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Estimates of Deaths Associated with Seasonal Influenza — United States, 1976–2007

Influenza infections are associated with thousands of deaths every year in the United States, with the majority of deaths from seasonal influenza occurring among adults aged ≥65 years (*1–4*). For several decades, CDC has made annual estimates of influenza-associated deaths, which have been used in influenza research and to develop influenza control and prevention policy. To update previously published estimates of the numbers and rates of influenza-associated deaths during 1976–2003 by adding four influenza seasons through 2006–07, CDC used statistical models with data from death certificate reports. National mortality data for two categories of underlying cause of death codes, pneumonia and influenza causes and respiratory and circulatory causes, were used in regression models to estimate lower and upper bounds for the number of influenza-associated deaths. Estimates by seasonal influenza virus type and subtype were examined to determine any association between virus type and subtype and the number of deaths in a season. This report summarizes the results of these analyses, which found that, during 1976–2007, estimates of annual influenza-associated deaths from respiratory and circulatory causes (including pneumonia and influenza causes) ranged from 3,349 in 1986–87 to 48,614 in 2003–04. The annual rate of influenza-associated death in the United States overall during this period ranged from 1.4 to 16.7 deaths per 100,000 persons. The findings also indicated the wide variation in the estimated number of deaths from season to season was closely related to the particular influenza virus types and subtypes in circulation.

The current study extends estimates of influenza-associated deaths from two previous CDC studies (*2,3*) by adding data from four more influenza seasons for a total of 31 influenza seasons (1976–2007). Estimates are provided for three age groups (<19 years, 19–64 years, and ≥65 years) and for two categories of underlying cause of death codes: 1) pneumonia and influenza causes and 2) respiratory and circulatory causes. Deaths from pneumonia and influenza causes are highly correlated with the circulation of influenza (*1*) and can be considered a lower bound for deaths associated with influenza (*2,4*). However, a diagnosis of influenza virus infection often is not confirmed with sensitive and specific laboratory diagnostics, particularly among older persons, and even when identified is rarely recorded on death certificates (*5*). Many deaths associated with influenza infections occur from secondary infections such as bacterial pneumonia or complications of chronic conditions such as congestive heart failure and chronic obstructive pulmonary disease (*6*). Therefore, estimates using underlying respiratory and circulatory mortality data (which include pneumonia and influenza causes) can provide an upper bound for influenza-associated deaths (*2,7*).

Using methods published previously (*2,3*), CDC estimated the numbers and rates of influenza-associated deaths by virus type and subtype by using Poisson regression models that incorporated weekly national respiratory viral surveillance data. Weekly influenza test results by virus type and subtype were provided by approximately 80 World Health Organization (WHO) and 70 National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories in the United States (*8*). Prominent influenza type and subtype were defined as at least 20% of all isolates that were tested in that season. Mortality data were obtained from the National Vital Statistics System and reflect the underlying cause of death recorded on death certificates (*9*). Deaths were categorized using the *International Classification of Diseases* eighth revision (ICD-8),

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ninth revision (ICD-9), or 10th revision (ICD-10), as appropriate. Weekly estimates of the U.S. population by age group were used as part of the model to correspond to the weekly viral surveillance estimates. All data for deaths with underlying pneumonia and influenza causes and respiratory and circulatory causes were actual counts based on the death certificate ICD codes. To estimate the proportion of deaths that were influenza associated, the average annual number of deaths estimated by the model was divided by the average annual counts of death with underlying pneumonia and influenza causes and respiratory and circulatory causes.

For deaths with underlying pneumonia and influenza causes during 1976–2007 in the United States, the models estimated an annual overall average of 6,309 (range: 961 in 1986–87 to 14,715 in 2003–04) influenza-associated deaths (Table 1). For these underlying causes, the average annual rate of influenza-associated death was 2.4 deaths per 100,000 (range: 0.4–5.1).

Among persons aged <19 years, an estimated annual average of 97 (range: 41 in 1981–82 to 234 in 1977–78) influenza-associated deaths with underlying pneumonia and influenza causes occurred (Table 1). The average annual rate of influenza-associated deaths for this age group was 0.1 deaths per 100,000 persons (range: 0.1–0.3). Among adults aged 19–64 years, an estimated annual average of 666 (range: 173 in 1981–82 to 1,459 in 2004–05) influenza-associated deaths with underlying pneumonia and influenza causes occurred. The average annual rate of influenza-associated deaths for this age group was 0.4 deaths per 100,000 persons (range: 0.1–0.8). Among adults aged ≥65 years, an estimated annual average of 5,546 (range: 673 in 1978–79 to 13,245 in 2003–04) influenza-associated deaths with underlying pneumonia and influenza causes occurred. The average annual rate of influenza-associated deaths for this age group was 17.0 deaths per 100,000 (range: 2.4–36.7). Deaths among persons aged ≥65 years accounted for 87.9% of the overall estimated average annual influenza-associated deaths with underlying pneumonia and influenza causes.

For deaths with underlying respiratory and circulatory causes (including pneumonia and influenza causes) during 1976–2007, the models estimated an annual U.S. average overall of 23,607 (range: 3,349 in 1986–87 to 48,614 in 2003–04) influenza-associated deaths (Table 2). For these underlying causes, the average annual rate of influenza-associated death was 9.0 deaths per 100,000 (range: 1.4–16.7).

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TABLE 1. Estimated number of annual influenza-associated deaths with underlying pneumonia and influenza causes*, by age group — United States, 1976–77 through 2006–07 influenza seasons

