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Thirty Years of HIV — 1981–2011

On June 5, 1981, *MMWR* published a report of *Pneumocystis carinii* pneumonia in five previously healthy young men in Los Angeles, California; two had died (*1*). This report later was acknowledged as the first published scientific account of what would become known as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS). Thirty years after that first report, the most recent estimate is that 33.3 million persons were living with HIV infection worldwide at the end of 2009 (*2*).

In the United States, CDC estimates that 1,178,350 persons were living with HIV at the end of 2008 (*3*), with 594,496 having died from AIDS since 1981 (*4*). At this 30-year mark, efforts are being accelerated under the National HIV/AIDS Strategy of the United States, with goals of reducing the number of persons who become infected with HIV, increasing access to care and optimizing health outcomes for persons living with HIV, and reducing HIV-related health disparities (*5*).

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HIV Surveillance — United States, 1981–2008

Within 1 year of the initial report in 1981 of a deadly new disease that occurred predominantly in previously healthy persons and was manifested by *Pneumocystis carinii* pneumonia and Kaposi's sarcoma, the disease had a name: acquired immune deficiency syndrome (AIDS). Within 2 years, the causative agent had been identified: human immunodeficiency virus (HIV). On the 30th anniversary of the epidemic, to characterize trends in HIV infection and AIDS in the United States during 1981–2008, CDC analyzed data from the National HIV Surveillance System. This report summarizes the results of that analysis, which indicated that, in the first 14 years, sharp increases were reported in the number of new AIDS diagnoses and deaths among persons aged ≥13 years, reaching highs of 75,457 in 1992 and 50,628 in 1995, respectively. With introduction of highly active antiretroviral therapy, AIDS diagnoses and deaths declined substantially from 1995 to 1998 and remained stable from 1999 to 2008 at an average of 38,279 AIDS diagnoses and 17,489 deaths per year, respectively. Despite the decline in AIDS cases and deaths, at the end of 2008 an estimated 1,178,350 persons were living with HIV, including 236,400 (20.1%) whose infection was undiagnosed. These findings underscore the importance of the National HIV/AIDS Strategy focus on reducing HIV risk behaviors, increasing opportunities for routine testing, and enhancing use of care (*1*).

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HIV infection is notifiable in all 50 states and the District of Columbia (DC); AIDS is now notifiable as stage 3 HIV infection. For this report, AIDS data reported to CDC by the end of June 2010 from 50 states and DC were analyzed to determine the annual number of AIDS diagnoses, deaths among persons with AIDS, and persons living with AIDS from 1981 through 2008. Surveillance data were adjusted for reporting delays and missing risk-factor information, but not for incomplete reporting (*2*). Additionally, by using 1) HIV and AIDS data for persons aged ≥13 years at diagnosis from 40 states that have had confidential name-based HIV infection reporting since at least January 2006 and 2) AIDS data from 11 areas, CDC estimated the annual number of persons living with HIV infection using extended back-calculation (*3*). The estimated number of undiagnosed HIV infections was calculated by subtracting the number of diagnosed infections from the estimated overall HIV prevalence. HIV prevalence rates per 100,000 population were calculated for 2008 based on postcensal estimates from the U.S. Census Bureau.

From 1981 to 1992, the estimated annual number of persons aged ≥13 years with newly diagnosed AIDS grew rapidly, from 318 to 75,457. From 1981 to 1995, the estimated annual number of deaths among persons with AIDS increased from 451 to 50,628 (Figure). These increases were followed by declines of 45% in AIDS diagnoses, from 1993 (75,263) to 1998 (41,462) and 63% in deaths, from 1995 (50,628) to 1998 (18,851). The declines began to level off in 1999, and AIDS diagnoses and deaths remained fairly stable at an average of 38,279 AIDS diagnoses and 17,489 deaths per year during 1999–2008. As a result, the estimated number of persons aged ≥13 years living with AIDS more than doubled from 1996 (219,318) to 2008 (479,161) (Figure).

At the end of 2008, an estimated 1,178,350 persons aged ≥13 years were living with HIV infection, including 236,400 (20.1%) whose infections had not been diagnosed (Table). Most (75.0%) persons living with HIV were male, and 65.7% of the males were men who have sex with men (MSM). HIV prevalence rates among blacks or African Americans (1,819.0 per 100,000 population) and Hispanics or Latinos (592.9) were approximately eight times and two and a half times the rate among whites (238.4) (Table). Greater percentages of those living with HIV infection had undiagnosed HIV among persons aged 13–24 years (58.9%) and 25–34 years (31.5%) than among those aged 34–44 years (18.0%), 45–54 years (13.8%), 55–64 years (11.9%), and ≥65 years (10.7%). Greater percentages of undiagnosed HIV also were observed among males with high-risk heterosexual contact (25.0%) and MSM (22.1%) than among those in other transmission categories. Greater percentages of undiagnosed HIV also were observed among Asians or Pacific Islanders (26.0%), and American Indians or Alaska Natives (25.0%), than among blacks or African Americans (21.4%), whites (18.5%), and Hispanic or Latinos (18.9%) (Table).

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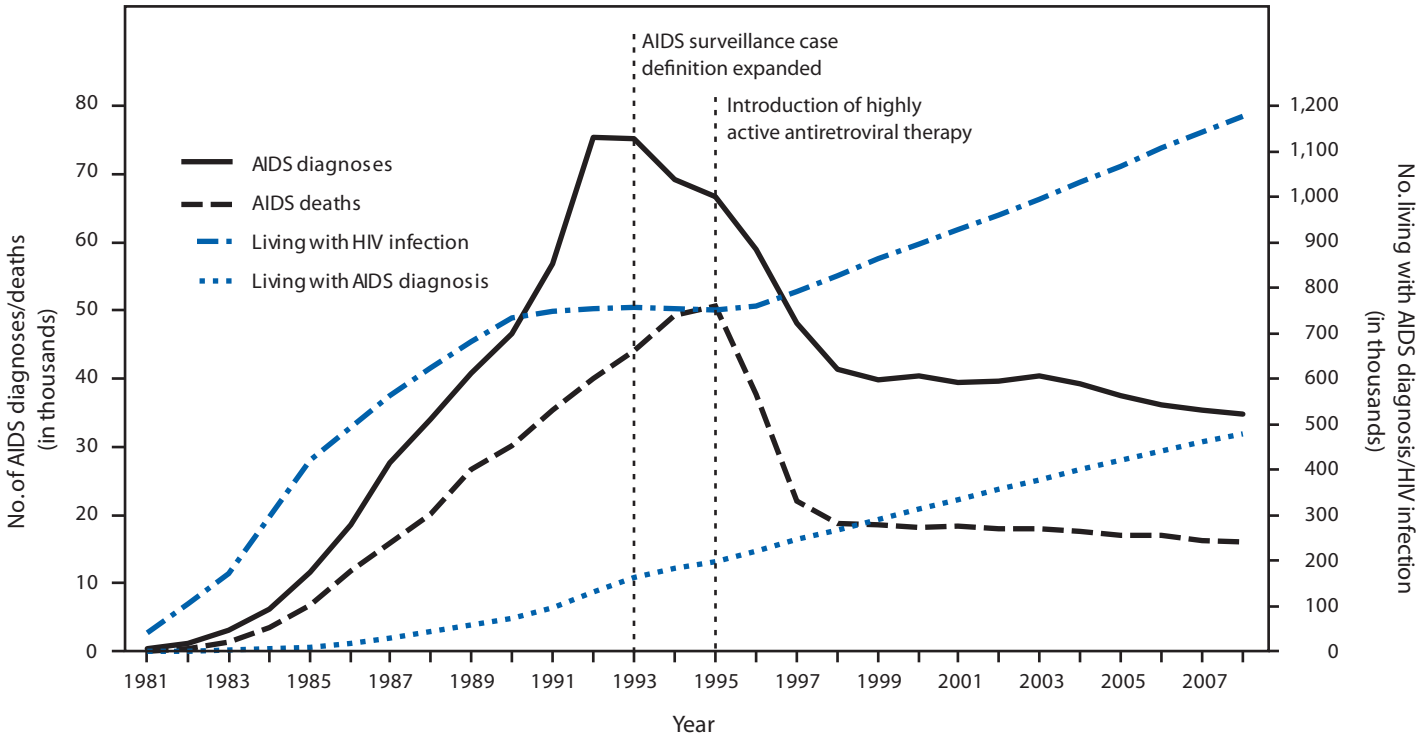
FIGURE. Estimated number of AIDS diagnoses and deaths and estimated number of persons living with AIDS diagnosis* and living with diagnosed or undiagnosed HIV infection† among persons aged ≥13 years — United States, 1981–2008



Abbreviations: AIDS = acquired immunodeficiency syndrome; HIV = human immunodeficiency virus.

* Yearly AIDS estimates were obtained by statistically adjusting national surveillance data reported through June 2010 for reporting delays, but not for incomplete reporting.

† HIV prevalence estimates were based on national HIV surveillance data reported through June 2010 using extended back-calculation.

Reported by

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Editorial Note

Three decades after the first cases were reported in the United States, HIV infection is no longer inevitably fatal. Highly active antiretroviral therapy suppresses viral replication for decades, allowing patients to enjoy longer and healthier lives and making them less infectious to others (*4*). A recent study of 3,400 heterosexual couples in Africa found that use of antiretroviral therapy reduced HIV transmission risk by 92% (*4*). HIV-related mortality, perinatal transmission, and the number of new HIV diagnoses among injection drug users have plummeted (*2*). Nucleic acid testing now can detect HIV as early as 9 days after infection, enhancing the safety of the blood and organ supply and providing opportunities for early detection and disease intervention, including partner notification (*5*). Preexposure prophylaxis and topical microbicides are promising biomedical interventions (*6*). The scientific progress in immunology, virology, pharmacology, and clinical management that led to these successes occurred at a faster pace than was imaginable in 1981, when the first cases of AIDS were identified.

HIV prevention efforts averted an estimated 350,000 HIV infections during 1991–2006 and saved $125 billion in medical care costs (*7*). However, despite these efforts and widespread knowledge of how to prevent HIV, CDC estimates that 50,000 persons are infected each year in the United States. More than half of the newly infected are MSM, and nearly half are black or African American (*3*). In addition, the findings in this report indicate that, of the estimated 1,178,350 living with HIV infection in the United States, 20.1% had undiagnosed HIV infections.

Surveillance data show that the proportion of HIV diagnoses occurring in MSM continues to grow. HIV incidence among MSM has increased steadily since the early 1990s (*3*). In 2009, MSM accounted for 57% of all persons and 75% of men with a diagnosis of HIV infection in the 40 states with longstanding, confidential, name-based HIV infection reporting (*2*).

TABLE. Estimated number and rate of persons aged ≥13 years living with HIV infection, and number and percentage whose HIV infection was undiagnosed, by selected characteristics — United States, 2008*

	Total persons living with HIV infection				Persons whose HIV infection was undiagnosed		
Characteristic	No.	(95% CI)	Rate†	(95% CI)	No.	(95% CI)	%
Total	**1,178,350**	**(1,128,350–1,228,500)**	**469.4**	**(449.5–489.4)**	**236,400**	**(224,900–247,900)**	**20.1**
Sex							
Male	883,450	(841,450–925,450)	719.5	(685.3–753.7)	182,450	(172,450–192,450)	20.6
Female	294,900	(269,900–319,900)	230.0	(210.5–249.5)	53,950	(47,950–59,950)	18.3
Age group (yrs)							
13–24	68,600	(56,000–80,600)	134.1	(109.5–157.6)	40,400	(35,400–45,400)	58.9
25–34	180,600	(160,600–200,600)	440.9	(392.1–489.8)	56,800	(51,300–62,300)	31.5
35–44	357,500	(327,500–387,500)	846.3	(775.3–917.4)	64,300	(58,300–70,300)	18.0
45–54	385,400	(353,400–417,400)	871.3	(798.9–943.6)	53,200	(48,200–58,200)	13.8
55–64	147,700	(132,770–162,770)	439.3	(394.9–484.1)	17,600	(15,600–19,600)	11.9
≥65	38,400	(34,400–42,400)	99.0	(88.7–109.3)	4,100	(3,600–4,600)	10.7
Race							
American Indian/Alaska Native	5,000	(3,500–6,500)	268.8	(188.2–349.4)	1,250	(650–1,850)	25.0
Asian/Pacific Islander	16,750	(14,250–19,250)	147.0	(125.0–168.9)	4,350	(2,850–4,850)	26.0
Black/African American	545,000	(513,000–577,000)	1,819.0	(1,712.2–1,925.8)	116,750	(108,650–124,850)	21.4
White	406,000	(378,000–434,000)	238.4	(221.9–254.8)	75,200	(70,700–81,700)	18.5
Ethnicity							
Hispanic/Latino	205,400	(186,400–224,400)	592.9	(538.0–647.7)	38,900	(33,900–43,900)	18.9
Transmission category							
MSM	580,000	(540,000–620,000)	NC	NC	128,400	(119,900–136,900)	22.1
IDU (male)	131,600	(114,600–148,600)	NC	NC	18,900	(15,600–22,200)	14.4
IDU (female)	73,900	(62,900–84,900)	NC	NC	10,400	(8,000–12,800)	14.1
MSM and IDU	55,200	(45,200–65,200)	NC	NC	6,200	(4,200–8,200)	11.2
Heterosexual contact§ (male)	110,900	(95,900–125,900)	NC	NC	27,700	(23,700–31,700)	25.0
Heterosexual contact§ (female)	217,400	(195,400–239,400)	NC	NC	42,900	(37,900–47,900)	19.7
Other¶	9,350	(7,850–10,850)	NC	NC	1,900	(1,100–2,700)	20.3

Abbreviations: HIV = human immunodeficiency virus; CI = confidence interval; MSM = men who have sex with men; NC = not calculated because population denominators for transmission category subgroups were unavailable; IDU = injection drug users.

* Estimates derived using extended back-calculation on HIV and acquired immunodeficiency syndrome (AIDS) data for persons aged ≥13 years at diagnosis from 40 states that have had confidential name-based HIV infection reporting since at least January 2006, and AIDS data from 10 states (California, Delaware, Hawaii, Maryland, Massachusetts, Montana, Oregon, Rhode Island, Vermont, and Washington) and the District of Columbia.

† Per 100,000 population.

§ Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

¶ Includes hemophilia, blood transfusion, perinatal exposure, and risk factors not reported or not identified.

Syphilis and gonorrhea are endemic among MSM; outbreaks or hyperendemic sexually transmitted infections have been reported from many communities where HIV infection also is prevalent, further increasing the risk for acquiring and transmitting HIV (*8*).

Late diagnosis of HIV infection is common. Among persons with newly diagnosed HIV in 2008, 33% developed AIDS within 1 year of initial HIV diagnosis (*2*). These persons likely were infected an average of 10 years before diagnosis. During this period, they missed opportunities to obtain medical care and to prevent unwitting transmission of HIV to others. Persons with a late diagnosis of HIV infection also are at greater risk for short-term mortality than those who receive an HIV diagnosis earlier in the course of infection. Initiation of care soon after diagnosis is recommended, yet a meta-analysis of 28 studies from multiple U.S. regions found that 28% of persons did not enter care within 4 months of HIV diagnosis (*9*). In addition, an estimated 41% of HIV-infected persons did not average at least two care visits in a year (*9*), as recommended by the U.S. Department of Health and Human Services (*10*).

The findings in this report are subject to at least three limitations. First, reported HIV data used in the extended back-calculation method represent only a portion of persons in the United States who received a diagnosis of HIV infection; some areas with high incidence, including Maryland and DC, did not contribute HIV data. Availability of HIV data from these areas will increase accuracy of future prevalence estimates. Second, not all persons with HIV have received a diagnosis of HIV infection, and so, have not been reported to the public health surveillance system; data must be estimated for persons with undiagnosed HIV. Finally, the data have been adjusted statistically to account for delays in reporting new cases and deaths and for missing risk factor information, which might result in less stable results (*2*).

The National HIV/AIDS Strategy (*1*) has three primary goals: 1) reduce HIV incidence, 2) increase access to care and

What is already known on this topic?

The annual number of acquired immunodeficiency syndrome (AIDS) diagnoses and deaths in the United States declined significantly with the advent of combination therapy in the mid-1990s and remained stable thereafter. However, each year, approximately 50,000 U.S. residents become infected with human immunodeficiency virus (HIV).

What is added by this report?

At the end of 2008, an estimated 1,178,350 persons aged ≥13 years in the United States were living with HIV infection, including 20.1% whose infections had not been diagnosed. HIV prevalence per 100,000 population was 1,819 among blacks or African Americans, 593 among Hispanics or Latinos, and 238 among whites. Nearly 50% of those living with HIV infection were men who have sex with men.

What are the implications for public health practice?

To achieve the goals of the National HIV/AIDS Strategy, HIV prevention, care, and treatment programs must continue their efforts to reduce incidence, increase access to care, improve health outcomes among persons living with HIV, and reduce HIV-related health disparities.

improve health outcomes for persons living with HIV, and 3) reduce HIV-related health disparities. The strategy refocuses efforts toward intensified HIV prevention in communities where HIV infection is most prevalent, using a combination of effective strategies that seek to optimize entry into and retention in care and maintenance of viral suppression. CDC, in partnership with state and local health departments, will use surveillance data to evaluate the measurable outcomes of this strategy, including new diagnoses, early detection, entry into care, retention in care, and viral suppression, as well as progression to AIDS and death.

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HIV Testing Among Men Who Have Sex with Men — 21 Cities, United States, 2008

Although men who have sex with men (MSM) comprise an estimated 2% of the overall U.S. population aged ≥13 years (*1*), 59% of persons with diagnoses of human immunodeficiency virus (HIV) infection in the United States in 2009 were MSM, including MSM who inject drugs (*2*). CDC recommends HIV testing at least annually for sexually active MSM to identify HIV infections and prevent ongoing transmission (*3*). Results of HIV testing conducted as part of the National HIV Behavioral Surveillance System (NHBS) in 21 cities indicated that 19% of MSM who were tested in 2008 were HIV-positive; of these, 44% were unaware that they were infected (*4*). To assess whether MSM were tested as recommended and whether more frequent testing might be indicated, CDC analyzed NHBS data for 2008. This report describes the results of that analysis, which indicated that, of 7,271 MSM interviewed and tested who did not report a previous positive HIV test, 61% had been tested for HIV infection during the past 12 months; among these, 7% had a new, positive HIV test result when tested as part of NHBS. Given the high prevalence of new HIV infection among MSM who had been tested during the past year, sexually active MSM might benefit from more frequent HIV testing (e.g., every 3 to 6 months).

NHBS is a behavioral surveillance system used to monitor HIV-related risk, testing, and prevention behaviors and HIV prevalence among populations at high risk for acquiring HIV (*5*). In 2008, NHBS staff members in 21 metropolitan statistical areas (MSAs) with high prevalence of acquired immunodeficiency syndrome (AIDS)* collected cross-sectional behavioral risk data and conducted HIV testing among MSM (*4*). MSM were sampled using venue-based sampling methods (*6*). NHBS staff members identified venues (e.g., bars, clubs, organizations, and street locations) and days and times when MSM frequented those venues (*7*). Venues and days/times were selected using a computerized random selection process each month for interviews and supplemented by up to three nonrandom events (e.g., Gay Pride events) per site per month. Staff members systematically approached men at each venue, intercepting potentially eligible men in the order in which they entered a designated "counting area" (*6*). Men eligible to be interviewed were aged ≥18 years, residents of the MSAs, and able to complete the interview in English or Spanish. After participants gave informed consent, trained interviewers used a handheld computer to administer a standardized, anonymous questionnaire about sex, drug use, and HIV testing behaviors. All respondents were offered anonymous HIV testing, which was performed by collecting blood or oral specimens for either rapid testing at venues or laboratory-based testing. A nonreactive rapid test was considered a definitive negative result; a reactive (preliminary positive) rapid test result was considered a definitive positive result only when confirmed by Western blot or immunofluorescence assay. Incentives were offered for participating in the interview and HIV test.

This analysis excluded MSM who reported a previous positive HIV test. CDC determined the proportion of MSM who received an HIV test during the past 12 months and, of these, the proportion with a positive NHBS test result, stratifying by demographic and risk characteristics. Those testing positive were considered to be unaware of their infection. CDC sexually transmitted disease (STD) treatment guidelines recommend that MSM who have multiple or anonymous partners, have sex in conjunction with illicit drug use, use methamphetamine, or whose sex partners participate in these activities be screened for STDs and HIV more frequently (every 3 to 6 months) than those without such risk factors (*8*). To reflect these guidelines, MSM with high-risk behaviors were defined as those reporting at least one of the following: more than one male sex partner during the past 12 months, methamphetamine use during the past 12 months, sex in conjunction with illicit drug use at most recent sex, or a most recent male sex partner who definitely or probably had concurrent sex partners. CDC determined the proportion of HIV-infected men among MSM who did and did not report high-risk behaviors.

A multivariable Poisson model was used to create unadjusted and adjusted prevalence ratios to determine factors associated with being HIV-infected (*9*). The adjusted model controlled for various factors: race/ethnicity, age, annual household income,

* The 21 MSAs included in this analysis were Atlanta–Sandy Springs–Marietta, GA; Baltimore–Towson, MD; Boston–Cambridge–Quincy, MA–NH: Boston–Quincy Division; Chicago–Joliet–Naperville, IL: Chicago–Joliet–Naperville Division; Dallas–Fort Worth–Arlington, TX: Dallas–Plano–Irving Division; Denver–Aurora–Broomfield, CO; Detroit–Warren–Livonia, MI: Detroit–Livonia–Dearborn Division; Houston–Sugar Land–Baytown, TX; Los Angeles–Long Beach–Santa Ana, CA: Los Angeles–Long Beach–Glendale Division; Miami–Ft. Lauderdale–Pompano Beach, FL: Miami Division; New Orleans–Metairie–Kenner, LA; New York–Northern New Jersey–Long Island, NY–NJ–PA: New York–White Plains–Wayne Division; New York–Northern New Jersey–Long Island, NY–NJ–PA: Nassau–Suffolk Division; New York–Northern New Jersey–Long Island, NY–NJ–PA: Newark–Union Division; Philadelphia–Camden–Wilmington, PA–NJ–DE–MD: Philadelphia Division; San Diego–Carlsbad–San Marcos, CA; San Francisco–Oakland–Fremont, CA: San Francisco–San Mateo–Redwood City Division; San Juan–Caguas–Guaynabo, PR; Seattle–Tacoma–Bellevue, WA: Seattle–Bellevue–Everett Division; St. Louis, MO–IL; and Washington–Arlington–Alexandria, DC–VA–MD–WV: Washington–Arlington–Alexandria Division.

education, health insurance status, time since most recent HIV test, unprotected anal sex, and high-risk behaviors.

