on page 137.

deduction (24% and 78%, respectively). A higher percentage of those living at or below the federal poverty level (35%) shared syringes than those above the poverty level (27%), and a lower percentage of those living at or below the poverty level had HCV testing (70%) than those above the poverty level (78%) (Table 2).

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Editorial Note

The 2009 data in this report provide the first estimates from a large-scale survey of HIV seroprevalence among IDUs since 1993–1997, when CDC conducted anonymous HIV testing among IDUs entering drug treatment centers in 14 MSAs (6). In the study of IDUs entering drug treatment, HIV prevalence was found to be 18% (range by MSA = 1%–37%). In this analysis, 9% of IDUs tested positive for HIV infection. Furthermore, 45% of those testing positive were unaware of their infection.

Risk behavior prevalences in this report showing that IDUs are at risk for acquiring HIV infection through their sexual behavior in addition to their drug use practices are similar to previously reported NHBS surveillance data (7). Compared with a similar analysis of IDUs interviewed during 2005–2006,

TABLE 2. (Continued) Estimated percentage* of injecting drug users at risk for acquiring human immunodeficiency virus (HIV) infection (n = 9,565)[†] who engaged in behaviors[§] associated with HIV infection, by selected characteristics — National HIV Behavioral Surveillance System,[¶] United States, 2009

Characteristic	Shared syringes (95% CI)	Shared injection equipment (95% CI)	Had vaginal sex (95% CI)	Had unprotected vaginal sex (95% CI)	Had heterosexual anal sex (95% CI)	Had unprotected heterosexual anal sex (95% CI)	Had more than one opposite sex partner (95% CI)	Was tested for HIV infection (95% CI)	Participated in behavioral intervention (95% CI)	Was ever tested for hepatitis C** (95% CI)
Drug injected most frequently										
Heroin only	33 (30–35)	57 (54–59)	78 (76–81)	66 (64–69)	25 (23–27)	20 (18–22)	42 (39–44)	47 (45–50)	19 (17–21)	73 (70–75)
Other/Multiple ^{§§}	36 (33–39)	60 (57–63)	83 (80–86)	74 (71–77)	35 (32–38)	27 (24–30)	53 (50–56)	51 (48–55)	21 (18–23)	70 (67–73)
Region^{¶¶}										
Northeast	35 (32–39)	55 (51–59)	82 (78–85)	71 (67–75)	34 (30–37)	27 (24–30)	46 (42–50)	51 (47–55)	22 (19–25)	74 (71–78)
South	33 (30–37)	62 (59–65)	84 (82–86)	73 (70–76)	26 (23–29)	20 (17–23)	48 (44–51)	53 (50–56)	21 (18–24)	68 (64–71)
Midwest	26 (22–31)	44 (39–49)	80 (76–85)	62 (57–67)	24 (20–28)	17 (13–20)	48 (43–53)	41 (37–46)	11 (8–14)	59 (54–64)
West	35 (32–39)	61 (57–65)	74 (70–78)	64 (60–68)	26 (22–29)	20 (17–24)	43 (39–47)	45 (40–49)	16 (13–19)	77 (73–81)

Abbreviation: CI = confidence interval.

* Percentages were weighted to adjust for differences in recruitment, the size of participants' networks of IDUs, and the size of the population of IDUs in each metropolitan statistical area (MSA).

[†] IDUs at risk for acquiring HIV infection were defined as those reporting having never had an HIV test or that their most recent HIV test result was negative, indeterminate, or unknown. This group includes those IDUs who did not know they were HIV positive before the interview but tested positive during the interview.

[§] Sharing syringes was defined as "using needles that someone else had already injected with," and sharing injection equipment was defined as using equipment such as cookers, cottons, or water used to rinse needles or prepare drugs "that someone else had already used." Unprotected vaginal sex/Unprotected anal sex was defined as "sex without a condom." Participating in an individual or group HIV behavioral intervention (e.g., a one-on-one conversation with a counselor or an organized discussion regarding HIV prevention) did not include counseling received as part of an HIV test.

[¶] The National HIV Behavioral Surveillance System covers the following MSAs: Atlanta, Georgia; Baltimore, Maryland; Boston, Massachusetts; Chicago, Illinois; Dallas, Texas; Denver, Colorado; Detroit, Michigan; Houston, Texas; Los Angeles, California; Miami, Florida; Nassau-Suffolk, New York; New Orleans, Louisiana; New York, New York; Newark, New Jersey; Philadelphia, Pennsylvania; San Diego, California; San Francisco, California; San Juan, Puerto Rico; Seattle, Washington; and Washington, District of Columbia.

** Testing for hepatitis C virus infection was measured as ever tested or ever received a diagnosis of hepatitis C. All other behaviors are reported for the previous 12 months.

^{††} Includes American Indian/Alaska Natives, Asians, Native Hawaiian or other Pacific Islanders, and persons of multiple races.

^{§§} Other drugs injected alone or two or more drugs injected with the same frequency.

^{¶¶} The Northeast region includes the MSAs of Boston, Massachusetts; Nassau-Suffolk, New York; New York, New York; Newark, New Jersey; and Philadelphia, Pennsylvania. South region includes Atlanta, Georgia; Baltimore, Maryland; Dallas, Texas; Houston, Texas; Miami, Florida; New Orleans, Louisiana; and Washington, District of Columbia. Midwest region includes Chicago, Illinois and Detroit, Michigan. West region includes Denver, Colorado; Los Angeles, California; San Diego, California; San Francisco, California; and Seattle, Washington. San Juan, Puerto Rico, was not included.

lower percentages in this 2009 study reported receiving HIV interventions (19% compared with 30%) and HIV testing (49% compared with 66%) in the previous 12 months (7). These results highlight the need for expanded HIV testing and prevention among IDUs. The combination of declining HIV prevalence and high-risk behavior represent a critical intervention opportunity to further reduce HIV prevalence and incidence among IDUs.

Consistent with previous reports (8), this analysis found higher HIV prevalence among Hispanic and non-Hispanic black IDUs than non-Hispanic white IDUs. However, minority IDUs were neither more nor less likely to have received HIV testing, participated in HIV behavioral interventions, or engaged in risk behaviors than white IDUs in the 12 months preceding the NHBS interview. These data suggest factors not assessed by this study might be contributing to racial/ethnic disparities in HIV prevalence among IDUs.

The findings in this report are subject to at least three limitations. First, some participants might not have accurately reported their behavior to interviewers, and results might be affected by social desirability bias. Second, because no method of obtaining

probability samples of IDUs exists, the representativeness of the NHBS sample cannot be determined. Although respondent-driven sampling adjusts for some selection biases (4), other biases might have affected the sample. Finally, IDUs were interviewed in 20 MSAs with high AIDS prevalence; findings from these cities might not be generalizable to other cities or states.

To reduce the number of new HIV infections, the National HIV/AIDS Strategy^{††} calls for intensifying prevention efforts in communities where HIV is most heavily concentrated. CDC's high impact prevention approach^{§§} is an essential step toward achieving the goals of the national strategy. HIV prevention strategies for IDUs, including HIV testing and linkage to care, prevention and care for HIV-infected IDUs, and access to new sterile syringes,^{¶¶} have been shown to be effective. Targeted, effective approaches to HIV prevention will help reduce the number of new HIV infections among IDUs.

^{††} Additional information available at <http://www.whitehouse.gov/administration/eop/onap/nhas>.

^{§§} Additional information available at <http://www.cdc.gov/hiv/strategy>.

^{¶¶} In December 2011, Congress reinstated a ban on the use of federal funds for carrying out any program of distributing sterile needles or syringes for hypodermic injection of illegal drugs.

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Exposure to Nitrogen Dioxide in an Indoor Ice Arena — New Hampshire, 2011

In January 2011, the New Hampshire Department of Health and Human Services (NHDHHS) investigated acute respiratory symptoms in a group of ice hockey players. The symptoms, which included cough, shortness of breath, hemoptysis, and chest pain or tightness, were consistent with exposure to nitrogen dioxide gas (NO₂), a byproduct of combustion. Environmental and epidemiologic investigations were begun to determine the source of the exposure and identify potentially exposed persons. This report summarizes the results of those investigations, which implicated a local indoor ice arena that had hosted two hockey practice sessions during a 24-hour period when the arena ventilation system was not functioning. A total of 43 exposed persons were interviewed, of whom 31 (72.1%) reported symptoms consistent with NO₂ exposure. The highest attack rate was among the hockey players (87.9%). After repair of the ventilation system, no additional cases were identified. To prevent similar episodes, ice arena operators should ensure ventilation systems and alarms are operating properly and that levels of NO₂ and carbon monoxide (CO) are monitored continuously for early detection of increased gas levels.

On January 4, 2011, NHDHHS was notified that a previously healthy male aged 19 years was hospitalized for sudden onset of cough, shortness of breath, and hemoptysis shortly after a team ice hockey practice. His physical examination was notable for crackles heard in both lung bases, and his oxygen saturation was decreased to 88%–91% on room air (normal: >95%). Bilateral infiltrates and nodules were observed on chest computed tomography. Investigation revealed that other members of his team (team A) and at least one player from another local team (team B) were experiencing similar symptoms and independently had been directed to local emergency departments. Both teams had practiced in the same ice arena on the evening of January 3.

Further investigation revealed that on the morning of January 3, the ventilation system circuit board failed while being serviced, making the ventilation system inoperable. Two arena workers then spent 60–90 minutes resurfacing the ice using propane-powered equipment, finishing at approximately 11:30 a.m. The workers later reported observing a yellow haze over the ice, but neither reported any symptoms. Team A's practice was held from 6:00 to 8:00 p.m., and team B's practice was from 8:00 to 10:00 p.m. The yellow haze was noted by players, coaches, and spectators at both practices. The next morning, January 4, at 9 a.m., the circuit board was replaced, and the ventilation system began operating normally. No other

exposures had occurred during the time the ventilation system was not functional.

The arena housed a standard-sized ice hockey rink and was owned by a private school. The rink ice was maintained using propane-powered ice-resurfacing machines. The arena had an air monitoring system for CO and carbon dioxide (CO₂), but not for NO₂.

On the evening of January 4, NHDHHS staff members began interviewing all 33 players and five coaches who were present at practices on January 3. From these initial interviews, case finding was expanded to include four practice spectators and the two arena workers who operated the resurfacing equipment, for a total of 44 exposed persons. Questionnaires that assessed symptoms, exposures, and environmental observations were administered by NHDHHS staff members in person or by telephone. All but one of the 44 exposed persons completed the questionnaire.

A case was defined as the onset of cough, hemoptysis, chest pain, chest tightening, shortness of breath, headache, dizziness, nausea, or vomiting within 48 hours of being in the ice arena from 11:00 a.m. on Monday, January 3, to 9:00 a.m. on Tuesday, January 4. Illnesses with symptoms consistent with the common cold (e.g., runny nose, fever, and head congestion) were not counted as cases. Using this definition, 31 cases were identified among the 43 persons interviewed: 29 among the 33 players (87.9%) and two among the five coaches (40%). None of the four spectators had illness consistent with the case definition, nor did the one arena worker who completed the questionnaire. Most patients (90.3%) had two or more symptoms (Table 1). Although 10 nonplayers (coaches, spectators, and arena personnel) were exposed, players were nearly four times as likely to become ill (87.9% versus 20.0%, risk ratio [RR] = 4.39, 95% confidence interval [CI] = 1.26–15.28). Compared with nonplayers, players also were more likely to have spent more time on the ice (defined as >1 hour versus ≤1 hour) (84.8% versus 40.0%, RR = 2.12, CI = 0.98–4.59). As time spent on the ice increased, so did the attack rate and amount of hemoptysis (Figure).

On January 5, the New Hampshire Department of Environmental Services (NHDES) and the New Hampshire State Fire Marshal's Office (NHFMO) inspected the ice arena. Measurements for CO and NO₂ were taken before running the resurfacing equipment (baseline conditions) and while operating the equipment, and recorded at breathing zone (where persons on the ice would be exposed) as well as adjacent to the equipment exhaust pipe. Air sampling was performed for NO₂ using a Gastec piston hand pump equipped with Sensidyne

TABLE 1. Number and percentage of persons with symptoms consistent with exposure to nitrogen dioxide gas (NO₂) in an indoor ice arena (N = 31) — New Hampshire, January 3, 2011

Symptom	No.	(%)
Cough	26	(83.9)
Shortness of breath	24	(77.4)
Chest tightness	20	(64.5)
Chest pain	14	(45.2)
Weakness	11	(35.5)
Sore throat	11	(35.5)
Nausea/Vomiting	10	(32.3)
Hemoptysis/Bloody sputum*	8	(25.8)
Throat irritation	8	(25.8)
Headache	8	(25.8)
Abdominal pain	6	(19.4)
Eye irritation	5	(16.1)
Dizziness	1	(3.2)
Choking	1	(3.2)

* Includes two persons with late-onset hemoptysis reported at follow-up survey.

colorimetric gas detector tubes. A TSI Q-Trak indoor air quality monitor was used to obtain direct readings for CO. While the ice resurfer was operating in the arena, the NO₂ concentration in the breathing zone increased, reaching 0.5 parts per million, the level at which corrective action must be taken according to regulations in states that regulate indoor air quality in ice arenas (Table 2). These measurements did not simulate actual conditions in the arena on January 3 because the arena ventilation system had been fully functional for approximately 24 hours at the time of sampling.

Beginning January 20, a follow-up questionnaire was administered to exposed persons to assess late-onset and persistent symptoms. Thirty-nine (90.7%) of the original 43 persons interviewed responded to the follow-up questionnaire. No new cases were identified; however, two of the original patients reported late onset of hemoptysis (at 5 days and 21 days postexposure) and were advised to seek medical evaluation. Six patients (20%) reported persistent symptoms: shortness of breath on exertion (four cases), cough (two cases), and fatigue (one case).