Season	Prominent influenza type/subtype†	<19 yrs No.	<19 yrs (95% CI§)	19–64 yrs No.	19–64 yrs (95% CI)	≥65 yrs No.	≥65 yrs (95% CI)	Overall No.	Overall (95% CI)
1976–77	B / A(H3N2)	155	(85–488)	485	(357–958)	2,126	(1,847–3,013)	2,766	(2,289–4,459)
1977–78	A(H3N2) / A(H1N1)	234	(171–458)	771	(671–1,139)	3,889	(3,668–4,610)	4,894	(4,510–6,207)
1978–79	A(H1N1)	128	(86–343)	235	(159–530)	673	(511–1,327)	1,036	(756–2,200)
1979–80	B	100	(65–280)	336	(270–594)	1,706	(1,530–2,321)	2,142	(1,865–3,195)
1980–81	A(H3N2) / A(H1N1)	115	(78–284)	483	(411–715)	3,054	(2,878–3,650)	3,652	(3,367–4,649)
1981–82	B / A(H1N1)	41	(18–155)	173	(112–402)	903	(746–1,490)	1,117	(876–2,047)
1982–83	A(H3N2)	114	(78–222)	621	(512–859)	4,393	(4,091–5,035)	5,128	(4,681–6,116)
1983–84	A(H1N1) / B	123	(78–241)	466	(343–735)	2,548	(2,168–3,279)	3,137	(2,589–4,255)
1984–85	A(H3N2)	130	(100–217)	805	(743–1,056)	6,663	(6,459–7,363)	7,598	(7,302–8,636)
1985–86	B / A(H3N2)	88	(52–172)	487	(388–728)	3,607	(3,328–4,313)	4,182	(3,768–5,213)
1986–87	A(H1N1)	70	(47–167)	186	(127–454)	705	(510–1,478)	961	(684–2,099)
1987–88	A(H3N2)	75	(44–144)	509	(425–729)	4,375	(4,087–5,017)	4,959	(4,556–5,890)
1988–89	B / A(H1N1)	120	(71–212)	536	(391–798)	3,559	(3,095–4,331)	4,215	(3,557–5,341)
1989–90	A(H3N2)	91	(65–158)	662	(581–888)	6,158	(5,882–6,857)	6,911	(6,528–7,903)
1990–91	B	56	(35–123)	363	(284–598)	2,907	(2,624–3,659)	3,326	(2,943–4,380)
1991–92	A (H3N2) / A(H1N1)	82	(53–158)	592	(496–833)	5,494	(5,151–6,269)	6,168	(5,700–7,260)
1992–93	B / A(H3N2)	88	(57–164)	638	(533–913)	5,673	(5,290–6,587)	6,399	(5,880–7,664)
1993–94	A (H3N2)	77	(63–142)	647	(592–881)	6,705	(6,491–7,535)	7,429	(7,146–8,558)
1994–95	A(H3N2) / B	71	(47–128)	599	(512–818)	5,997	(5,692–6,752)	6,667	(6,251–7,698)
1995–96	A(H1N1) / A(H3N2)	76	(38–144)	508	(377–761)	4,357	(3,877–5,236)	4,941	(4,292–6,141)
1996–97	A(H3N2) / B	97	(71–153)	857	(764–1,103)	8,719	(8,348–9,582)	9,673	(9,183–10,838)
1997–98	A(H3N2)	78	(66–141)	787	(725–1,038)	8,528	(8,271–9,405)	9,393	(9,062–10,584)
1998–99	A(H3N2) / B	85	(65–146)	854	(749–1,102)	8,716	(8,336–9,589)	9,655	(9,150–10,837)
1999–00	A(H3N2)	85	(67–159)	911	(826–1,187)	9,598	(9,242–10,540)	10,594	(10,135–11,886)
2000–01	B / A(H1N1)	67	(43–136)	482	(340–774)	3,362	(2,824–4,350)	3,911	(3,207–5,260)
2001–02	A(H3N2)	107	(80–176)	1,218	(1,086–1,535)	11,966	(11,471–13,001)	13,291	(12,637–14,712)
2002–03	B / A(H1N1)	82	(40–148)	677	(483–990)	5,097	(4,421–6,068)	5,856	(4,944–7,206)
2003–04	A(H3N2)	103	(87–184)	1,367	(1,250–1,741)	13,245	(12,777–14,422)	14,715	(14,114–16,347)
2004–05	A(H3N2) / B	115	(83–192)	1,459	(1,269–1,781)	12,872	(12,276–13,854)	14,446	(13,628–15,827)
2005–06	A(H3N2)	101	(64–193)	1,268	(1,080–1,646)	10,415	(9,782–11,449)	11,784	(10,926–13,288)
2006–07	A(H1N1) / B / A(H3N2)	67	(20–212)	657	(355–1,147)	3,906	(2,973–5,176)	4,630	(3,348–6,535)
Average		*97*	*(65–201)*	*666*	*(555–949)*	*5,546*	*(5,182–6,373)*	*6,309*	*(5,802–7,524)*
Minimum		*41*	*(18–123)*	*173*	*(112–402)*	*673*	*(510–1,327)*	*961*	*(684–2,047)*
Maximum		*234*	*(171–488)*	*1,459*	*(1,269–1,781)*	*13,245*	*(12,777–14,422)*	*14,715*	*(14,114–16,347)*

* Deaths were categorized using the *International Classification of Diseases* eighth revision (ICD-8), ninth revision (ICD-9), or 10th revision (ICD-10), as appropriate.
† Prominent influenza type and subtype were defined as at least 20% of all isolates that were typed or subtyped in that season.
§ Confidence interval.

Among persons aged <19 years, an estimated annual average of 124 (range: 57 in 1981–82 to 197 in 1977–78) influenza-associated deaths with underlying respiratory and circulatory causes occurred (Table 2). The average annual rate of influenza-associated deaths for this age group was 0.2 deaths per 100,000 persons (range: 0.1–0.3). Among adults aged 19–64 years, an estimated annual average of 2,385 (range: 504 in 1981–82 to 4,752 in 2003–04) influenza-associated deaths with underlying respiratory and circulatory causes occurred. The average annual rate of influenza-associated deaths for this age group was 1.5 deaths per 100,000 persons (range: 0.4–3.1). Among adults aged ≥65 years, an estimated annual average of 21,098 (range: 2,344 in 1986–87 to 43,727 in 2003–04) influenza-associated deaths with underlying respiratory and circulatory causes occurred. The average annual rate of influenza-associated deaths for this age group was 66.1 deaths per 100,000 (range: 8.0–121.1). Deaths among persons aged ≥65 years accounted for 89.4% of the overall estimated average annual influenza-associated deaths with underlying respiratory and circulatory causes.

For both causes, the average mortality rates for the 22 seasons during which influenza A(H3N2) was a prominent strain were 2.7 times higher than for the nine seasons that it was not. The average annual number of influenza-associated deaths during influenza A(H3N2) prominent seasons was 7,722 for pneumonia and influenza causes and 28,909 for respiratory and circulatory causes, compared with 2,856 deaths for pneumonia and influenza causes and 10,648 deaths for respiratory and circulatory causes in seasons in which it was not.

TABLE 2. Estimated number of annual influenza-associated deaths with underlying respiratory and circulatory causes,* by age group — United States, 1976–77 through 2006–07 influenza seasons

Season	Prominent influenza type/subtype†	<19 yrs		19–64 yrs		≥65 yrs		Overall	
		No.	(95% CI§)	No.	(95% CI)	No.	(95% CI)	No.	(95% CI)
1976–77	B / A(H3N2)	136	(51–590)	2,089	(1,500–4,520)	14,387	(13,026–18,767)	16,612	(14,577–23,877)
1977–78	A(H3N2) / A(H1N1)	197	(120–530)	3,901	(3,409–5,808)	23,889	(22,890–27,398)	27,987	(26,419–33,736)
1978–79	A(H1N1)	136	(71–418)	1,160	(758–2,981)	3,385	(2,565–6,701)	4,681	(3,394–10,100)
1979–80	B	108	(59–354)	814	(474–2,395)	9,436	(8,607–12,428)	10,358	(9,140–15,177)
1980–81	A(H3N2) / A(H1N1)	123	(70–343)	2,631	(2,243–4,087)	16,894	(16,112–19,690)	19,648	(18,425–24,120)
1981–82	B / A(H1N1)	57	(21–271)	504	(205–1,927)	4,808	(4,104–7,597)	5,369	(4,330–9,795)
1982–83	A(H3N2)	146	(83–363)	3,109	(2,582–4,521)	22,916	(21,662–25,741)	26,171	(24,327–30,625)
1983–84	A(H1N1) / B	168	(84–410)	1,547	(914–3,127)	12,010	(10,399–15,248)	13,725	(11,397–18,785)
1984–85	A(H3N2)	156	(113–364)	3,932	(3,636–5,287)	30,849	(30,074–33,718)	34,937	(33,823–39,369)
1985–86	B / A(H3N2)	120	(53–322)	1,493	(1,039–2,833)	15,785	(14,731–18,638)	17,398	(15,823–21,793)
1986–87	A(H1N1)	97	(54–332)	908	(612–2,376)	2,344	(1,575–5,541)	3,349	(2,241–8,249)
1987–88	A(H3N2)	106	(55–284)	2,188	(1,808–3,313)	18,986	(17,940–21,541)	21,280	(19,803–25,138)
1988–89	B / A(H1N1)	161	(80–378)	1,478	(855–2,772)	13,454	(11,814–16,440)	15,093	(12,749–19,590)
1989–90	A(H3N2)	120	(73–306)	2,559	(2,226–3,693)	23,903	(22,995–26,556)	26,582	(25,294–30,555)
1990–91	B	87	(42–274)	874	(527–2,039)	11,303	(10,307–14,099)	12,264	(10,876–16,412)
1991–92	A (H3N2) / A(H1N1)	111	(61–301)	2,413	(2,027–3,559)	20,935	(19,797–23,722)	23,459	(21,885–27,582)
1992–93	B / A(H3N2)	131	(71–340)	1,769	(1,345–3,018)	21,143	(19,931–24,273)	23,043	(21,347–27,631)
1993–94	A (H3N2)	102	(73–280)	2,518	(2,314–3,645)	24,317	(23,617–27,133)	26,937	(26,004–31,058)
1994–95	A(H3N2) / B	102	(53–263)	2,070	(1,730–3,083)	21,739	(20,779–24,283)	23,911	(22,562–27,629)
1995–96	A(H1N1) / A(H3N2)	117	(45–305)	1,747	(1,218–2,902)	15,754	(14,197–18,678)	17,618	(15,460–21,885)
1996–97	A(H3N2) / B	134	(93–312)	2,771	(2,409–3,896)	30,448	(29,273–33,300)	33,353	(31,775–37,508)
1997–98	A(H3N2)	105	(77–279)	2,938	(2,707–4,082)	29,198	(28,382–32,093)	32,241	(31,166–36,454)
1998–99	A(H3N2) / B	117	(72–290)	2,735	(2,361–3,882)	29,076	(27,871–31,951)	31,928	(30,304–36,123)
1999–00	A(H3N2)	114	(80–289)	3,418	(3,078–4,651)	32,988	(31,862–36,088)	36,520	(35,020–41,028)
2000–01	B / A(H1N1)	107	(46–298)	1,140	(603–2,490)	10,800	(9,059–14,148)	12,047	(9,708–16,936)
2001–02	A(H3N2)	151	(103–331)	3,986	(3,473–5,381)	40,833	(39,338–44,233)	44,970	(42,914–49,945)
2002–03	B / A(H1N1)	117	(42–295)	1,847	(1,095–3,206)	16,981	(14,874–20,213)	18,945	(16,011–23,714)
2003–04	A(H3N2)	135	(100–331)	4,752	(4,349–6,299)	43,727	(42,261–47,394)	48,614	(46,710–54,024)
2004–05	A(H3N2) / B	147	(86–321)	4,491	(3,804–5,862)	42,479	(40,579–45,630)	47,117	(44,469–51,813)
2005–06	A(H3N2)	130	(74–333)	4,130	(3,428–5,687)	35,841	(33,840–39,305)	40,101	(37,342–45,325)
2006–07	A(H1N1) / B / A(H3N2)	102	(13–368)	2,033	(1,015–4,110)	13,438	(10,343–17,839)	15,573	(11,371–22,317)
Average		*124*	*(68–338)*	*2,385*	*(1,927–3,788)*	*21,098*	*(19,832–24,206)*	*23,607*	*(21,828–28,332)*
Minimum		*57*	*(13–263)*	*504*	*(205–1,927)*	*2,344*	*(1,575–5,541)*	*3,349*	*(2,241–8,249)*
Maximum		*197*	*(120–590)*	*4,752*	*(4,349–6,299)*	*43,727*	*(42,261–47,394)*	*48,614*	*(46,710–54,024)*