Of 28,468 men approached, 12,325 were screened for participation at 626 venues. Of men screened, 11,074 (90%) were eligible for the survey. Men who were surveyed were excluded from analysis if they did not complete both the survey (n = 396 [4%]) and the HIV test (n = 1,535 [14%]), did not report sex with a man during the preceding 12 months (n = 1,744 [16%]), had an indeterminate HIV test result (n = 85 [0.8%]), or reported being HIV-positive (n = 1,214 [11%]). These reasons were not mutually exclusive. Of eligible men, 7,271 (66%) were included in this analysis.

Of men included in this report, 44% were white, 25% were Hispanic, and 23% were black. Mean age was 34 years (range: 18–85 years); 62% had less than a college education, 29% reported an annual household income <$20,000, and 34% had no health insurance (Table 1).

Among the 7,271 MSM, 680 (9%) were HIV-infected. Of these, 16% had never been tested for HIV, and 29% had been tested during the past 6 months (Figure).

Among the 7,271 MSM, 4,453 (61%) had tested for HIV infection during the past 12 months and did not receive a positive HIV test result. The proportion tested was higher among MSM in younger age groups and those with higher levels of education and income but did not vary by race/ethnicity (Table 1). Among 5,864 (81%) MSM with high-risk behaviors, 44% had been tested for HIV infection during the past 6 months.

Among the 4,453 MSM who had not received a diagnosis of HIV infection previously and were tested for HIV during the past 12 months, 7% (15% of blacks, 7% of Hispanics, and 3% of whites) were found to be HIV-infected when tested by NHBS (Table 2). Of 3,672 MSM with high-risk behaviors who were tested for HIV in the past 12 months and did not receive a positive HIV test result, 7% were HIV-infected when tested by NHBS, compared with 8% of those who did not report any high-risk behaviors. Prevalence of HIV infection among these two groups remained similar after adjusting for time since most recent HIV test. After adjusting for risk and testing behaviors, substantial and significant differences between black, Hispanic, and white MSM persisted (Table 2).

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What is already known on this topic?

The greatest numbers of human immunodeficiency virus (HIV) infections in the United States occur among men who have sex with men (MSM). CDC recommends that sexually active MSM be tested for HIV infection at least annually.

What is added by this report?

Data from MSM recruited by the National HIV Behavioral Surveillance System (NHBS) for interviews and HIV testing at venues in 21 U.S. cities indicated that 61% of MSM reported an HIV test during the preceding year; among these, 7% had a new, positive HIV test result.

What are the implications for public health practice?

Given the 7% prevalence of HIV infection among MSM who had not previously received a diagnosis of HIV infection and were tested for HIV during the preceding 12 months, sexually active MSM might benefit from more frequent HIV testing (e.g., every 3 to 6 months).

Editorial Note

The findings from this analysis suggest that adherence to annual HIV testing recommendations for MSM is low and that even among MSM who reported being tested during the past 12 months, a substantial proportion were newly infected. Because persons often reduce their risk behaviors when they receive a diagnosis of HIV infection and persons who do not know they are infected are estimated to account for more than half of sexually transmitted HIV infections (*10*), increasing the frequency of HIV testing for MSM can reduce the time from HIV infection to diagnosis and reduce HIV transmission.

Current CDC guidelines identify MSM who should be tested more frequently according to their risk behaviors (*8*). However, among MSM in this analysis, those who had high-risk behaviors were not more likely to be newly infected than those without high-risk behaviors, suggesting that self-reported risk behaviors might not determine which MSM should be tested more frequently. The 7% prevalence of new HIV infection detected through NHBS among MSM who had been tested for HIV during the past year and the similar prevalence of new HIV infection among MSM with and without high-risk behaviors suggests that more frequent testing, perhaps as often as every 3 to 6 months, might be warranted among all sexually active MSM, regardless of their risk behaviors. In considering revising guidelines regarding frequency of testing among MSM, public health officials also should weigh other factors, including the acceptability and cost effectiveness of testing MSM more frequently and the sensitivity of tests in the early stages of infection.

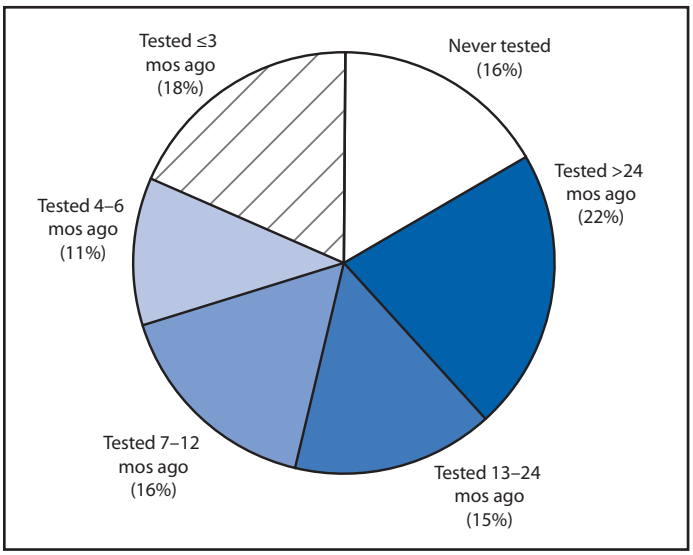
That MSM with less education and income were less likely to have been tested suggests that efforts to expand access to and use of HIV testing among MSM should concentrate on

TABLE 1. Timing of most recent human immunodeficiency virus (HIV) test among men who have sex with men (MSM) not previously diagnosed with HIV infection, by selected characteristics and risk behaviors — National HIV Behavioral Surveillance System, 21 cities, United States, 2008*

		Timing of most recent HIV test								
		Never tested			Tested >12 mos ago			Tested ≤12 mos ago		
Characteristic	Total No.	No.	(%)	(95% CI)	No.	(%)	(95% CI)	No.	(%)	(95% CI)
Race/Ethnicity										
Asian/Native Hawaiian/Pacific Islander	**233**	22	(9)	(6–14)	70	(30)	(24–36)	140	(60)	(53–66)
Black, non-Hispanic	**1,674**	241	(14)	(13–16)	417	(25)	(23–27)	1,014	(61)	(58–63)
Hispanic	**1,850**	205	(11)	(10–13)	523	(28)	(26–30)	1,118	(60)	(58–63)
White, non-Hispanic	**3,163**	244	(8)	(7–9)	943	(30)	(28–31)	1,961	(62)	(60–64)
Other†	**346**	33	(10)	(7–13)	97	(28)	(23–33)	216	(62)	(57–68)
Age group (yrs)										
18–19	**416**	102	(25)	(20–29)	47	(11)	(8–15)	264	(63)	(59–68)
20–24	**1,411**	205	(15)	(13–16)	249	(18)	(16–20)	956	(68)	(65–70)
25–29	**1,434**	127	(9)	(7–10)	357	(25)	(23–27)	949	(66)	(64–69)
30–39	**1,975**	138	(7)	(6–8)	604	(31)	(29–33)	1,226	(62)	(60–64)
40–49	**1,402**	111	(8)	(7–9)	540	(39)	(36–41)	746	(53)	(51–56)
≥50	**633**	62	(10)	(8–12)	254	(40)	(36–44)	312	(49)	(45–53)
Education										
Less than high school diploma	**462**	103	(22)	(19–26)	133	(29)	(25–33)	220	(48)	(43–52)
High school diploma or equivalent	**1,694**	265	(16)	(14–17)	459	(27)	(25–29)	963	(57)	(54–59)
Some college or technical college	**2,379**	237	(10)	(9–11)	674	(28)	(27–30)	1,464	(62)	(60–63)
College or higher education	**2,736**	140	(5)	(4–6)	785	(29)	(27–30)	1,806	(66)	(64–68)
Annual household income										
≤$19,999	**2,082**	322	(16)	(14–17)	581	(28)	(26–30)	1,169	(56)	(54–58)
$20,000–$39,999	**1,875**	196	(11)	(9–12)	498	(27)	(25–29)	1,178	(63)	(61–65)
$40,000–$74,999	**1,801**	142	(8)	(7–9)	515	(29)	(27–31)	1,139	(63)	(61–65)
≥$75,000	**1,408**	71	(5)	(4–6)	438	(31)	(29–34)	896	(64)	(61–66)
Health insurance										
None	**2,508**	317	(13)	(11–14)	754	(30)	(28–32)	1,426	(57)	(55–59)
Public	**707**	98	(14)	(11–17)	189	(27)	(24–30)	417	(59)	(55–63)
Private	**3,894**	314	(8)	(7–9)	1,072	(28)	(26–29)	2,501	(64)	(63–66)
Other/Multiple	**64**	2	(3)	(0–11)	11	(17)	(9–29)	50	(78)	(66–87)
No. of male sex partners during the past 12 mos										
1	**1,854**	257	(14)	(12–16)	580	(31)	(29–33)	1,010	(54)	(52–57)
2	**1,185**	153	(13)	(11–15)	345	(29)	(27–32)	683	(58)	(55–60)
3	**940**	100	(11)	(9–13)	263	(28)	(25–31)	576	(61)	(58–64)
≥4	**3,292**	235	(7)	(6–8)	863	(26)	(25–28)	2,184	(66)	(65–68)
Methamphetamine use during the past 12 mos										
Yes	**516**	39	(8)	(5–10)	154	(30)	(26–34)	320	(62)	(58–66)
No	**6,754**	706	(11)	(10–11)	1,897	(28)	(27–29)	4,132	(61)	(60–62)
Drug use before or during sex during the past 12 mos										
Yes	**1,009**	109	(11)	(9–13)	294	(29)	(26–32)	600	(59)	(56–63)
No	**6,258**	636	(10)	(9–11)	1,757	(28)	(27–29)	3,849	(62)	(60–63)
Most recent partner had concurrent partners										
Definitely yes	**1,630**	158	(10)	(8–11)	480	(29)	(27–32)	986	(61)	(58–63)
Probably yes	**1,866**	149	(8)	(7–9)	560	(30)	(28–32)	1,153	(62)	(60–64)
Probably no	**1,219**	124	(10)	(9–12)	335	(28)	(25–30)	758	(62)	(59–65)
Definitely no	**1,924**	223	(12)	(10–13)	479	(25)	(23–27)	1,217	(63)	(61–65)
Reports one or more high-risk behaviors§										
Yes	**5,864**	554	(9)	(9–10)	1,622	(28)	(27–29)	3,672	(63)	(61–64)
No	**1,407**	191	(14)	(12–15)	429	(31)	(28–33)	781	(56)	(53–58)
Unprotected anal intercourse during the past 12 mos										
Yes	**4,016**	362	(9)	(8–10)	1,104	(28)	(26–29)	2,541	(63)	(62–65)
No	**3,248**	382	(12)	(11–13)	946	(29)	(28–31)	1,907	(59)	(57–60)
Total	**7,271**	**745**	**(10)**	**(10–11)**	**2,051**	**(28)**	**(27–29)**	**4,453**	**(61)**	**(60–62)**

Abbreviation: CI = confidence interval.
* Numbers might not add to total because of missing data.
† Includes persons who indicated American Indian/Alaska Native, multiple races, or other race.
§ High-risk behavior defined as the following: more than one male sex partner during the past 12 months, methamphetamine use during the past 12 months, drug use before or during sex at most recent sex, or most recent partner definitely or probably had concurrent partners.

FIGURE. Time since most recent human immunodeficiency virus (HIV) test among men who have sex with men who were unaware they were HIV-infected* — National HIV Behavioral Surveillance System, 21 cities, United States, 2008



* N = 680.

these populations. Additionally, although recent HIV testing did not vary by race/ethnicity, the high proportion of HIV-infected persons among minority MSM, particularly black MSM, who had not previously received a diagnosis of HIV infection and were tested during the past year underscores that testing among these populations should be a priority for HIV testing programs.

The findings in this report are subject to at least three limitations. First, positive HIV status might have been underreported, and recent HIV testing might have been overreported during this interviewer-administered survey, thereby inflating estimates of the proportion of MSM in the sample with new HIV infections. Likewise, MSM might have underreported high-risk behaviors, resulting in some MSM being miscategorized as not having high-risk behaviors. This social-desirability bias also can influence response in HIV testing settings, which suggests that identifying persons for more frequent testing based on self-reported risk might not be effective because it might miss those at risk who underreport risk behaviors. Second, MSM with high-risk behaviors who were tested in

TABLE 2. Proportion of men who have sex with men (MSM) who were unaware they were HIV-infected, among MSM without a diagnosis of HIV infection who had been tested during the past 12 months, by selected characteristics and risk behaviors — National HIV Behavioral Surveillance System, 21 cities, United States, 2008

		Unadjusted proportion HIV-infected and unaware		Unadjusted prevalence ratio		Adjusted prevalence ratio†	
Characteristic	No.	%	(95% CI)	PR	(95% CI)	PR	(95% CI)
Race/Ethnicity							
Asian/Native Hawaiian/Pacific Islander	140	2.9	(0.8–7.2)	1.0	(0.4–2.6)	1.1	(0.4–3.0)
Black, non-Hispanic	1,014	14.5	(12.4–16.8)	4.9	(3.7–6.6)	4.2	(3.0–5.9)
Hispanic	1,118	6.7	(5.3–8.3)	2.3	(1.6–3.2)	2.1	(1.4–2.9)
White, non-Hispanic	1,961	3.0	(2.3–3.8)	Referent		Referent	
Other§	216	10.2	(6.5–15.0)	3.4	(2.2–5.5)	3.3	(2.1–5.4)
Age group (yrs)							
18–19	264	4.9	(2.6–8.3)	1.0	(0.5–2.0)	0.4	(0.2–0.9)
20–24	956	7.7	(6.1–9.6)	1.5	(0.9–2.6)	0.9	(0.5–1.6)
25–29	949	6.1	(4.7–7.8)	1.2	(0.7–2.0)	1.0	(0.5–1.7)
30–39	1,226	7.7	(6.3–9.4)	1.5	(0.9–2.5)	1.3	(0.8–2.4)
40–49	746	6.7	(5.0–8.7)	1.3	(0.8–2.3)	1.3	(0.7–2.4)
≥50	312	5.1	(3.0–8.2)	Referent		Referent	
Education							
Less than high school diploma	220	9.5	(6.0–14.2)	2.4	(1.5–3.8)	1.5	(0.9–2.4)
High school diploma or equivalent	963	10.6	(8.7–12.7)	2.7	(2.0–3.6)	1.7	(1.2–2.4)
Some college or technical college	1,464	7.6	(6.3–9.1)	1.9	(1.4–2.5)	1.4	(1.05–1.9)
College or higher education	1,806	4.0	(3.1–5.0)	Referent		Referent	
Annual household income¶							
≤$19,999	1,169	10.1	(8.4–12.0)	2.7	(1.8–3.9)	1.2	(0.8–1.8)
$20,000–$39,999	1,178	7.3	(5.9–8.9)	1.9	(1.3–2.8)	1.1	(0.7–1.6)
$40,000–$74,999	1,139	5.3	(4.0–6.7)	1.4	(0.9–2.1)	1.0	(0.6–1.5)
≥$75,000	896	3.8	(2.6–5.3)	Referent		Referent	
Health insurance							
None	1,426	8.5	(7.1–10.1)	Referent		Referent	
Public	417	14.1	(10.9–17.9)	1.7	(1.2–2.2)	1.4	(1.04–1.9)
Private	2,501	4.6	(3.8–5.5)	0.5	(0.4–0.7)	0.7	(0.6–0.99)
Other/Multiple	50	12.0	(4.5–24.3)	1.4	(0.7–3.1)	1.6	(0.7–3.5)

See table footnotes on page 698.

TABLE 2. (*Continued*) Proportion of men who have sex with men (MSM) with unrecognized human immunodeficiency virus (HIV) infection among MSM not previously diagnosed with HIV infection who had been tested during the past 12 months, by selected characteristics and risk behaviors — National HIV Behavioral Surveillance System, 21 cities, United States, 2008*

		Unadjusted proportion HIV-infected and unaware		Unadjusted prevalence ratio		Adjusted prevalence ratio†	
Characteristic	**No.**	**%**	**(95% CI)**	**PR**	**(95% CI)**	**PR**	**(95% CI)**
No. of male sex partners during the past 12 mos							
1	1,010	7.5	(6.0–9.3)	—		—	
2	683	8.6	(6.6–11.0)	—		—	
3	576	6.6	(4.7–8.9)	—		—	
≥4	2,184	6.1	(5.1–7.2)	—		—	
Methamphetamine use during the past 12 mos							
Yes	320	6.6	(4.1–9.9)	—		—	
No	4,132	6.9	(6.1–7.7)	—		—	
Drug use before or during sex at most recent sex							
Yes	600	11.0	(8.6–13.8)	—		—	
No	3,849	6.2	(5.5–7.0)	—		—	
Most recent partner had concurrent partners							
Definitely yes	986	8.1	(6.5–10.0)	—		—	
Probably yes	1,153	6.6	(5.2–8.2)	—		—	
Probably no	758	6.2	(4.6–8.2)	—		—	
Definitely no	1,217	6.2	(5.0–7.8)	—		—	
Reports one or more high-risk behaviors**							
Yes	3,672	6.7	(5.9–7.5)	0.8	(0.6–1.1)	0.9	(0.7–1.2)
No	781	8.0	(6.1–10.2)	Referent		Referent	
Unprotected anal intercourse during the past 12 mos							
Yes	2,541	6.3	(5.4–7.3)	0.8	(0.7–1.02)	1.0	(0.8–1.2)
No	1,907	7.7	(6.5–8.9)	Referent		Referent	
Type of partners during the past 12 mos							
Main only	1,161	7.4	(6.0–9.1)	—		—	
Main and casual	1,799	6.7	(5.6–8.0)	—		—	
Casual only	1,492	6.6	(5.4–8.0)	—		—	
Most recent HIV test							
≤6 mos ago	3,055	6.4	(5.6–7.4)	Referent		Referent	
7–12 mos ago	1,353	7.8	(6.5–9.4)	1.2	(0.97–1.5)	1.2	(0.98–1.5)
Unknown	45	6.7	(1.4–18.3)	1.03	(0.3–3.1)	0.6	(0.2–1.9)
Total	**4,453**	**6.9**	**(6.1–7.7)**	—		—	

Abbreviation: CI = confidence interval; PR = prevalence ratio.

* Numbers might not add to total because of missing data.

† Adjusted for race/ethnicity, age, income, education, health insurance status, months since most recent HIV test, one or more high-risk behaviors, and unprotected anal intercourse. Robust variance estimation was used to calculate 95% confidence intervals for the adjusted prevalence ratios. Source: Zou G. A modified Poisson regression approach to prospective studies with binary data. Am J Epidemiol 2004;159:702–6.

§ Includes persons who indicated American Indian/Alaska Native, multiple races, or other race.

¶ 66% of respondents indicated a household size of one.

** High-risk behavior defined as the following: more than one male sex partner during the past 12 months, methamphetamine use during the past 12 months, drug use before or during sex at most recent sex, or most recent partner definitely or probably had concurrent partners.

the past 12 months might have been more likely to receive a positive HIV test result and be excluded from this analysis compared with MSM without high-risk behaviors, which might have resulted in an underestimation of HIV risk among those with high-risk behaviors. Finally, participants were recruited at venues, most of which were bars and clubs, in 21 cities with high AIDS prevalence and might not represent all MSM; data have not been weighted to account for the unequal selection probabilities of venues or frequency of venue attendance.

This analysis demonstrates that MSM remain a key population for expanded HIV testing efforts. Efforts to increase the proportion of HIV-infected MSM who are aware of their infection should include 1) enhanced outreach of HIV testing to sexually active MSM, particularly populations with higher HIV incidence, in clinical and nonclinical settings, and 2) reexamination of existing recommendations and consideration of HIV testing every 3 to 6 months for all sexually active MSM regardless of self-reported risk behaviors.

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Vaccination Coverage Among Children in Kindergarten — United States, 2009–10 School Year

Healthy People 2020 objectives include maintaining vaccination coverage among children in kindergarten (IID-10) (*1*). The target is ≥95% vaccination coverage for the following vaccines: poliovirus; diphtheria and tetanus toxoids and acellular pertussis (DTP/DTaP/DT); measles, mumps, and rubella (MMR); hepatitis B (HepB); and varicella (*1*). Data from school assessment surveys are used to monitor vaccination coverage and vaccination exemption levels among children enrolled in kindergarten. This report summarizes data from school assessment surveys submitted to CDC by 48 federal immunization program grantees (including 47 states and the District of Columbia) for the 2009–10 school year to describe vaccination coverage and exemption rates (*2*). For that period, 17 grantees reported coverage of ≥95% for four vaccines (poliovirus, DTP/DTaP/DT, MMR, and HepB) and four grantees reported coverage of ≥95% for 2 doses of varicella vaccine. Total exemption rates, including medical, religious, and philosophical exemptions, ranged from <1% to 6.2% across grantees, and 15 grantees reported exemption rates <1%. Survey methods for vaccination coverage and exemption rates varied among grantees, making comparisons difficult and limiting the use of school assessment surveys to report aggregate national rates. Further standardization of school assessment survey methods will generate comparable data between grantees to monitor and track progress in reaching national objectives, and allow development of best practice guidelines for grantees to more effectively use and report school coverage and exemption data. CDC will continue to monitor vaccination coverage and exemption levels and assist grantees in identification of local areas with low vaccination coverage or high exemption rates for further evaluation or intervention.