NHDEHS, in consultation with the Northern New England Poison Center, recommended that all exposed persons seek medical evaluation, even if asymptomatic, preferably at a designated occupational health clinic. Ultimately, 39 (90.6%) complied (30 of 31 [96.8%] patients and nine of 12 [75.0%] of persons without symptoms). After these initial medical evaluations, the need for follow-up was determined on a case-by-case basis, dependent on severity. NHDES and NHFMO recommended that the arena include an NO₂ sensor in the air monitoring system, establish alarm set points for CO and NO₂ in line with air action level recommendations (Table 2), and test this system at least monthly. The arena also was advised to conduct maintenance and tailpipe emissions testing on all ice resurfacing equipment at the beginning of the ice arena season

What is already known on this topic?

Combustion byproducts are a known threat to indoor air quality in ice arenas; however, nitrogen dioxide gas (NO₂) is monitored less frequently than carbon monoxide, and signs and symptoms of NO₂ intoxication are less well known than those of carbon monoxide.

What is added by this report?

The use of propane-powered ice-resurfacing equipment for 60–90 minutes in an indoor ice arena without an operating ventilation system caused symptoms of NO₂ intoxication in 31 of 43 exposed persons, including 31 of 42 persons who first entered the arena more than 6 hours after the ice resurfacing had been completed.

What are the implications for public health practice?

Because exposure to NO₂ can occur more frequently than is recognized, public health agencies should consider educating ice arena operators about the importance of arena ventilation, air monitoring for combustion gases, and maintenance of propane-powered equipment, if use of electric ice resurfacing equipment is not feasible. Additionally, ice arena operators as well as ice hockey players and coaches who use indoor rinks should be familiar with the signs and symptoms of NO₂ toxicity.

and at least once during the season, and consider installing catalytic converters to reduce emissions. However, the most reliable way to prevent exposure in this setting is to replace propane-powered equipment with electric equipment, which should be considered as a long-term solution.

Reported by

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Editorial Note

Respiratory illness caused by NO₂ in indoor hockey rinks has been documented infrequently in the literature. Hazardous levels of NO₂ in ice arenas often result from malfunction of propane-fueled ice resurfacing equipment or arena ventilation systems (1–5).

TABLE 2. Air quality recommendations for ice arena owners and managers

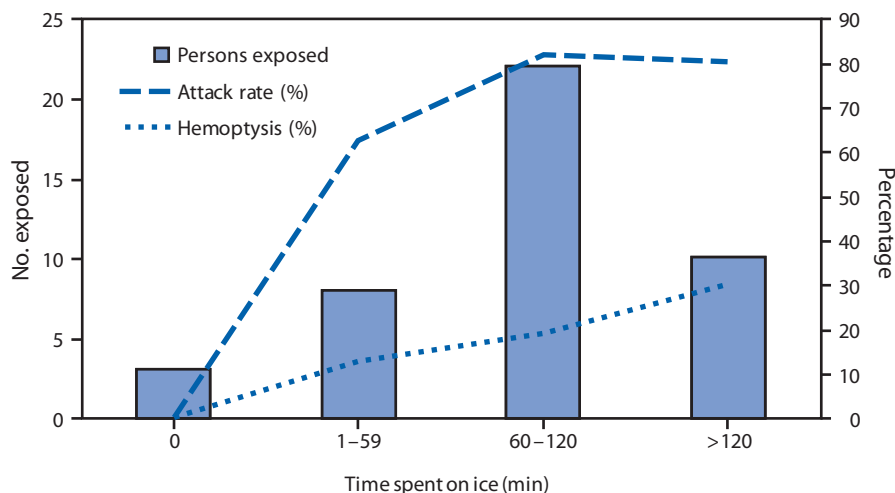
Recommendation	Description
Air quality in ice arenas: action steps*	<ul style="list-style-type: none"> • Educate workers on their role in indoor air quality and protecting occupants. • Establish a system of monitoring air quality • Establish procedures for responding to indoor air complaints and emergencies • Provide continuous ventilation whenever a rink is occupied • At a minimum, use ventilation requirements for sports arenas as described in the ASHRAE <i>Ventilation for Acceptable Indoor Air Quality, Standard 62.1-2007</i> (or most recent edition) • Ensure that fresh air intake is not blocked and not located near the exhaust from loading docks and outside idling vehicles • Consider replacing older equipment that does not meet current Environmental Protection Agency emissions standards with newer compliant equipment or upgrade to most efficient burning fuel type and pollution control devices • Warm up resurfacing equipment in a well-ventilated room or a room equipped with a local exhaust • Use ice edgers only when the ventilation system can adequately exhaust the emissions. Keep arena gates open when resurfacing to allow for adequate ventilation of the ice area • Keep resurfacing equipment well maintained daily and serviced annually by a qualified technician
Air action levels†	<ul style="list-style-type: none"> • Immediate evacuation level: 85 ppm for CO or 2 ppm for NO₂ • Corrective action level: 25 ppm for CO or 0.5 ppm for NO₂

Abbreviations: ASHRAE = American Society of Heating, Refrigeration and Air-conditioning Engineers; CO = carbon monoxide; NO₂ = nitrogen oxide.

* **Source:** US Environmental Protection Agency. Indoor air quality and ice arenas. Washington, DC: US Environmental Protection Agency; 2010. Available at <http://www.epa.gov/iaq/icearenas.html>.

† No federal recommendations or regulations exist for air action levels in ice arenas. These recommendations are taken from Minnesota Department of Health Interim Regulations 4620 and Massachusetts Department of Public Health Regulation 105 CMR 675.000.

FIGURE. Outcomes among persons exposed to nitrogen dioxide gas (NO₂) in an indoor ice arena (N = 43), by time spent on ice — New Hampshire, January 3, 2011*



* Cochran-Armitage test for trend: attack rate, $p=0.01$; hemoptysis, $p=0.06$.

Most ice arenas are designed to minimize natural ventilation in an effort to keep warm air away from the ice surface and the ice temperature near freezing. This can create a thermal inversion in which cold air and gases (especially NO₂, which is denser than air) become trapped over the ice (6). The protective glass between spectator stands and the ice rink creates an additional barrier to airflow. In this episode, exposure was made worse by prolonged use of propane-powered ice resurfacers while the ventilation system was off.

Nitrogen dioxide is a yellow to reddish brown gas that irritates the upper and lower respiratory tracts and can cause short-term central nervous system symptoms (6). Severity of symptoms is related to duration of NO₂ exposure (5,6), although exertion with increased frequency and depth of respiration might have made the hockey players more susceptible than the spectators or coaches to the effects of the gas. This has been reported during other exposures (4). No specific antidote for NO₂ toxicity exists, and therapy is focused on supportive care and prolonged monitoring (6). The long-term consequences of acute NO₂ exposure are not well understood, but in this instance, six of 31 persons had persistent symptoms up to 4 weeks postexposure. Other studies document self-reported symptoms several weeks after exposure (4), 6 months postexposure (1), and even 5 years postexposure (7). However, tests of pulmonary function (e.g., spirometry and bronchoprovocation) at 10 days, 2 months, and 6 months postexposure have provided little objective evidence of compromised lung function (1,4). The small but unpredictable potential for delayed development of life-threatening conditions such as bronchiolitis obliterans warrants follow-up of exposed persons (6).

The findings in this report are subject to at least two limitations. First, a broad case definition was used to ensure complete case finding and appropriate follow-up; however, this might have led to inflation of the attack rate. Second, with the exception of the index case, symptom data were based on self-report, which also might have inflated the attack rate.

No federal regulations exist for indoor air quality in ice arenas, and only three states have enacted regulations (Minnesota, Rhode Island, and Massachusetts). Only Minnesota and Massachusetts specify limits for NO₂ levels. After this incident, NHFMO sent an informational bulletin to all indoor ice arenas in the state based, in part, on recommendations from the U.S. Environmental Protection Agency and the regulations existing in other states (Table 2). Without legislated regulations, however, direct education of the public about signs and symptoms of NO₂ exposure and education of arena staff about the risk of NO₂ toxicity is important for prevention.

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Tamas Peredy, MD, Northern New England Poison Center, Portland, Maine. Claudia Alvarado, Jill Drouin, Kenneth Dufault, MaryLee Greaves, Pamela Hill, Sarah Krycki, Jose Montero, MD, Karin Salome, New Hampshire Dept of Health and Human Svcs.

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Chronic Obstructive Pulmonary Disease and Associated Health-Care Resource Use — North Carolina, 2007 and 2009

Chronic obstructive pulmonary disease (COPD), including emphysema and chronic bronchitis, is a progressive condition in which airflow becomes limited, making it difficult to breathe. Chronic lower respiratory diseases, primarily COPD, are the third leading cause of death in the United States (1), and 5.1% of U.S. adults report a diagnosis of emphysema or chronic bronchitis (2). Smoking is the primary cause of COPD, and at least 75% of COPD deaths are attributable to smoking in the United States (3). Information on state-specific prevalence of COPD is sparse (4), as are data on the use of COPD-related health-care resources. To understand how COPD affects adults in North Carolina and what resources are used by persons with COPD, 2007 and 2009 data from the North Carolina COPD module of the Behavioral Risk Factor Surveillance System (BRFSS) were analyzed. Among 26,227 respondents, 5.7% reported ever having been told by a health professional that they had COPD. Most adults with COPD reported ever having had a diagnostic breathing test (76.4% in 2007 and 82.4% in 2009). Among adults with COPD, 43.0% reported having gone to a physician and 14.9% visited an emergency department (ED) or were admitted to a hospital (2007) for COPD-related symptoms in the previous 12 months. Only 48.1% of persons reported daily use of medications for their COPD (2007). These results indicate that many adults with COPD might not have had adequate diagnostic spirometry, and many who might benefit from daily medications, such as long-acting bronchodilators and inhaled corticosteroids, are not taking them. Continued and expanded surveillance is needed to evaluate the effectiveness of prevention and intervention programs and support efforts to educate the public and physicians about COPD symptoms, diagnosis, and treatment.

BRFSS is a state-based, random-digit-dialed telephone survey of the civilian noninstitutionalized U.S. population aged ≥ 18 years that is conducted annually by state health departments in collaboration with CDC.* This report summarizes unique state-specific data collected by the North Carolina Division of Public Health in 2007 and 2009. Council of American Survey and Research Organizations (CASRO) response rates[†] for the state were 55.4% in 2007 and 62.5% in 2009. Cooperation rates[§] were 74.8% in 2007 and 80.5% in 2009.

* Additional information about BRFSS is available at <http://www.cdc.gov/brfss>.

[†] The percentage of persons who completed interviews among all eligible persons, including those who were not successfully contacted.

[§] The percentage of persons who completed interviews among all eligible persons who were contacted.

All respondents were asked, "Have you ever been told by a doctor or health professional that you have COPD, emphysema, or chronic bronchitis?" Respondents who answered "yes" to this question were asked a series of follow-up questions about health-care resource use and quality of life related to their COPD.[¶] Crude and age-adjusted (5) prevalence estimates and 95% confidence intervals (CI) were calculated for groups defined by selected characteristics. Statistical significance ($p < 0.05$) was determined by t-test. Follow-up questions were analyzed separately if they were not identical in the 2 years that the COPD module was administered.

Among respondents, 5.7% reported having been told by a health professional that they had COPD, emphysema, or chronic bronchitis (Table). The prevalence of self-reported COPD increased with age, from a low of 3.1% for adults aged 18–44 years, to $>10\%$ for adults aged ≥ 65 years. Respondents with less than a high school diploma were more likely to report COPD (11.1%) than those with a high school diploma (6.7%) or at least some college education (4.2%). No significant differences were observed by sex or race. Current smokers were more likely to report COPD (11.7%) than either former smokers (5.6%) or never smokers (3.0%).

Respondents who reported COPD were less likely to report having no personal doctor or health-care provider (16.0%) than respondents without COPD (23.0%) (Figure). However, persons with COPD were more likely to report cost as an obstacle to medical care (34.0% versus 17.0%), poor or fair health status (46.0% versus 16.0%), or moderate or severe disability

[¶] In 2007, the follow-up COPD module included the following questions: 1) "Have you ever been given a breathing test to diagnose your COPD, chronic bronchitis, or emphysema?" 2) "Would you say that shortness of breath affects the quality of your life?" 3) "Other than a routine visit, have you had to see a doctor in the past 12 months for symptoms related to shortness of breath, bronchitis, or other COPD, or emphysema flare?" 4) "Did you have to visit an emergency room or be admitted to the hospital in the past 12 months because of your COPD, chronic bronchitis, or emphysema?" and 5) "How many different medications do you currently take each day to help with your COPD, chronic bronchitis, or emphysema (categorized as none or at least one medication reported)?" In 2009, the follow-up COPD module included the following questions: 1) "Have you ever been given a breathing test, which measures how much air you can breathe out through a tube, to diagnose your COPD, chronic bronchitis, or emphysema?" 2) "Would you say that shortness of breath affects the quality of your life?" 3) "Other than a routine visit, have you had to see a doctor in the past 12 months for symptoms related to shortness of breath, bronchitis, or other COPD, or emphysema flare?" 4) "During the past 12 months, have you stayed in a hospital overnight because of shortness of breath, COPD, or emphysema flare?" and 5) "Prednisone is a medicine that helps people with breathing problems breathe easier. It is sometimes called Deltasone or Medrol. During the past 12 months, has a doctor ever prescribed prednisone for your breathing problems?"

TABLE. Age-specific and age-adjusted* percentage of adults reporting having ever been told by a doctor or health professional that they had chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis, by selected characteristics — Behavioral Risk Factor Surveillance System (BRFSS), North Carolina, 2007 and 2009

Characteristic	No. of respondents [†]	No. with COPD [†]	%	(95% CI)
Total*	26,227	2,187	5.7	(5.3–6.1)
Year*				
2007	13,990	1,195	6.0	(5.5–6.6)
2009	12,237	992	5.4	(4.8–6.0)
Age group (yrs)				
18–44	7,395	256	3.1	(2.5–3.7)
45–54	5,202	361	6.4	(5.3–7.6)
55–64	5,587	570	8.6	(7.7–9.5)
65–74	4,579	608	11.7	(10.6–12.9)
≥75	3,464	392	10.4	(9.1–11.7)
Sex*				
Men	9,622	693	5.3	(4.7–6.1)
Women	16,605	1,494	6.0	(5.5–6.5)
Race*				
White	20,823	1,830	5.7	(5.2–6.1)
Black	3,668	244	4.9	(3.7–6.1)
Other [§]	1,606	106	6.7	(5.0–8.5)
Educational level*				
Less than high school diploma or GED	3,521	547	11.1	(9.4–12.8)
High school diploma or GED	7,766	766	6.7	(5.7–7.6)
At least some college	14,914	873	4.2	(3.7–4.6)
Smoking status*				
Current smoker	5,015	791	11.7	(10.4–13.1)
Former smoker	7,948	877	5.6	(4.9–6.3)
Never smoked	13,175	513	3.0	(2.5–3.5)

Abbreviations: COPD = chronic obstructive pulmonary disease, which includes emphysema and chronic bronchitis; CI = confidence interval; GED = General Education Development certificate.