* Includes cause of death codes for influenza and pneumonia. Deaths were categorized using the *International Classification of Diseases* eighth revision (ICD-8), ninth revision (ICD-9), or 10th revision (ICD-10), as appropriate.
† Prominent influenza type and subtype were defined as at least 20% of all isolates that were typed or subtyped in that season.
§ Confidence interval.

The distribution of mortality across age groups was similar for the two groups of coded deaths. For pneumonia and influenza causes, the proportions of average deaths overall were 1.5%, 10.6%, and 87.9% for persons aged <19 years, 19–64 years, and ≥65 years, respectively. For respiratory and circulatory causes, the proportions were 0.5%, 10.1%, and 89.4%.

Based on an average annual count of 74,363 for all pneumonia and influenza deaths, and an average annual estimate of 6,309 deaths associated with influenza in this category, 8.5% of all pneumonia and influenza deaths were influenza associated. Based on an annual average count of 1,132,319 for all respiratory and circulatory deaths and an average annual estimate of 23,607 deaths associated with influenza in this category, 2.1% of all respiratory and circulatory deaths were influenza associated.

Reported by

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Editorial Note

This report updates estimates of the number of influenza-associated deaths from the 1976–77 through 2006–07 influenza seasons and demonstrates the substantial variability in mortality estimates by year, influenza virus type/subtype, and age group. The estimated rates of influenza-associated hospitalizations

What is already known on this topic?

Influenza infections result in substantial medical costs, hospitalizations, lost productivity, and thousands of deaths every year in the United States with the majority of deaths from seasonal influenza occurring among adults aged ≥65 years.

What is added by this report?

During 1976–2007, annual estimates of influenza-associated deaths from respiratory and circulatory causes ranged from 3,349 (in 1986–87) to 48,614 (in 2003–04), and the annual rate of influenza-associated death for all ages ranged from 1.4 to 16.7 deaths per 100,000 persons; during seasons when influenza A(H3N2) circulating strains were prominent, 2.7 times more deaths occurred compared with seasons when A(H3N2) was not prominent.

What are the implications for public health practice?

A single estimate should not be used to summarize influenza-associated deaths; a range of estimates should be described in the context of circulating virus strains and underlying causes of death among age groups. Annual influenza vaccination (now recommended for all persons aged ≥6 months) is the best way to avoid influenza complications, and prompt treatment with antiviral medications can reduce the risk for severe illness and death among persons at increased risk for influenza or who are hospitalized with influenza.

and deaths vary substantially from one influenza season to the next, depending, in part, on the characteristics of the circulating influenza virus strains (*10*). Because of this variability, a single estimate cannot be used to summarize influenza-associated deaths. This report provides estimates for two categories of underlying cause of death codes, pneumonia and influenza causes and respiratory and circulatory causes; if only one category is used to summarize the mortality effects of influenza, the respiratory and circulatory data likely provide the most accurate estimates. During the past three decades, the estimated number of annual influenza-associated deaths from respiratory and circulatory causes ranged from a low of 3,349 to a high of 48,614 deaths.

A previous study (*2*) presented an average annual estimate of 25,420 influenza-associated respiratory and circulatory deaths during a 23-season period; this study estimated an average of 23,607 annual influenza-associated deaths using the same model but over a 31-year period. The findings in this report are similar to those of previous CDC studies (*2,3*) and other cross-decade studies that used similar models (*4,7*).

When describing the severity of seasonal influenza epidemics, examining seasons with the same circulating influenza virus type is useful. For example, during seasons with prominent circulation of influenza A(H3N2) viruses, 2.7 times more deaths occurred than during seasons when A(H3N2) viruses were not prominent. An annual estimate of 36,155 influenza-associated respiratory and circulatory deaths often is quoted from an earlier CDC study (*2*); however, that average was calculated for the period 1990–1999, when more severe influenza A(H3N2) viruses were prominent for eight of the nine seasons.

Variations in influenza-associated mortality by age group also should be noted. As reported in this and other studies (*2,3*), approximately 90% of influenza-associated deaths occur among adults aged ≥65 years. An estimated annual average of 124 persons aged <19 years and 2,385 aged 19–64 years die from influenza-associated respiratory or circulatory causes. Future research that considers years-of-life-lost is needed to better communicate the mortality burden of influenza in these younger populations. Future research also is needed to estimate and communicate the risk for influenza-associated mortality among different demographic and health risk groups.

The findings in this report are subject to at least four limitations. First, the models do not account for cocirculating pathogens such as respiratory syncytial virus (RSV). Future research should replicate and extend models that distinguish between deaths associated with influenza versus RSV (*2*). Second, estimates over time might not be comparable because the influenza virus surveillance data used to model mortality rely on national influenza testing practices, which have changed over the past decade (*8*). Future research should consider how trends in testing practices can be included in these models and cross-season estimates of influenza-associated mortality. Third, increases in the U.S. population aged ≥65 years during the study period could have contributed to a general increase in influenza-associated mortality. Age-adjusting future estimates or estimating deaths in smaller age categories among older adults could address this issue. Finally, because the estimates made in this report rely on national death certificate data and these data currently are available only through 2007, preliminary estimates of 2009 influenza A(H1N1)-associated deaths are not directly comparable with these results.*

* CDC estimates of 2009 H1N1 deaths are available at http://www.cdc.gov/h1n1flu/estimates_2009_h1n1.htm.