School vaccination requirements in the United States date back to 1855, when Massachusetts became the first state to require smallpox vaccine for school entry to control smallpox epidemics. The U.S. Supreme Court upheld the constitutionality of school vaccination requirements in 1922.* Since 1978, vaccination levels among children entering school have been assessed annually by state and local health departments. In general, school or health department personnel review the vaccination histories of enrolled students to determine compliance with school requirements established to protect children from vaccine-preventable diseases and ensure high vaccination coverage rates as they begin school. Results of the school-level reviews are reported to the state/area health department, which then reports aggregated totals to CDC; not all grantees report both vaccination coverage and exemption levels.

For the 2009–10 school year, vaccination coverage levels for children enrolled in kindergarten were available from 46 grantees. The number of children enrolled in kindergarten with an exemption for medical, religious, or philosophical reasons was available from 47 grantees. All of the reporting grantees assessed public schools, and all but North Dakota and Wisconsin included private schools in their assessment. Although 37 grantees assessed all schools with a kindergarten class, a smaller group (Delaware, Georgia, Hawaii, Missouri, Nevada, New Mexico, Rhode Island, South Carolina, Virginia, and Wisconsin) assessed a random sample of schools, and Alaska assessed a nonrandom sample of schools. For grantees that submitted reports for <95% of enrolled students, data were weighted based on population.

The vaccination status of students was considered up-to-date if they had received all of the vaccine doses required for school entry in their state or area. All reporting grantees require 3 or 4 doses of poliovirus vaccine and 2 doses of MMR vaccine. School entry requirements for other vaccinations vary by state/area: 44 grantees require 4 or 5 doses of DTP/DTaP/DT, 41 grantees require 3 doses of HepB vaccine, and 25 grantees require 1 dose and 18 grantees require 2 doses of varicella vaccine.† The types of exemptions and the process for obtaining exemptions also varied by grantee (*3*). All reporting grantees allowed medical exemptions, 43 allowed religious exemptions, and 16 allowed philosophical exemptions; two grantees (Mississippi and West Virginia) did not allow exemptions for religious or philosophical reasons. Exemption data reported to CDC are nonspecific and do not indicate whether the exemption was for one vaccine, a required vaccine dose, or for all required vaccines. Vaccination and exemption status also might not have been reported for each surveyed child because some children might have been in the process of obtaining required vaccines, as allowed by local policy.

Excluding varicella vaccine, the number of reporting grantees with ≥95% vaccination coverage ranged from 23 (50%) grantees for 2 doses of MMR vaccine to 28 (67%) grantees for HepB vaccine (Tables 1 and 2); 17 grantees achieved ≥95%

* Zucht v King, 260 US 174 (1922).

† Two states report vaccination coverage levels but do not have requirements for school entry (varicella [2 doses] in Idaho; hepatitis B in South Dakota). One state (Nevada) assesses vaccination coverage for 2 doses of varicella vaccine, but the number of doses required varies by school district.

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coverage for four vaccines (complete series of poliovirus, DTP/DTaP/DT, MMR, and HepB vaccines). Among the 21 grantees that monitor receipt of 2 doses of varicella vaccine, coverage ranged from 62.9% (Idaho) to 99.6% (Georgia), with 10 grantees reporting coverage ≥90% and four grantees reporting coverage ≥95% (Table 2).

Total exemptions varied widely by grantee, ranging from <0.1% (Mississippi) to 6.2% (Washington); 15 grantees had a total exemption rate ≥3.0% (Table 3). Of the three types of allowable exemptions, medical exemptions were the least frequent, ranging from <0.1% (Mississippi) to 1.7% (Alaska). Nonmedical exemptions ranged from 0.2% (Rhode Island) to 5.8% (Washington) among the 45 grantees that allow nonmedical exemptions.

Reported by

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Editorial Note

Findings from this report showed that, in general, coverage rates for most recommended vaccines among children entering kindergarten were ≥90%; however, some grantees were below the *Healthy People 2020* target of ≥95% coverage. Maintaining high MMR vaccination coverage rates, particularly among preschool children (>90% 1-dose coverage) and school-aged children (>95% 2-dose coverage), is essential to maintain measles elimination in the United States (*4*). However, only 50% of grantees reported that >95% of kindergartners surveyed had received 2 doses of MMR vaccine.

This is the first report of exemption data from the school assessment surveys. Overall exemption rates were low. Monitoring exemptions is important because several measles outbreaks in recent years occurred among school-aged children who were eligible for vaccination but whose parents chose not to have them vaccinated (*5,6*). For the majority of grantees, exemptions for medical reasons were <1%, and <3% for nonmedical reasons. Although the low exemption rates are reassuring, data in this report were aggregated at the grantee level, preventing analysis at the local or school level. Previous studies have shown that exemptions tend to cluster geographically and within schools (*5,7*); therefore, areas with high exemption levels might exist, even in states that have a low overall exemption rate, thereby creating pockets of undervaccinated children vulnerable to an outbreak of vaccine-preventable illness. Because reported exemptions do not distinguish between an exemption for one vaccine versus all vaccines, a student with a claimed exemption could have received one or more vaccines. Previous studies have found that exemptions to all vaccines are less common; a recent study of 277 children with nonmedical vaccine exemptions residing in four states found that 209 (75%) had received at least one vaccine (*8*). Additionally, vaccination coverage estimates from the 2009 National Immunization Survey showed that <1% of infants aged 19–35 months had not received any vaccines (*9*). Continued monitoring of exemption rates at the state and local school level will be important to determine if rates increase over time and to identify areas of undervaccination that will need evaluation or intervention.

The findings in this report are subject to at least three limitations. First, the variation of required vaccinations and assessment methods among kindergarten children across grantees and over time limits comparability of data. Second, data included in this report are a cross-sectional representation of vaccination coverage and exemption rates at one point in time; therefore, students who were in the process of obtaining required vaccines or claiming an exemption, as allowed by local policy, might not be accounted for in the reported estimates. Consequently, vaccination coverage and exemption rates might be underestimated for some grantees (the level of unaccounted for students ranges from 0% to 17.5%). Finally, the reasons why some parents seek vaccination exemptions could not be determined because reported data are limited.

CDC has been working with state immunization programs to 1) improve their school assessment survey methods to evaluate their vaccination programs, 2) identify local areas of undervaccinated children, and 3) standardize reporting of data to allow

TABLE 1. Number and percentage of federal immunization program grantees* reporting ≥90% and ≥95% vaccination coverage among children enrolled in kindergarten, by vaccine — United States, 2009–10 school year

Vaccine	No. reporting	Reporting ≥90% coverage		Reporting ≥95%† coverage	
		No.	%	No.	%
Poliovirus	46	42	91	26	57
DTP/DTaP/DT§	46	40	87	25	54
MMR	46	40	87	23	50
Hepatitis B¶	42	39	93	28	67
Varicella (1 dose)	23	23	100	21	91
Varicella (2 doses)**	21	10	48	4	19

Abbreviations: DTP = diphtheria and tetanus toxoids and pertussis; DTaP = diphtheria and tetanus toxoids and acellular pertussis; DT = diphtheria and tetanus toxoids; MMR = measles, mumps, and rubella.

* Includes 45 states and District of Columbia.

† *Healthy People 2020* objective IID-10 has a vaccination coverage target of ≥95% for children in kindergarten.

§ Two grantees report coverage for ≥3 doses, 44 grantees report coverage for 4–5 doses.

¶ Among the reporting grantees, South Dakota does not require the vaccine for school entry.

** Among the reporting grantees, Idaho does not require the vaccine for school entry and Nevada requires differing numbers of doses depending on the school district.

TABLE 2. Estimated vaccination coverage among children enrolled in kindergarten, by vaccine and state/area — United States, 2009–10 school year

			Vaccine					
							Varicella	
State/Area	Total kindergarten population	Surveyed* (%)	Poliovirus (%)	DTP/DTaP/DT (%)	MMR (%)	Hepatitis B (%)	1 dose (%)	2 doses (%)
Alabama	75,358	100.0	94.0	94.0	94.0	—†	96.8	—†
Alaska	9,641	76.4	NA	NA	NA	NA	NA	NA
Arizona	89,287	93.9	95.5	95.0	95.0	96.8	97.5	—†
Arkansas	34,733	100.0	98.0	97.5	98.3	98.5	98.3	—†
California	507,191	100.0	93.6	93.1	93.6	96.1	96.6	—†
Colorado	NA	NA	NA	NA	NA	NA	NA	NA
Connecticut	46,158	100.0	98.3	98.5	98.5	98.4	98.4	—†
Delaware	11,327	9.2	89.4	89.6	89.7	88.9	—†	89.0
District of Columbia	6,092	100.0	91.2	89.8	96.9	96.3	—†	90.6
Florida	218,630	100.0	91.3	91.3	91.3	91.3	—†	91.3
Georgia	141,949	1.2	100.0	99.9	99.6	100.0	—†	99.6
Hawaii	18,427	6.4	95.2	94.8	95.0	95.1	96.2	—†
Idaho	22,624	100.0	92.8	86.8	87.0	93.0	—†	62.9†
Illinois	165,845	100.0	95.8	95.6	94.5	—†	96.5	—†
Indiana	84,390	94.7	92.9	91.1	92.8	95.2	96.0	—†
Iowa	42,698	100.0	84.5	84.5	84.5	84.5	—†	84.5
Kansas	39,073	39.1	97.9	97.1	90.9	97.0	—†	85.3
Kentucky	56,526	92.9	94.1	93.2	92.2	93.0	NA	—†
Louisiana	53,846	100.0	98.9	98.0	96.9	98.0	—†	93.7
Maine	14,162	75.3	95.4	96.2	95.5	—†	95.9	—†
Maryland	75,061	75.0	99.8	99.6	98.9	99.7	99.5	—†
Massachusetts	74,476	100.0	92.9	92.4	93.0	97.7	98.6	—†
Michigan	129,810	100.0	96.6	96.0	95.3	97.3	97.3	—†
Minnesota	70,653	100.0	94.8	94.3	95.1	96.4	—†	94.0
Mississippi	46,922	100.0	99.7	99.7	99.7	99.7	—†	99.7
Missouri	75,958	3.0	98.1	97.1	97.3	97.4	98.8	—†
Montana	12,335	98.8	96.9	96.7	95.5	—†	—†	—†
Nebraska	29,607	96.4	98.7	98.7§	97.5	97.5	97.2	—†
Nevada	35,209	5.6	98.7	97.9	94.5	98.0	—†	76.5
New Hampshire	NA	NA	NA	NA	NA	NA	NA	NA
New Jersey	118,347	95.1	NA	NA	NA	NA	NA	NA
New Mexico	26,318	2.2	99.3	99.0	97.6	99.1	—†	94.9
New York	229,273	100.0	98.4	98.3§	97.6	98.3	98.4	—†
North Carolina	116,087	96.0	97.3	97.2	97.3	98.2	98.3	—†
North Dakota	8,323	6.0	92.2	90.8	92.2	92.6	—†	89.6
Ohio	—¶	—¶	88.3	87.9	88.6	90.5	91.2	—†
Oklahoma	51,128	88.9	97.6	97.3	97.3	99.5	99.7	—†
Oregon	44,676	100.0	94.3	93.9	94.4	95.0	95.2	—†
Pennsylvania	149,656	100.0	94.4	90.8	86.9	93.5	NA	79.4**
Rhode Island	11,818	11.6	90.1	90.3	92.1	92.8	—†	86.9
South Carolina	53,725	10.2	87.7	86.7	87.2	87.6	91.0	—†
South Dakota	11,499	100.0	97.8	97.9	96.8	94.7†	—†	97.7
Tennessee	90,811	88.1	97.4	97.4	97.4	97.4	97.4	—†
Texas	381,425	98.3	98.1	97.7	98.1	98.6	—†	96.8
Utah	49,957	100.0	97.9	97.5	97.7	98.6	99.3	—†
Vermont	6,713	100.0	92.1	91.8	91.8	94.8	—†	88.2
Virginia	100,891	4.4	99.1	98.4	92.1	97.6	98.3	—†
Washington	81,511	93.3	91.8	91.6	91.7	92.8	—†	88.6
West Virginia	22,730	86.7	91.5	91.9	91.2	92.0	—†	88.4
Wisconsin	61,095	2.3	98.2	97.3	94.2	97.4	—†	90.3
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations: DTP = diphtheria and tetanus toxoids and pertussis; DTaP = diphtheria and tetanus toxoids and acellular pertussis; DT = diphtheria and tetanus toxoids; MMR = measles, mumps, and rubella; NA = not available.

* The proportion of eligible children for whom vaccination and exemption data were collected.

† Vaccine not required for school entry.

§ Reported estimate is for 3 doses of DTP/DTaP/DT.

¶ Unable to calculate; state did not report the total number of students enrolled in kindergarten.

** State requires 1 dose for school entry but could only report coverage for 2 doses.

TABLE 3. Number and percentage of children enrolled in kindergarten who had a reported exemption* to vaccination, by type of exemption and state/area — United States, 2009–10 school year

	Medical exemptions		Nonmedical exemptions				Total exemptions	
State/Area	No.	(%)	Religious	Philosophical	Total	(%)	No.	(%)
Alabama	91	(0.1)	282	—†	282	(0.4)	373	(0.5)
Alaska	161	(1.7)	369	—†	369	(3.8)	530	(5.5)
Arizona	185	(0.2)	—§	2,479	2,479	(2.8)	2,665	(3.0)
Arkansas	28	(0.1)	33	132	165	(0.5)	193	(0.6)
California	998	(0.2)	—§	10,280	10,280	(2.0)	11,278	(2.2)
Colorado	NA	NA	NA	NA	NA	NA	NA	NA
Connecticut	108	(0.2)	387	—†	387	(0.8)	495	(1.1)
Delaware	22	(0.2)	65	—†	65	(0.6)	87	(0.8)
District of Columbia	46	(0.8)	20	—†	20	(0.3)	66	(1.1)
Florida	697	(0.3)	2,100	—†	2,100	(1.0)	2,797	(1.3)
Georgia	87	(0.1)	1,478	—†	1,478	(1.0)	1,565	(1.1)
Hawaii	16	(0.1)	645	—†	645	(3.5)	660	(3.6)
Idaho	66	(0.3)	68	726	794	(3.5)	860	(3.8)
Illinois	1,526	(0.9)	5,629	—†	5,629	(3.4)	7,155	(4.3)
Indiana	236	(0.3)	674	—†	674	(0.8)	909	(1.1)
Iowa	218	(0.5)	359	—†	359	(0.8)	577	(1.4)
Kansas	89	(0.2)	304	—†	304	(0.8)	393	(1.0)
Kentucky	170	(0.3)	193	—†	193	(0.3)	363	(0.6)
Louisiana	151	(0.3)	32	228	260	(0.5)	411	(0.8)
Maine	48	(0.3)	11	412	423	(3.0)	470	(3.3)
Maryland	236	(0.3)	393	—†	393	(0.5)	629	(0.8)
Massachusetts	298	(0.4)	538	—†	538	(0.7)	836	(1.1)
Michigan	858	(0.7)	751	4,121	4,872	(3.8)	5,730	(4.4)
Minnesota	NA	NA	NA	NA	NA	NA	NA	NA
Mississippi	12	(0.0)	—§	—†	—	(0.0)	12	(0.0)
Missouri	198	(0.3)	626	—†	626	(0.8)	823	(1.1)
Montana	118	(1.0)	262	—†	262	(2.2)	380	(3.1)
Nebraska	274	(1.0)	802	—†	802	(2.8)	1,076	(3.8)
Nevada	357	(1.0)	357	—†	357	(1.0)	714	(2.0)
New Hampshire	NA	NA	NA	NA	NA	NA	NA	NA
New Jersey	167	(0.1)	905	—†	905	(0.8)	1,072	(1.0)
New Mexico	—¶	—¶	183	—†	183	(0.7)	183	(0.7)
New York State	309	(0.1)	1,117	—†	1,117	(0.5)	1,426	(0.6)
North Carolina	158	(0.1)	756	—†	756	(0.7)	914	(0.8)
North Dakota	—¶	—¶	17	50	67	(0.8)	67	(0.8)
Ohio	284	(0.2)	—**	1,515	1,515	(1.2)	1,799	(1.4)
Oklahoma	119	(0.2)	137	319	456	(0.9)	575	(1.1)
Oregon	86	(0.2)	2,330	—†	2,330	(5.2)	2,416	(5.4)
Pennsylvania	1,777	(1.2)	—**	2,924	2,924	(2.0)	4,701	(3.1)
Rhode Island	34	(0.3)	26	—†	26	(0.2)	60	(0.5)
South Carolina	147	(0.3)	303	—†	303	(0.6)	450	(0.8)
South Dakota	38	(0.3)	83	—†	83	(0.7)	121	(1.1)
Tennessee	—¶	—¶	421	—†	421	(0.5)	421	(0.5)
Texas	2,330	(0.6)	—**	2,904	2,904	(0.8)	5,234	(1.4)
Utah	89	(0.2)	22	1,793	1,815	(3.6)	1,904	(3.8)
Vermont	35	(0.5)	13	341	354	(5.3)	389	(5.8)
Virginia	159	(0.2)	751	—†	751	(0.7)	911	(0.9)
Washington	331	(0.4)	168	4,515	4,684	(5.7)	5,015	(6.2)
West Virginia	303	(1.3)	—§	—†	—	(0.0)	303	(1.3)
Wisconsin	391	(0.6)	87	1,782	1,868	(3.1)	2,260	(3.7)
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviation: NA = not available.

* Exemption status might not be mutually exclusive of vaccination status. Children with an exemption who did not receive any vaccinations are indistinguishable from those with an exemption and also up-to-date for a given vaccination.

† Exemptions for philosophical reasons are not allowed.

§ Exemptions for religious reasons are not allowed.

¶ Exemptions for medical reasons are allowed but were not reported.

** Exemptions for religious reasons are allowed but are not reported separately from exemptions for philosophical reasons.

What is already known about this topic?

School vaccination requirements are essential to ensure children are protected from vaccine-preventable diseases when they enter kindergarten.

What is added by this report?

Among federal immunization program grantees, including 47 states and the District of Columbia, 17 reported coverage of ≥95% for each of four vaccines (poliovirus; diphtheria and tetanus toxoids and acellular pertussis; measles, mumps, and rubella; and hepatitis B) and four grantees reported coverage of ≥95% for 2 doses of varicella vaccine. For the first time, vaccine exemption rates were reported. Total exemption rates ranged from <1% to 6.2%, and 15 grantees reported exemption rates <1%.

What are the implications for public health practice?

Standardizing data collection and reporting will facilitate comparison of coverage across grantees and improve priority setting for the national vaccination program. CDC will continue to monitor vaccination coverage and exemption levels over time and assist grantees in identification of local areas with low vaccination coverage or high exemption rates for further evaluation or intervention.

valid state comparisons and national estimates. For example, CDC has provided a standardized, online reporting system since the 2002–03 school year (*2*). CDC also is partnering with grantees to achieve greater standardization of reporting, including asking them to report coverage for a similar timeframe each year and report coverage based on Advisory Committee on Immunization Practices (ACIP) vaccination recommendations, in addition to reporting coverage based on state/area requirements. CDC has funded a national survey to assess state/area practices and will develop best practices for collecting and reporting vaccination coverage and exemption data.

School vaccination requirements are essential to protect kindergarten students from vaccine-preventable diseases and are recommended as an evidence-based strategy by the Task Force on Community Preventive Services to improve vaccination coverage levels (*10*). School vaccination assessments can identify pockets of undervaccination and help focus public health strategies where they can be most effective. This report underscores the need for standardized school assessment reporting to support public health activities, ensure valid comparisons of coverage rates across states, and develop valid national estimates to monitor progress toward achieving *Healthy People 2020* objectives.

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Update: Influenza Activity — United States, 2010–11 Season, and Composition of the 2011–12 Influenza Vaccine

During the 2010–11 influenza season, influenza activity* first began to increase in the southeastern United States, and peaked nationally in early February. Compared with the previous pandemic year (2009–10), higher rates of hospitalization were observed for persons aged ≥65 years during the 2010–11 season, whereas lower hospitalization rates were observed in younger populations than during the pandemic year. Overall, the percentages of outpatient visits for influenza-like illness (ILI) were lower during the 2010–11 season than the 2009–10 pandemic influenza season. In the United States, influenza A (H3N2) remained the predominant virus throughout the season; however, 2009 influenza A (H1N1) and influenza B viruses also circulated, and the predominant virus varied by U.S. Department of Health and Human Service (HHS) region and week. This report summarizes influenza activity in the United States during the 2010–11 influenza season (October 3, 2010–May 21, 2011) and describes the components of the 2011–12 Northern Hemisphere influenza vaccine.

Viral Surveillance

During October 3, 2010–May 21, 2011, World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories in the United States tested 246,128 specimens for influenza viruses; 54,226 (22%) were positive (Figure 1). Of the positive specimens, 40,282 (74%) were influenza A viruses, and 13,944 (26%) were influenza B viruses. Among the influenza A viruses, 28,545 (71%) were subtyped; 17,599(62%) were influenza A (H3N2) viruses, and 10,946 (38%) were 2009 influenza A (H1N1) viruses.

The proportion of specimens testing positive for influenza during the 2010–11 season first exceeded 10%, indicating higher levels of virus circulation, during the week ending November 27, 2010. The proportion peaked at 36% during the week ending February 5, 2011, and declined to <10% during the week ending April 16, 2011.