* Age-adjusted to the 2000 U.S. standard population aged ≥18 years.

[†] Unweighted sample. Categories might not sum to survey total because of missing responses. Of 28,054 respondents who completed the 2007 and 2009 North Carolina BRFSS interview, 1,650 had a missing value on the self-reported COPD question, and 177 had a missing value on age.

[§] Asian, Native Hawaiian or Pacific Islander, American Indian or Alaska Native, and multiracial. Hispanic ethnicity is not presented because of small sample sizes.

(37.0% versus 9.1%), compared with persons without COPD. No statistically significant differences were observed in having health-care coverage based on COPD status.

Among respondents who reported having ever been diagnosed with COPD, 76.4% reported having had a diagnostic breathing test in 2007 and 82.4% in 2009. A doctor's visit for COPD-related symptoms (including shortness of breath, bronchitis, and COPD or emphysema flare) in the past 12 months was reported by 43.0%. More than two thirds of respondents with COPD (70.7%) reported that shortness of breath affected their quality of life. An ED visit or hospital admission for COPD-related symptoms in the past 12 months was reported by 14.9% of respondents with COPD in 2007. In 2009, 13.8% of adults with COPD reported an overnight hospital stay for COPD-related symptoms in the past 12 months. In 2007, 48.1% of respondents with COPD reported use of

at least one daily medication for COPD, and in 2009, 28.7% said they had been prescribed prednisone. Adults who reported a physician visit for COPD symptoms, a visit to an ED or hospital admission for COPD, or impaired quality of life because of COPD symptoms were more likely to be using daily COPD medications compared with those without (56.3% versus 28.0%, 71.7% versus 34.8%, and 48.0% versus 25.5%, respectively). Those adults also were more likely to have been prescribed prednisone compared with those without such reports (50.1% versus 11.4%, 69.5% versus 21.7%, and 33.7% versus 13.9%, respectively).

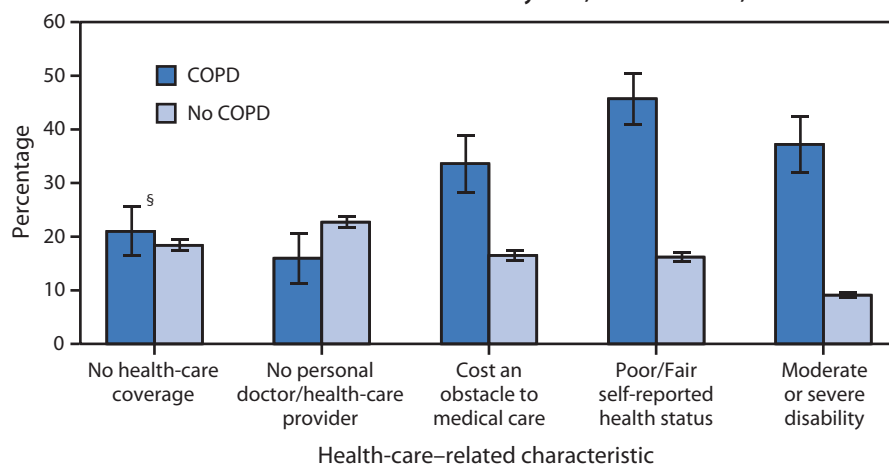
Among respondents who reported a COPD diagnosis, those aged 18–44 years in 2007 were less likely to report having had a breathing test for the diagnosis of their COPD (59.1%; CI = 44.7%–73.4%) compared with all other age groups. In 2009, those aged 18–44 years were less likely to report having had a diagnostic breathing test (70.8%; CI = 58.3%–83.3%) compared with those aged 65–74 years (92.0%; CI = 88.5%–95.4%). No significant differences were observed between groups defined by sex, race, educational level, smoking status, health-care coverage status, having a personal physician or health-care provider, restricted access to doctor because of cost, or self-rated health status. In 2007, those who had visited an ED or had been admitted to the hospital because of COPD

were more likely to report a diagnostic breathing test (90.0%; CI = 81.1%–99.0%) compared with those without such a hospital visit (66.8%; CI = 58.3%–75.2%). In 2009, nearly all (99.4%; CI = 98.7%–100.0%) the adults who reported an overnight stay at the hospital for COPD reported a diagnostic breathing test compared with 77.3% (CI = 70.2%–84.3%) of those who did not report an overnight hospital stay. In 2007, 82.9% (CI = 75.6%–90.2%) of adults taking at least one COPD medication daily reported a diagnostic breathing test compared with 61.4% (CI = 51.3%–71.5%) of those not taking any COPD medications.

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FIGURE. Age-adjusted* percentage of selected health-care-related characteristics† by COPD status — Behavioral Risk Factor Surveillance System, North Carolina, 2007 and 2009



Abbreviation: COPD = chronic obstructive pulmonary disease, which includes emphysema and chronic bronchitis.

* Age-adjusted to the 2000 U.S. standard population aged ≥ 18 years.

† Health-care coverage based on response to, "Do you have any kind of health-care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?" Personal doctor/health-care provider based on response to, "Do you have one person you think of as your personal doctor or health care provider?" Cost an obstacle to medical care based on response to, "Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?" Health status based on response to, "Would you say that in general your health is — excellent, very good, good, fair, or poor?" Disability category based on response to, "A disability can be physical, mental, emotional, or communication related. Do you consider yourself to have a disability?" If yes, respondents were asked, "Would you say your disability is mild, moderate, or severe?"

§ 95% confidence interval.

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Editorial Note

North Carolina has used the 2007 BRFSS data to identify counties with high COPD prevalence and has implemented public awareness activities for local community and education programs for health-care providers. Most recently, 2007 and 2009 BRFSS data formed the basis for community-based programs that targeted persons with low incomes who used free clinics as their primary source of health care. These programs are taking place through a network of free clinics in North Carolina, South Carolina, and Virginia.

Prevalence of self-reported, physician-diagnosed COPD was 5.7% among adults in North Carolina. More than 20% of respondents with COPD had not been given a breathing test when diagnosed with COPD. Although COPD has no cure, medications are used to improve health status and quality of life by controlling symptoms, reducing the frequency and severity of COPD exacerbations, and improving exercise

tolerance. A significant proportion of persons who likely suffer from more severe COPD, as suggested by physician visits for COPD symptoms, hospital visits for COPD, and impaired quality of life because of shortness of breath, were not using daily medications to control their COPD. This discrepancy might reflect an underuse of medications to control symptoms. Many respondents also indicated that COPD symptoms resulted in physician and hospital visits in the previous 12 months. These results suggest that COPD is not well-controlled in North Carolina.

The prevalence of COPD in this report is similar to national, self-reported data from 1998–2009 (2). The annual average prevalence of COPD in the U.S. Census division that includes North Carolina (South Atlantic) was 5.8% for 2007–2009 (2). However, if spirometry measures are used as the criterion, data from the National Health and Nutrition Examination Survey show that self-reported COPD only identifies half of persons with COPD (6). Therefore, prevalence estimates based on self-report likely are underestimates.

Although most respondents with COPD reported having been given a breathing test to diagnose their COPD, >20% did not report a diagnostic breathing test. Spirometry is important to distinguish between COPD and other conditions, primarily asthma. The specificity that was added to the breathing test question in 2009 (i.e., "...which measures how much air you can breathe out through a tube...") might have aided respondent recall, resulting in a greater number of respondents reporting having had a breathing test compared with 2007 responses. This has implications for future use of this question. Age-adjustment also affected breathing test rates, because young adults are less likely to have the test. This, in turn, argues for the need for younger adults (18–44 years) with COPD symptoms to have a diagnostic breathing test, particularly because COPD is more difficult to diagnosis in its early stages. Conducting spirometry after administration of a bronchodilator also is helpful in predicting how well a patient will respond to treatment. New clinical practice guidelines from the American College of Physicians (7) recommend that "spirometry should be obtained to diagnose airflow obstruction in patients with respiratory symptoms." These respiratory symptoms include chronic cough, wheezing, sputum production, and shortness of breath. Respondents who had visited a hospital for COPD symptoms in the previous 12

months were more likely to have had a diagnostic breathing test. Determining whether this finding was a result of breathing tests being administered to persons with more severe symptoms and possibly more advanced COPD was beyond the scope of the survey.

The findings in this report are subject to at least four limitations. First, BRFSS only surveyed households with landline telephones in 2007 and 2009. The proportion of cellular telephone-only households (no landline, but accessible by cellular telephone) has increased substantially in recent years, which results in a larger segment of the younger, single or never married, Hispanic, or unemployed adult populations not being included in landline samples (8). Because COPD is observed more commonly in older populations, this limitation might not be important. Second, institutionalized persons are not surveyed by BRFSS. Because this category includes older persons in nursing facilities, the actual prevalence of COPD in North Carolina might be higher than it was in the BRFSS sample. Third, the response rates (55.4% in 2007 and 62.5% in 2009) also might limit the generalizability of the results if the characteristics of the respondents and nonrespondents differ. Finally, the BRFSS North Carolina estimates are based on self-report and not on physiologic measures, such as spirometry, and thus might underestimate the actual prevalence of COPD and burden of disease.

Although some data on COPD prevalence on a national or regional level are available, only a few states had undertaken efforts to collect COPD prevalence data before 2011. North Carolina was the first to collect data regarding use of diagnostic breathing tests, physician visits, hospital admissions, and use of COPD medications as part of an existing surveillance system. High quality surveillance data are necessary to evaluate the effectiveness of prevention and intervention programs such as the National Heart, Lung, and Blood Institute's "COPD Learn More Breathe Better" campaign** and to improve public and physician awareness of symptoms of COPD, diagnosis, and treatment. In addition to these benefits of expanded surveillance, the public health community can help to reduce the burden of COPD by reducing exposure to environmental tobacco smoke, dust, and other indoor and outdoor air pollutants through tobacco-control and other policies, and by continuing to support and expand smoking cessation programs. Physicians should encourage smoking cessation among all smoking patients. Clinical interventions have been shown to increase motivation to quit and improve abstinence rates (9). Furthermore, smoking cessation decreases the rate in lung function decline among COPD patients (10).

** Additional information is available at <http://www.nhlbi.nih.gov/health/public/lung/copd/index.htm>.

What is already known on this topic?

Chronic obstructive pulmonary disease (COPD) is a leading cause of death and disability in the United States, but information on state-specific prevalence has been sparse.

What is added by this report?

Among adults in North Carolina, 5.7% reported having been told by a health professional that they had COPD. A majority of persons with COPD had been given a diagnostic breathing test, but less than half were using daily COPD medications.

What are the implications for public health practice?

Physicians should conduct spirometry to diagnose COPD and prescribe appropriate medications to control symptoms and reduce exacerbations. Clinicians and the public health community also should support smoking cessation efforts.

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Announcement

National Sleep Awareness Week — March 5–11, 2012

During March 5–11, 2012, National Sleep Awareness Week will be observed in the United States. The National Sleep Foundation recommends that U.S. adults receive, on average, 7–9 hours of sleep per night (1); however, 37.1% of adults report regularly sleeping <7 hours per night (2).

Persons reporting sleeping <7 hours on average during a 24-hour interval are more likely to report unintentionally falling asleep during the day at least 1 day out of the preceding 30 days (46.2% compared with 33.2%) and nodding off or falling asleep at the wheel during the previous 30 days (7.3% compared with 3.0%) (3). Frequent insufficient sleep (14 or more days in the past 30 days) also has been associated with self-reported anxiety, depressive symptoms, and frequent mental and physical distress (4).

Such findings suggest the need for greater awareness of the importance of sufficient sleep. Further information about factors relevant to optimal sleep can be obtained from the National Sleep Foundation (<http://www.sleepfoundation.org>) and CDC (<http://www.cdc.gov/sleep>).