Debate will continue regarding the most appropriate statistical models and cause of death categories to use in estimating the number of influenza-associated deaths (*1,7*). This study's provision of estimates for more narrow (pneumonia and influenza causes) and more broad (respiratory and circulatory causes) categories continues the strategy of comparing and contrasting results from different models as advocated by CDC (*1–3*) and others (*7*).

Influenza infections are associated with substantial medical costs, hospitalizations, lost productivity, and thousands of deaths every year in the United States. Annual influenza vaccination is the best way to reduce the risk for complications from influenza infections and is now recommended for all persons aged ≥6 months in the United States. Prompt treatment with influenza antiviral medications can reduce the risk for severe illness and death among persons at increased risk for influenza or who are hospitalized with suspected or confirmed influenza.

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Tobacco Use Among Middle and High School Students — United States, 2000–2009

Tobacco use continues to be the single leading preventable cause of death and disease in the United States (*1*). More than 80% of established adult smokers begin smoking before age 18 years (*2*). To monitor trends in tobacco use among middle and high school students, CDC analyzed 2000–2009 data from the National Youth Tobacco Survey (NYTS), a school-based survey that collects information on tobacco use and related behaviors and attitudes from middle school (grades 6–8) and high school (grades 9–12) students. This analysis indicated that in 2009, 8.2% of middle school students and 23.9% of high school students reported current use of any tobacco product; 5.2% of middle school students and 17.2% of high school students reported current use of cigarettes. Overall prevalence did not decrease from 2006 to 2009 for use of any tobacco product among either group. During 2000–2009, the prevalence of current tobacco use among middle school students declined (15.1% to 8.2%), as did current cigarette use (11.0% to 5.2%) and cigarette smoking experimentation (29.8% to 15.0%). Similar trends were observed for high school students (current tobacco use: 34.5% to 23.9%; current cigarette use: 28.0% to 17.2%; cigarette smoking experimentation: 39.4% to 30.1%). Overall, no change in susceptibility to initiate cigarette smoking was observed for either group. To further decrease tobacco use and susceptibility to use among youths, restrictions on advertising, promotion, and availability of tobacco products to youths should be combined with full implementation of evidence-based, communitywide, comprehensive tobacco control policies (*3–5*).

NYTS includes measures on prevalence of youth tobacco use, smoking cessation, tobacco-related knowledge and attitudes, access to tobacco, media and advertising, and secondhand smoke exposure and has been conducted approximately every 2 years since 2000 (*6*). The 2009 NYTS used a three-stage cluster sampling procedure to generate a cross-sectional, nationally representative sample of students in grades 6–12 from all 50 states and the District of Columbia. Of 222 randomly selected schools, 205 (92.3%) participated; of 24,666 students randomly selected at the participating schools, 22,679 (91.9%) participated, yielding an overall response rate of 84.8% (school response rate × student participation rate). During 2000–2009, overall response rates ranged from 74.2% in 2002 to 84.8% in 2009. In all years, middle and high school students were asked to complete a self-administered, pencil and paper questionnaire in a classroom setting.

Respondents were asked about their use of cigarettes, cigars, smokeless tobacco, pipes, bidis (small brown cigarettes wrapped in a leaf), and kreteks (clove cigarettes) within the last 30 days. Each type of tobacco was asked about individually. For each substance, current use was defined as use on at least 1 of the past 30 days. Cigarette smoking experimentation was defined as having ever smoked any cigarettes, even one or two puffs, but fewer than 100 cigarettes (*7*). Cigarette smoking experimentation and current cigarette use are not mutually exclusive. A person who is an experimenter might or might not be classified as a current smoker. Those who were susceptible to initiate cigarette smoking were defined as never smokers (never tried smoking cigarettes, even one or two puffs) who reported being open to trying cigarette smoking* (*7*).

Data were adjusted for nonresponse and weighted to provide national prevalence estimates while accounting for the complex survey design; 95% confidence intervals were calculated. Differences in point estimates between the 2006 NYTS† and the 2009 survey were assessed using a two-tailed t-test at a $p<0.05$ significance level. Logistic regression was used to analyze temporal changes during 2000–2009 for middle and high school students. For this 10-year trend analysis, results were adjusted for grade, race/ethnicity, and sex to control for any changes in population composition during this period. Results were assessed for the presence of linear trends; $p<0.05$ was used to determine statistical significance. A test for linear trend will be significant if an overall decrease or increase occurs during the study period. If a linear

* Susceptibility to initiate cigarette smoking among never smokers was defined as providing any response other than "no" to the question, "Do you think that you will try a cigarette soon?" and any response other than "definitely not" to the questions, "Do you think you will smoke a cigarette anytime during the next year?" and "If one of your best friends offered you a cigarette, would you smoke it?"

† Available at http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/pdfs/indicators.pdf, http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/pdfs/table_1_06.pdf, and http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/pdfs/table_2_06.pdf.

TABLE. Percentage of middle and high school students who currently use* tobacco, by product, school level, sex, and race/ethnicity — National Youth Tobacco Survey, United States, 2006 and 2009

	Any tobacco†		Cigarettes		Cigars	
	2006	2009	2006	2009	2006	2009
Characteristic	% (95% CI§)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Middle school						
Sex						
Female	8.2 (6.7–9.7)	6.7 (5.8–7.6)	6.4 (5.0–7.8)	4.7¶ (3.9–5.5)	2.7 (2.1–3.3)	3.2 (2.5–3.9)
Male	10.9 (9.2–12.6)	9.6 (8.1–11.1)	6.3 (5.1–7.5)	5.6 (4.3–6.9)	5.3 (4.4–6.2)	4.6 (3.8–5.4)
Race/Ethnicity						
White, non-Hispanic	9.2 (7.3–11.1)	7.1 (5.7–8.5)	6.5 (4.9–8.1)	4.3¶ (3.1–5.2)	3.1 (2.4–3.8)	3.0 (2.3–3.7)
Black, non-Hispanic	9.8 (7.6–12.0)	8.3 (6.9–9.7)	5.5 (3.9–7.1)	5.2 (3.7–6.7)	5.8 (4.1–7.5)	4.7 (3.4–6.0)
Hispanic	10.9 (9.3–12.5)	11.1 (9.3–12.9)	6.8 (5.6–8.0)	6.7 (5.2–8.2)	6.1 (4.9–7.3)	6.2 (5.1–7.3)
Asian, non-Hispanic	5.0 (3.3–6.7)	3.6 (1.6–5.6)	2.6 (1.3–3.9)	2.5 (1.0–4.0)	1.6 (0.5–2.7)	1.4 (0.1–2.7)
Total	**9.5 (8.0–11.0)**	**8.2 (7.2–9.2)**	**6.3 (5.1–7.5)**	**5.2 (4.3–6.1)**	**4.0 (3.4–4.6)**	**3.9 (3.4–4.4)**
High school						
Sex						
Female	21.3 (19.2–23.4)	18.2¶ (16.0–19.4)	18.4 (16.4–20.4)	14.8¶ (12.9–16.7)	7.2 (6.3–8.1)	6.7 (5.4–8.0)
Male	30.2 (28.0–32.4)	29.4 (25.2–33.6)	21.2 (19.4–23.0)	19.6 (16.7–22.5)	16.6 (15.3–17.9)	15.0 (12.1–17.9)
Race/Ethnicity						
White, non-Hispanic	28.4 (26.0–30.8)	26.7 (23.3–30.1)	22.3 (20.2–24.4)	19.4 (17.0–21.8)	12.5 (11.4–13.6)	11.9 (10.7–14.1)
Black, non-Hispanic	15.7 (13.5–17.9)	14.0 (10.2–17.8)	9.9 (8.1–11.7)	7.4 (4.6–10.2)	8.9 (7.2–10.6)	7.1 (3.6–10.6)
Hispanic	24.7 (22.2–27.2)	24.8 (21.7–27.9)	18.8 (16.8–20.8)	19.2 (16.5–21.9)	12.4 (10.8–14.0)	11.8 (10.6–14.0)
Asian, non-Hispanic	9.2 (6.6–11.8)	13.1 (6.7–19.5)	7.3 (5.0–9.6)	9.7 (5.2–14.2)	4.8 (2.7–6.9)	4.8 (2.0–7.6)
Total	**25.6 (23.7–27.5)**	**23.9 (21.1–26.7)**	**19.8 (18.1–21.4)**	**17.2 (15.0–19.4)**	**11.8 (11.0–12.6)**	**10.9 (8.9–12.9)**

trend was detected, data also were assessed for the presence of a quadratic trend; a significant quadratic trend indicates that the rate of change accelerates or decelerates across the study period.