Although influenza A (H3N2) viruses predominated, 2009 influenza A (H1N1) and influenza B viruses also circulated widely. The relative proportion of each type and subtype of influenza virus varied by region and week. From early November though early December, influenza B viruses accounted for 40%–49% of influenza viruses reported nationally, with the largest numbers reported from the southeastern states (HHS Region 4).† Influenza B viruses were predominant in Region 4 from early November through late December. The proportion of 2009 influenza A (H1N1) viruses increased nationally, beginning in January, and peaked during the week ending February 20, 2011, when 49% of all subtyped influenza A viruses were 2009 influenza A (H1N1) viruses. Although during this time influenza A (H3N2) viruses still predominated nationally, 2009 influenza A (H1N1) predominated in five of the 10 regions (Regions 3, 4, 5, 8, and 9) for 5–7 consecutive weeks, ranging from the week ending January 15 to the week ending April 2, 2011.

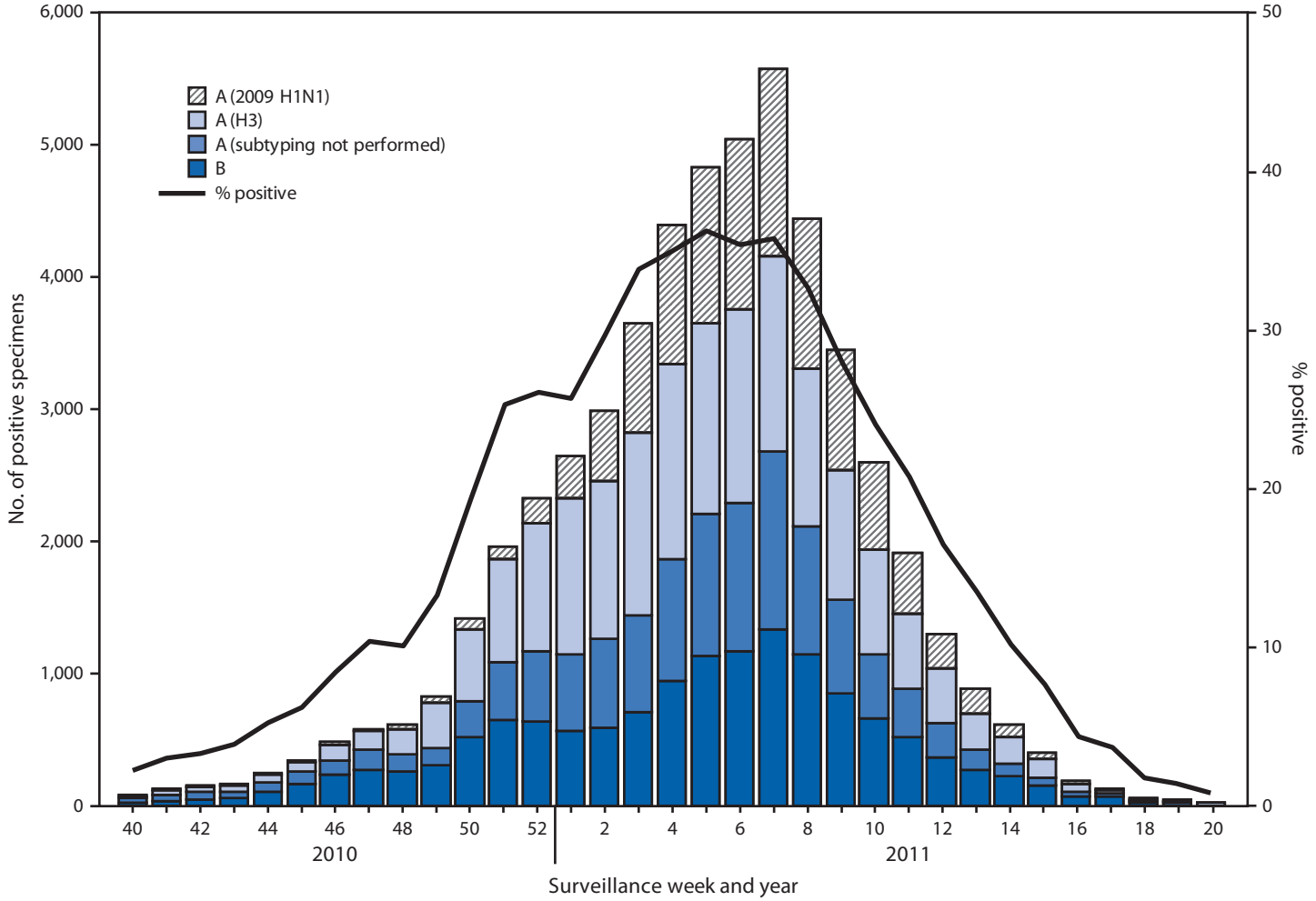
Novel Influenza A Viruses

Five cases of human infection with a novel influenza A virus were reported during the 2010–11 influenza season from three states. All five cases were infected with swine-origin influenza A (H3N2) viruses. Two cases occurred in September (Pennsylvania and Wisconsin), one case in October (Pennsylvania), and two cases in November (Minnesota). Two of the five cases occurred in adults, and three occurred in children. Two of the five cases were hospitalized; all five have recovered fully from their illness. The two cases in Pennsylvania were not related. The cases in Wisconsin and Pennsylvania had direct contact with swine or lived in areas close to swine farms. The two cases from Minnesota occurred in a father (index case) and child. The father had a nasopharyngeal swab positive for swine-origin influenza A (H3N2) virus and had direct swine

* The CDC influenza surveillance system collects five categories of information from 10 data sources: 1) viral surveillance (World Health Organization collaborating laboratories, the National Respiratory and Enteric Virus Surveillance System, and novel influenza A virus case reporting); 2) outpatient illness surveillance (U.S. Outpatient Influenza-like Illness Surveillance Network); 3) mortality (122 Cities Mortality Reporting System, Aggregate Hospitalization and Death Reporting Activity, and influenza-associated pediatric mortality reports); 4) hospitalizations (FluSurv-NET, which includes the Emerging Infections Program and surveillance in six additional states, and Aggregate Hospitalization and Death Reporting Activity); and 5) summary of the geographic spread of influenza (state and territorial epidemiologist reports).

† The 10 HHS regions include the following states and territories: Region 1: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Region 2: New Jersey, New York, Puerto Rico, and the U.S. Virgin Islands; Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia; Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; Region 7: Iowa, Kansas, Missouri, and Nebraska; Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region 9: Arizona, California, Hawaii, Nevada, American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Marshall Islands, and Republic of Palau; Region 10: Alaska, Idaho, Oregon, and Washington.

FIGURE 1. Number* and percentage of respiratory specimens testing positive for influenza, by type, surveillance week, and year — World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories, United States, October 3, 2010–May 21, 2011†



* N = 54,226.
† As of May 25, 2011.

exposure 6 days before illness onset. The child, whose infection with influenza A (H3N2) virus was confirmed several weeks later by serologic testing, did not have direct swine exposure, and most likely acquired infection from close contact with her father. Other persons in the same household also had ILI during the same period, but serologic results were either negative or inconclusive.

Antigenic Characterization

Since October 1, 2010, CDC has antigenically characterized 2,494 influenza viruses submitted by U.S. laboratories. Those have included 613 2009 influenza A (H1N1) viruses, 1,139 influenza A (H3N2) viruses, and 742 influenza B viruses. Of the 613 2009 influenza H1N1 viruses tested, 612 (99.8%) were characterized as A/California/7/2009-like, the 2009 influenza A (H1N1) component of the 2010–11 influenza vaccine. One virus (0.2%) of the 613 tested showed reduced titers with antiserum produced against A/California/7/2009. Of the 1,139 influenza A (H3N2) viruses, 1,103 (96.8%) were characterized as A/Perth/16/2009-like, the influenza A (H3N2) component of the 2010–11 influenza vaccine for the Northern Hemisphere. Of the 1,139 tested, 36 (3.2%) showed reduced titers with antiserum produced against A/Perth/16/2009.

Of the 742 influenza B viruses tested, 699 (94%) belonged to the B/Victoria lineage and 698 (99.9%) of these were characterized to be B/Brisbane/60/2008-like, the influenza B vaccine component for the 2010–11 Northern Hemisphere influenza vaccine. One (0.1%) of the 699 viruses belonging to the B/Victoria lineage showed reduced titers with antisera produced against B/Brisbane/60/2008. Of the 742 viruses tested, 43 (5.8%) belonged to the B/Yamagata lineage.

Resistance to Antiviral Medications

Since October 1, 2010, a total of 5,758 influenza virus specimens have been tested for antiviral resistance. All 723 influenza B viruses tested were sensitive to both oseltamivir and zanamivir. Among the 806 influenza A (H3N2) viruses tested for resistance to oseltamivir, two (0.2%) were found to be resistant. All 784 influenza A (H3N2) viruses tested for resistance to zanamivir were sensitive. Among the 4,229 2009 influenza A (H1N1) viruses tested for resistance to oseltamivir, 39 (0.9%) were found to be resistant, and all of the 771 viruses tested for resistance to zanamivir were found to be sensitive. High levels of resistance to the adamantanes (i.e., amantadine and rimantadine) persist among 2009 influenza A (H1N1) and influenza A (H3N2) viruses currently circulating globally.

Composition of the 2011–12 Influenza Vaccine

The Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee recommended that the 2011–12 trivalent influenza vaccine for the United States contain A/California/7/2009-like (H1N1), A/Perth/16/2009-like (H3N2), and B/Brisbane/60/2008-like viruses. This represents no change to any of the three components from the 2010–11 influenza vaccine formulation used in the United States or from the current formulation of the 2011 Southern Hemisphere influenza vaccines. These recommendations were based on antigenic analyses of influenza viruses that circulated in the United States and worldwide during 2010–11, epidemiologic data, postvaccination serologic studies in humans, and the availability of candidate vaccine strains and reagents.

Outpatient Illness Surveillance

The weekly percentage of outpatient visits for ILI[§] to the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) exceeded national baseline levels[¶] (2.5%) during the weeks ending December 25, 2010, through March 19, 2011 (weeks 51–11), and peaked at 4.6% during the week ending February 19, 2011 (week 7) (Figure 2). During the two influenza seasons before the pandemic (2007–08 and 2008–09), the peak percentage of patient visits for ILI ranged from 3.5% to 6.0% and occurred during mid- to late February. During the 2009 pandemic, however, the percentage of patient visits for ILI peaked at 7.7% in late October (*1*). The peak percentage of outpatient visits for ILI varied in time by region. The percentage of outpatient visits for ILI peaked in Regions 3, 4, and 5 during the week ending February 5, 2011 (week 5), in Regions 6, 8, 9, and 10 during the week ending February 19, 2011 (week 7), and in Regions 1 and 7 during the week ending February 26, 2011 (week 8). The percentage of visits for ILI in Region 2 peaked during the week ending January 1, 2011 (week 52); however, a second peak of similar magnitude occurred during the week ending February 26, 2011 (week 8). The increase in the percentage of visits for ILI during the week ending January 1, 2011 (week 52), likely was influenced by a reduction in preventive health-care visits during the holiday season, as has occurred during previous seasons.

Outpatient data collected in ILINet are used to produce a measure of ILI activity.** The number of states experiencing high ILI activity peaked at 19 states during the week ending February 12, 2011 (week 6).

State-Specific Activity Levels

State and territorial epidemiologists report the geographic distribution of influenza in their state through a weekly influenza activity code.†† The geographic distribution of influenza activity was most extensive during the week ending February 26, 2011 (week 8), when 44 states reported widespread influenza activity and five states reported regional influenza activity. No states reported widespread influenza activity after the week ending April 9, 2011 (week 15). The peak number of states reporting widespread or regional activity during the previous three seasons has ranged from 49 to 50 states (CDC, unpublished data, 2011).

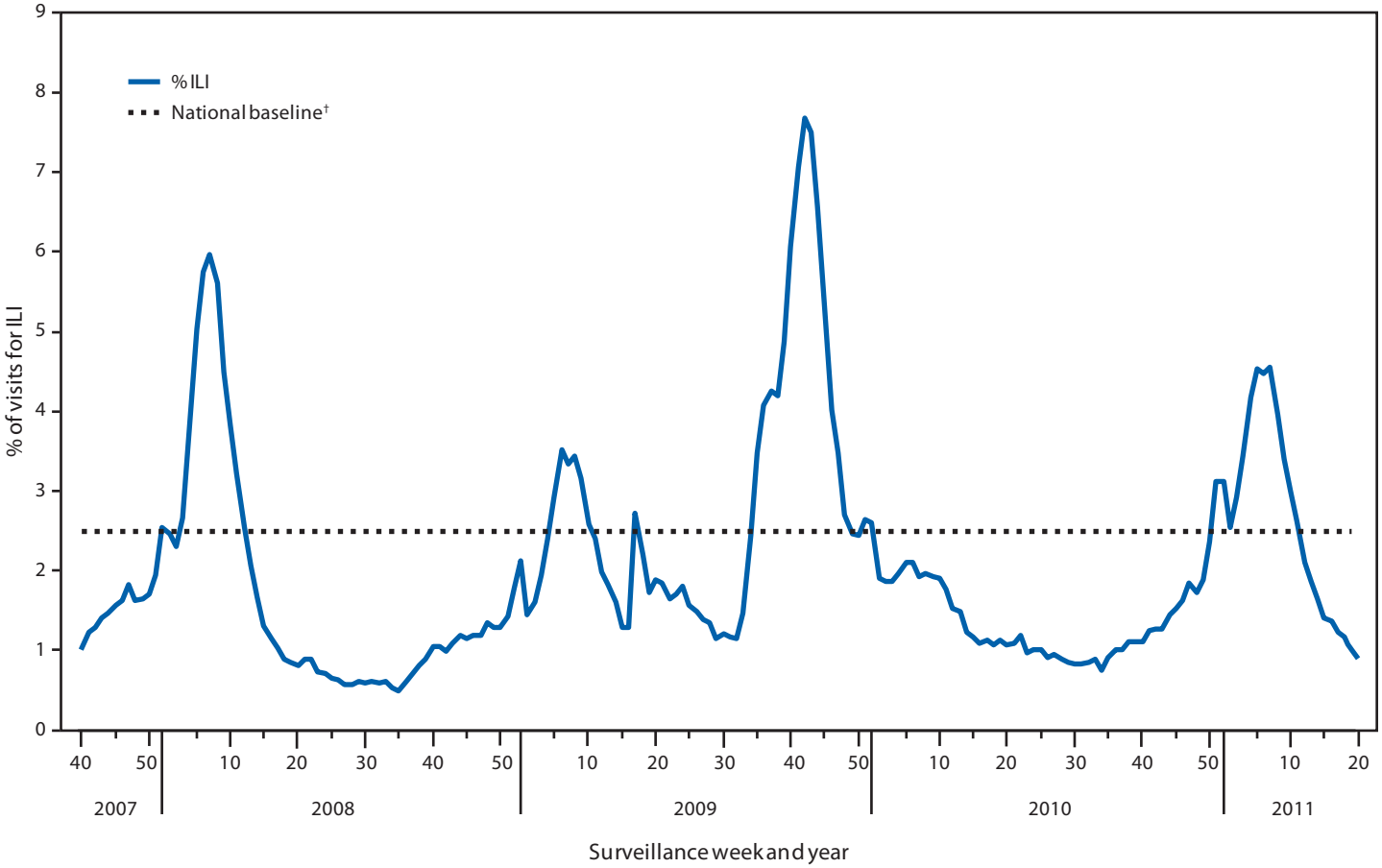
[§] Defined as a temperature ≥100.0°F (≥37.8°C), oral or equivalent, and cough or sore throat, in the absence of a known cause other than influenza.

[¶] The national and regional baselines are the mean percentage of visits for ILI during noninfluenza weeks for the previous three seasons plus two standard deviations. A noninfluenza week is a week during which <10% of specimens tested positive for influenza. National and regional percentages of patient visits for ILI are weighted on the basis of state population. Use of the national baseline for regional data is not appropriate.

** Activity levels are based on the percentage of outpatient visits in a state attributed to ILI and are compared with the average percentage of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation. Activity levels range from minimal, which would correspond to ILI activity from outpatient clinics being at or below the average, to high, which would correspond to ILI activity from outpatient clinics being much higher than the average. Because the clinical definition of ILI is nonspecific, not all ILI is caused by influenza; however, when combined with laboratory data, the information on ILI activity provides a useful picture of influenza activity in the United States.

†† Levels of activity are 1) *no activity;* 2) *sporadic:* isolated laboratory-confirmed influenza cases or a laboratory-confirmed outbreak in one institution, with no increase in activity; 3) *local:* increased ILI, or at least two institutional outbreaks (ILI or laboratory-confirmed influenza) in one region of the state, with recent laboratory evidence of influenza in that region; virus activity no greater than sporadic in other regions; 4) *regional:* increased ILI activity or institutional outbreaks (ILI or laboratory-confirmed influenza) in at least two but less than half of the regions in the state with recent laboratory evidence of influenza in those regions; and 5) *widespread:* increased ILI activity or institutional outbreaks (ILI or laboratory-confirmed influenza) in at least half the regions in the state, with recent laboratory evidence of influenza in the state.

FIGURE 2. Percentage of outpatient visits for influenza-like illness (ILI) reported, by surveillance week and year — U.S. Outpatient Influenza-Like Illness Surveillance Network (ILINet), United States, September 30, 2007–May 21, 2011*



* As of May 25, 2010.

† The national and regional baselines are the mean percentage of visits for ILI during noninfluenza weeks for the previous three seasons, plus two standard deviations. A noninfluenza week is a week during which <10% of specimens tested positive for influenza. National and regional percentages of patient visits for ILI are weighted on the basis of state population. Use of the national baseline for regional data is not appropriate.

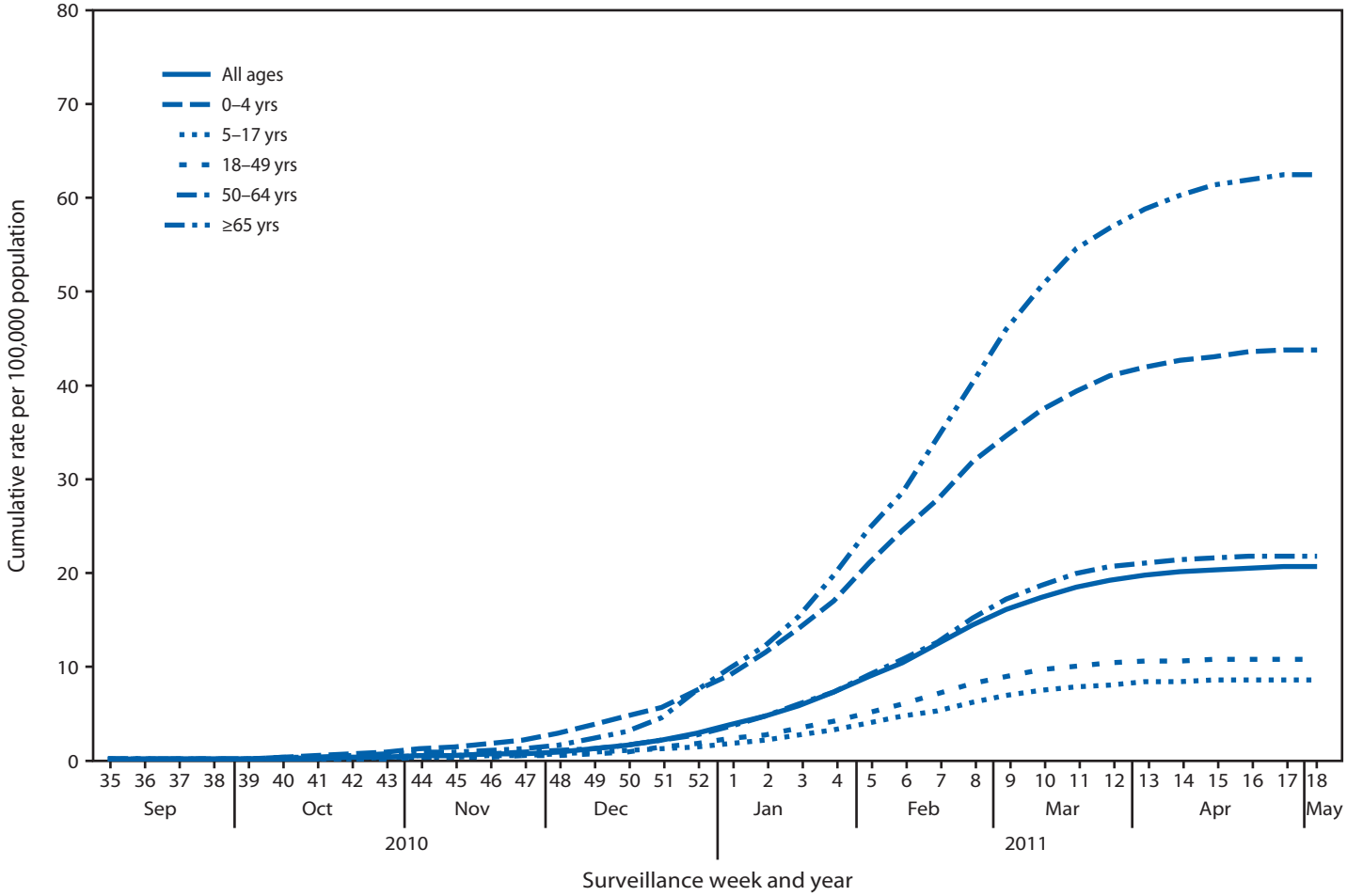
Influenza-Associated Hospitalization

CDC monitors hospitalizations associated with laboratory-confirmed influenza infections using the FluSurv-NET surveillance system. FluSurv-NET[§§] is a population-based surveillance network comprised of 10 surveillance sites of the Emerging Infections Program (EIP) and six sites that were added during the 2009–10 influenza season. Based on FluSurv-NET surveillance data, the cumulative hospitalization rate (per 100,000 population) for October 1, 2010–April 30, 2011, was 43.8 among children aged 0–4 years, 8.5 among children aged 5–17 years, 10.7 among adults aged 18–49 years, 21.7 among adults aged 50–64 years, and 62.5 among adults aged ≥65 years. The cumulative incidence for all age groups since October 1, 2010, was 20.5 per 100,000 (Figure 3). Based on EIP data alone, the cumulative hospitalization rate (per 100,000) for October 3, 2010–April 30, 2011, was 36.5 among children aged 0–4 years, 7.6 among children aged 5–17 years, 9.8 among adults aged 18–49 years, 20.3 among adults aged 50–64 years, and 62.1 among adults aged ≥65 years. The cumulative incidence for all age groups since October 1, 2010, was 19.1 per 100,000. During the past three seasons, rates for EIP sites have ranged from 34.6–67.3 per 100,000 for children aged ≤4 years, 5.8–25.2 for children aged 5–17 years, 3.6–24.4 for adults aged 18–49 years, 4.8–32.1 for adults aged 50–64, and 13.5–75.1 for adults aged ≥65 years.