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Erratum

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In the QuickGuide supplement, “Recommended Immunization Schedules for Persons Aged 0 Through 18 Years — United States, 2012,” an error occurred on page 2, in the second bulleted text in the first footnote regarding hepatitis B vaccination. The bulleted text should read, “For infants born to hepatitis B surface antigen (HBsAg)–positive mothers, administer HepB vaccine and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. These infants should be tested for HBsAg and antibody to HBsAg (anti-HBs) **1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).**”

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending February 25, 2012 (8th week)*

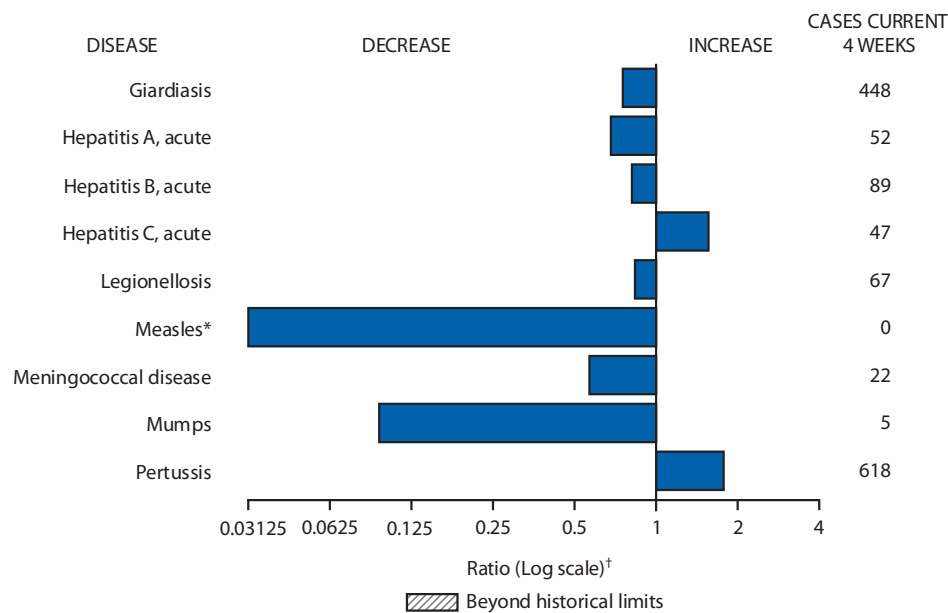
Disease	Current week	Cum 2012	5-year weekly average [†]	Total cases reported for previous years					States reporting cases during current week (No.)
				2011	2010	2009	2008	2007	
Anthrax	—	—	—	1	—	1	—	1	
Arboviral diseases ^{§, ¶} :									
California serogroup virus disease	—	—	0	132	75	55	62	55	
Eastern equine encephalitis virus disease	—	—	—	4	10	4	4	4	
Powassan virus disease	—	—	—	16	8	6	2	7	
St. Louis encephalitis virus disease	—	—	0	5	10	12	13	9	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	1	10	0	755	NN	NN	NN	NN	PA (1)
Botulism, total	—	9	2	132	112	118	145	144	
foodborne	—	—	0	11	7	10	17	32	
infant	—	8	2	89	80	83	109	85	
other (wound and unspecified)	—	1	0	32	25	25	19	27	
Brucellosis	1	8	1	81	115	115	80	131	NYC (1)
Chancroid	1	3	1	27	24	28	25	23	NC (1)
Cholera	—	—	0	31	13	10	5	7	
Cyclosporiasis [§]	1	5	2	153	179	141	139	93	FL (1)
Diphtheria	—	—	—	—	—	—	—	—	
<i>Haemophilus influenzae</i> ,** invasive disease (age <5 yrs):									
serotype b	—	3	1	11	23	35	30	22	
nonsertotype b	2	25	5	115	200	236	244	199	NY (1), OK (1)
unknown serotype	3	33	4	249	223	178	163	180	OH (1), FL (2)
Hansen disease [§]	—	5	2	50	98	103	80	101	
Hantavirus pulmonary syndrome [§]	—	1	0	20	20	20	18	32	
Hemolytic uremic syndrome, postdiarrheal [§]	—	4	2	216	266	242	330	292	
Influenza-associated pediatric mortality ^{§, ††}	1	4	5	118	61	358	90	77	NC (1)
Listeriosis	2	54	9	837	821	851	759	808	MO (1), SC (1)
Measles ^{§§}	—	13	2	217	63	71	140	43	
Meningococcal disease, invasive ^{¶¶} :									
A, C, Y, and W-135	1	14	9	196	280	301	330	325	NY (1)
serogroup B	—	4	5	121	135	174	188	167	
other serogroup	—	1	1	18	12	23	38	35	
unknown serogroup	4	53	12	390	406	482	616	550	NY (1), GA (1), FL (1), TX (1)
Novel influenza A virus infections ^{***}	—	—	0	8	4	43,774	2	4	
Plague	—	—	—	2	2	8	3	7	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Polio virus Infection, nonparalytic [§]	—	—	—	—	—	—	—	—	
Psittacosis [§]	—	—	0	2	4	9	8	12	
Q fever, total [§]	—	6	2	116	131	113	120	171	
acute	—	3	1	91	106	93	106	—	
chronic	—	3	0	25	25	20	14	—	
Rabies, human	—	—	—	2	2	4	2	1	
Rubella ^{†††}	—	1	0	4	5	3	16	12	
Rubella, congenital syndrome	—	—	—	—	—	2	—	—	
SARS-CoV [§]	—	—	—	—	—	—	—	—	
Smallpox [§]	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome [§]	1	15	4	141	142	161	157	132	VT (1)
Syphilis, congenital (age <1 yr) ^{§§§}	—	2	8	282	377	423	431	430	
Tetanus	—	—	0	12	26	18	19	28	
Toxic-shock syndrome (staphylococcal) [§]	1	6	2	81	82	74	71	92	NY (1)
Trichinellosis	—	1	0	10	7	13	39	5	
Tularemia	—	—	0	140	124	93	123	137	
Typhoid fever	—	31	8	373	467	397	449	434	
Vancomycin-intermediate <i>Staphylococcus aureus</i> [§]	1	5	1	66	91	78	63	37	FL (1)
Vancomycin-resistant <i>Staphylococcus aureus</i> [§]	—	—	—	—	2	1	—	2	
Vibriosis (noncholera <i>Vibrio</i> species infections) [§]	2	27	3	779	846	789	588	549	MD (1), WA (1)
Viral hemorrhagic fever ^{¶¶¶}	—	—	—	—	1	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending February 25, 2012 (8th week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts.
 * Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf.
 † Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/5yearweeklyaverage.pdf.
 ‡ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table except starting in 2007 for the arboviral diseases, STD data, TB data, and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/infdis.htm.
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
 ** Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
 †† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 2, 2011, four influenza-associated pediatric deaths occurring during the 2011-12 influenza season have been reported.
 ‡‡ No measles cases were reported for the current week.
 ¶¶ Data for meningococcal disease (all serogroups) are available in Table II.
 *** CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC. The four cases of novel influenza A virus infection reported to CDC during 2010, and the eight cases reported during 2011, were identified as swine influenza A (H3N2) virus and are unrelated to the 2009 pandemic influenza A (H1N1) virus. Total case counts are provided by the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD).
 ††† No rubella cases were reported for the current week.
 §§§ Updated weekly from reports to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
 ¶¶¶ There were no cases of viral hemorrhagic fever reported during the current week. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals February 25, 2012, with historical data



* No measles cases were reported for the current 4-week period yielding a ratio for week 8 of zero (0).
 † Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

Notifiable Disease Data Team and 122 Cities Mortality Data Team

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	<i>Chlamydia trachomatis</i> infection					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	10,634	26,782	30,750	153,380	204,705	55	400	587	2,149	3,542	31	133	399	584	745
New England	611	900	1,593	4,725	5,314	—	0	1	—	—	—	6	22	30	39
Connecticut	—	240	869	—	271	N	0	0	N	N	—	1	9	5	10
Maine	—	59	100	447	466	N	0	0	N	N	—	1	4	2	4
Massachusetts	497	424	860	3,029	3,103	N	0	0	N	N	—	3	8	15	18
New Hampshire	1	59	90	254	483	—	0	1	—	—	—	1	5	3	3
Rhode Island	90	80	187	859	752	—	0	0	—	—	—	0	1	—	1
Vermont	23	27	62	136	239	N	0	0	N	N	—	1	5	5	3
Mid. Atlantic	1,733	3,158	3,975	21,676	24,781	—	0	0	—	—	2	15	44	64	105
New Jersey	151	539	898	3,393	3,629	N	0	0	N	N	—	1	4	1	8
New York (Upstate)	754	715	1,903	4,659	4,880	N	0	0	N	N	1	4	16	17	26
New York City	159	1,023	1,315	5,412	8,570	N	0	0	N	N	—	1	6	12	11
Pennsylvania	669	1,043	1,599	8,212	7,702	N	0	0	N	N	1	8	27	34	60
E.N. Central	865	4,178	4,646	22,089	34,634	1	1	5	9	5	7	32	148	127	160
Illinois	17	1,186	1,434	4,277	9,705	N	0	0	N	N	—	3	26	3	17
Indiana	223	557	730	3,437	4,710	N	0	0	N	N	—	3	14	—	25
Michigan	488	935	1,210	6,275	8,277	—	1	3	5	1	1	7	14	30	32
Ohio	137	1,028	1,184	5,614	8,200	1	0	2	4	4	6	11	95	68	52
Wisconsin	—	461	551	2,486	3,742	N	0	0	N	N	—	8	65	26	34
W.N. Central	31	1,501	1,818	2,676	11,627	—	0	2	—	—	1	15	85	52	81
Iowa	13	212	433	1,526	1,707	N	0	0	N	N	—	6	19	16	30
Kansas	—	208	281	114	1,516	N	0	0	N	N	—	0	11	3	—
Minnesota	—	319	404	—	2,662	—	0	0	—	—	—	0	0	—	—
Missouri	—	529	759	—	3,970	—	0	0	—	—	—	5	61	17	23
Nebraska	—	124	213	546	859	—	0	2	—	—	—	2	12	6	22
North Dakota	—	46	76	5	344	N	0	0	N	N	—	0	12	—	—
South Dakota	18	62	89	485	569	N	0	0	N	N	1	2	13	10	6
S. Atlantic	4,045	5,464	7,444	40,760	43,174	—	0	2	—	—	16	21	61	139	157
Delaware	82	86	182	585	605	—	0	0	—	—	—	0	3	4	2
District of Columbia	134	110	217	1,006	838	—	0	0	—	—	—	0	1	—	2
Florida	789	1,504	1,687	10,943	11,580	N	0	0	N	N	12	8	17	66	66
Georgia	875	1,099	1,563	7,903	6,785	N	0	0	N	N	2	5	12	29	39
Maryland	217	478	769	1,806	3,504	—	0	2	—	—	—	1	7	16	8
North Carolina	628	997	1,688	7,299	7,426	N	0	0	N	N	—	0	46	—	9
South Carolina	478	535	1,344	4,691	5,498	N	0	0	N	N	2	2	6	13	20
Virginia	764	659	1,779	5,766	6,220	N	0	0	N	N	—	2	8	10	11
West Virginia	78	81	146	761	718	N	0	0	N	N	—	0	5	1	—
E.S. Central	1,612	1,918	2,804	15,188	13,917	—	0	0	—	—	1	8	25	39	22
Alabama	498	539	1,566	3,483	4,246	N	0	0	N	N	1	3	7	17	13
Kentucky	475	307	557	2,438	1,457	N	0	0	N	N	—	2	17	4	6
Mississippi	419	440	792	4,630	3,540	N	0	0	N	N	—	1	4	6	2
Tennessee	220	605	810	4,637	4,674	N	0	0	N	N	—	2	6	12	1
W.S. Central	333	3,295	4,311	18,411	25,594	—	0	1	—	1	2	9	44	50	44
Arkansas	272	317	439	2,609	2,147	N	0	0	N	N	—	0	2	3	1
Louisiana	—	356	1,071	1,566	3,059	—	0	1	—	1	—	1	9	11	5
Oklahoma	61	113	675	691	1,705	N	0	0	N	N	2	2	6	10	8
Texas	—	2,385	3,108	13,545	18,683	N	0	0	N	N	—	5	40	26	30
Mountain	849	1,715	2,419	10,459	14,244	54	308	459	1,923	2,722	1	10	29	41	77
Arizona	140	546	791	3,527	4,267	49	304	456	1,900	2,684	—	1	4	2	4
Colorado	394	408	847	2,575	3,591	N	0	0	N	N	—	2	11	4	22
Idaho	107	85	274	550	611	N	0	0	N	N	—	1	9	12	8
Montana	55	68	87	578	521	N	0	0	N	N	—	1	6	9	6
Nevada	—	200	319	566	2,064	5	2	5	17	15	—	0	2	2	2
New Mexico	152	220	336	1,598	1,797	—	1	4	—	15	—	2	9	8	20
Utah	1	135	190	957	1,064	—	0	4	4	6	—	1	5	1	7
Wyoming	—	31	67	108	329	—	0	2	2	2	1	0	3	3	8
Pacific	555	4,016	5,438	17,396	31,420	—	93	168	217	814	1	9	21	42	60
Alaska	40	108	152	812	971	N	0	0	N	N	—	0	3	—	3
California	—	3,017	4,509	11,887	23,893	—	93	168	217	814	—	6	16	38	29
Hawaii	—	113	142	—	962	N	0	0	N	N	—	0	1	2	—
Oregon	190	276	412	2,062	1,926	N	0	0	N	N	—	2	8	1	21
Washington	325	437	612	2,635	3,668	N	0	0	N	N	1	1	16	1	7
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	15	44	—	88	—	0	0	—	—	—	0	0	—	—
Puerto Rico	176	105	348	1,009	889	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	16	27	—	112	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/ndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever [†]					Dengue Hemorrhagic Fever [§]				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
	Med	Max				Med	Max			
United States	—	2	17	—	36	—	0	1	—	—
New England	—	0	1	—	1	—	0	0	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island	—	0	0	—	—	—	0	0	—	—
Vermont	—	0	1	—	1	—	0	0	—	—
Mid. Atlantic	—	1	6	—	10	—	0	0	—	—
New Jersey	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	—	0	2	—	1	—	0	0	—	—
New York City	—	0	4	—	5	—	0	0	—	—
Pennsylvania	—	0	2	—	4	—	0	0	—	—
E.N. Central	—	0	2	—	5	—	0	1	—	—
Illinois	—	0	1	—	1	—	0	1	—	—
Indiana	—	0	1	—	1	—	0	0	—	—
Michigan	—	0	2	—	1	—	0	0	—	—
Ohio	—	0	1	—	—	—	0	0	—	—
Wisconsin	—	0	1	—	2	—	0	0	—	—
W.N. Central	—	0	2	—	1	—	0	0	—	—
Iowa	—	0	1	—	—	—	0	0	—	—
Kansas	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	1	—	1	—	0	0	—	—
Missouri	—	0	0	—	—	—	0	0	—	—
Nebraska	—	0	0	—	—	—	0	0	—	—
North Dakota	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—
S. Atlantic	—	1	9	—	8	—	0	1	—	—
Delaware	—	0	2	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	1	7	—	5	—	0	0	—	—
Georgia	—	0	1	—	1	—	0	0	—	—
Maryland	—	0	2	—	—	—	0	0	—	—
North Carolina	—	0	1	—	1	—	0	0	—	—
South Carolina	—	0	1	—	—	—	0	0	—	—
Virginia	—	0	1	—	1	—	0	1	—	—
West Virginia	—	0	0	—	—	—	0	0	—	—
E.S. Central	—	0	3	—	—	—	0	0	—	—
Alabama	—	0	1	—	—	—	0	0	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee	—	0	2	—	—	—	0	0	—	—
W.S. Central	—	0	2	—	—	—	0	0	—	—
Arkansas	—	0	0	—	—	—	0	0	—	—
Louisiana	—	0	1	—	—	—	0	0	—	—
Oklahoma	—	0	0	—	—	—	0	0	—	—
Texas	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	1	—	2	—	0	0	—	—
Arizona	—	0	1	—	1	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—
Idaho	—	0	0	—	—	—	0	0	—	—
Montana	—	0	0	—	—	—	0	0	—	—
Nevada	—	0	1	—	—	—	0	0	—	—
New Mexico	—	0	1	—	1	—	0	0	—	—
Utah	—	0	1	—	—	—	0	0	—	—
Wyoming	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	4	—	9	—	0	0	—	—
Alaska	—	0	0	—	—	—	0	0	—	—
California	—	0	2	—	3	—	0	0	—	—
Hawaii	—	0	4	—	4	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	1	—	2	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	10	83	—	159	—	0	3	—	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

[†] Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage, other clinical and unknown case classifications.