In 2009, 8.2% of middle school students and 23.9% of high school students reported current use of any tobacco product, and 5.2% of middle school students and 17.2% of high school students reported current use of cigarettes (Table). Among middle school students, the most commonly used forms of tobacco other than cigarettes were cigars (3.9%), smokeless tobacco (2.6%), pipes (2.3%), bidis (1.6%), and kreteks (1.2%). Among high school students, the most commonly used other forms of tobacco were cigars (10.9%), smokeless tobacco (6.7%), pipes (3.9%), kreteks (2.4%), and bidis (2.4%). Susceptibility to initiate cigarette smoking was 21.2% in middle school students and 24.0% in high school students.

Prevalence did not change from 2006 to 2009 for any of these measures for either middle school students of high school students overall. Decreases were noted only among middle school students for current cigarette use in females (6.4% to 4.7%) and in non-Hispanic whites (6.5% to 4.3%) (Table). Among high school students, declines were observed only in females for current tobacco use (21.3% to 18.2%) and current cigarette use (18.4% to 14.8%); and in non-Hispanic whites for current bidi use (2.6% to 1.7%).

From 2000 to 2009, among middle school students, declines were observed for current tobacco use (15.1% to 8.2%), current cigarette use (11.0% to 5.2%), and cigarette smoking experimentation (29.8% to 15.0%). For these three measures, after

TABLE. ***(Continued)*** **Percentage of middle and high school students who currently use* tobacco, by product, school level, sex, and race/ethnicity — National Youth Tobacco Survey, United States, 2006 and 2009**

Characteristic	Smokeless tobacco 2006 % (95% CI§)	Smokeless tobacco 2009 % (95% CI)	Pipes 2006 % (95% CI)	Pipes 2009 % (95% CI)	Bidis 2006 % (95% CI)	Bidis 2009 % (95% CI)	Kreteks 2006 % (95% CI)	Kreteks 2009 % (95% CI)
Middle school								
Sex								
Female	1.2 (0.8–1.6)	1.4 (0.9–1.9)	1.3 (0.9–1.7)	1.7 (1.1–2.3)	1.5 (1.2–1.8)	1.2 (0.7–1.7)	1.0 (0.6–1.4)	0.7 (0.4–1.0)
Male	4.1 (3.1–5.1)	3.7 (2.6–4.8)	3.0 (2.4–3.6)	2.7 (2.0–3.4)	1.9 (1.4–2.4)	2.0 (1.4–2.6)	1.7 (1.3–2.1)	1.6 (1.1–2.1)
Race/Ethnicity								
White, non-Hispanic	2.8 (2.0–3.6)	2.5 (1.8–3.2)	1.9 (1.3–2.5)	1.5 (1.1–1.9)	1.2 (0.8–1.6)	1.1 (0.7–1.5)	1.1 (0.8–1.4)	0.8 (0.5–1.1)
Black, non-Hispanic	1.7 (1.0–2.4)	1.7 (1.0–2.4)	1.5 (0.9–2.1)	1.9 (1.1–2.7)	2.3 (1.4–3.2)	1.9 (1.0–2.8)	1.7 (1.0–2.4)	1.4 (0.7–2.1)
Hispanic	3.4 (2.6–4.2)	2.5 (1.8–3.2)	4.3 (3.5–5.1)	4.5 (3.1–5.9)	3.3 (2.6–4.0)	2.6 (1.7–3.5)	2.6 (1.9–3.3)	1.8 (1.1–2.5)
Asian, non-Hispanic	2.0 (0.7–3.3)	1.7 (0.2–3.2)	2.2 (0.9–3.5)	1.4 (0.2–2.6)	1.9 (0.3–3.2)	1.6 (0.3–2.9)	1.2 (0.4–2.0)	0.9 (-0.1–1.9)
Total	**2.6 (2.0–3.2)**	**2.6 (2.0–3.2)**	**2.2 (1.8–2.6)**	**2.3 (1.8–2.8)**	**1.7 (1.4–2.0)**	**1.6 (1.2–2.0)**	**1.4 (1.2–1.6)**	**1.2 (0.9–1.5)**
High school								
Sex								
Female	1.5 (1.1–1.9)	1.8 (1.2–2.4)	1.8 (1.3–2.3)	2.5 (1.8–3.2)	2.4 (2.0–2.8)	2.1 (1.6–2.6)	2.0 (1.5–2.5)	1.9 (1.1–2.7)
Male	11.0 (9.1–12.9)	11.6 (7.8–15.4)	5.6 (4.8–6.4)	5.3 (4.4–6.2)	3.3 (2.8–3.8)	2.7 (2.0–3.4)	3.6 (2.9–4.3)	2.9 (2.3–3.5)
Race/Ethnicity								
White, non-Hispanic	7.5 (6.1–8.9)	8.5 (6.0–11.0)	3.6 (3.0–4.2)	3.3 (2.5–4.1)	2.6 (2.2–3.0)	1.7¶ (1.2–2.2)	3.0 (2.3–3.7)	2.4 (1.8–3.0)
Black, non-Hispanic	1.8 (1.2–2.4)	1.7 (0.2–3.2)	2.2 (1.5–2.9)	3.6 (2.4–4.8)	2.7 (2.0–3.4)	3.7 (1.7–5.7)	1.8 (1.2–2.4)	1.8 (0.9–2.7)
Hispanic	4.6 (3.3–5.9)	4.8 (3.2–6.4)	5.3 (4.2–6.4)	6.8 (4.1–9.5)	4.6 (3.8–5.4)	3.7 (2.6–4.8)	3.2 (2.4–4.0)	2.9 (1.9–3.9)
Asian, non-Hispanic	1.5 (0.3–2.7)	4.9 (0.0–9.8)	1.5 (0.5–2.5)	3.4 (0.8–6.0)	1.2 (0.1–2.3)	3.1 (-1.1–7.3)	1.4 (0.4–2.4)	2.0 (-0.2–4.2)
Total	**6.1 (5.0–7.2)**	**6.7 (4.6–8.8)**	**3.7 (3.2–4.2)**	**3.9 (3.3–4.5)**	**2.9 (2.5–3.3)**	**2.4 (1.9–2.9)**	**2.8 (2.3–3.3)**	**2.4 (2.0–2.8)**