As of April 30, 2011, among the 3,431 FluSurv-NET adult patients for whom medical chart data were available, the most frequent underlying conditions were cardiovascular disease (36%), metabolic disorders (35%), and chronic lung disease (23%). Among 1,008 children hospitalized with laboratory-confirmed

[§§] FluSurv-NET conducts population-based surveillance at sites in 10 Emerging Infections Program (EIP) states (California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New Mexico, New York, Oregon, and Tennessee), and at sites in Idaho, Michigan, Ohio, Oklahoma, Rhode Island, and Utah.

FIGURE 3. Cumulative rate of laboratory-confirmed influenza-associated hospitalizations, by age group, surveillance week, and year — FluSurv-NET,* United States, October 1, 2010–April 30, 2011



* FluSurv-NET results include surveillance at Emerging Infections Program sites and at sites in six additional states (Idaho, Michigan, Ohio, Oklahoma, Rhode Island, and Utah). Rates are based on 5,968 total cases for the period, of which 898 occurred among persons aged 0–4 years, 423 among persons aged 5–17 years, 1,453 among persons aged 18–49 years, 1,146 among persons aged 50–64 years, and 2,048 among persons aged ≥65 years.

influenza, 52% did not have any underlying conditions, and 19% had underlying asthma or reactive airway disease.

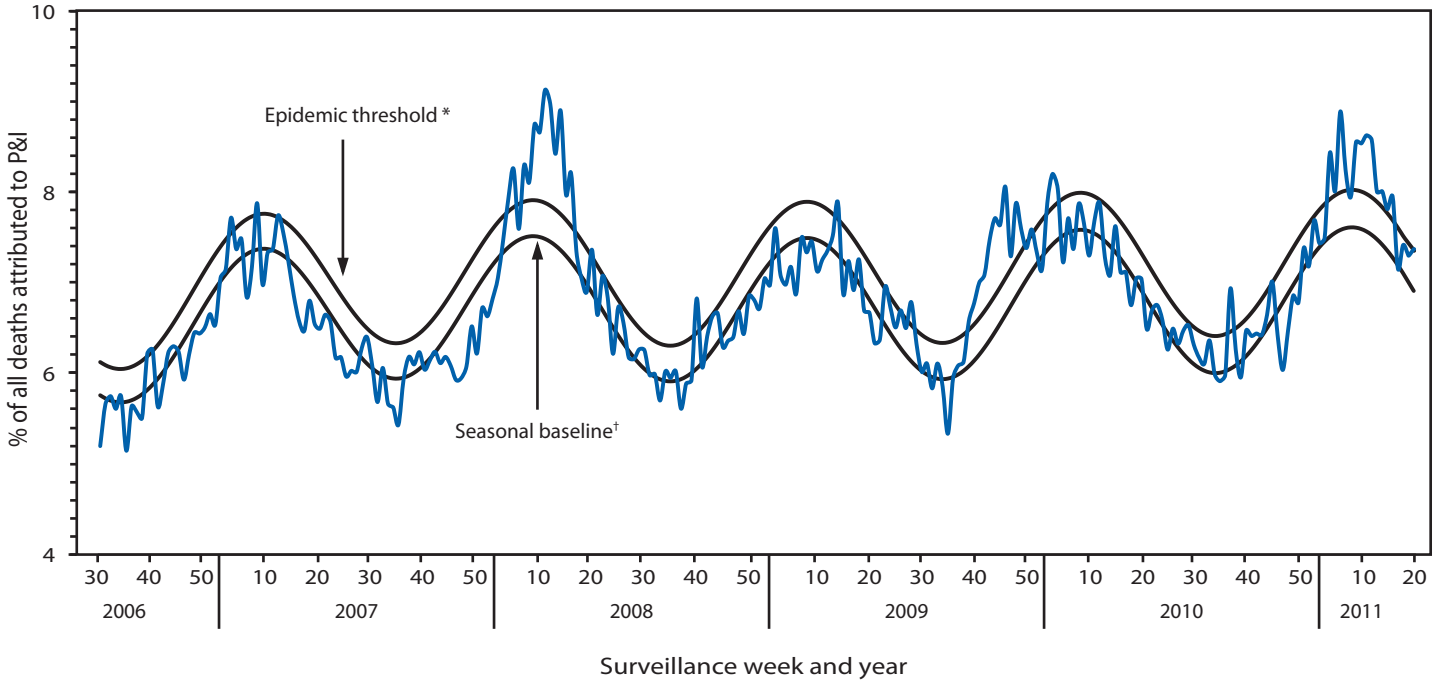
In April 2009, in response to the emergence of the 2009 influenza A (H1N1) virus, the Council of State and Territorial Epidemiologists (CSTE) initiated reporting of influenza-associated hospitalizations and deaths to CDC. On August 30, 2009, CDC and CSTE instituted modified case definitions for aggregate reporting of influenza-associated hospitalizations and deaths. This cumulative jurisdiction-level reporting is referred to the Aggregate Hospitalization and Death Reporting Activity (AHDRA) surveillance system. From October 3, 2010 to May 21, 2011, a total of 16,410 laboratory-confirmed, influenza-associated hospitalizations were reported to CDC. The median number of jurisdictions reporting hospitalizations per week through AHDRA was 22 (range: 13–24). The number of hospitalizations peaked during the week ending February 26, 2011 (week 8).

Pneumonia- and Influenza-Related Mortality

During the 2010–11 influenza season, the percentage of deaths attributed to pneumonia and influenza (P&I) exceeded the epidemic threshold¶¶ for 13 consecutive weeks, from the weeks ending January 29 to April 23, 2011 (weeks 4–16) (Figure 4). The percentage of deaths attributed to P&I peaked at 8.9% during the week ending February 12, 2011 (week 6). From the 2007–08 season through the 2009–10 season, the peak percentage of deaths attributed to P&I ranged from 8.0% to 9.1% and the total number of consecutive weeks above the epidemic threshold ranged from one to 11 (CDC, unpublished data, 2011).

¶¶ The seasonal baseline proportion of P&I deaths is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I that were reported by the 122 Cities Mortality Reporting System during the preceding 5 years. The epidemic threshold is set at 1.645 standard deviations above the seasonal baseline.

FIGURE 4. Percentage of all deaths attributed to pneumonia and influenza (P&I), by surveillance week and year —122 Cities Mortality Reporting System, United States, 2006–2011



* The epidemic threshold is1.645 standard deviations above the seasonal baseline.
† The seasonal baseline is projected using a robust regression procedure that applies a periodic regression model to the observed percentage of deaths from P&I during the preceding 5 years.

From October 3, 2010, to May 21, 2011, a total of 311 laboratory-confirmed, influenza-associated deaths were reported to CDC through AHDRA. The mean number of jurisdictions reporting influenza-associated deaths per week through AHDRA was 21 (range: 12–23). The number of deaths peaked during the week ending March 12, 2011 (week 10).

Influenza-Related Pediatric Mortality

From October 3, 2010, to May 21, 2011, 105 laboratory-confirmed influenza-associated pediatric deaths were reported. These deaths were reported from 33 states,*** Chicago, and New York City. The mean and median ages of children who died were 7.1 years and 5.8 years, respectively; 15 children were aged <6 months, 14 were aged 6–23 months, 17 were aged 2–4 years, 30 were aged 5–11 years, and 29 were aged 12–17 years. Of the 105 deaths, 40 were associated with influenza B viruses, 27 with 2009 influenza A (H1N1) virus, 18 with influenza A (H3N2) viruses, and 20 with influenza A virus for which the subtype was not determined. For comparison, during the 2009–10 pandemic, 348 pediatric deaths were reported during April 15, 2009–October 2, 2010. Before the pandemic, 67 influenza-associated pediatric deaths were reported for the 2008–09 season, and 88 deaths were reported for the 2007–08 season.

*** Arizona, California, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, North Carolina, North Dakota, New Jersey, New Mexico, Nevada, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Utah, Virginia, Vermont, Washington, West Virginia, and Wisconsin.

Reported by

World Health Organization Collaborating Center for Surveillance, Epidemiology, and Control of Influenza. Krista Kniss, MPH, Scott Epperson, MPH, Lenee Blanton, MPH, Desiree Mustaquim, MPH, Amber Bishop, MPH, Tiffany D'Mello, MPH, Alejandro Perez, MPH, Rosaline Dhara, MPH, Lynnette Brammer, MPH, Larisa Gubareva, MD, Teresa Wallis, MS, Xiyan Xu, MD, Joseph Bresee, MD, Alexander Klimov, PhD, Nancy Cox, PhD, Lyn Finelli, DrPH, Influenza Div, National Center for Immunization and Respiratory Diseases, CDC. ***Corresponding contributor:*** *Krista Kniss, kkniss@cdc.gov, 404-639-3747.*

Editorial Note

During the 2010–11 season, influenza activity peaked in early February, and influenza A (H3N2) viruses predominated. The proportions of influenza viruses varied by region and by week. The proportion of influenza B viruses reported was highest early in the season, with the majority of these viruses reported from

the southeastern states, and 2009 influenza A (H1N1) viruses became the most common in several regions in the later part of the season. Almost all influenza viruses sent to CDC for further characterization were antigenically similar to one of the components of the 2010–11 Northern Hemisphere vaccine.

In comparison with the past three seasons, the 2010–11 influenza season was less severe than the pandemic year (2009–10) and the 2007–08 season, but more severe than the 2008–09 influenza season, as determined by the percentage of deaths resulting from pneumonia or influenza, the number of influenza-associated pediatric deaths reported, and the percentage of visits to outpatient clinics for ILI. However, all age groups were affected substantially during the 2010–11 season because of widespread cocirculation of influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses. Hospitalization rates overall were similar to rates reported during the 2007–08 influenza season, when influenza A (H3N2) was the predominant strain. Cumulative hospitalization rates reported for the 2010–11 season for persons aged <65 years were lower than rates reported during the pandemic, but the rates reported in these age groups were higher than those reported during the 2007–08 season. However, the cumulative hospitalization rate for persons aged ≥65 years was lower than during the 2007–08 season, but higher than the rate reported during the pandemic.

Testing for seasonal influenza and monitoring for novel influenza virus infections should continue year-round, as should specimen submission to CDC for further antigenic and genetic analysis and antiviral resistance monitoring. The detection of five novel influenza cases of swine-origin influenza A (H3N2) infections since September 2010 further emphasizes the importance of continued surveillance for novel influenza strains. Although summer influenza activity in the United States typically is low, cases of influenza and even sporadic outbreaks commonly are detected in the United States throughout the summer. Health-care providers should remain vigilant and consider influenza as a potential cause of summer respiratory illnesses. Public health laboratories should send to CDC virus samples that they cannot type or subtype using standard methods immediately and submit isolates that otherwise are unusual, including all summer isolates, as soon as possible after identification.

Since 2010, CDC has recommended that all persons aged ≥6 months get an influenza vaccine yearly, preferably in the fall, before the U.S. influenza season begins (*2*). During other times of the year, persons traveling to parts of the world where influenza activity is ongoing, and who have not received the vaccine for the current season, should receive an influenza vaccine to protect themselves while traveling. This is particularly important for persons at high risk for influenza-related complications. This recommendation also applies to persons traveling within the temperate regions of the Northern Hemisphere as part of large tourist groups (e.g., on cruise ships) that might include persons from parts of the world where influenza activity is ongoing (*3*).

Persons should be vaccinated 2 weeks before travel, because it takes 2 weeks for vaccine-induced immunity to develop. Travelers also should be aware that all influenza vaccine manufactured for the 2010–11 season expires in the early summer of 2011, after which influenza vaccines will not be available in the United States until the fall, when the 2011–12 vaccine becomes available.

Antiviral drugs are an important adjunct to influenza vaccination for reducing illness severity. Based on new recommendations from the Advisory Committee on Immunization Practices released January 21, 2011, antiviral treatment is recommended as soon as possible for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at higher risk for influenza-related complications (*4*).[†††] Antiviral treatment also may be considered for outpatients with confirmed or suspected influenza who do not have known risk factors for severe illness if treatment can be initiated within 48 hours of illness onset. Recommended antiviral medications include oseltamivir and zanamivir. Recent viral surveillance and resistance data indicate that >99% of currently circulating influenza virus strains are sensitive to these medications. Amantadine and rimantadine should not be used because of the sustained high levels of resistance to these drugs among circulating influenza A viruses.

Acknowledgments

Participating state health departments, territorial health departments, state public health laboratories. US WHO collaborating laboratories. National Respiratory and Enteric Virus Surveillance System collaborating laboratories. US Outpatient ILI Surveillance Network. FluSurv-NET. Aggregate Hospitalization and Death Reporting Activity. Influenza Associated Pediatric Mortality Surveillance System. 122 Cities Mortality Reporting System. WHO FluNet.

[†††] Persons at higher risk include children aged <5 years (especially those aged <2 years); adults aged ≥65 years; persons with chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematologic (including sickle cell disease), metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle, such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury); persons with immunosuppression, including that caused by medications or by human immunodeficiency virus infection; women who are pregnant or postpartum (within 2 weeks after delivery); persons aged ≤18 years who are receiving long-term aspirin therapy; American Indians/Alaska Natives; persons who are morbidly obese (i.e., body mass index ≥40); and residents of nursing homes and other chronic-care facilities.

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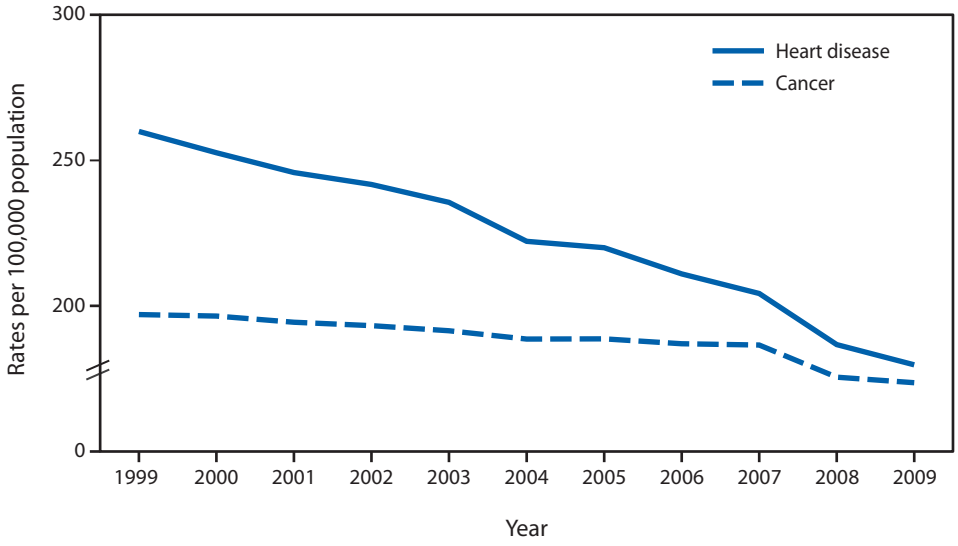
QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Age-Adjusted Death Rates for Heart Disease and Cancer — United States, 1999–2009*



* Data for 2008 and 2009 are preliminary.

During 1999–2009, age-adjusted death rates for heart disease and cancer declined significantly by 30.8% and 11.9%, respectively. The death rate for heart disease decreased at a faster pace than the cancer death rate during that period. The risk for death from heart disease was 31.9% higher than from cancer in 1999, whereas it was 3.6% higher from heart disease than from cancer in 2009.

Source: National Vital Statistics System. Mortality public use data files for 1999–2007, and preliminary data for 2008 and 2009.

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 May 28, 2011 (21st week)*

Disease	Current week	Cum 2011	5-year weekly average†	Total cases reported for previous years 2010	2009	2008	2007	2006	States reporting cases during current week (No.)
Anthrax	—	—	—	—	1	—	1	1	
Arboviral diseases§,¶:									
California serogroup virus disease	—	—	0	75	55	62	55	67	
Eastern equine encephalitis virus disease	—	—	—	10	4	4	4	8	
Powassan virus disease	—	—	0	8	6	2	7	1	
St. Louis encephalitis virus disease	—	—	0	10	12	13	9	10	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	1	14	1	NN	NN	NN	NN	NN	NY (1)
Botulism, total	1	27	3	107	118	145	144	165	
foodborne	1	5	1	7	10	17	32	20	OK (1)
infant	—	18	1	75	83	109	85	97	
other (wound and unspecified)	—	4	1	25	25	19	27	48	
Brucellosis	2	24	3	114	115	80	131	121	NE (1), CA (1)
Chancroid	—	11	0	30	28	25	23	33	
Cholera	—	18	0	12	10	5	7	9	
Cyclosporiasis§	—	40	3	179	141	139	93	137	
Diphtheria	—	—	—	—	—	—	—	—	
Haemophilus influenzae,** invasive disease (age <5 yrs):									
serotype b	—	2	0	23	35	30	22	29	
nonserotype b	—	44	4	197	236	244	199	175	
unknown serotype	7	108	3	225	178	163	180	179	VT (1), PA (1), FL (2), TN (2), AZ (1)
Hansen disease§	—	20	2	96	103	80	101	66	
Hantavirus pulmonary syndrome§	—	6	1	20	20	18	32	40	
Hemolytic uremic syndrome, postdiarrheal§	3	32	5	264	242	330	292	288	MD (1), TX (1), CA (1)
Influenza-associated pediatric mortality§,††	1	102	2	61	358	90	77	43	CA (1)
Listeriosis	8	158	11	818	851	759	808	884	NY (1), PA (1), OH (1), MD (1), NC (1), GA (1), CA (2)
Measles§§	1	88	3	63	71	140	43	55	CA (1)
Meningococcal disease, invasive¶¶:									
A, C, Y, and W-135	—	75	6	278	301	330	325	318	
serogroup B	3	49	3	133	174	188	167	193	OH (1), OK (1), WA (1)
other serogroup	1	5	0	11	23	38	35	32	MD (1)
unknown serogroup	5	215	10	412	482	616	550	651	NY (1), PA (1), OH (1), FL (1), CA (1)
Novel influenza A virus infections***	—	1	0	4	43,774	2	4	NN	
Plague	—	1	0	2	8	3	7	17	
Poliomyelitis, paralytic	—	—	—	—	1	—	—	—	
Polio virus Infection, nonparalytic§	—	—	—	—	—	—	—	NN	
Psittacosis§	—	1	0	4	9	8	12	21	
Q fever, total§	—	23	3	133	113	120	171	169	
acute	—	13	2	108	93	106	—	—	
chronic	—	10	0	25	20	14	—	—	
Rabies, human	—	—	—	2	4	2	1	3	
Rubella†††	2	3	0	7	3	16	12	11	WA (2)
Rubella, congenital syndrome	—	—	0	—	2	—	—	1	
SARS-CoV§	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	—	53	3	160	161	157	132	125	
Syphilis, congenital (age <1 yr)§§§	—	60	7	364	423	431	430	349	
Tetanus	—	2	0	10	18	19	28	41	
Toxic-shock syndrome (staphylococcal)§	—	38	2	82	74	71	92	101	
Trichinellosis	—	7	0	7	13	39	5	15	
Tularemia	1	10	3	124	93	123	137	95	MO (1)
Typhoid fever	1	127	7	466	397	449	434	353	CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	1	23	1	91	78	63	37	6	NY (1)
Vancomycin-resistant *Staphylococcus aureus*§	—	—	—	2	1	—	2	1	
Vibriosis (noncholera *Vibrio* species infections)§	6	117	8	848	789	588	549	NN	FL (3), AL (3)
Viral hemorrhagic fever¶¶¶	—	—	—	1	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 28, 2011 (21st week)*

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

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

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

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

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

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

†† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 3, 2010, 106 influenza-associated pediatric deaths occurring during the 2010-11 influenza season have been reported.

§§ The one measles cases reported for the current week was imported.

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

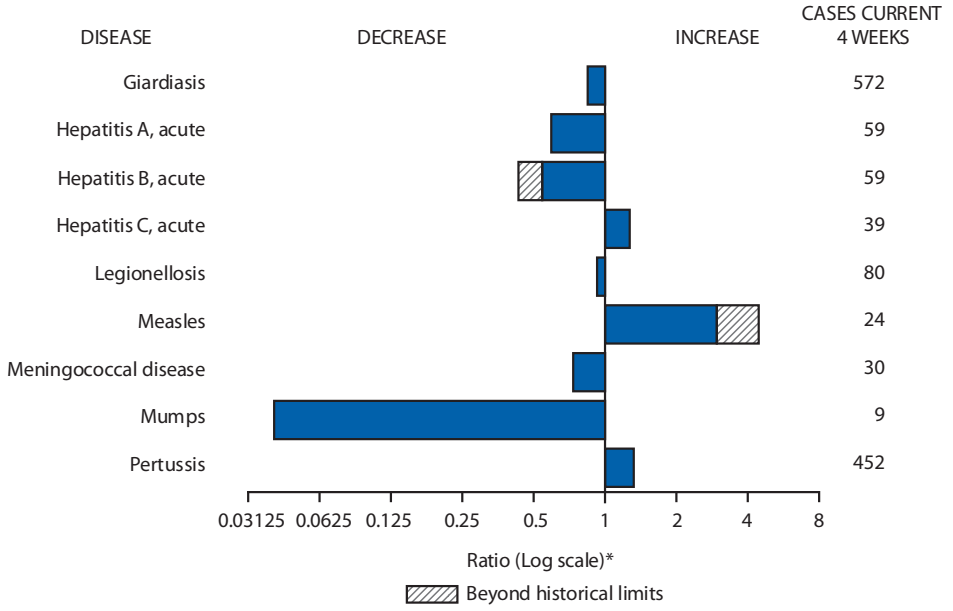
*** CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC.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

††† Of the two rubella cases reported for the current week, one was imported and one was indigenous.