[§] DHF includes cases that meet criteria for dengue shock syndrome (DSS), a more severe form of DHF.

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	<i>Ehrlichia chaffeensis</i>					<i>Anaplasma phagocytophilum</i>					Undetermined				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
	Med	Max				Med	Max				Med	Max			
United States	1	9	90	9	11	2	16	58	15	19	1	2	8	3	2
New England	1	0	1	1	—	—	3	28	2	12	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Maine	—	0	1	—	—	—	0	3	1	1	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	1	18	—	1	—	0	0	—	—
New Hampshire	—	0	1	—	—	—	0	4	—	—	—	0	1	—	—
Rhode Island	1	0	1	1	—	—	0	15	1	10	—	0	1	—	—
Vermont	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	1	5	—	1	2	6	43	11	3	1	0	2	1	—
New Jersey	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	—	0	4	—	—	2	3	43	8	2	1	0	2	1	—
New York City	—	0	2	—	1	—	1	5	3	1	—	0	0	—	—
Pennsylvania	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
E.N. Central	—	0	5	—	2	—	0	2	—	1	—	0	6	—	2
Illinois	—	0	4	—	1	—	0	2	—	—	—	0	1	—	1
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	4	—	1
Michigan	—	0	2	—	—	—	0	0	—	—	—	0	2	—	—
Ohio	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Wisconsin	—	0	0	—	—	—	0	1	—	1	—	0	1	—	—
W.N. Central	—	1	16	1	—	—	0	6	—	—	—	0	6	—	—
Iowa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Kansas	—	0	2	—	—	—	0	1	—	—	—	0	1	—	—
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Missouri	—	1	16	1	—	—	0	5	—	—	—	0	6	—	—
Nebraska	—	0	1	—	—	—	0	1	—	—	—	0	1	—	—
North Dakota	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
South Dakota	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
S. Atlantic	—	3	33	7	8	—	1	8	2	2	—	0	2	2	—
Delaware	—	0	2	—	1	—	0	1	—	—	—	0	0	—	—
District of Columbia	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Florida	—	0	3	—	1	—	0	3	—	—	—	0	0	—	—
Georgia	—	0	3	4	1	—	0	2	2	—	—	0	1	1	—
Maryland	—	0	3	—	3	—	0	2	—	—	—	0	1	1	—
North Carolina	—	0	17	1	2	—	0	6	—	2	—	0	0	—	—
South Carolina	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
Virginia	—	1	13	2	—	—	0	3	—	—	—	0	1	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	1	8	—	—	—	0	2	—	1	—	0	3	—	—
Alabama	—	0	2	—	—	—	0	1	—	1	N	0	0	N	N
Kentucky	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
Tennessee	—	0	5	—	—	—	0	1	—	—	—	0	3	—	—
W.S. Central	—	0	30	—	—	—	0	3	—	—	—	0	0	—	—
Arkansas	—	0	13	—	—	—	0	3	—	—	—	0	0	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	25	—	—	—	0	1	—	—	—	0	0	—	—
Texas	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Colorado	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Idaho	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Montana	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Nevada	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
New Mexico	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Utah	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Wyoming	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	0	—	—	—	0	1	—	—	—	0	2	—	—
Alaska	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
California	—	0	0	—	—	—	0	0	—	—	—	0	2	—	—
Hawaii	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Puerto Rico	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Giardiasis					Gonorrhea					<i>Haemophilus influenzae</i> , invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	100	283	451	1,469	1,998	2,350	5,996	6,805	36,639	46,950	28	65	108	472	548
New England	3	26	64	100	186	71	109	178	500	746	—	4	9	34	35
Connecticut	—	4	10	24	37	—	44	101	—	337	—	1	5	11	8
Maine	1	3	10	12	16	—	5	18	—	22	—	0	2	4	5
Massachusetts	—	12	29	47	97	59	47	80	345	318	—	2	7	16	16
New Hampshire	—	2	8	6	11	1	2	8	17	17	—	0	2	2	2
Rhode Island	—	0	10	2	10	10	7	35	81	47	—	0	2	1	3
Vermont	2	3	19	9	15	1	0	6	5	5	—	0	2	—	1
Mid. Atlantic	29	56	91	268	429	410	735	988	5,297	5,594	5	15	30	117	100
New Jersey	—	1	14	—	57	31	149	217	921	960	—	2	6	6	20
New York (Upstate)	19	20	50	92	112	117	116	369	800	747	3	3	15	30	19
New York City	5	16	29	108	144	50	240	315	1,247	1,921	—	4	10	36	17
Pennsylvania	5	15	30	68	116	212	268	492	2,329	1,966	2	5	15	45	44
E.N. Central	20	50	92	263	356	251	1,074	1,279	5,708	9,106	5	11	22	54	98
Illinois	—	11	20	42	79	7	302	397	1,038	2,445	—	3	11	1	28
Indiana	—	6	13	16	45	65	135	172	841	1,220	—	2	6	7	11
Michigan	5	10	22	77	73	133	237	375	1,659	2,177	1	1	5	12	15
Ohio	15	15	30	96	100	46	313	403	1,614	2,574	4	4	7	29	29
Wisconsin	—	8	21	32	59	—	92	118	556	690	—	1	4	5	15
W.N. Central	3	18	50	106	136	7	313	382	498	2,285	2	2	9	18	18
Iowa	1	4	15	27	31	4	37	108	280	292	—	0	1	—	—
Kansas	—	2	9	10	14	—	42	65	35	288	—	0	2	2	1
Minnesota	—	0	0	—	—	—	44	61	—	331	—	0	0	—	—
Missouri	1	6	17	40	53	—	149	204	—	1,081	1	1	5	11	10
Nebraska	1	3	11	21	26	—	26	52	124	167	1	0	2	5	7
North Dakota	—	0	12	—	—	—	5	14	—	32	—	0	6	—	—
South Dakota	—	1	8	8	12	3	11	20	59	94	—	0	1	—	—
S. Atlantic	25	53	105	342	354	1,011	1,500	1,946	10,720	11,634	10	14	31	127	138
Delaware	—	0	3	1	4	13	15	35	121	146	—	0	2	—	1
District of Columbia	—	1	5	2	8	46	38	105	384	324	—	0	1	—	—
Florida	20	23	69	142	183	203	373	473	2,714	2,968	7	4	12	36	44
Georgia	—	13	51	117	61	242	322	456	2,202	2,111	—	2	6	20	32
Maryland	2	6	14	41	41	49	113	176	511	894	1	2	6	20	17
North Carolina	N	0	0	N	N	199	325	548	2,231	2,609	1	1	7	12	14
South Carolina	—	2	8	16	13	113	156	421	1,276	1,505	—	1	5	18	7
Virginia	3	5	12	23	44	136	123	353	1,176	938	1	2	8	14	23
West Virginia	—	0	8	—	—	10	14	29	105	139	—	0	5	7	—
E.S. Central	—	4	9	25	17	377	523	789	4,015	3,759	3	4	12	34	30
Alabama	—	4	9	25	17	112	167	408	948	1,290	—	1	3	5	10
Kentucky	N	0	0	N	N	97	79	151	588	381	1	1	4	9	6
Mississippi	N	0	0	N	N	113	118	242	1,280	952	—	0	3	5	3
Tennessee	N	0	0	N	N	55	148	243	1,199	1,136	2	2	8	15	11
W.S. Central	1	4	15	35	32	94	865	1,173	4,825	6,815	2	2	10	27	34
Arkansas	1	3	8	14	11	70	89	138	690	672	—	0	3	3	6
Louisiana	—	2	10	21	21	—	106	255	453	893	—	1	4	10	16
Oklahoma	—	0	0	—	—	24	31	196	182	570	2	1	9	14	12
Texas	N	0	0	N	N	—	587	828	3,500	4,680	—	0	1	—	—
Mountain	5	22	41	86	154	79	209	325	1,326	1,744	1	5	10	37	61
Arizona	—	2	6	10	17	29	91	131	681	575	—	1	6	9	23
Colorado	—	7	23	30	43	44	39	77	289	413	—	1	3	3	17
Idaho	—	3	9	10	24	—	2	15	3	22	—	0	2	4	2
Montana	—	2	5	7	5	3	1	4	17	14	—	0	1	2	2
Nevada	3	1	4	10	16	—	38	77	80	415	—	0	2	3	3
New Mexico	—	1	6	3	11	3	35	73	211	253	1	1	3	11	9
Utah	—	3	9	10	31	—	6	10	41	38	—	0	3	4	5
Wyoming	2	0	2	6	7	—	0	3	4	14	—	0	1	1	—
Pacific	14	47	181	244	334	50	635	758	3,750	5,267	—	4	9	24	34
Alaska	1	2	7	9	11	2	18	31	98	142	—	0	3	2	5
California	—	32	51	161	231	—	520	610	3,164	4,370	—	1	5	8	11
Hawaii	—	0	4	2	4	—	12	24	—	112	—	0	3	3	5
Oregon	2	6	20	40	66	13	27	60	174	196	—	1	6	11	13
Washington	11	6	147	32	22	35	50	79	314	447	—	0	1	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	5	—	1	—	0	0	—	—
Puerto Rico	—	0	4	—	12	7	6	14	38	57	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	2	10	—	22	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Hepatitis (viral, acute), by type														
	A				B				C						
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
	Med	Max				Med	Max				Med	Max			
United States	10	22	41	122	190	34	49	101	296	413	10	21	42	126	125
New England	—	1	5	3	13	—	1	8	1	20	—	1	5	2	9
Connecticut	—	0	3	2	5	—	0	2	—	5	—	0	4	2	8
Maine	—	0	2	1	—	—	0	2	1	1	—	0	3	—	—
Massachusetts	—	0	3	—	4	—	0	6	—	13	—	0	2	—	1
New Hampshire	—	0	0	—	—	—	0	1	—	1	N	0	0	N	N
Rhode Island	—	0	1	—	2	U	0	0	U	U	U	0	0	U	U
Vermont	—	0	2	—	2	—	0	0	—	—	—	0	1	—	—
Mid. Atlantic	2	4	8	24	37	1	5	11	23	44	2	2	5	15	8
New Jersey	—	1	3	—	5	—	1	4	6	9	—	0	2	2	—
New York (Upstate)	1	1	4	9	4	—	1	4	4	9	1	1	4	5	5
New York City	—	1	4	6	16	—	1	5	8	14	—	0	1	—	1
Pennsylvania	1	1	5	9	12	1	1	4	5	12	1	1	3	8	2
E.N. Central	—	3	7	10	37	5	5	37	37	72	3	2	8	17	24
Illinois	—	1	5	3	7	—	1	3	1	17	—	0	2	—	1
Indiana	—	0	1	1	6	—	1	4	4	9	—	0	5	3	15
Michigan	—	1	6	5	11	2	1	6	7	19	2	1	5	13	7
Ohio	—	0	2	1	11	3	1	30	24	21	1	0	1	1	—
Wisconsin	—	0	1	—	2	—	0	3	1	6	—	0	1	—	1
W.N. Central	—	1	7	8	8	1	2	9	13	15	—	0	4	1	—
Iowa	—	0	1	—	1	—	0	1	1	1	—	0	0	—	—
Kansas	—	0	1	—	1	—	0	2	—	3	—	0	1	1	—
Minnesota	—	0	7	—	—	—	0	7	—	—	—	0	2	—	—
Missouri	—	0	3	5	3	1	1	4	11	6	—	0	0	—	—
Nebraska	—	0	1	3	1	—	0	2	1	4	—	0	1	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	2	—	0	0	—	1	—	0	0	—	—
S. Atlantic	5	4	11	25	37	21	13	57	99	96	4	5	14	45	28
Delaware	—	0	1	1	1	—	0	2	3	—	U	0	0	U	U
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	3	1	8	12	11	6	4	7	30	31	2	1	5	20	7
Georgia	—	1	5	2	11	1	2	7	16	21	—	1	3	2	9
Maryland	—	0	4	2	4	—	1	4	13	8	—	1	3	4	3
North Carolina	1	0	3	4	3	2	1	9	9	20	2	1	7	6	6
South Carolina	1	0	2	1	2	1	1	3	7	5	—	0	1	—	—
Virginia	—	0	3	2	5	—	2	5	10	11	—	0	3	3	3
West Virginia	—	0	2	1	—	11	0	43	11	—	—	0	7	10	—
E.S. Central	—	1	6	4	5	3	10	20	69	76	—	5	10	26	24
Alabama	—	0	2	2	—	1	2	6	11	13	—	0	3	2	—
Kentucky	—	0	2	—	2	1	3	10	23	28	—	2	8	12	12
Mississippi	—	0	1	—	1	1	1	4	6	4	U	0	0	U	U
Tennessee	—	0	5	2	2	—	4	9	29	31	—	1	5	12	12
W.S. Central	2	3	7	20	7	3	6	14	32	36	—	1	5	5	13
Arkansas	—	0	2	1	—	—	1	4	5	4	—	0	0	—	—
Louisiana	—	0	2	—	1	—	0	2	6	11	—	0	1	—	4
Oklahoma	—	0	2	—	—	3	1	9	5	4	—	1	4	—	5
Texas	2	3	7	19	6	—	3	11	16	17	—	0	3	5	4
Mountain	1	1	5	12	14	—	1	4	8	21	1	1	5	3	12
Arizona	—	0	2	4	4	—	0	3	1	2	U	0	0	U	U
Colorado	—	0	2	3	6	—	0	2	—	5	—	0	2	—	4
Idaho	1	0	1	3	1	—	0	0	—	2	1	0	1	1	5
Montana	—	0	1	—	1	—	0	0	—	—	—	0	2	—	—
Nevada	—	0	3	2	—	—	0	3	7	7	—	0	2	2	—
New Mexico	—	0	1	—	1	—	0	2	—	2	—	0	2	—	1
Utah	—	0	1	—	—	—	0	1	—	3	—	0	2	—	2
Wyoming	—	0	1	—	1	—	0	0	—	—	—	0	1	—	—
Pacific	—	3	12	16	32	—	3	8	14	33	—	2	11	12	7
Alaska	—	0	1	—	—	—	0	1	—	1	U	0	0	U	U
California	—	3	7	10	27	—	2	7	7	23	—	1	5	5	2
Hawaii	—	0	2	2	1	—	0	1	1	2	U	0	0	U	U
Oregon	—	0	2	1	1	—	0	4	5	5	—	0	2	4	3
Washington	—	0	4	3	3	—	0	3	1	2	—	0	9	3	2
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	5	—	6	—	2	8	—	15	—	0	3	—	6
Puerto Rico	—	0	1	—	—	—	0	2	—	—	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	12	72	178	238	305	83	541	2,124	1,469	1,534	4	26	51	116	188
New England	—	4	40	11	25	—	85	503	79	414	—	1	7	6	13
Connecticut	—	1	11	3	4	—	38	236	10	168	—	0	2	—	1
Maine	—	0	3	—	1	—	13	67	26	27	—	0	2	—	—
Massachusetts	—	3	24	4	16	—	16	106	16	138	—	0	6	5	10
New Hampshire	—	0	3	—	1	—	10	90	8	59	—	0	1	—	—
Rhode Island	—	0	9	4	2	—	1	31	2	3	—	0	2	—	—
Vermont	—	0	2	—	1	—	6	70	17	19	—	0	1	1	2
Mid. Atlantic	3	18	87	60	78	73	344	1,215	1,133	786	—	6	13	17	48
New Jersey	—	2	16	1	17	44	159	543	678	272	—	0	2	—	5
New York (Upstate)	2	6	27	19	21	17	57	212	106	67	—	1	4	2	5
New York City	—	3	14	11	19	—	3	23	—	24	—	4	11	12	30
Pennsylvania	1	5	42	29	21	12	113	539	349	423	—	1	5	3	8
E.N. Central	1	14	51	43	54	1	22	301	14	101	1	3	10	12	20
Illinois	—	2	11	6	7	—	1	21	—	5	—	1	5	2	7
Indiana	—	2	8	8	10	—	1	12	1	—	—	0	2	2	2
Michigan	—	2	15	—	12	—	1	13	7	—	—	0	4	2	3
Ohio	1	7	34	29	25	1	1	6	5	3	1	0	4	5	7
Wisconsin	—	0	1	—	—	—	20	259	1	93	—	0	2	1	1
W.N. Central	—	1	8	5	6	—	1	16	3	2	—	1	5	6	4
Iowa	—	0	2	—	—	—	0	13	1	1	—	0	3	1	—
Kansas	—	0	2	—	1	—	0	2	—	—	—	0	2	2	1
Minnesota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Missouri	—	1	5	5	4	—	0	2	—	1	—	0	2	3	2
Nebraska	—	0	2	—	—	—	0	2	2	—	—	0	1	—	1
North Dakota	—	0	1	—	—	—	0	9	—	—	—	0	0	—	—
South Dakota	—	0	1	—	1	—	0	2	—	—	—	0	1	—	—
S. Atlantic	2	11	30	61	44	8	66	180	219	218	3	9	26	45	67
Delaware	—	0	4	4	1	—	13	48	54	63	—	0	3	1	—