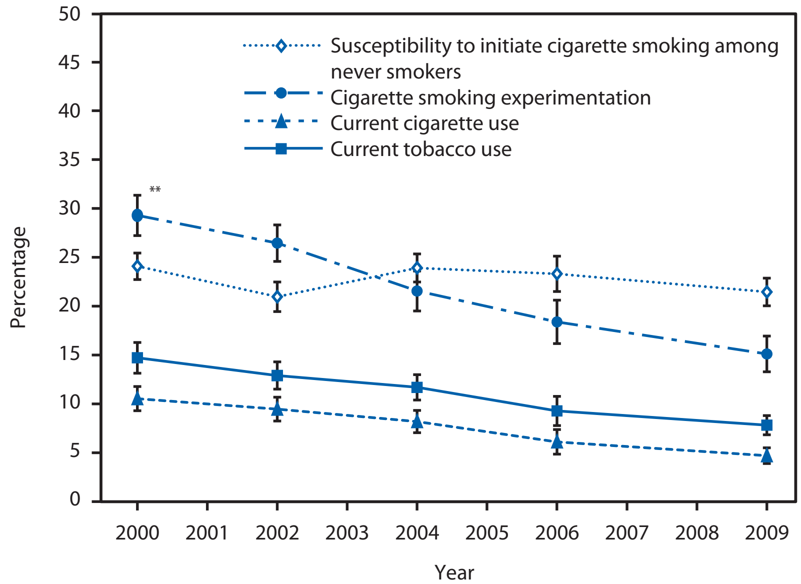
* Current use of cigarettes was determined by asking, "During the past 30 days, on how many days did you smoke cigarettes?"; Current use of cigars was determined by asking, "During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?; Current use of smokeless tobacco was determined by asking, "During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip?"; Current use of pipe was determined by asking, "During the past 30 days, on how many days did you smoke tobacco in a pipe?"; Current use of bidis was determined by asking, "During the past 30 days, on how many days did you smoke bidis?"; Current use of kreteks was determined by asking, "During the past 30 days, on how many days did you smoke kreteks?" Current use was use on ≥1 day.
† Any tobacco is use of cigarettes or cigars or smokeless tobacco or tobacco pipes or bidis or kreteks on at least 1 day in the past 30 days.
§ Confidence interval.
¶ Result significant, p-value for difference between 2006 and 2009 prevalences <0.05.

adjusting for grade, race/ethnicity, and sex, the overall declines remained. The quadratic analyses did not show changes in the rates of decline within the study period (Figure 1). No overall decline in susceptibility to smoking among middle school students was observed for the study period. Similarly, from 2000 to 2009, among high school students, declines were observed for current tobacco use (34.5% to 23.9%), current cigarette use (28.0% to 17.2%), and experimentation (39.4% to 30.1%). After adjusting for grade, race/ethnicity and sex, the overall declines remained. The quadratic analyses did not show changes in the rates of decline within the study period (Figure 2). During this same period, no overall decline in prevalence of susceptibility to smoking among high school students was observed.

Reported by

RA Arrazola, MPH, SR Dube, PhD, RB Kaufmann, PhD, RS Caraballo, PhD, T Pechacek, PhD, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

FIGURE 1. Susceptibility to initiate cigarette smoking among never smokers,* cigarette smoking experimentation,† current cigarette use,§ and current tobacco use¶ among adolescents in middle school — National Youth Tobacco Survey, United States, 2000–2009



* Susceptibility to initiate cigarette smoking among never smokers was defined as providing any response other than "no" to the question, "Do you think that you will try a cigarette soon?" and any response other than "definitely not" to the questions, "Do you think you will smoke a cigarette anytime during the next year?" and "If one of your best friends offered you a cigarette, would you smoke it?"

† Cigarette smoking experimentation and current cigarette use are not mutually exclusive, meaning that a person who is an experimenter might or might not be classified as a current smokers or a current smoker might or might not be classified as an experimenter.

§ Current cigarette use was defined as having used cigarettes on at least 1 day during the past 30 days.

¶ Current tobacco use was defined as having used cigarettes, smokeless tobacco, cigars, pipes, bidis, or kreteks on at least 1 day during the past 30 days.

** 95% confidence interval.

Editorial Note

The findings in this report indicate that, from 2000 to 2009, prevalences of current tobacco and cigarette use and experimentation with smoking cigarettes declined for middle school and high school students, but no overall declines were noted for the 2006–2009 period. Declines were seen only for a few measures within a few population subgroups. The general lack of significant change during the shorter period indicates that the current rate of decline in tobacco use is relatively slow. These findings are consistent with the findings from the national Youth Risk Behavior Survey (YRBS) for recent years (*8*). Although NYTS was not administered before 2000, YRBS results indicate that the rate of decline in youth smoking was slower during 2003–2009 than during 1997–2003, and that these declines follow years of increase in prevalence of youth cigarette use in the 1990s (*8*). Cigarette use among high school students remains above the *Healthy People 2010* target of ≤16% prevalence, and overall tobacco use remains above the target of no more than 21% prevalence.§

The overall point prevalence estimates for current high school smoking differed slightly between the NYTS (17.2%) and the national YRBS (19.5%) (*8*) in 2009, the only year in which both surveys were conducted. The observed differences might be the result of variation between the samples of schools selected for the survey, differences in response rates, or student reactions to the single topic context of NYTS versus the multiple-topic context of YRBS. The two surveys are complementary. The national YRBS measures other youth risk behaviors that are public health priorities and that are used to track *Healthy People* 2010 objectives, whereas the NYTS focuses specifically on tobacco related indicators and includes additional measures not included on the national YRBS: use of pipes, bidis, and kreteks, access to products, exposure to advertisements, and susceptibility to initiation of cigarette smoking.

The lack of change in susceptibility to try cigarette smoking might help explain the recent slowing in decline in current smoking (*8*). Susceptibility indicates the proportion of youths who are willing to experiment with cigarette use (*9*) and is an important indicator of the effectiveness of tobacco control policies. The findings from this report suggest further efforts are needed to counter tobacco industry influences on youths. New Food and Drug Administration (FDA) regulations which prohibit the distribution of free samples of cigarettes and restrict the distribution of free samples of smokeless tobacco to youths, and prohibit tobacco brand name sponsorship of any athletic, musical or other social or cultural events, are designed to help prevent tobacco use among youths.¶ Broader tobacco-control policies, such as tobacco-free policies, tobacco tax increases, and advertisement restrictions are needed to further reduce youth and adult tobacco use (*4*).

The findings in this report are subject to at least three limitations. First, because NYTS began in 2000, trend analyses cannot capture the increases in youth cigarette use that occurred in the early 1990s nor the faster rate of decline that was observed by YRBS for the late 1990s compared with more recent years. Second, the data were collected from youths who attended middle or high schools and might not be representative of all youths in the United States; youths who have dropped out of

§ Objective 27-2. Reduce tobacco use by adolescents. Data available at http://wonder.cdc.gov/data2010/obj.htm.

¶ Additional information available at http://www.fda.gov/tobaccoproducts/protectingkidsfromtobacco/default.htm.

What is already known on this topic?

Smoking continues to be the leading preventable cause of death and disability in the United States; and among adult established smokers in the United States, more than 80% began smoking before age 18 years.

What is added by this report?

From 2000 to 2009, prevalences of current tobacco and cigarette use and experimentation with smoking cigarettes have declined for middle school and high schools students but no overall significant declines were noted from 2006–2009. The proportions of middle school and high school students who have never tried cigarette smoking but are open to trying cigarette smoking have not changed significantly in the past 9 years.

What are the implications for public health practice?

To further decrease tobacco use and susceptibility to use among youths, restrictions in advertising, promotions, and the commercial availability of tobacco products should be combined with full implementation of evidence-based, communitywide, comprehensive tobacco control policies.

school are more likely to smoke than are youths who are in school (*10*). Finally, response and recall bias might have been introduced because the data are self-reported; however, similar questions on YRBS showed good test-retest reliability (*8*).