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

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

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 28, 2011, with historical data



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

Notifiable Disease Data Team and 122 Cities Mortality Data Team

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	*Chlamydia trachomatis* infection					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010
United States	12,439	25,306	31,174	500,932	518,718	97	0	569	6,072	NN	36	119	374	1,514	2,347
New England	413	837	2,043	16,134	15,572	—	0	1	1	NN	—	5	24	77	207
Connecticut	—	228	1,557	2,620	3,535	—	0	0	—	NN	—	0	19	19	77
Maine†	—	55	100	1,194	1,012	—	0	0	—	NN	—	0	7	2	24
Massachusetts	350	404	861	8,905	8,225	—	0	0	—	NN	—	3	9	32	48
New Hampshire	35	53	85	1,186	872	—	0	1	1	NN	—	1	3	9	28
Rhode Island†	—	66	154	1,620	1,434	—	0	0	—	NN	—	0	2	1	9
Vermont†	28	26	84	609	494	—	0	0	—	NN	—	1	5	14	21
Mid. Atlantic	2,222	3,309	5,069	66,404	68,242	—	0	0	—	NN	10	15	38	232	231
New Jersey	367	492	684	9,023	10,598	—	0	0	—	NN	—	1	4	9	9
New York (Upstate)	721	707	2,099	14,385	12,968	—	0	0	—	NN	5	3	13	52	50
New York City	254	1,154	2,612	22,207	25,641	—	0	0	—	NN	—	2	6	23	22
Pennsylvania	880	952	1,198	20,789	19,035	—	0	0	—	NN	5	8	26	148	150
E.N. Central	882	3,946	7,039	70,930	81,384	3	0	3	20	NN	6	29	137	353	611
Illinois	—	1,080	1,320	12,201	24,170	—	0	0	—	NN	—	2	21	4	81
Indiana	142	449	3,376	11,419	6,471	—	0	0	—	NN	—	4	15	37	101
Michigan	448	941	1,398	19,219	20,883	3	0	3	13	NN	1	5	18	76	118
Ohio	149	1,000	1,137	19,264	20,762	—	0	3	7	NN	4	7	24	128	133
Wisconsin	143	454	558	8,827	9,098	—	0	0	—	NN	1	8	65	108	178
W.N. Central	174	1,427	1,615	28,225	29,425	—	0	1	1	NN	5	14	99	113	364
Iowa	10	204	240	4,117	4,421	—	0	0	—	NN	—	4	25	18	77
Kansas	26	188	287	3,914	3,963	—	0	0	—	NN	—	1	6	6	34
Minnesota	—	290	354	4,941	6,313	—	0	0	—	NN	—	3	22	—	119
Missouri	133	521	771	11,031	10,502	—	0	0	—	NN	2	3	29	38	54
Nebraska†	—	102	218	2,329	2,098	—	0	1	1	NN	3	3	26	44	40
North Dakota	—	42	90	571	852	—	0	0	—	NN	—	0	9	—	3
South Dakota	5	63	93	1,322	1,276	—	0	0	—	NN	—	1	6	7	37
S. Atlantic	3,402	5,017	6,193	104,511	104,574	1	0	1	2	NN	6	18	52	289	356
Delaware	62	83	220	1,797	1,732	—	0	0	—	NN	—	0	1	2	2
District of Columbia	—	105	180	1,947	2,205	—	0	0	—	NN	—	0	1	3	2
Florida	668	1,474	1,706	30,079	30,171	—	0	0	—	NN	1	6	19	81	142
Georgia	390	816	2,416	15,347	18,993	—	0	0	—	NN	2	5	11	101	115
Maryland†	—	488	1,125	8,459	9,169	1	0	1	2	NN	—	1	3	17	12
North Carolina	919	756	1,477	18,973	18,438	—	0	0	—	NN	—	0	16	23	26
South Carolina†	715	523	946	11,732	10,314	—	0	0	—	NN	—	2	8	31	19
Virginia†	648	661	970	14,569	12,056	—	0	0	—	NN	3	1	9	23	32
West Virginia	—	75	122	1,608	1,496	—	0	0	—	NN	—	0	5	8	6
E.S. Central	718	1,804	3,315	36,642	36,248	—	0	0	—	NN	3	4	19	54	77
Alabama†	—	547	1,552	10,406	9,969	—	0	0	—	NN	—	1	13	7	31
Kentucky	428	268	2,352	6,403	6,251	—	0	0	—	NN	—	1	6	19	24
Mississippi	—	392	780	7,898	9,119	—	0	0	—	NN	—	0	2	8	4
Tennessee†	290	586	795	11,935	10,909	—	0	0	—	NN	3	1	5	20	18
W.S. Central	2,705	3,295	4,723	65,267	73,600	—	0	1	1	NN	—	7	33	68	116
Arkansas†	302	303	440	6,612	6,302	—	0	0	—	NN	—	0	3	5	13
Louisiana	540	368	1,052	3,568	12,054	—	0	1	1	NN	—	0	6	10	17
Oklahoma	61	232	1,371	4,593	5,350	—	0	0	—	NN	—	0	8	—	19
Texas†	1,802	2,362	3,107	50,494	49,894	—	0	0	—	NN	—	4	24	53	67
Mountain	683	1,664	2,154	33,730	33,616	71	0	424	4,645	NN	5	10	30	159	191
Arizona	122	517	678	9,410	11,106	71	0	419	4,577	NN	1	1	3	10	14
Colorado	392	413	849	10,492	7,616	—	0	0	—	NN	—	2	10	45	48
Idaho†	—	63	199	1,019	1,516	—	0	0	—	NN	1	2	7	31	32
Montana†	55	63	87	1,395	1,268	—	0	1	1	NN	2	1	5	22	25
Nevada†	—	192	380	4,100	4,093	—	0	4	34	NN	—	0	7	3	5
New Mexico†	60	203	1,183	4,051	4,417	—	0	4	26	NN	1	2	12	33	32
Utah	37	127	175	2,500	2,748	—	0	2	4	NN	—	1	5	9	23
Wyoming†	17	38	90	763	852	—	0	2	3	NN	—	0	3	6	12
Pacific	1,240	3,799	6,559	79,089	76,057	22	0	145	1,402	NN	1	12	27	169	194
Alaska	—	116	157	2,278	2,546	—	0	0	—	NN	—	0	3	4	2
California	929	2,918	5,763	60,832	57,287	22	0	145	1,401	NN	1	7	19	98	112
Hawaii	—	108	141	1,938	2,570	—	0	0	—	NN	—	0	0	—	1
Oregon	—	238	524	5,295	4,934	—	0	1	1	NN	—	4	13	64	53
Washington	311	412	520	8,746	8,720	—	0	0	—	NN	—	1	9	3	26
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	NN	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	NN	—	—	—	—	—
Guam	—	9	44	189	82	—	0	0	—	NN	—	0	0	—	—
Puerto Rico	118	105	352	2,501	2,608	—	0	0	—	NN	N	0	0	N	N
U.S. Virgin Islands	—	13	25	220	221	—	0	0	—	NN	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever†					Dengue Hemorrhagic Fever§				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max		
United States	—	5	47	25	100	—	0	2	—	3
New England	—	0	3	—	3	—	0	0	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine¶	—	0	2	—	3	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	1	—	—	—	0	0	—	—
Vermont¶	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	1	22	7	36	—	0	1	—	2
New Jersey	—	0	0	—	—	—	0	0	—	—
New York (Upstate)	—	0	5	—	5	—	0	1	—	1
New York City	—	1	17	—	25	—	0	1	—	1
Pennsylvania	—	0	3	7	6	—	0	0	—	—
E.N. Central	—	1	7	4	12	—	0	1	—	—
Illinois	—	0	3	1	4	—	0	0	—	—
Indiana	—	0	2	1	2	—	0	0	—	—
Michigan	—	0	2	—	1	—	0	0	—	—
Ohio	—	0	2	—	5	—	0	0	—	—
Wisconsin	—	0	2	2	—	—	0	1	—	—
W.N. Central	—	0	6	—	8	—	0	1	—	—
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	1	—	7	—	0	0	—	—
Missouri	—	0	0	—	—	—	0	0	—	—
Nebraska¶	—	0	6	—	—	—	0	0	—	—
North Dakota	—	0	0	—	1	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	1	—	—
S. Atlantic	—	2	18	9	30	—	0	1	—	1
Delaware	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	2	14	8	28	—	0	1	—	1
Georgia	—	0	0	—	—	—	0	0	—	—
Maryland¶	—	0	0	—	—	—	0	0	—	—
North Carolina	—	0	2	1	—	—	0	0	—	—
South Carolina¶	—	0	3	—	—	—	0	0	—	—
Virginia¶	—	0	3	—	2	—	0	0	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—
E.S. Central	—	0	2	—	—	—	0	0	—	—
Alabama¶	—	0	2	—	—	—	0	0	—	—
Kentucky	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee¶	—	0	1	—	—	—	0	0	—	—
W.S. Central	—	0	1	—	—	—	0	0	—	—
Arkansas¶	—	0	0	—	—	—	0	0	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	1	—	—	—	0	0	—	—
Texas¶	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	2	1	2	—	0	0	—	—
Arizona	—	0	2	1	1	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—
Idaho¶	—	0	0	—	—	—	0	0	—	—
Montana¶	—	0	0	—	—	—	0	0	—	—
Nevada¶	—	0	1	—	1	—	0	0	—	—
New Mexico¶	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—
Wyoming¶	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	7	4	9	—	0	0	—	—
Alaska	—	0	0	—	—	—	0	0	—	—
California	—	0	5	1	6	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	2	3	3	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	72	550	213	2,165	—	2	20	1	55
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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† Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage, other clinical and unknown case classifications.
§ DHF includes cases that meet criteria for dengue shock syndrome (DSS), a more severe form of DHF.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	Ehrlichia chaffeensis					*Anaplasma phagocytophilum*					Undetermined				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	5	6	110	58	138	2	20	145	29	253	2	1	13	11	19
New England	—	0	2	2	3	—	1	10	2	23	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	6	—	5	—	0	0	—	—
Maine§	—	0	1	1	2	—	0	2	1	6	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	1	1	1	—	0	2	1	7	—	0	1	—	—
Rhode Island§	—	0	1	—	—	—	0	6	—	5	—	0	0	—	—
Vermont§	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	1	1	8	5	25	1	4	17	7	25	—	0	2	1	3
New Jersey	—	0	6	—	20	—	1	7	—	18	—	0	1	—	—
New York (Upstate)	1	0	7	3	4	1	3	14	6	7	—	0	2	1	2
New York City	—	0	2	2	—	—	0	3	1	—	—	0	0	—	—
Pennsylvania	—	0	1	—	1	—	0	1	—	—	—	0	1	—	1
E.N. Central	—	0	4	3	13	—	4	45	2	90	—	0	6	3	9
Illinois	—	0	2	2	7	—	0	2	—	—	—	0	2	1	—
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	3	1	5
Michigan	—	0	1	—	—	—	0	0	—	—	—	0	1	1	—
Ohio	—	0	3	1	—	—	0	1	1	—	—	0	0	—	—
Wisconsin	—	0	2	—	6	—	4	45	1	90	—	0	3	—	4
W.N. Central	—	1	13	16	24	—	4	77	5	106	2	0	11	3	—
Iowa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Kansas	—	0	2	1	—	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	12	—	—	—	4	75	1	106	—	0	11	—	—
Missouri	—	0	13	15	24	—	0	2	4	—	2	0	3	3	—
Nebraska§	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
North Dakota	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	4	3	18	27	51	1	1	7	9	8	—	0	1	—	—
Delaware	—	0	3	5	7	—	0	1	—	1	—	0	0	—	—
District of Columbia	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Florida	—	0	2	4	2	—	0	1	1	—	—	0	0	—	—
Georgia	3	0	2	4	9	1	0	1	3	—	—	0	1	—	—
Maryland§	—	0	3	2	4	—	0	2	—	4	—	0	1	—	—
North Carolina	—	0	13	6	19	—	0	4	5	1	—	0	0	—	—
South Carolina§	—	0	2	—	—	—	0	1	—	—	—	0	0	—	—
Virginia§	1	1	8	6	10	—	0	2	—	2	—	0	1	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
E.S. Central	—	0	11	5	14	—	0	2	4	1	—	0	2	1	5
Alabama§	—	0	3	—	3	—	0	2	2	—	N	0	0	N	N
Kentucky	—	0	2	2	1	—	0	0	—	—	—	0	1	—	—
Mississippi	—	0	1	—	1	—	0	1	—	—	—	0	0	—	1
Tennessee§	—	0	7	3	9	—	0	2	2	1	—	0	1	1	4
W.S. Central	—	0	88	—	7	—	0	9	—	—	—	0	1	—	—
Arkansas§	—	0	5	—	—	—	0	2	—	—	—	0	0	—	—
Louisiana	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	83	—	5	—	0	7	—	—	—	0	0	—	—
Texas§	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	2	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	2	—
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	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	—	1	—	0	0	—	—	—	0	1	1	2
Alaska	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
California	—	0	1	—	1	—	0	0	—	—	—	0	1	1	2
Hawaii	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	0	—	—	—	0	0	—	—	—	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	—	—

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† Cumulative total *E. ewingii* cases reported for year 2010 = 10, and 1 case reported for 2011.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	137	342	549	4,962	7,048	2,791	5,889	7,486	109,728	118,735	40	60	141	1,288	1,341
New England	8	28	55	379	590	46	100	206	1,830	2,031	1	4	9	74	79
Connecticut	4	5	12	71	113	—	41	150	680	918	—	0	6	14	15
Maine§	2	3	11	41	67	—	2	7	60	86	—	0	2	9	4
Massachusetts	—	14	25	176	251	43	49	80	904	829	—	2	6	37	43
New Hampshire	—	2	10	26	67	2	2	7	49	64	—	0	2	8	7
Rhode Island§	—	1	7	7	24	—	5	15	120	106	—	0	2	3	7
Vermont§	2	3	10	58	68	1	0	17	17	28	1	0	3	3	3
Mid. Atlantic	30	61	106	998	1,187	491	712	1,121	14,222	13,492	9	11	32	257	259
New Jersey	—	7	22	68	161	79	117	172	2,338	2,230	—	2	7	44	42
New York (Upstate)	16	22	72	345	405	117	111	271	2,189	2,007	5	3	18	66	70
New York City	6	17	30	314	335	41	237	497	4,589	4,746	—	2	5	44	49
Pennsylvania	8	15	27	271	286	254	259	364	5,106	4,509	4	4	11	103	98
E.N. Central	20	53	99	804	1,230	214	1,049	2,091	18,503	21,703	7	10	19	230	206
Illinois	—	9	32	132	284	—	296	369	3,046	5,856	—	3	9	61	70
Indiana	—	7	15	86	143	29	118	1,018	2,947	1,793	—	2	7	38	42
Michigan	—	11	25	171	263	104	247	490	4,805	5,719	—	1	4	27	16
Ohio	20	16	29	303	339	40	320	383	5,934	6,464	7	2	6	74	51
Wisconsin	—	9	35	112	201	41	98	130	1,771	1,871	—	1	5	30	27
W.N. Central	7	31	73	326	732	53	295	363	5,721	5,622	6	4	9	53	90
Iowa	2	5	12	82	105	1	36	57	744	695	—	0	0	—	1
Kansas	—	3	10	27	89	5	39	62	745	802	—	0	2	4	11
Minnesota	—	10	33	—	274	—	38	62	661	872	—	1	5	—	33
Missouri	3	8	26	123	140	47	143	181	2,837	2,602	5	1	5	30	33
Nebraska§	2	4	9	69	77	—	23	49	466	449	1	0	3	17	7
North Dakota	—	0	6	—	8	—	3	11	54	68	—	0	2	1	5
South Dakota	—	2	5	25	39	—	11	20	214	134	—	0	1	1	—
S. Atlantic	38	68	127	1,019	1,409	890	1,430	1,879	27,372	30,766	10	15	28	326	332
Delaware	—	0	5	8	12	17	17	48	378	403	—	0	1	1	4
District of Columbia	—	1	5	11	18	—	39	70	718	791	—	0	0	—	—
Florida	28	35	75	450	739	175	379	486	7,529	7,984	6	5	12	124	85
Georgia	5	14	51	334	275	96	274	891	4,527	6,215	3	3	7	69	78
Maryland§	2	4	11	76	136	—	133	246	2,109	2,576	1	1	5	24	21
North Carolina	N	0	0	N	N	277	266	490	6,200	6,126	—	2	9	38	47
South Carolina§	—	2	9	35	45	176	155	257	3,275	3,102	—	1	5	24	47
Virginia§	2	8	32	88	170	149	121	189	2,303	3,374	—	1	8	46	42
West Virginia	1	0	8	17	14	—	14	26	333	195	—	0	9	—	8
E.S. Central	—	4	11	55	59	147	491	1,007	9,588	9,693	4	3	10	82	80
Alabama§	—	4	11	55	59	—	160	403	3,119	2,911	—	1	4	25	10
Kentucky	N	0	0	N	N	107	73	712	1,660	1,579	—	1	4	13	14
Mississippi	N	0	0	N	N	—	115	216	2,053	2,499	—	0	2	6	6
Tennessee§	N	0	0	N	N	40	141	194	2,756	2,704	4	1	4	38	50
W.S. Central	1	5	17	65	136	672	857	1,664	16,184	19,554	1	3	26	61	63
Arkansas§	1	2	9	35	38	105	99	138	1,988	1,827	—	0	3	13	10
Louisiana	—	3	12	30	57	124	112	509	962	3,333	—	0	4	22	16
Oklahoma	—	0	5	—	41	17	78	332	1,301	1,542	1	1	19	25	32
Texas§	N	0	0	N	N	426	596	867	11,933	12,852	—	0	4	1	5
Mountain	2	29	58	391	644	83	191	254	3,763	3,744	2	5	12	130	161
Arizona	—	3	8	46	57	35	64	92	1,275	1,313	2	2	6	60	64
Colorado	—	12	27	179	269	42	49	92	910	1,048	—	1	5	26	40
Idaho§	—	4	9	49	89	—	2	14	42	42	—	0	2	7	7
Montana§	1	1	6	16	54	2	2	5	36	50	—	0	1	2	1
Nevada§	—	1	11	27	25	—	33	103	779	714	—	0	2	8	5
New Mexico§	1	2	6	20	31	3	27	98	623	419	—	1	4	21	21
Utah	—	5	13	42	99	1	4	10	79	144	—	0	3	6	18
Wyoming§	—	1	5	12	20	—	1	4	19	14	—	0	1	—	5
Pacific	31	52	129	925	1,061	195	629	807	12,545	12,130	—	3	10	75	71
Alaska	—	2	6	23	37	—	21	34	388	589	—	0	2	9	12
California	18	33	68	624	652	165	520	695	10,322	9,802	—	0	6	12	13
Hawaii	—	1	4	13	23	—	14	26	251	263	—	0	2	11	11
Oregon	—	8	20	152	196	—	22	40	479	422	—	1	6	42	31
Washington	13	9	57	113	153	30	59	86	1,105	1,054	—	0	2	1	4
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	1	—	0	5	6	5	—	0	0	—	—
Puerto Rico	—	0	8	8	37	11	6	12	150	115	—	0	0	—	1
U.S. Virgin Islands	—	0	0	—	—	—	3	7	44	42	—	0	0	—	—