District of Columbia	—	0	3	1	—	—	0	3	1	3	—	0	2	—	3
Florida	1	4	13	28	22	1	3	8	18	4	—	2	6	13	14
Georgia	—	1	4	5	3	—	0	5	5	1	1	1	6	6	11
Maryland	1	2	15	8	6	4	20	115	77	82	—	2	16	12	18
North Carolina	—	1	7	5	6	—	0	13	1	6	—	0	7	1	8
South Carolina	—	0	5	3	1	—	0	6	3	1	—	0	1	2	—
Virginia	—	1	7	7	5	3	17	75	54	55	2	1	8	10	13
West Virginia	—	0	5	—	—	—	0	20	6	3	—	0	1	—	—
E.S. Central	—	2	11	5	10	—	1	5	1	2	—	1	4	—	2
Alabama	—	0	2	2	1	—	0	2	—	1	—	0	3	—	1
Kentucky	—	1	4	—	4	—	0	1	1	—	—	0	2	—	—
Mississippi	—	0	3	—	1	—	0	1	—	—	—	0	1	—	—
Tennessee	—	1	8	3	4	—	0	4	—	1	—	0	3	—	1
W.S. Central	4	2	8	9	12	—	1	6	2	2	—	1	5	6	6
Arkansas	—	0	2	—	—	—	0	0	—	—	—	0	1	—	—
Louisiana	—	0	2	1	7	—	0	1	1	—	—	0	1	—	—
Oklahoma	—	0	3	—	1	—	0	0	—	—	—	0	3	4	1
Texas	4	2	7	8	4	—	1	6	1	2	—	0	5	2	5
Mountain	1	2	9	11	20	1	1	5	6	3	—	1	5	7	10
Arizona	1	1	4	4	5	—	0	4	1	1	—	0	4	1	3
Colorado	—	0	4	—	7	—	0	1	—	—	—	0	3	—	3
Idaho	—	0	1	1	1	—	0	2	2	—	—	0	1	1	—
Montana	—	0	1	—	—	—	0	3	—	—	—	0	1	—	—
Nevada	—	0	2	3	1	1	0	1	1	—	—	0	2	4	2
New Mexico	—	0	2	—	1	—	0	2	—	1	—	0	1	—	2
Utah	—	0	2	2	5	—	0	1	1	1	—	0	1	1	—
Wyoming	—	0	2	1	—	—	0	1	1	—	—	0	0	—	—
Pacific	1	5	17	33	56	—	2	8	12	6	—	3	11	17	18
Alaska	—	0	0	—	—	—	0	3	1	—	—	0	1	1	2
California	—	4	11	27	49	—	1	8	11	3	—	3	7	15	11
Hawaii	—	0	2	—	1	N	0	0	N	N	—	0	1	—	—
Oregon	1	0	3	6	1	—	0	2	—	3	—	0	4	1	4
Washington	—	0	13	—	5	—	0	5	—	—	—	0	2	—	1
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	1	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Meningococcal disease, invasive† All serogroups					Mumps					Pertussis				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	5	12	26	72	143	—	6	20	23	67	128	306	817	2,231	2,736
New England	—	0	3	1	4	—	0	2	—	1	3	17	33	146	82
Connecticut	—	0	1	—	1	—	0	0	—	—	—	1	7	4	13
Maine	—	0	1	—	—	—	0	2	—	—	—	3	19	20	18
Massachusetts	—	0	2	1	3	—	0	1	—	1	—	4	10	24	36
New Hampshire	—	0	1	—	—	—	0	0	—	—	—	2	13	7	8
Rhode Island	—	0	1	—	—	—	0	2	—	—	—	1	10	16	6
Vermont	—	0	3	—	—	—	0	1	—	—	3	1	17	75	1
Mid. Atlantic	2	2	4	12	17	—	0	7	—	7	63	42	184	539	237
New Jersey	—	0	2	—	2	—	0	1	—	6	—	4	12	19	23
New York (Upstate)	2	0	4	3	2	—	0	3	—	1	44	15	139	292	69
New York City	—	0	2	4	7	—	0	6	—	—	—	4	42	41	—
Pennsylvania	—	0	2	5	6	—	0	1	—	—	19	13	30	187	145
E.N. Central	—	2	6	7	17	—	1	12	4	13	9	67	218	575	656
Illinois	—	0	3	—	6	—	1	10	—	6	—	21	123	119	125
Indiana	—	0	2	—	2	—	0	2	1	—	—	4	21	10	65
Michigan	—	0	2	1	3	—	0	2	2	1	1	11	38	98	168
Ohio	—	0	2	5	4	—	0	2	1	5	8	12	22	99	217
Wisconsin	—	0	2	1	2	—	0	1	—	1	—	14	67	249	81
W.N. Central	—	1	3	4	11	—	0	3	2	6	3	21	119	135	154
Iowa	—	0	1	—	2	—	0	2	—	—	—	4	9	18	42
Kansas	—	0	1	1	1	—	0	1	—	2	—	2	6	12	22
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	110	—	—
Missouri	—	0	2	3	4	—	0	2	2	3	3	8	33	99	67
Nebraska	—	0	2	—	3	—	0	1	—	1	—	1	5	3	18
North Dakota	—	0	1	—	—	—	0	3	—	—	—	0	10	—	3
South Dakota	—	0	1	—	1	—	0	0	—	—	—	0	7	3	2
S. Atlantic	2	2	8	11	22	—	1	4	4	2	21	27	55	198	285
Delaware	—	0	1	—	—	—	0	0	—	—	1	0	5	7	5
District of Columbia	—	0	1	—	—	—	0	1	—	—	—	0	2	1	1
Florida	1	1	5	8	7	—	0	2	2	—	8	6	17	65	44
Georgia	1	0	1	1	2	—	0	2	—	—	—	3	7	10	47
Maryland	—	0	2	2	1	—	0	1	1	—	3	2	10	28	23
North Carolina	—	0	3	—	7	—	0	2	—	—	3	3	20	13	64
South Carolina	—	0	1	—	3	—	0	1	—	—	—	2	9	8	36
Virginia	—	0	2	—	2	—	0	4	—	2	6	6	25	44	65
West Virginia	—	0	3	—	—	—	0	1	1	—	—	0	15	22	—
E.S. Central	—	0	3	—	9	—	0	1	1	3	—	9	19	84	88
Alabama	—	0	2	—	5	—	0	1	—	1	—	2	11	15	22
Kentucky	—	0	2	—	—	—	0	0	—	—	—	3	10	38	40
Mississippi	—	0	1	—	1	—	0	1	1	2	—	1	4	9	4
Tennessee	—	0	1	—	3	—	0	1	—	—	—	2	7	22	22
W.S. Central	1	1	5	4	13	—	1	5	6	29	8	19	107	95	114
Arkansas	—	0	2	—	3	—	0	2	—	—	—	1	5	2	7
Louisiana	—	0	2	1	3	—	0	0	—	—	—	0	3	2	8
Oklahoma	—	0	2	1	1	—	0	2	—	—	—	0	11	—	2
Texas	1	0	2	2	6	—	1	5	6	29	8	18	104	91	97
Mountain	—	1	4	7	11	—	0	2	2	1	6	39	86	236	408
Arizona	—	0	1	1	3	—	0	0	—	—	—	13	57	124	165
Colorado	—	0	1	—	2	—	0	1	1	—	—	7	25	47	92
Idaho	—	0	1	1	2	—	0	2	—	—	1	3	12	17	21
Montana	—	0	2	2	—	—	0	1	1	—	5	1	32	19	37
Nevada	—	0	1	2	—	—	0	0	—	—	—	0	5	10	7
New Mexico	—	0	1	1	—	—	0	1	—	1	—	3	24	14	20
Utah	—	0	1	—	4	—	0	0	—	—	—	6	15	2	64
Wyoming	—	0	0	—	—	—	0	1	—	—	—	0	3	3	2
Pacific	—	2	10	26	39	—	0	11	4	5	15	60	256	223	712
Alaska	—	0	1	—	1	—	0	1	—	—	1	0	3	11	13
California	—	1	7	17	31	—	0	11	3	—	—	33	78	21	625
Hawaii	—	0	1	1	1	—	0	1	—	2	—	2	10	32	6
Oregon	—	0	4	8	4	—	0	1	—	3	—	5	23	24	28
Washington	—	0	3	—	2	—	0	1	1	—	14	12	204	135	40
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	3	—	4	—	2	14	—	6
Puerto Rico	—	0	0	—	—	—	0	1	1	—	—	0	1	—	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Rabies, animal					Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC) [†]				
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
		Med	Max				Med	Max				Med	Max		
United States	21	61	105	292	377	200	898	1,909	3,022	3,784	16	93	208	276	306
New England	—	5	16	44	17	—	37	107	103	183	—	3	13	10	14
Connecticut	—	3	10	19	4	—	8	30	29	53	—	1	4	5	7
Maine	—	1	6	15	4	—	2	7	9	20	—	0	3	—	—
Massachusetts	—	0	0	—	—	—	19	44	46	80	—	1	9	5	2
New Hampshire	—	0	3	3	1	—	3	8	5	16	—	0	3	—	5
Rhode Island	—	0	6	5	2	—	1	62	4	8	—	0	2	—	—
Vermont	—	0	2	2	6	—	1	8	10	6	—	0	3	—	—
Mid. Atlantic	3	16	36	26	107	19	96	209	315	406	2	10	34	35	54
New Jersey	—	0	0	—	—	—	21	48	35	83	—	2	7	1	14
New York (Upstate)	3	7	20	26	33	12	25	67	83	73	2	3	13	8	11
New York City	—	0	3	—	2	2	19	42	91	110	—	2	6	9	10
Pennsylvania	—	8	21	—	72	5	31	114	106	140	—	3	16	17	19
E.N. Central	—	2	20	3	7	11	88	184	225	451	4	16	54	44	63
Illinois	—	0	6	—	3	—	27	80	53	155	—	4	14	5	10
Indiana	—	0	7	—	—	—	8	27	18	45	—	2	10	2	10
Michigan	—	1	6	2	3	3	15	42	59	82	3	3	19	29	14
Ohio	—	1	5	1	1	8	20	46	88	112	1	3	9	8	14
Wisconsin	N	0	0	N	N	—	11	46	7	57	—	3	21	—	15
W.N. Central	1	1	8	14	4	5	39	99	167	176	3	11	40	42	25
Iowa	—	0	0	—	—	1	8	19	31	42	—	2	15	6	6
Kansas	—	1	4	7	1	—	8	27	43	34	—	2	8	4	5
Minnesota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Missouri	1	0	4	3	—	3	15	42	68	72	2	5	32	20	7
Nebraska	—	0	3	—	3	1	4	13	15	16	1	1	8	7	7
North Dakota	—	0	4	4	—	—	0	15	—	—	—	0	4	—	—
South Dakota	—	0	0	—	—	—	3	10	10	12	—	1	4	5	—
S. Atlantic	14	18	48	118	213	115	276	740	1,168	1,104	4	12	31	68	57
Delaware	—	0	0	—	—	1	2	12	11	16	1	0	2	2	1
District of Columbia	—	0	0	—	—	—	1	6	—	5	—	0	1	1	1
Florida	4	0	13	19	120	59	107	203	498	419	3	3	9	29	9
Georgia	—	0	0	—	—	9	43	139	149	214	—	2	8	6	12
Maryland	—	6	13	32	27	11	19	46	89	84	—	1	4	3	10
North Carolina	—	0	0	—	—	22	34	251	235	158	—	2	26	15	16
South Carolina	N	0	0	N	N	5	27	71	89	99	—	0	4	3	—
Virginia	10	11	27	60	66	8	19	54	89	109	—	2	8	9	8
West Virginia	—	0	30	7	—	—	0	18	8	—	—	0	2	—	—
E.S. Central	—	3	11	9	15	10	64	190	235	273	—	4	18	21	16
Alabama	—	2	7	8	9	—	18	70	62	88	—	1	15	8	2
Kentucky	—	0	2	1	1	2	11	30	45	47	—	1	5	5	4
Mississippi	—	0	1	—	—	1	22	66	59	53	—	0	4	5	1
Tennessee	—	1	4	—	5	7	15	51	69	85	—	1	11	3	9
W.S. Central	2	1	21	61	—	6	133	250	256	332	—	10	56	16	19
Arkansas	2	0	10	11	—	2	13	52	29	47	—	1	6	3	1
Louisiana	—	0	0	—	—	—	14	44	67	59	—	0	1	—	—
Oklahoma	—	0	21	7	—	4	13	31	47	30	—	1	10	5	4
Texas	—	0	11	43	—	—	93	159	113	196	—	7	56	8	14
Mountain	—	1	4	14	—	14	45	93	184	296	1	11	27	20	29
Arizona	N	0	0	N	N	10	15	35	81	97	—	2	7	4	3
Colorado	—	0	0	—	—	—	9	23	28	69	—	3	9	2	12
Idaho	—	0	1	—	—	1	2	8	10	29	—	1	8	3	4
Montana	N	0	0	N	N	2	2	10	10	7	—	1	4	1	1
Nevada	—	0	3	—	—	1	3	7	11	22	1	0	7	2	2
New Mexico	—	0	4	14	—	—	5	22	20	35	—	1	3	3	4
Utah	—	0	2	—	—	—	6	15	20	33	—	1	7	2	3
Wyoming	—	0	0	—	—	—	1	9	4	4	—	0	7	3	—
Pacific	1	4	15	3	14	20	92	173	369	563	2	9	28	20	29
Alaska	1	0	2	3	6	1	1	6	8	9	—	0	1	—	—
California	—	3	13	—	5	—	71	141	273	431	—	4	14	6	18
Hawaii	—	0	0	—	—	—	6	14	12	49	—	0	2	—	—
Oregon	—	0	2	—	3	1	5	12	25	47	—	1	11	6	6
Washington	—	0	0	—	—	18	9	42	51	27	2	2	22	8	5
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	—	3	—	0	0	—	—
Puerto Rico	—	0	6	13	4	1	3	12	6	24	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Shigellosis					Spotted Fever Rickettsiosis (including RMSF) [†]									
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Confirmed					Probable				
		Med	Max			Current week	Med	Max	Cum 2012	Cum 2011	Current week	Med	Max	Cum 2012	Cum 2011
United States	136	258	379	1,350	1,246	1	3	15	13	8	2	30	138	57	44
New England	—	4	21	13	28	—	0	1	—	—	—	0	1	—	1
Connecticut	—	1	4	5	6	—	0	0	—	—	—	0	0	—	—
Maine	—	0	8	—	1	—	0	0	—	—	—	0	1	—	—
Massachusetts	—	3	20	8	20	—	0	0	—	—	—	0	1	—	—
New Hampshire	—	0	1	—	—	—	0	1	—	—	—	0	1	—	—
Rhode Island	—	0	3	—	—	—	0	0	—	—	—	0	1	—	1
Vermont	—	0	1	—	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	34	25	86	219	83	—	0	2	3	—	1	1	8	8	2
New Jersey	—	6	39	49	19	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	34	6	41	81	16	—	0	1	—	—	1	0	3	1	—
New York City	—	8	28	76	34	—	0	0	—	—	—	0	3	2	2
Pennsylvania	—	2	13	13	14	—	0	2	3	—	—	0	3	5	—
E.N. Central	11	15	41	172	108	—	0	2	1	—	—	2	10	3	4
Illinois	—	4	16	10	37	—	0	1	—	—	—	1	4	1	3
Indiana	—	1	6	5	11	—	0	1	1	—	—	1	5	1	—
Michigan	—	3	11	29	22	—	0	1	—	—	—	0	1	—	—
Ohio	11	6	27	128	38	—	0	2	—	—	—	0	2	1	1
Wisconsin	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
W.N. Central	—	5	18	48	67	—	0	4	—	—	1	4	24	4	8
Iowa	—	0	3	4	4	—	0	0	—	—	—	0	2	—	1
Kansas	—	1	6	26	14	—	0	0	—	—	—	0	0	—	—
Minnesota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Missouri	—	3	14	15	46	—	0	2	—	—	1	4	22	4	7
Nebraska	—	0	2	3	2	—	0	3	—	—	—	0	1	—	—
North Dakota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	2	—	1	—	0	1	—	—	—	0	0	—	—
S. Atlantic	40	75	134	314	428	—	1	9	7	4	—	7	58	23	18
Delaware	—	0	2	—	—	—	0	1	—	—	—	0	4	2	1
District of Columbia	—	0	5	1	5	—	0	1	—	—	—	0	1	—	—
Florida	30	50	98	183	265	—	0	1	—	1	—	0	2	4	1
Georgia	5	13	26	79	76	—	1	8	7	1	—	0	0	—	—
Maryland	2	2	10	22	18	—	0	1	—	—	—	0	3	2	1
North Carolina	2	3	19	16	41	—	0	4	—	1	—	0	49	5	9
South Carolina	—	1	54	3	10	—	0	2	—	—	—	0	2	—	1
Virginia	1	2	7	10	13	—	0	1	—	—	—	3	14	10	5
West Virginia	—	0	2	—	—	—	0	0	—	—	—	0	1	—	—
E.S. Central	11	20	51	220	74	1	0	2	1	—	—	4	25	8	6
Alabama	—	6	21	49	33	—	0	1	—	—	—	1	8	3	3
Kentucky	7	5	22	102	7	—	0	1	—	—	—	0	2	—	—
Mississippi	2	4	24	46	13	—	0	0	—	—	—	0	2	—	1
Tennessee	2	4	11	23	21	1	0	2	1	—	—	4	20	5	2
W.S. Central	36	54	134	238	173	—	0	3	—	—	—	2	52	5	1
Arkansas	—	2	7	10	4	—	0	3	—	—	—	2	52	4	—
Louisiana	—	4	21	21	25	—	0	0	—	—	—	0	2	1	—
Oklahoma	26	4	28	64	11	—	0	1	—	—	—	0	25	—	—
Texas	10	43	104	143	133	—	0	1	—	—	—	0	4	—	1
Mountain	3	13	41	43	110	—	0	3	—	4	—	1	7	5	4
Arizona	3	6	27	28	40	—	0	3	—	4	—	0	6	1	4
Colorado	—	1	8	2	16	—	0	0	—	—	—	0	1	—	—
Idaho	—	0	3	2	5	—	0	0	—	—	—	0	2	2	—
Montana	—	1	15	3	10	—	0	0	—	—	—	0	1	—	—
Nevada	—	0	4	1	6	—	0	0	—	—	—	0	1	—	—
New Mexico	—	2	6	6	27	—	0	0	—	—	—	0	0	—	—
Utah	—	1	4	1	6	—	0	0	—	—	—	0	1	2	—
Wyoming	—	0	1	—	—	—	0	0	—	—	—	0	2	—	—
Pacific	1	19	44	83	175	—	0	2	1	—	—	0	1	1	—
Alaska	—	0	2	2	1	N	0	0	N	N	N	0	0	N	N
California	—	15	41	68	147	—	0	2	1	—	—	0	1	1	—
Hawaii	—	1	3	1	14	N	0	0	N	N	N	0	0	N	N
Oregon	—	1	4	8	9	—	0	0	—	—	—	0	0	—	—
Washington	1	1	11	4	4	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	1	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	N	0	0	N	N	N	0	0	N	N
Puerto Rico	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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† Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by *Rickettsia rickettsii*, is the most common and well-known spotted fever.