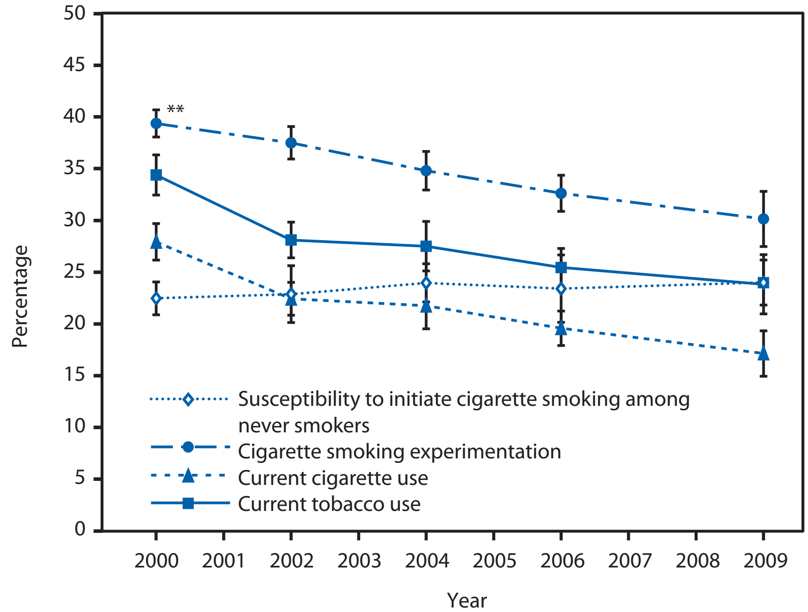
Although comprehensive tobacco control programs are effective in decreasing tobacco use in the United States, they remain underfunded.** Based on estimates obtained from the Campaign for Tobacco Free Kids for fiscal year 2010, only one state (North Dakota) achieved the funding level recommended by CDC in 2007.[††] The more states spend on sustained comprehensive tobacco control programs, the greater the reductions in youth and adult smoking rates (*3,4*). Comprehensive tobacco control programs should be fully funded and implemented, as recommended by CDC (*3,4*). In addition, enforcement of the new FDA regulations and the Family Smoking Prevention and Tobacco Control Act[§§] provisions, which require larger, graphic health warnings on cigarette packages and in advertisements, restrict access to tobacco by youths, and restrict certain other forms of advertising and promotion attractive to youths, could change social norms concerning cigarette and other tobacco use (*4*). Changes in social norms might help reduce youth susceptibility to try cigarettes and other tobacco products and accelerate the decline in tobacco use among youths.

** Additional information available at http://tobaccofreekids.org/reports/settlements/2009/fullreport.pdf.

†† Additional information available at http://www.tobaccofreekids.org/research/factsheets/pdf/0219.pdf.

§§ Available at http://www.gpo.gov/fdsys/pkg/PLAW-111publ31/html/PLAW-111publ31.htm.

FIGURE 2. Susceptibility to initiate cigarette smoking among never smokers,* cigarette smoking experimentation,† current cigarette use,§ and current tobacco use¶ among adolescents in high school — National Youth Tobacco Survey, United States, 2000–2009



* Susceptibility to initiate cigarette smoking among never smokers was defined as providing any response other than "no" to the question, "Do you think that you will try a cigarette soon?" and any response other than "definitely not" to the questions, "Do you think you will smoke a cigarette anytime during the next year?" and "If one of your best friends offered you a cigarette, would you smoke it?"

† Cigarette smoking experimentation and current cigarette use are not mutually exclusive, meaning that a person who is an experimenter might or might not be classified as a current smokers or a current smoker might or might not be classified as an experimenter.

§ Current cigarette use was defined as having used cigarettes on at least 1 day during the past 30 days.

¶ Current tobacco use was defined as having used cigarettes, smokeless tobacco, cigars, pipes, bidis, or kreteks on at least 1 day during the past 30 days.

** 95% confidence interval.

Acknowledgment

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Changes in Measurement of *Haemophilus influenzae* serotype b (Hib) Vaccination Coverage — National Immunization Survey, United States, 2009

The National Immunization Survey (NIS) has introduced a new method for measuring *Haemophilus influenzae* serotype b (Hib) vaccination coverage. Since its inception in 1994, NIS has considered a child aged 19–35 months to be fully vaccinated with Hib vaccine if the child had received 3 or more doses of any Hib-containing vaccine (3+Hib), regardless of vaccine product type received. However, for some Hib vaccine product types, 4 doses are needed to be fully vaccinated. Because NIS data have not distinguished between Hib vaccine product types, a child who received 3 doses of a vaccine product that requires 4 doses was misclassified as fully vaccinated. Since January 2009, NIS has requested that vaccination providers report data on Hib vaccine product types. Using this new information, two new measures were created: 1) primary series completed and 2) fully vaccinated (primary series completed plus booster dose). To determine the effects of the new method, CDC used preliminary data from the first half of 2009 NIS to compare the new measures with the previous 3+Hib measure. The findings, which were influenced by a nationwide shortage of certain Hib vaccine types, indicated that 92.9% of children aged 19–35 months in the United States had received the primary Hib series according to interim recommendations of the Advisory Committee on Immunization Practices (ACIP), and 56.9% were fully vaccinated. Using the previous method, 82.9% were fully vaccinated (3+Hib). When interpreting Hib vaccination coverage estimates and analyzing trends with NIS Hib vaccination coverage data in the future, analysts and state immunization programs should be aware of this change in Hib measurement.

Before 2009, two manufacturers produced Hib vaccines licensed for children in the United States: Merck & Co., Inc. (West Point, Pennsylvania) and Sanofi Pasteur (Swiftwater, Pennsylvania). Merck's Hib vaccines require a 2-dose primary series with doses at ages 2 months and 4 months and a booster at age 12–15 months. Sanofi Pasteur's Hib vaccines require a 3-dose primary series at ages 2, 4, and 6 months and a booster at age 12–15 months. Before January 2009, NIS did not request Hib vaccine product type and considered fully vaccinated with Hib vaccine all children who had received 3 or more doses of any Hib-containing vaccine.

In December 2007, Merck recalled several lots of two types of Hib conjugate vaccine and temporarily suspended production of both products, leading to a shortage of Hib conjugate vaccines during December 2007–September 2009. The recalled vaccines were PedvaxHIB, a monovalent Hib vaccine, and Comvax, a Hib-hepatitis B (HepB) combination vaccine. Because of the limited Hib vaccine supply, ACIP recommended temporary suspension of the booster dose for most children in the United States* (*1*). This revised recommendation underscored an NIS measurement problem; a child who received the 2-dose primary series with a Merck product in accordance with the revised recommendation would not be counted as fully vaccinated according to the 3+Hib measure, whereas a child who received a 3-dose primary series with a Sanofi Pasteur product in accordance with the revised recommendation would be counted as fully vaccinated according to the 3+Hib measure.

NIS is an ongoing, national survey used to estimate vaccination coverage in the United States among children aged 19–35 months in the 50 states and selected local areas and, beginning in 2009, in the U.S. Virgin Islands. NIS is a random-digit-dialed telephone survey of households with children aged 19–35 months at the time of interview. The household telephone survey is followed by the Immunization History Questionnaire,† which is mailed to a child's vaccination providers, if permission is granted by the parent or guardian. Beginning in January 2009, the names of the Hib vaccine product types were added to the Immunization History Questionnaire§ (*2*).

* Groups recommended to continue to receive the booster dose included children at high risk (i.e., children with asplenia, sickle cell disease, human immunodeficiency virus infection and certain other immunodeficiency syndromes, and malignant neoplasms), and American Indian/Alaska Native (AI/AN) children. In addition, providers who served predominantly AI/AN children living in AI/AN communities were recommended to continue using the Merck PedvaxHIB product, which was only available from the Vaccines for Children pediatric vaccine stockpile during the shortage.

† Available at http://www.cdc.gov/nis/pdfs/nis_ihq.pdf.

§ In October 2009, the Hib vaccine Hiberix (GlaxoSmithKline Biologicals, Rixensart, Belgium) was added to the Immunization History Questionnaire after licensure for use as a booster dose.

With the addition of vaccine product type information, two new measures of Hib vaccination coverage were created: 1) vaccinated with the primary series and 2) vaccinated with the primary series and a booster dose (fully vaccinated). According to ACIP vaccination recommendations, children who receive a mixture of vaccine product types require 3 doses to complete the primary series (*3*). The two new measures are presented in this report and compared with the 3+Hib measure in reports published previously (*4*).