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† Data for H. influenzae (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	14	28	74	439	635	18	59	167	843	1,253	12	17	39	343	314
New England	—	1	6	12	53	—	1	4	20	28	—	1	4	18	28
Connecticut	—	0	4	5	12	—	0	3	6	8	—	0	4	12	15
Maine†	—	0	1	1	3	—	0	2	5	8	—	0	2	3	2
Massachusetts	—	0	5	3	33	—	0	3	8	7	—	0	1	1	11
New Hampshire	—	0	1	—	—	—	0	1	1	4	N	0	0	N	N
Rhode Island†	—	0	1	1	5	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	1	2	—	—	0	1	—	1	—	0	1	2	—
Mid. Atlantic	3	4	12	72	103	2	5	11	105	131	1	1	6	27	35
New Jersey	—	1	4	8	29	—	1	4	23	36	—	0	4	—	7
New York (Upstate)	—	1	4	20	24	2	1	9	20	20	—	1	4	15	17
New York City	—	1	6	23	28	—	1	5	29	41	—	0	1	—	1
Pennsylvania	3	1	3	21	22	—	1	4	33	34	1	0	2	12	10
E.N. Central	2	3	9	68	82	1	8	23	109	204	1	2	9	80	37
Illinois	—	1	3	11	25	—	2	7	27	47	—	0	1	1	—
Indiana	—	0	3	8	9	—	1	6	12	29	—	0	4	29	14
Michigan	2	1	5	25	25	1	2	5	35	56	1	1	6	47	18
Ohio	—	1	5	22	14	—	1	16	25	47	—	0	1	2	3
Wisconsin	—	0	2	2	9	—	1	3	10	25	—	0	1	1	2
W.N. Central	—	1	25	15	22	—	2	16	49	53	—	0	6	—	6
Iowa	—	0	3	1	4	—	0	1	4	10	—	0	0	—	—
Kansas	—	0	2	3	7	—	0	2	5	3	—	0	1	—	—
Minnesota	—	0	22	2	1	—	0	15	2	2	—	0	6	—	3
Missouri	—	0	1	4	8	—	1	3	31	29	—	0	1	—	2
Nebraska†	—	0	4	3	2	—	0	3	6	9	—	0	1	—	1
North Dakota	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	2	—	—	0	1	1	—	—	0	0	—	—
S. Atlantic	4	5	14	89	137	4	15	33	236	356	3	4	8	71	75
Delaware	—	0	1	1	5	—	0	2	—	17	U	0	0	U	U
District of Columbia	—	0	0	—	1	—	0	0	—	3	—	0	0	—	2
Florida	—	2	7	34	46	3	4	11	80	127	1	1	5	21	20
Georgia	1	1	4	24	14	1	2	8	40	74	1	1	3	13	9
Maryland†	2	0	2	10	11	—	1	4	22	28	—	0	2	12	11
North Carolina	—	0	4	8	27	—	2	16	55	30	—	1	4	19	21
South Carolina†	—	0	2	3	17	—	1	4	12	21	—	0	1	—	—
Virginia†	1	1	6	9	15	—	1	7	27	32	1	0	2	6	6
West Virginia	—	0	5	—	1	—	0	18	—	24	—	0	5	—	6
E.S. Central	2	0	6	10	18	7	8	14	155	121	2	3	8	61	55
Alabama†	—	0	2	—	4	—	1	4	33	27	—	0	1	3	2
Kentucky	—	0	6	2	9	2	3	8	48	39	—	2	6	28	37
Mississippi	—	0	1	2	1	—	1	3	13	12	U	0	0	U	U
Tennessee†	2	0	2	6	4	5	3	8	61	43	2	1	5	30	16
W.S. Central	3	2	15	33	55	4	9	67	90	187	2	2	11	38	26
Arkansas†	—	0	1	—	—	—	1	4	16	28	—	0	1	—	—
Louisiana	—	0	1	1	4	—	1	4	18	21	—	0	2	4	—
Oklahoma	—	0	4	1	—	4	2	16	20	29	2	1	10	21	10
Texas†	3	2	11	31	51	—	4	45	36	109	—	0	3	13	16
Mountain	—	2	8	29	68	—	2	7	29	57	—	1	4	17	25
Arizona	—	0	4	6	31	—	0	2	9	12	U	0	0	U	U
Colorado	—	0	2	8	17	—	0	5	3	14	—	0	3	2	8
Idaho†	—	0	2	4	4	—	0	1	2	4	—	0	2	6	6
Montana†	—	0	1	2	4	—	0	0	—	—	—	0	1	1	—
Nevada†	—	0	3	4	6	—	0	3	12	19	—	0	2	6	1
New Mexico†	—	0	1	3	3	—	0	2	2	2	—	0	1	2	7
Utah	—	0	2	—	3	—	0	1	1	6	—	0	2	—	3
Wyoming†	—	0	3	2	—	—	0	1	—	—	—	0	0	—	—
Pacific	—	6	15	111	97	—	5	25	50	116	3	1	12	31	27
Alaska	—	0	1	1	—	—	0	1	2	1	U	0	0	U	U
California	—	5	15	96	75	—	3	22	23	79	—	0	4	14	11
Hawaii	—	0	2	4	5	—	0	1	4	3	U	0	0	U	U
Oregon	—	0	1	3	8	—	1	3	14	19	—	0	3	7	8
Washington	—	0	2	7	9	—	1	4	7	14	3	0	5	10	8
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	5	8	10	—	1	8	28	18	—	0	7	10	19
Puerto Rico	—	0	2	2	8	—	0	2	1	10	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	23	61	128	673	853	177	334	1,829	3,338	6,550	12	29	114	376	495
New England	—	4	16	34	49	1	89	503	523	2,388	—	1	20	14	32
Connecticut	—	1	6	8	11	—	34	213	256	936	—	0	20	—	2
Maine†	—	0	3	3	3	1	9	62	65	139	—	0	1	1	2
Massachusetts	—	2	10	17	26	—	23	223	94	832	—	0	4	9	23
New Hampshire	—	0	5	2	3	—	14	69	85	416	—	0	2	2	1
Rhode Island†	—	0	4	1	5	—	1	40	4	23	—	0	4	—	3
Vermont†	—	0	2	3	1	—	3	28	19	42	—	0	1	2	1
Mid. Atlantic	8	15	53	147	205	145	137	662	1,864	2,274	2	9	22	90	156
New Jersey	—	1	18	1	34	3	38	234	492	993	—	1	6	8	32
New York (Upstate)	7	5	19	66	54	42	35	159	313	432	2	1	6	14	26
New York City	—	2	17	28	39	—	9	31	2	193	—	4	13	49	74
Pennsylvania	1	5	19	52	78	100	57	279	1,057	656	—	1	4	19	24
E.N. Central	2	11	44	127	156	2	23	374	223	585	—	3	9	46	45
Illinois	—	2	15	13	26	—	1	18	6	19	—	1	6	18	19
Indiana	—	1	6	25	13	—	0	8	4	20	—	0	2	4	6
Michigan	—	2	20	24	30	1	1	14	7	6	—	0	4	7	5
Ohio	2	4	15	65	66	—	0	9	6	6	—	1	5	16	13
Wisconsin	—	0	5	—	21	1	19	345	200	534	—	0	2	1	2
W.N. Central	—	2	9	14	30	—	12	188	4	261	—	1	45	3	23
Iowa	—	0	2	2	2	—	0	10	2	15	—	0	2	—	6
Kansas	—	0	2	2	4	—	0	1	1	5	—	0	2	2	3
Minnesota	—	0	8	—	9	—	10	181	—	238	—	0	45	—	3
Missouri	—	1	4	9	8	—	0	1	—	—	—	0	3	—	3
Nebraska†	—	0	2	—	2	—	0	2	1	3	—	0	1	1	6
North Dakota	—	0	1	—	2	—	0	10	—	—	—	0	1	—	—
South Dakota	—	0	2	1	3	—	0	1	—	—	—	0	2	—	2
S. Atlantic	7	10	27	136	167	29	57	178	638	934	6	7	41	116	138
Delaware	—	0	3	2	5	5	10	33	186	236	—	0	1	2	2
District of Columbia	—	0	4	4	8	—	1	5	8	9	—	0	2	5	5
Florida	5	3	9	59	59	2	1	8	17	21	2	2	7	33	46
Georgia	—	1	4	6	26	—	0	2	2	3	2	1	7	26	22
Maryland†	—	2	6	20	36	10	18	103	231	439	1	1	21	22	23
North Carolina	—	1	7	21	13	—	0	9	13	30	—	0	13	9	18
South Carolina†	—	0	2	4	3	—	0	3	3	14	—	0	1	—	2
Virginia†	2	1	9	16	15	12	18	82	178	168	1	1	5	19	20
West Virginia	—	0	3	4	2	—	0	29	—	14	—	0	1	—	—
E.S. Central	1	2	10	40	44	—	0	4	10	14	1	0	3	9	8
Alabama†	—	0	2	6	4	—	0	2	5	—	—	0	1	2	1
Kentucky	—	0	4	9	9	—	0	1	—	1	—	0	1	4	3
Mississippi	—	0	3	5	3	—	0	0	—	—	—	0	2	1	—
Tennessee†	1	1	5	20	28	—	0	4	5	13	1	0	2	2	4
W.S. Central	2	3	13	27	36	—	1	29	13	30	1	1	18	20	30
Arkansas†	—	0	2	2	5	—	0	0	—	—	—	0	1	1	1
Louisiana	—	0	3	6	1	—	0	1	—	—	—	0	1	—	1
Oklahoma	1	0	2	2	4	—	0	0	—	—	—	0	1	2	3
Texas†	1	2	11	17	26	—	1	29	13	30	1	1	17	17	25
Mountain	—	2	10	30	60	—	0	3	4	4	—	1	4	19	20
Arizona	—	1	7	11	18	—	0	1	3	—	—	0	3	8	7
Colorado	—	0	2	3	14	—	0	1	—	—	—	0	3	5	7
Idaho†	—	0	1	1	1	—	0	2	—	2	—	0	1	1	—
Montana†	—	0	1	—	2	—	0	1	—	—	—	0	1	—	1
Nevada†	—	0	2	8	11	—	0	1	—	—	—	0	2	3	2
New Mexico†	—	0	2	2	2	—	0	2	1	1	—	0	1	2	—
Utah	—	0	2	4	10	—	0	1	—	1	—	0	0	—	3
Wyoming†	—	0	2	1	2	—	0	0	—	—	—	0	0	—	—
Pacific	3	5	21	118	106	—	4	11	59	60	2	4	10	59	43
Alaska	—	0	2	—	—	—	0	1	—	1	—	0	2	2	2
California	3	4	15	106	97	—	2	9	41	40	2	2	10	44	29
Hawaii	—	0	1	1	—	N	0	0	N	N	—	0	1	2	1
Oregon	—	0	3	3	2	—	0	3	18	18	—	0	3	5	4
Washington	—	0	6	8	7	—	0	4	—	1	—	0	5	6	7
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	N	0	0	N	N	—	0	0	—	4
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Meningococcal disease, invasive† All serogroups					Mumps					Pertussis				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	9	15	53	344	381	—	11	217	137	1,659	69	547	2,925	5,131	5,398
New England	—	0	4	19	6	—	0	2	1	17	2	10	24	132	122
Connecticut	—	0	1	3	—	—	0	0	—	11	—	1	8	18	19
Maine§	—	0	1	3	1	—	0	1	—	1	2	1	8	47	7
Massachusetts	—	0	2	9	2	—	0	2	1	4	—	5	13	48	83
New Hampshire	—	0	1	1	—	—	0	2	—	1	—	0	3	15	4
Rhode Island§	—	0	1	—	—	—	0	0	—	—	—	0	7	3	6
Vermont§	—	0	3	3	3	—	0	0	—	—	—	0	4	1	3
Mid. Atlantic	2	1	5	35	39	—	4	209	15	1,450	12	39	125	480	281
New Jersey	—	0	1	—	11	—	1	11	8	275	—	3	10	40	52
New York (Upstate)	1	0	4	9	8	—	0	5	3	630	8	12	81	145	92
New York City	—	0	3	14	10	—	0	201	4	531	—	0	19	7	8
Pennsylvania	1	0	2	12	10	—	0	16	—	14	4	20	70	288	129
E.N. Central	2	2	7	43	68	—	1	7	36	33	15	113	198	1,235	1,313
Illinois	—	0	2	12	14	—	1	3	23	10	—	22	52	226	221
Indiana	—	0	2	6	15	—	0	1	—	2	—	11	26	78	183
Michigan	—	0	4	5	10	—	0	1	5	13	2	30	57	420	378
Ohio	2	1	2	15	17	—	0	5	8	7	13	33	80	387	454
Wisconsin	—	0	2	5	12	—	0	1	—	1	—	13	26	124	77
W.N. Central	—	1	4	24	25	—	0	7	18	60	6	38	501	373	433
Iowa	—	0	1	6	6	—	0	7	3	22	—	10	36	61	171
Kansas	—	0	2	2	2	—	0	1	3	3	—	2	9	29	63
Minnesota	—	0	2	—	2	—	0	4	1	3	—	0	469	109	5
Missouri	—	0	2	8	11	—	0	3	6	8	6	7	43	117	144
Nebraska§	—	0	2	6	4	—	0	1	1	23	—	4	13	35	33
North Dakota	—	0	1	1	—	—	0	3	4	—	—	0	30	20	—
South Dakota	—	0	1	1	—	—	0	1	—	1	—	0	2	2	17
S. Atlantic	2	2	7	60	71	—	0	4	9	31	10	38	106	491	525
Delaware	—	0	1	1	—	—	0	0	—	—	—	0	4	10	—
District of Columbia	—	0	1	—	—	—	0	1	—	2	—	0	2	2	3
Florida	1	1	5	25	36	—	0	2	2	6	8	6	28	115	112
Georgia	—	0	2	4	5	—	0	2	1	1	—	4	13	73	75
Maryland§	1	0	1	6	3	—	0	1	—	7	1	2	6	37	51
North Carolina	—	0	3	11	9	—	0	2	4	5	1	3	35	95	131
South Carolina§	—	0	1	4	5	—	0	1	—	3	—	6	25	52	88
Virginia§	—	0	2	9	12	—	0	2	2	5	—	7	41	107	58
West Virginia	—	0	1	—	1	—	0	0	—	2	—	0	41	—	7
E.S. Central	—	1	3	14	20	—	0	2	3	6	2	12	35	144	321
Alabama§	—	0	1	7	4	—	0	2	1	4	2	3	8	48	88
Kentucky	—	0	1	—	8	—	0	1	—	—	—	3	16	41	119
Mississippi	—	0	1	2	2	—	0	1	2	—	—	1	10	7	23
Tennessee§	—	0	2	5	6	—	0	1	—	2	—	3	11	48	91
W.S. Central	1	1	12	28	43	—	2	15	40	34	7	51	297	395	1,155
Arkansas§	—	0	1	6	5	—	0	1	—	1	—	3	18	26	59
Louisiana	—	0	2	5	11	—	0	2	—	3	—	1	3	10	16
Oklahoma	1	0	2	5	12	—	0	1	1	—	—	1	92	17	5
Texas§	—	1	10	12	15	—	1	14	39	30	7	42	187	342	1,075
Mountain	—	1	6	25	26	—	0	4	2	8	—	43	100	807	455
Arizona	—	0	2	8	7	—	0	1	—	3	—	13	29	318	177
Colorado	—	0	4	2	7	—	0	1	1	5	—	13	63	291	52
Idaho§	—	0	1	3	4	—	0	1	—	—	—	2	15	33	61
Montana§	—	0	2	3	1	—	0	0	—	—	—	2	16	54	9
Nevada§	—	0	1	3	4	—	0	1	—	—	—	0	7	12	4
New Mexico§	—	0	1	1	2	—	0	2	1	—	—	2	11	48	36
Utah	—	0	1	5	1	—	0	1	—	—	—	6	16	49	112
Wyoming§	—	0	1	—	—	—	0	1	—	—	—	0	2	2	4
Pacific	2	4	26	96	83	—	0	5	13	20	15	146	1,710	1,074	793
Alaska	—	0	1	1	1	—	0	1	1	1	—	0	6	14	12
California	1	2	17	67	51	—	0	4	7	13	2	128	1,569	845	596
Hawaii	—	0	1	3	1	—	0	1	2	1	—	1	6	14	22
Oregon	—	1	3	16	16	—	0	1	3	1	—	5	12	85	107
Washington	1	0	8	9	14	—	0	2	—	4	13	9	131	116	56
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	3	27	12	320	—	0	14	31	—
Puerto Rico	—	0	0	—	—	—	0	1	—	—	—	0	1	1	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
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† Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Rabies, animal					Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	30	58	167	724	1,695	438	974	1,812	10,648	12,931	49	101	264	1,201	1,210
New England	2	4	18	39	122	—	29	164	457	1,050	—	2	19	38	97
Connecticut	—	0	14	—	68	—	0	142	142	491	—	0	19	19	60
Maine§	1	1	3	19	25	—	3	8	43	32	—	0	3	4	3
Massachusetts	—	0	0	—	—	—	18	52	204	389	—	1	9	5	24
New Hampshire	—	0	6	5	4	—	3	12	43	61	—	0	3	8	8
Rhode Island§	—	0	4	2	6	—	2	17	10	59	—	0	1	—	—
Vermont§	1	1	3	13	19	—	1	5	15	18	—	0	2	2	2
Mid. Atlantic	9	14	33	109	444	57	89	217	1,181	1,574	6	10	30	122	126
New Jersey	—	0	0	—	—	—	21	57	79	305	—	2	9	15	29
New York (Upstate)	9	8	19	109	185	32	25	63	334	361	6	3	12	43	44
New York City	—	0	4	—	121	4	21	53	301	377	—	1	6	19	12
Pennsylvania	—	6	17	—	138	21	31	80	467	531	—	3	13	45	41
E.N. Central	4	2	27	32	39	12	82	265	1,151	1,762	3	11	48	149	206
Illinois	1	1	11	8	17	—	29	124	350	606	—	2	9	15	43
Indiana	—	0	1	1	—	—	12	61	124	195	—	2	10	29	24
Michigan	—	1	5	8	16	2	13	49	185	279	—	2	7	37	58
Ohio	3	0	12	15	6	10	23	46	342	444	3	2	11	46	39
Wisconsin	N	0	0	N	N	—	12	57	150	238	—	2	16	22	42
W.N. Central	2	2	40	28	89	21	48	121	617	793	5	13	49	123	196
Iowa	—	0	3	—	6	3	10	34	149	117	—	2	16	28	31
Kansas	—	1	4	12	25	—	7	19	91	114	—	1	5	18	17
Minnesota	—	0	34	—	13	—	8	30	—	239	—	4	20	—	47
Missouri	—	0	6	—	19	14	15	43	265	212	1	4	12	49	74
Nebraska§	2	1	3	12	23	4	4	13	62	60	4	1	6	22	18
North Dakota	—	0	6	4	3	—	0	13	—	6	—	0	10	—	—
South Dakota	—	0	0	—	—	—	3	17	50	45	—	0	4	6	9
S. Atlantic	12	20	37	406	496	239	261	624	3,117	3,008	15	17	31	320	173
Delaware	—	0	0	—	—	—	3	11	36	34	—	0	2	3	1
District of Columbia	—	0	0	—	—	—	1	7	13	38	—	0	2	1	3
Florida	—	0	29	45	121	120	108	226	1,310	1,387	11	6	15	152	59
Georgia	—	0	0	—	—	20	44	142	539	441	—	2	7	32	21
Maryland§	—	6	14	112	148	18	18	54	244	279	1	2	8	33	23
North Carolina	—	0	0	—	—	64	29	241	474	327	—	2	10	39	13
South Carolina§	N	0	0	N	N	—	25	99	197	212	—	0	4	9	6
Virginia§	12	12	27	249	194	6	21	68	271	226	2	3	9	49	44
West Virginia	—	0	7	—	33	11	0	14	33	64	1	0	4	2	3
E.S. Central	—	3	7	48	81	10	57	176	662	670	4	5	22	68	61
Alabama§	—	1	7	32	36	4	20	52	192	198	—	1	4	14	15
Kentucky	—	0	4	3	3	—	10	32	114	130	—	1	6	9	8
Mississippi	—	0	0	—	—	—	18	66	150	153	—	0	12	4	8
Tennessee§	—	1	4	13	42	6	18	53	206	189	4	2	7	41	30
W.S. Central	1	11	54	46	351	19	145	515	1,176	1,312	4	8	151	93	62
Arkansas§	1	0	10	34	11	9	13	43	161	99	—	0	4	8	13
Louisiana	—	0	0	—	—	—	19	52	141	307	—	0	2	3	7
Oklahoma	—	0	30	12	5	10	11	95	137	131	2	1	55	12	3
Texas§	—	10	30	—	335	—	95	381	737	775	2	6	95	70	39
Mountain	—	1	5	3	19	5	48	113	731	886	—	10	33	121	143
Arizona	N	0	0	N	N	1	16	43	242	274	—	1	14	28	23
Colorado	—	0	0	—	—	—	10	24	167	203	—	3	21	15	49
Idaho§	—	0	2	—	1	—	3	9	54	53	—	2	7	24	14
Montana§	N	0	0	N	N	3	1	6	31	36	—	1	3	8	16
Nevada§	—	0	2	—	—	—	5	21	61	71	—	0	6	14	9
New Mexico§	—	0	2	3	5	—	5	19	63	93	—	1	6	13	14
Utah	—	0	3	—	—	—	5	17	90	138	—	2	8	17	14
Wyoming§	—	0	4	—	13	1	1	8	23	18	—	0	3	2	4
Pacific	—	1	14	13	54	75	113	288	1,556	1,876	12	12	46	167	146
Alaska	—	0	2	9	11	—	1	4	26	30	—	0	1	—	1
California	—	0	12	—	37	48	81	232	1,165	1,277	11	7	36	123	65
Hawaii	—	0	0	—	—	—	6	13	102	114	—	0	3	2	15
Oregon	—	0	2	4	6	—	8	20	112	239	—	2	11	21	15
Washington	—	0	14	—	—	27	16	42	151	216	1	3	20	21	50
Territories															
American Samoa	N	0	0	N	N	—	0	1	—	1	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	3	6	1	—	0	0	—	—
Puerto Rico	—	0	2	10	21	—	5	21	22	207	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
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† Includes E. coli O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Shigellosis					Spotted Fever Rickettsiosis (including RMSF)†									
						Confirmed					Probable				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010
United States	171	269	741	3,282	5,258	1	2	11	23	27	8	21	244	175	239
New England	—	4	17	63	157	—	0	0	—	—	—	0	1	1	1
Connecticut	—	0	14	14	69	—	0	0	—	—	—	0	0	—	—
Maine§	—	0	3	5	3	—	0	0	—	—	—	0	1	—	1
Massachusetts	—	2	16	42	73	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	2	—	4	—	0	0	—	—	—	0	1	—	—
Rhode Island§	—	0	4	—	7	—	0	0	—	—	—	0	1	1	—
Vermont§	—	0	1	2	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	12	16	74	195	705	—	0	1	2	1	—	1	7	7	19
New Jersey	—	4	16	25	142	—	0	0	—	1	—	0	5	—	13
New York (Upstate)	12	3	15	52	68	—	0	1	—	—	—	0	3	1	2
New York City	—	5	14	82	131	—	0	0	—	—	—	0	2	4	1
Pennsylvania	—	5	56	36	364	—	0	1	2	—	—	0	3	2	3
E.N. Central	8	18	37	208	840	—	0	1	—	—	1	1	8	12	19
Illinois	—	7	20	56	563	—	0	1	—	—	—	0	4	8	11
Indiana§	—	1	4	26	22	—	0	1	—	—	—	0	3	—	4
Michigan	—	4	10	47	88	—	0	0	—	—	—	0	1	1	—
Ohio	8	5	17	79	126	—	0	0	—	—	1	0	2	3	3
Wisconsin	—	0	4	—	41	—	0	0	—	—	—	0	1	—	1
W.N. Central	2	17	71	142	1,164	—	0	2	2	1	2	4	17	38	53
Iowa	—	1	4	7	22	—	0	0	—	—	—	0	1	1	2
Kansas§	—	4	12	24	109	—	0	0	—	—	—	0	0	—	—
Minnesota	—	0	4	—	18	—	0	0	—	—	—	0	2	—	—
Missouri	2	10	56	106	1,000	—	0	2	2	1	2	4	17	37	50
Nebraska§	—	0	10	3	11	—	0	2	—	—	—	0	1	—	1
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	2	2	4	—	0	0	—	—	—	0	0	—	—
S. Atlantic	108	61	122	1,245	734	1	1	7	13	17	4	6	59	43	73
Delaware§	—	0	2	—	30	—	0	0	—	1	—	0	3	5	6
District of Columbia	—	0	3	6	15	—	0	1	1	—	—	0	0	—	—
Florida§	81	31	81	886	253	—	0	1	2	1	—	0	2	1	5
Georgia	7	14	26	171	266	1	0	6	6	13	—	0	0	—	—
Maryland§	3	2	8	36	42	—	0	1	1	—	1	0	5	6	9
North Carolina	17	3	36	96	55	—	0	3	1	2	—	1	47	12	37
South Carolina§	—	1	5	15	29	—	0	1	2	—	—	0	2	4	3
Virginia§	—	2	8	31	43	—	0	2	—	—	3	2	12	15	13
West Virginia	—	0	66	4	1	—	0	0	—	—	—	0	0	—	—
E.S. Central	3	13	29	177	282	—	0	3	—	5	—	5	30	46	54
Alabama§	1	5	15	66	40	—	0	1	—	—	—	1	9	11	11
Kentucky	—	2	15	28	125	—	0	1	—	4	—	0	0	—	—
Mississippi	1	2	5	42	13	—	0	0	—	—	—	0	4	—	3
Tennessee§	1	4	14	41	104	—	0	2	—	1	—	4	20	35	40
W.S. Central	27	55	502	634	802	—	0	8	—	1	1	2	234	6	17
Arkansas§	1	2	7	23	17	—	0	2	—	—	—	0	28	1	5
Louisiana	—	5	13	49	98	—	0	0	—	—	—	0	1	—	—
Oklahoma	—	3	160	39	124	—	0	5	—	—	1	0	201	3	8
Texas§	26	44	338	523	563	—	0	1	—	1	—	0	5	2	4
Mountain	3	17	32	274	227	—	0	5	6	—	—	0	7	22	3
Arizona	1	7	19	73	121	—	0	4	6	—	—	0	7	21	—
Colorado§	—	2	8	33	29	—	0	1	—	—	—	0	1	—	—
Idaho§	—	0	3	7	7	—	0	0	—	—	—	0	1	—	1
Montana§	2	0	15	90	4	—	0	1	—	—	—	0	1	—	—
Nevada§	—	0	6	7	11	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	3	10	46	43	—	0	0	—	—	—	0	0	—	1
Utah	—	1	4	17	12	—	0	0	—	—	—	0	1	—	1
Wyoming§	—	0	1	1	—	—	0	0	—	—	—	0	1	1	—
Pacific	8	23	63	344	347	—	0	2	—	2	—	0	1	—	—
Alaska	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
California	5	18	59	263	276	—	0	2	—	2	—	0	0	—	—
Hawaii	—	1	4	26	23	N	0	0	N	N	N	0	0	N	N
Oregon	—	1	4	25	23	—	0	0	—	—	—	0	1	—	—
Washington	3	1	22	29	25	—	0	1	—	—	—	0	0	—	—
Territories															
American Samoa	—	1	1	1	1	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
Puerto Rico	—	0	1	—	1	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by Rickettsia rickettsii, is the most common and well-known spotted fever.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	*Streptococcus pneumoniae*,† invasive disease										Syphilis, primary and secondary				
	All ages					Age <5									
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	109	275	1,009	6,330	8,336	11	24	123	482	1,004	72	253	354	4,318	5,189
New England	3	11	79	188	439	2	1	5	21	64	—	8	19	141	182
Connecticut	—	0	49	7	209	—	0	3	6	21	—	1	8	18	36
Maine§	1	2	13	63	65	—	0	1	2	5	—	0	3	8	14
Massachusetts	—	0	5	14	49	—	0	3	6	34	—	5	14	89	113
New Hampshire	—	2	8	56	67	—	0	1	2	3	—	0	3	12	7
Rhode Island§	—	0	36	8	8	—	0	3	—	—	—	0	4	10	10
Vermont§	2	1	6	40	41	2	0	1	5	1	—	0	2	4	2
Mid. Atlantic	4	21	97	423	868	—	3	27	54	112	13	30	46	521	676
New Jersey	1	6	29	54	399	—	1	4	21	34	4	4	10	71	99
New York (Upstate)	1	2	10	43	88	—	1	9	24	66	1	2	20	68	39
New York City	2	13	42	326	381	—	0	14	9	12	2	15	31	242	382
Pennsylvania	N	0	0	N	N	N	0	0	N	N	6	7	16	140	156
E.N. Central	34	64	108	1,573	1,708	5	4	12	93	150	—	28	56	334	766
Illinois	N	0	0	N	N	N	0	0	N	N	—	13	23	52	383
Indiana	1	14	29	296	391	—	0	4	14	31	—	3	14	51	55
Michigan	2	14	29	350	380	—	1	4	21	48	—	4	10	76	117
Ohio	28	25	45	695	675	5	2	7	49	51	—	9	21	138	191
Wisconsin	3	9	24	232	262	—	0	3	9	20	—	1	3	17	20
W.N. Central	3	6	41	65	440	—	1	5	4	63	—	7	18	114	105
Iowa	N	0	0	N	N	N	0	0	N	N	—	0	3	8	6
Kansas	N	0	0	N	N	N	0	0	N	N	—	0	3	5	7
Minnesota	—	4	24	—	348	—	0	5	—	53	—	3	10	46	25
Missouri	N	0	0	N	N	N	0	0	N	N	—	2	9	53	63
Nebraska§	3	2	9	65	69	—	0	1	4	10	—	0	2	2	4
North Dakota	—	0	14	—	23	—	0	1	—	—	—	0	0	—	—
South Dakota	N	0	0	N	N	N	0	0	N	N	—	0	1	—	—
S. Atlantic	27	70	173	1,624	2,291	2	7	25	124	280	23	63	166	1,179	1,188
Delaware	—	1	6	28	19	—	0	1	—	—	—	0	4	5	3
District of Columbia	—	1	3	27	48	—	0	1	4	7	—	3	8	71	52
Florida	27	23	68	780	860	2	3	13	69	112	2	22	44	427	423
Georgia	—	14	54	250	753	—	2	7	22	86	5	11	118	181	248
Maryland§	—	9	32	287	266	—	1	4	14	31	—	8	17	169	97
North Carolina	N	0	0	N	N	N	0	0	N	N	4	7	19	147	192
South Carolina§	—	8	25	252	291	—	1	3	15	34	4	3	10	85	55
Virginia§	N	0	0	N	N	N	0	0	N	N	8	4	16	94	115
West Virginia	—	0	14	—	54	—	0	6	—	10	—	0	2	—	3
E.S. Central	11	19	40	489	578	1	1	4	28	57	2	13	34	230	359
Alabama§	N	0	0	N	N	N	0	0	N	N	—	3	11	41	111
Kentucky	N	0	0	N	N	N	0	0	N	N	1	3	16	44	46
Mississippi	N	0	0	N	N	N	0	0	N	N	—	3	16	50	80
Tennessee§	11	19	36	489	578	1	1	4	28	57	1	5	11	95	122
W.S. Central	24	34	376	987	943	1	4	38	89	118	20	37	71	643	783
Arkansas§	3	3	26	126	95	—	0	3	10	11	1	3	10	71	105
Louisiana	—	3	11	97	56	—	0	2	8	16	—	8	36	116	160
Oklahoma	N	0	0	N	N	N	0	0	N	N	1	1	6	22	40
Texas§	21	27	333	764	792	1	3	27	71	91	18	23	33	434	478
Mountain	3	31	75	908	1,002	—	3	8	63	144	1	12	24	203	207
Arizona	3	11	43	449	500	—	1	5	29	65	1	4	9	72	84
Colorado	—	10	23	244	283	—	1	3	15	42	—	2	8	46	49
Idaho§	N	0	0	N	N	N	0	0	N	N	—	0	2	3	2
Montana§	N	0	0	N	N	N	0	0	N	N	—	0	2	1	—
Nevada§	N	0	0	N	N	N	0	0	N	N	—	2	9	51	35
New Mexico§	—	3	13	135	91	—	0	2	9	13	—	1	4	25	10
Utah	—	3	8	63	118	—	0	3	10	22	—	0	5	5	27
Wyoming§	—	0	15	17	10	—	0	1	—	2	—	0	0	—	—
Pacific	—	2	24	73	67	—	0	5	6	16	13	51	66	953	923
Alaska	—	2	11	72	67	—	0	2	6	16	—	0	1	—	3
California	N	0	0	N	N	N	0	0	N	N	7	41	57	777	789
Hawaii	—	0	3	1	—	—	0	0	—	—	—	0	5	6	18
Oregon	N	0	0	N	N	N	0	0	N	N	—	1	7	37	26
Washington	N	0	0	N	N	N	0	0	N	N	6	6	13	133	87
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	4	4	15	86	85
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† Includes drug resistant and susceptible cases of invasive Streptococcus pneumoniae disease among children <5 years and among all ages. Case definition: Isolation of S. pneumoniae from a normally sterile body site (e.g., blood or cerebrospinal fluid).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 28, 2011, and May 29, 2010 (21st week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2011	Cum 2010
United States	130	239	584	4,775	7,925	—	1	71	—	1	—	0	53	1	7
New England	8	19	46	346	495	—	0	3	—	—	—	0	2	—	—
Connecticut	1	5	15	94	143	—	0	2	—	—	—	0	2	—	—
Maine¶	—	4	16	88	98	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	5	17	103	131	—	0	2	—	—	—	0	1	—	—
New Hampshire	—	2	9	9	60	—	0	1	—	—	—	0	0	—	—
Rhode Island¶	—	0	4	6	14	—	0	0	—	—	—	0	0	—	—
Vermont¶	7	2	13	46	49	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	20	28	62	564	818	—	0	19	—	—	—	0	13	—	—
New Jersey	—	8	23	143	307	—	0	3	—	—	—	0	6	—	—
New York (Upstate)	N	0	0	N	N	—	0	9	—	—	—	0	7	—	—
New York City	—	0	0	—	1	—	0	7	—	—	—	0	4	—	—
Pennsylvania	20	18	41	421	510	—	0	3	—	—	—	0	3	—	—
E.N. Central	32	69	153	1,465	2,784	—	0	15	—	—	—	0	7	—	—
Illinois	2	18	41	373	701	—	0	10	—	—	—	0	4	—	—
Indiana¶	—	5	19	109	245	—	0	2	—	—	—	0	2	—	—
Michigan	6	21	43	459	850	—	0	6	—	—	—	0	1	—	—
Ohio	24	21	58	523	717	—	0	1	—	—	—	0	1	—	—
Wisconsin	—	4	22	1	271	—	0	0	—	—	—	0	1	—	—
W.N. Central	—	10	35	173	411	—	0	7	—	—	—	0	11	—	3
Iowa	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
Kansas¶	—	2	8	53	182	—	0	1	—	—	—	0	3	—	2
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	3	—	—
Missouri	—	7	24	90	192	—	0	1	—	—	—	0	0	—	—
Nebraska¶	—	0	5	1	2	—	0	3	—	—	—	0	7	—	1
North Dakota	—	0	10	16	23	—	0	2	—	—	—	0	2	—	—
South Dakota	—	1	7	13	12	—	0	2	—	—	—	0	3	—	—
S. Atlantic	21	31	99	650	1,129	—	0	6	—	—	—	0	4	—	3
Delaware¶	—	0	4	4	17	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	3	8	9	—	0	1	—	—	—	0	1	—	—
Florida¶	20	15	48	460	581	—	0	3	—	—	—	0	1	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	3	—	3
Maryland¶	N	0	0	N	N	—	0	3	—	—	—	0	2	—	—
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina¶	—	0	6	—	74	—	0	1	—	—	—	0	0	—	—
Virginia¶	1	9	29	178	222	—	0	1	—	—	—	0	1	—	—
West Virginia	—	4	23	—	226	—	0	0	—	—	—	0	0	—	—
E.S. Central	2	6	15	146	157	—	0	1	—	1	—	0	3	1	1
Alabama¶	2	5	14	138	154	—	0	1	—	—	—	0	1	—	1
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Mississippi	—	0	3	8	3	—	0	1	—	1	—	0	2	1	—
Tennessee¶	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
W.S. Central	41	42	258	1,000	1,490	—	0	16	—	—	—	0	3	—	—
Arkansas¶	1	3	17	94	112	—	0	3	—	—	—	0	1	—	—
Louisiana	—	1	5	18	36	—	0	3	—	—	—	0	1	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Texas¶	40	37	247	888	1,342	—	0	15	—	—	—	0	2	—	—
Mountain	6	15	50	349	593	—	0	18	—	—	—	0	15	—	—
Arizona	—	0	0	—	—	—	0	13	—	—	—	0	9	—	—
Colorado¶	6	6	31	129	211	—	0	5	—	—	—	0	11	—	—
Idaho¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
Montana¶	—	2	28	88	108	—	0	0	—	—	—	0	0	—	—
Nevada¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
New Mexico¶	—	1	8	18	54	—	0	6	—	—	—	0	2	—	—
Utah	—	4	26	107	208	—	0	1	—	—	—	0	1	—	—
Wyoming¶	—	0	3	7	12	—	0	1	—	—	—	0	1	—	—
Pacific	—	3	22	82	48	—	0	8	—	—	—	0	6	—	—
Alaska	—	1	5	26	18	—	0	0	—	—	—	0	0	—	—
California	—	0	19	36	14	—	0	8	—	—	—	0	6	—	—
Hawaii	—	1	4	20	16	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
Washington	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	4	16	8	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	5	30	50	200	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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