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	<i>Streptococcus pneumoniae</i> , [†] invasive disease										Syphilis, primary and secondary				
	All ages					Age <5									
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Current week	Previous 52 weeks		Cum 2012	Cum 2011
	Med	Max				Med	Max				Med	Max			
United States	199	261	506	2,251	3,208	15	21	43	160	188	56	267	305	1,283	1,988
New England	—	12	31	85	176	—	1	4	6	7	8	7	23	45	59
Connecticut	—	6	20	45	82	—	0	3	2	1	—	0	12	—	6
Maine	—	2	8	17	27	—	0	1	1	1	—	0	2	—	2
Massachusetts	—	0	3	5	7	—	0	2	2	3	2	5	10	30	37
New Hampshire	—	1	8	10	23	—	0	1	1	—	—	0	3	4	3
Rhode Island	—	1	5	—	31	—	0	1	—	1	6	0	7	11	9
Vermont	—	1	6	8	6	—	0	2	—	1	—	0	2	—	2
Mid. Atlantic	33	29	62	349	363	—	2	11	19	18	7	29	48	145	242
New Jersey	—	13	29	75	179	—	1	4	8	10	—	4	11	5	30
New York (Upstate)	31	2	33	179	15	—	1	10	8	8	1	4	9	15	20
New York City	2	12	23	95	169	—	0	9	3	—	1	14	24	62	140
Pennsylvania	N	0	0	N	N	N	0	0	N	N	5	7	17	63	52
E.N. Central	39	63	122	471	626	6	3	10	27	32	1	31	48	87	254
Illinois	N	0	0	N	N	—	0	0	—	—	—	13	24	30	100
Indiana	1	13	36	67	156	—	1	4	3	6	1	3	8	24	28
Michigan	4	14	26	106	122	1	1	2	7	9	—	5	12	9	41
Ohio	34	27	43	235	258	5	1	7	12	13	—	7	17	22	74
Wisconsin	—	8	23	63	90	—	0	2	5	4	—	1	6	2	11
W.N. Central	1	3	28	30	32	—	0	2	1	2	—	6	13	3	64
Iowa	N	0	0	N	N	N	0	0	N	N	—	0	3	2	3
Kansas	N	0	0	N	N	N	0	0	N	N	—	0	4	—	2
Minnesota	—	0	0	—	—	—	0	0	—	—	—	2	8	—	30
Missouri	N	0	0	N	N	—	0	0	—	—	—	2	8	—	26
Nebraska	1	2	5	30	32	—	0	2	1	2	—	0	2	1	3
North Dakota	—	0	25	—	—	—	0	1	—	—	—	0	1	—	—
South Dakota	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
S. Atlantic	63	65	143	616	926	3	6	15	49	56	28	67	85	408	475
Delaware	1	0	5	7	19	—	0	0	—	—	—	0	4	7	3
District of Columbia	—	0	5	1	13	—	0	1	1	1	1	3	8	29	34
Florida	23	21	55	223	384	2	2	8	17	27	2	24	36	139	189
Georgia	17	19	38	191	251	1	1	6	18	18	7	12	42	67	51
Maryland	10	9	29	65	140	—	1	3	3	7	4	8	20	34	53
North Carolina	N	0	0	N	N	N	0	0	N	N	11	8	21	66	67
South Carolina	12	8	22	91	119	—	0	3	4	3	1	4	11	36	46
Virginia	N	0	0	N	N	—	0	0	—	—	2	4	13	30	32
West Virginia	—	1	48	38	—	—	0	4	6	—	—	0	2	—	—
E.S. Central	16	23	45	198	276	—	2	4	9	19	8	15	31	70	109
Alabama	N	0	0	N	N	N	0	0	N	N	—	4	10	16	37
Kentucky	4	4	12	41	48	—	0	3	—	5	3	2	8	13	17
Mississippi	N	0	0	N	N	—	0	0	—	—	5	3	22	25	19
Tennessee	12	19	42	157	228	—	1	4	9	14	—	5	11	16	36
W.S. Central	28	31	139	254	350	4	3	10	24	24	2	38	51	244	237
Arkansas	5	4	14	37	49	3	0	3	5	5	1	4	15	47	24
Louisiana	1	2	14	33	62	—	0	2	2	3	—	7	25	17	40
Oklahoma	N	0	0	N	N	—	0	0	—	—	1	1	6	7	7
Texas	22	24	125	184	239	1	3	10	17	16	—	23	39	173	166
Mountain	19	26	72	231	422	2	2	8	18	28	1	12	20	29	98
Arizona	15	12	45	158	221	2	1	5	12	12	—	5	11	8	32
Colorado	—	8	23	31	95	—	0	4	2	4	—	2	6	9	21
Idaho	N	0	0	N	N	—	0	0	—	—	1	0	4	3	3
Montana	N	0	0	N	N	N	0	0	N	N	—	0	1	—	4
Nevada	N	0	0	N	N	N	0	0	N	N	—	2	9	2	24
New Mexico	4	4	12	38	58	—	0	2	4	4	—	1	4	4	10
Utah	—	1	7	—	43	—	0	1	—	8	—	0	2	3	4
Wyoming	—	0	3	4	5	—	0	0	—	—	—	0	0	—	—
Pacific	—	2	9	17	37	—	0	2	7	2	1	55	74	252	450
Alaska	—	2	9	17	36	—	0	2	7	2	—	0	2	2	—
California	N	0	0	N	N	N	0	0	N	N	—	45	62	203	361
Hawaii	—	0	1	—	1	—	0	1	—	—	—	0	3	—	—
Oregon	N	0	0	N	N	N	0	0	N	N	—	4	14	24	29
Washington	N	0	0	N	N	N	0	0	N	N	1	5	12	23	60
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	5	5	15	33	30
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Includes drug resistant and susceptible cases of invasive *Streptococcus pneumoniae* disease among children <5 years and among all ages. Case definition: Isolation of *S. pneumoniae* from a normally sterile body site (e.g., blood or cerebrospinal fluid).

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 25, 2012, and February 26, 2011 (8th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease [†]									
	Current week	Previous 52 weeks		Cum 2012	Cum 2011	Neuroinvasive					Nonneuroinvasive [§]				
		Med	Max			Current week	Med	Max	Cum 2012	Cum 2011	Current week	Med	Max	Cum 2012	Cum 2011
United States	175	290	399	1,687	2,136	—	0	62	—	1	—	0	32	—	—
New England	—	23	54	134	186	—	0	3	—	—	—	0	1	—	—
Connecticut	—	6	20	30	38	—	0	2	—	—	—	0	1	—	—
Maine	—	4	11	35	33	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	9	18	47	67	—	0	2	—	—	—	0	1	—	—
New Hampshire	—	2	10	—	17	—	0	0	—	—	—	0	0	—	—
Rhode Island	—	0	6	1	8	—	0	1	—	—	—	0	0	—	—
Vermont	—	2	9	21	23	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	39	55	80	368	232	—	0	11	—	—	—	0	6	—	—
New Jersey	13	34	70	221	79	—	0	1	—	—	—	0	2	—	—
New York (Upstate)	N	0	0	N	N	—	0	5	—	—	—	0	4	—	—
New York City	—	0	0	—	—	—	0	4	—	—	—	0	1	—	—
Pennsylvania	26	20	42	147	153	—	0	2	—	—	—	0	1	—	—
E.N. Central	33	63	115	439	571	—	0	13	—	—	—	0	7	—	—
Illinois	—	18	38	100	124	—	0	6	—	—	—	0	5	—	—
Indiana	—	5	20	42	51	—	0	2	—	—	—	0	1	—	—
Michigan	14	18	45	136	195	—	0	7	—	—	—	0	2	—	—
Ohio	19	21	47	161	200	—	0	3	—	—	—	0	3	—	—
Wisconsin	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
W.N. Central	7	12	32	92	114	—	0	9	—	1	—	0	7	—	—
Iowa	N	0	0	N	N	—	0	2	—	—	—	0	2	—	—
Kansas	7	7	21	64	60	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	1	—	—	—	0	1	—	—	—	0	1	—	—
Missouri	—	3	18	22	48	—	0	2	—	1	—	0	2	—	—
Nebraska	—	0	2	3	1	—	0	4	—	—	—	0	3	—	—
North Dakota	—	0	7	—	1	—	0	1	—	—	—	0	1	—	—
South Dakota	—	1	6	3	4	—	0	0	—	—	—	0	1	—	—
S. Atlantic	21	35	66	188	290	—	0	11	—	—	—	0	6	—	—
Delaware	—	0	2	—	2	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	2	—	4	—	0	3	—	—	—	0	3	—	—
Florida	15	16	38	115	145	—	0	4	—	—	—	0	2	—	—
Georgia	N	0	0	N	N	—	0	3	—	—	—	0	1	—	—
Maryland	N	0	0	N	N	—	0	5	—	—	—	0	3	—	—
North Carolina	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
South Carolina	—	0	9	—	—	—	0	0	—	—	—	0	0	—	—
Virginia	6	9	27	44	58	—	0	2	—	—	—	0	1	—	—
West Virginia	—	6	32	29	81	—	0	1	—	—	—	0	0	—	—
E.S. Central	4	5	15	34	45	—	0	11	—	—	—	0	5	—	—
Alabama	4	5	14	30	41	—	0	2	—	—	—	0	0	—	—
Kentucky	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
Mississippi	—	0	2	4	4	—	0	5	—	—	—	0	4	—	—
Tennessee	N	0	0	N	N	—	0	3	—	—	—	0	1	—	—
W.S. Central	49	56	158	326	315	—	0	4	—	—	—	0	3	—	—
Arkansas	—	4	26	9	44	—	0	1	—	—	—	0	0	—	—
Louisiana	—	2	6	9	14	—	0	1	—	—	—	0	2	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Texas	49	49	153	308	257	—	0	3	—	—	—	0	3	—	—
Mountain	20	21	68	93	342	—	0	11	—	—	—	0	5	—	—
Arizona	—	5	50	14	106	—	0	7	—	—	—	0	4	—	—
Colorado	16	6	32	38	98	—	0	2	—	—	—	0	2	—	—
Idaho	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Montana	2	1	7	6	69	—	0	1	—	—	—	0	0	—	—
Nevada	N	0	0	N	N	—	0	4	—	—	—	0	2	—	—
New Mexico	2	1	8	17	10	—	0	1	—	—	—	0	0	—	—
Utah	—	3	26	16	57	—	0	1	—	—	—	0	1	—	—
Wyoming	—	0	1	2	2	—	0	1	—	—	—	0	1	—	—
Pacific	2	2	9	13	41	—	0	18	—	—	—	0	7	—	—
Alaska	2	1	4	7	17	—	0	0	—	—	—	0	0	—	—
California	—	0	4	3	14	—	0	18	—	—	—	0	7	—	—
Hawaii	—	0	4	3	10	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
Washington	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	2	4	—	3	—	0	0	—	—	—	0	0	—	—
Puerto Rico	6	2	10	22	34	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2011 and 2012 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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

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

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TABLE III. Deaths in 122 U.S. cities,* week ending February 25, 2012 (8th week)

Reporting area	All causes, by age (years)						P&I†	Reporting area (Continued)	All causes, by age (years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1			Total	All Ages	≥65	45-64	25-44	1-24	
New England	523	383	92	33	6	9	69	S. Atlantic	968	610	246	71	17	23	65
Boston, MA	118	70	29	12	2	5	13	Atlanta, GA	121	68	37	12	2	1	10
Bridgeport, CT	19	17	1	1	—	—	3	Baltimore, MD	155	88	42	17	5	3	14
Cambridge, MA	25	20	4	—	1	—	1	Charlotte, NC	196	134	48	5	4	5	7
Fall River, MA	19	16	2	—	1	—	5	Jacksonville, FL	6	5	—	1	—	—	1
Hartford, CT	56	41	11	4	—	—	6	Miami, FL	128	96	19	10	—	3	5
Lowell, MA	19	17	2	—	—	—	4	Norfolk, VA	50	35	11	4	—	—	4
Lynn, MA	5	3	1	1	—	—	—	Richmond, VA	48	29	16	1	1	1	1
New Bedford, MA	40	30	6	4	—	—	3	Savannah, GA	49	30	12	4	1	2	3
New Haven, CT	28	16	8	1	2	1	3	St. Petersburg, FL	54	28	16	6	2	2	6
Providence, RI	50	37	8	4	—	1	3	Tampa, FL	67	40	19	3	2	3	2
Somerville, MA	2	2	—	—	—	—	1	Washington, D.C.	81	46	24	8	—	3	11
Springfield, MA	33	26	7	—	—	—	5	Wilmington, DE	13	11	2	—	—	—	1
Waterbury, CT	30	24	5	1	—	—	4	E.S. Central	851	528	242	52	17	12	78
Worcester, MA	79	64	8	5	—	2	18	Birmingham, AL	169	107	41	13	5	3	13
Mid. Atlantic	1,768	1,246	395	84	27	16	94	Chattanooga, TN	78	48	29	1	—	—	4
Albany, NY	53	39	11	2	1	—	4	Knoxville, TN	122	81	29	8	3	1	10
Allentown, PA	21	19	2	—	—	—	2	Lexington, KY	41	29	12	—	—	—	3
Buffalo, NY	87	60	22	4	1	—	8	Memphis, TN	152	89	52	5	2	4	13
Camden, NJ	22	10	8	3	—	1	—	Mobile, AL	97	61	20	13	2	1	5
Elizabeth, NJ	9	7	2	—	—	—	—	Montgomery, AL	47	32	12	3	—	—	9
Erie, PA	50	37	8	3	2	—	3	Nashville, TN	145	81	47	9	5	3	21
Jersey City, NJ	26	19	3	2	2	—	2	W.S. Central	1,236	798	301	74	40	23	84
New York City, NY	878	622	201	40	11	4	38	Austin, TX	88	56	23	6	2	1	8
Newark, NJ	54	30	20	1	1	2	—	Baton Rouge, LA	65	41	12	6	4	2	2
Paterson, NJ	26	13	6	4	1	2	2	Corpus Christi, TX	64	41	18	3	—	2	2
Philadelphia, PA	162	103	42	12	3	2	11	Dallas, TX	208	108	72	19	5	4	11
Pittsburgh, PA [§]	42	34	8	—	—	—	2	El Paso, TX	100	78	16	3	1	2	1
Reading, PA	40	32	4	2	—	2	5	Fort Worth, TX	U	U	U	U	U	U	U
Rochester, NY	82	59	16	4	1	2	2	Houston, TX	116	63	19	11	17	6	5
Schenectady, NY	29	23	5	1	—	—	3	Little Rock, AR	81	54	22	1	2	2	5
Scranton, PA	32	29	3	—	—	—	4	New Orleans, LA	U	U	U	U	U	U	U
Syracuse, NY	97	72	18	4	2	1	4	San Antonio, TX	285	194	72	12	5	2	27
Trenton, NJ	27	14	10	2	1	—	—	Shreveport, LA	127	101	19	4	2	1	16
Utica, NY	17	14	3	—	—	—	1	Tulsa, OK	102	62	28	9	2	1	7
Yonkers, NY	14	10	3	—	1	—	3	Mountain	1,203	832	260	72	20	19	94
E.N. Central	2,074	1,410	480	109	40	35	158	Albuquerque, NM	121	86	30	3	2	—	16
Akron, OH	47	30	7	3	3	4	2	Boise, ID	57	38	14	3	—	2	6
Canton, OH	40	27	9	3	—	1	3	Colorado Springs, CO	92	69	18	4	1	—	4
Chicago, IL	234	149	54	21	8	2	20	Denver, CO	91	63	18	7	2	1	6
Cincinnati, OH	82	43	27	9	3	—	8	Las Vegas, NV	300	216	62	15	3	4	29
Cleveland, OH	295	215	70	6	2	2	12	Ogden, UT	34	24	5	3	2	—	4
Columbus, OH	270	181	58	18	1	12	20	Phoenix, AZ	182	108	55	11	5	3	9
Dayton, OH	117	80	28	5	2	2	12	Pueblo, CO	44	37	4	2	1	—	1
Detroit, MI	173	95	60	11	5	2	6	Salt Lake City, UT	134	85	28	13	2	6	9
Evansville, IN	54	38	13	3	—	—	4	Tucson, AZ	148	106	26	11	2	3	10
Fort Wayne, IN	72	54	15	2	1	—	8	Pacific	1,700	1,190	374	72	36	28	154
Gary, IN	14	10	2	1	1	—	2	Berkeley, CA	14	11	1	1	—	1	2
Grand Rapids, MI	49	37	9	—	2	1	8	Fresno, CA	134	92	31	5	2	4	12
Indianapolis, IN	193	128	51	5	4	5	14	Glendale, CA	45	37	7	—	1	—	7
Lansing, MI	43	32	5	3	3	—	1	Honolulu, HI	86	62	14	7	2	1	11
Milwaukee, WI	79	61	12	3	2	1	7	Long Beach, CA	62	40	19	2	1	—	3
Peoria, IL	54	38	12	2	2	—	7	Los Angeles, CA	247	164	54	14	7	8	27
Rockford, IL	59	41	10	8	—	—	7	Pasadena, CA	18	15	3	—	—	—	2
South Bend, IN	59	47	10	2	—	—	7	Portland, OR	97	67	25	3	—	2	8
Toledo, OH	75	54	16	3	—	2	2	Sacramento, CA	216	163	41	8	2	2	18
Youngstown, OH	65	50	12	1	1	1	8	San Diego, CA	159	112	30	10	5	2	11
W.N. Central	627	414	151	31	17	14	36	San Francisco, CA	114	81	25	6	1	1	12
Des Moines, IA	98	76	11	3	7	1	5	San Jose, CA	208	153	46	6	2	1	21
Duluth, MN	33	27	6	—	—	—	1	Santa Cruz, CA	36	26	7	1	2	—	2
Kansas City, KS	41	23	13	1	3	1	2	Seattle, WA	107	58	34	4	6	5	3
Kansas City, MO	62	43	12	2	3	2	5	Spokane, WA	67	57	7	—	2	1	7
Lincoln, NE	36	24	11	1	—	—	1	Tacoma, WA	90	52	30	5	3	—	8
Minneapolis, MN	74	42	23	4	1	4	8	Total¶	10,950	7,411	2,541	598	220	179	832
Omaha, NE	68	41	20	4	2	1	3								
St. Louis, MO	57	29	22	5	—	1	—								
St. Paul, MN	67	44	17	3	—	3	5								
Wichita, KS	91	65	16	8	1	1	6								

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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