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

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

TABLE III. Deaths in 122 U.S. cities,* week ending May 28, 2011 (21st week)

Reporting area	All causes, by age (years)						P&I†
	All Ages	≥65	45–64	25–44	1–24	<1	Total
New England	506	362	108	19	5	12	48
Boston, MA	120	75	33	6	2	4	9
Bridgeport, CT	30	25	5	—	—	—	2
Cambridge, MA	8	6	1	1	—	—	2
Fall River, MA	28	21	3	2	2	—	2
Hartford, CT	44	34	8	2	—	—	7
Lowell, MA	18	13	5	—	—	—	4
Lynn, MA	6	2	4	—	—	—	—
New Bedford, MA	26	23	3	—	—	—	2
New Haven, CT	36	25	7	3	—	1	5
Providence, RI	71	56	9	2	—	4	3
Somerville, MA	2	1	—	—	1	—	—
Springfield, MA	20	13	6	1	—	—	2
Waterbury, CT	27	19	7	1	—	—	2
Worcester, MA	70	49	17	1	—	3	8
Mid. Atlantic	1,715	1,190	379	83	38	24	80
Albany, NY	41	21	16	2	1	1	1
Allentown, PA	23	20	2	1	—	—	3
Buffalo, NY	74	48	16	6	3	1	7
Camden, NJ	30	11	13	2	2	2	2
Elizabeth, NJ	14	9	5	—	—	—	1
Erie, PA	62	47	12	2	1	—	4
Jersey City, NJ	12	8	4	—	—	—	2
New York City, NY	937	656	208	44	17	11	32
Newark, NJ	34	21	10	2	1	—	1
Paterson, NJ	19	12	4	1	—	2	—
Philadelphia, PA	136	84	35	7	5	5	4
Pittsburgh, PA§	30	27	3	—	—	—	3
Reading, PA	35	25	8	2	—	—	1
Rochester, NY	58	38	12	4	3	1	—
Schenectady, NY	28	21	6	1	—	—	6
Scranton, PA	17	12	2	3	—	—	1
Syracuse, NY	101	83	14	1	2	1	9
Trenton, NJ	37	25	5	5	2	—	1
Utica, NY	13	9	3	—	1	—	1
Yonkers, NY	14	13	1	—	—	—	1
E.N. Central	1,851	1,226	458	114	26	27	146
Akron, OH	51	34	14	2	1	—	6
Canton, OH	34	25	8	1	—	—	3
Chicago, IL	189	109	53	20	7	—	17
Cincinnati, OH	99	64	27	5	1	2	8
Cleveland, OH	239	173	56	7	2	1	18
Columbus, OH	190	125	48	10	1	6	13
Dayton, OH	133	92	26	14	—	1	12
Detroit, MI	103	60	31	7	4	1	3
Evansville, IN	51	34	13	2	—	2	7
Fort Wayne, IN	82	56	20	3	2	1	7
Gary, IN	10	5	3	—	1	1	—
Grand Rapids, MI	49	32	11	4	—	2	4
Indianapolis, IN	186	112	53	13	5	3	12
Lansing, MI	41	27	11	3	—	—	6
Milwaukee, WI	68	45	19	2	1	1	—
Peoria, IL	58	36	9	11	—	2	3
Rockford, IL	53	41	7	2	—	3	4
South Bend, IN	72	50	19	2	—	1	10
Toledo, OH	79	54	21	4	—	—	7
Youngstown, OH	64	52	9	2	1	—	6
W.N. Central	720	455	186	53	17	9	41
Des Moines, IA	71	54	11	2	1	3	4
Duluth, MN	31	25	6	—	—	—	2
Kansas City, KS	19	11	5	2	1	—	—
Kansas City, MO	110	72	31	6	—	1	5
Lincoln, NE	45	31	8	3	2	1	3
Minneapolis, MN	64	41	12	6	5	—	6
Omaha, NE	85	57	23	4	1	—	7
St. Louis, MO	167	74	63	23	5	2	8
St. Paul, MN	63	47	12	2	1	1	—
Wichita, KS	65	43	15	5	1	1	6
S. Atlantic	1,195	741	309	79	43	23	73
Atlanta, GA	129	63	44	11	10	1	4
Baltimore, MD	119	77	27	10	2	3	5
Charlotte, NC	117	69	34	6	7	1	9
Jacksonville, FL	165	105	45	7	6	2	14
Miami, FL	110	72	25	8	5	—	5
Norfolk, VA	35	22	11	—	—	2	3
Richmond, VA	81	45	26	3	4	3	3
Savannah, GA	47	28	12	4	1	2	1
St. Petersburg, FL	52	29	15	8	—	—	5
Tampa, FL	215	147	45	14	4	5	15
Washington, D.C.	112	72	24	8	4	4	7
Wilmington, DE	13	12	1	—	—	—	2
E.S. Central	898	558	232	63	20	25	72
Birmingham, AL	194	123	46	14	7	4	14
Chattanooga, TN	73	56	13	2	1	1	12
Knoxville, TN	96	67	22	4	—	3	13
Lexington, KY	77	42	26	7	—	2	2
Memphis, TN	169	101	45	11	5	7	12
Mobile, AL	105	70	24	7	3	1	6
Montgomery, AL	39	22	11	5	—	1	5
Nashville, TN	145	77	45	13	4	6	8
W.S. Central	1,175	745	277	86	36	31	82
Austin, TX	83	51	21	5	1	5	4
Baton Rouge, LA	57	35	10	7	4	1	—
Corpus Christi, TX	81	59	18	3	1	—	9
Dallas, TX	141	71	41	16	8	5	6
El Paso, TX	85	53	25	6	1	—	13
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	169	95	40	18	8	8	20
Little Rock, AR	111	77	19	8	1	6	—
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	248	171	56	12	8	1	19
Shreveport, LA	90	56	24	6	2	2	4
Tulsa, OK	110	77	23	5	2	3	7
Mountain	1,006	715	201	58	16	15	75
Albuquerque, NM	128	87	23	13	3	2	17
Boise, ID	57	41	12	3	1	—	5
Colorado Springs, CO	86	66	14	6	—	—	2
Denver, CO	79	55	16	4	1	3	4
Las Vegas, NV	276	185	64	18	6	3	18
Ogden, UT	35	28	5	—	—	2	3
Phoenix, AZ	U	U	U	U	U	U	U
Pueblo, CO	31	18	13	—	—	—	1
Salt Lake City, UT	143	98	33	6	1	5	12
Tucson, AZ	171	137	21	8	4	—	13
Pacific	1,773	1,245	379	84	35	30	156
Berkeley, CA	14	13	1	—	—	—	1
Fresno, CA	128	86	34	8	—	—	20
Glendale, CA	39	34	5	—	—	—	7
Honolulu, HI	81	58	16	4	2	1	10
Long Beach, CA	61	38	13	7	1	2	8
Los Angeles, CA	269	180	60	15	7	7	21
Pasadena, CA	21	15	4	1	—	1	1
Portland, OR	135	90	31	9	3	2	13
Sacramento, CA	220	153	53	7	6	1	12
San Diego, CA	174	120	34	11	2	7	21
San Francisco, CA	128	89	26	7	3	3	8
San Jose, CA	209	153	37	5	9	5	17
Santa Cruz, CA	23	15	7	—	1	—	—
Seattle, WA	98	73	20	5	—	—	5
Spokane, WA	62	45	15	1	—	1	7
Tacoma, WA	111	83	23	4	1	—	5
Total¶	**10,839**	**7,237**	**2,529**	**639**	**236**	**196**	**773**

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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