For this report, a subset of 2008–09 between-year NIS data was analyzed, consisting of children with interviews in 2009. Interviews for the entire between-year NIS were conducted from July 2, 2008 to August 11, 2009, based on the NIS samples drawn for the third quarter of 2008 through the second quarter of 2009. The household Council of American Research Organizations (CASRO) response rate for the between-year data was 63.3%; provider vaccination records were obtained for 70.4% (n = 18,032 children). Of these, 8,122 children with interviews conducted in the 50 states and District of Columbia during January–June 2009 and with adequate provider data reported by the end of October 2009 were selected for this analysis. This subset consisted of children born during January 9, 2006 through December 19, 2007; 52% of the children were younger than 12 months at the beginning of the Hib shortage and thus were more likely to have had their booster doses deferred. Data were weighted to adjust for households with multiple telephone lines, household nonresponse, and exclusion of households without landline telephones (*4*).

For some children and certain Hib vaccine doses, product type was not reported. For the estimate of the percentage completing the primary series, 0.9% of children were missing vaccine type information for their first or second Hib dose. For the estimate of the percentage completing the primary series and booster dose, 4.9% of children had missing vaccine type information. The two measures were estimated assuming the Hib vaccines with missing type information were a type requiring 3 doses for the primary series, thereby producing a conservative estimate of coverage.

Using the measures, among children aged 19–35 months overall in the United States, 92.9% received the primary Hib series according to interim ACIP recommendations, and 56.9% were fully vaccinated. Using the previous method, 82.9% were fully vaccinated (3+Hib) (Table). Among states, the percentage completing the primary Hib series ranged from 82.3% in Montana to 98.0% in Alabama, and the percentage fully vaccinated with Hib ranged from 32.6% in West Virginia to 82.7% in Alaska. Using the previous measure, the percentage fully vaccinated (3+Hib) ranged from 50.9% in Rhode Island to 97.7% in New Hampshire.

The Hib vaccine shortage of December 2007–September 2009 made evident the importance of accounting for product type in measuring Hib vaccination coverage. These data show that the previous method of measuring Hib vaccination coverage (3+Hib) underestimated coverage with the primary series but overestimated coverage with the primary series and booster. Use of vaccine product type information indicated a wide range of coverage with the primary series and booster among the states.

Ascertainment of product type for Hib in NIS was successful. Less than 5% of children had missing vaccine product types for determining Hib vaccination coverage for the primary series and booster. NIS also now requests that providers report vaccine product type for rotavirus vaccine (2 or 3 dose schedule, depending on type); rotavirus coverage will be routinely reported by NIS beginning in fall 2010.

In the future, routine reporting of national and state vaccination coverage levels will include the more valid measures of Hib status, based on product types. CDC also plans to use the full year of 2009 NIS data to evaluate 1) compliance with interim recommendations (deferring the booster dose) during the December 2007–September 2009 Hib vaccine shortage, 2) reasons for the wide range in coverage levels across states during the shortage period, and 3) the number of children receiving catch-up vaccinations with the deferred booster dose once the shortage resolved (*5*).

Reported by

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TABLE. Comparison of vaccination coverage with *Haemophilus influenzae* serotype b (Hib) among children aged 19–35 months, using the previous measure and new measures, by state — National Immunization Survey (NIS), United States, 2009*

		Previous measure		New measures			
		Fully vaccinated: 3+Hib†		Primary series§		Fully vaccinated: primary series + booster dose¶	
State	No. surveyed	%	(95% CI**)	%	(95% CI)	%	(95% CI)
Overall	**8,122**	**82.9**	**(81.5–84.2)**	**92.9**	**(91.9–93.8)**	**56.9**	**(55.0–58.8)**
Alabama	122	91.8	(84.6–95.8)	98.0	(94.6–99.3)	69.3	(59.1–77.9)
Alaska	89	84.5	(75.2–90.7)	91.3	(83.6–95.6)	82.7	(73.2–89.3)
Arizona	159	80.9	(72.2–87.4)	90.3	(83.0–94.7)	50.9	(41.6–60.0)
Arkansas	132	83.3	(74.1–89.7)	87.3	(78.0–93.0)	47.1	(36.9–57.6)††
California	180	87.0	(79.5–92.0)	93.0	(86.0–96.6)	66.0	(56.7–74.2)
Colorado	162	76.8	(65.6–85.2)	86.8	(75.4–93.4)	55.1	(43.5–66.2)††
Connecticut	114	59.0	(47.2–69.8)††	92.2	(85.0–96.1)	47.0	(35.5–58.7)††
Delaware	114	80.6	(70.2–88.0)	92.5	(83.0–96.9)	58.1	(47.0–68.4)††
District of Columbia	165	89.8	(82.4–94.3)	93.3	(87.0–96.7)	63.0	(53.4–71.6)
Florida	152	90.9	(83.7–95.1)	94.7	(87.6–97.8)	63.4	(52.6–72.9)††
Georgia	148	71.4	(60.4–80.3)	93.8	(87.6–97.0)	56.2	(45.5–66.4)††
Hawaii	92	81.1	(70.7–88.4)	89.3	(79.1–94.8)	55.7	(44.5–66.4)††
Idaho	96	60.2	(48.5–70.9)††	91.9	(82.8–96.4)	49.0	(37.9–60.1)††
Illinois	302	86.9	(79.9–91.7)	93.7	(86.5–97.1)	63.0	(54.2–71.1)
Indiana	342	89.3	(83.4–93.2)	93.7	(88.2–96.8)	68.2	(60.7–74.8)
Iowa	122	64.8	(54.1–74.2)††	92.2	(82.2–96.8)	51.0	(40.6–61.3)††
Kansas	93	87.6	(78.0–93.4)	91.4	(81.7–96.2)	70.2	(58.2–80.0)††
Kentucky	166	81.8	(74.5–87.4)	95.2	(90.8–97.5)	68.4	(59.7–76.0)
Louisiana	122	82.2	(72.3–89.1)	92.8	(85.2–96.6)	65.5	(54.7–74.9)††
Maine	119	62.7	(52.5–71.8)	85.8	(77.0–91.6)	51.5	(41.6–61.2)
Maryland	228	89.2	(82.4–93.5)	94.2	(88.5–97.2)	54.6	(43.9–64.9)††
Massachusetts	120	95.4	(86.8–98.5)	95.4	(86.8–98.5)	48.0	(37.0–59.2)††
Michigan	154	82.3	(74.2–88.2)	96.9	(92.2–98.8)	62.5	(52.6–71.4)
Minnesota	132	61.6	(51.2–71.0)	90.3	(82.8–94.8)	48.3	(39.7–57.0)
Mississippi	178	84.3	(76.6–89.9)	96.5	(93.3–98.2)	70.5	(61.7–78.1)
Missouri	159	78.1	(66.8–86.3)	86.5	(74.9–93.2)	43.2	(34.0–52.9)
Montana	130	68.0	(58.5–76.2)	82.3	(73.3–88.7)	54.0	(44.4–63.3)
Nebraska	119	66.3	(56.1–75.3)	90.4	(81.9–95.1)	53.5	(43.3–63.4)††
Nevada	148	77.3	(69.0–83.9)	87.1	(79.9–92.0)	56.1	(46.8–65.0)
New Hampshire	112	97.7	(93.8–99.2)	97.7	(93.8–99.2)	40.6	(30.9–51.0)††
New Jersey	170	85.0	(73.4–92.0)	89.4	(81.2–94.3)	58.9	(48.5–68.6)††
New Mexico	159	77.8	(68.1–85.1)	86.8	(78.8–92.1)	63.4	(53.5–72.2)
New York	216	85.3	(79.1–89.9)	96.7	(93.6–98.3)	58.8	(51.1–66.1)
North Carolina	118	59.4	(48.3–69.7)††	90.5	(81.2–95.5)	52.7	(41.5–63.6)††
North Dakota	102	67.9	(57.4–76.9)	94.2	(88.1–97.3)	59.2	(48.6–69.1)††
Ohio	132	84.2	(74.8–90.5)	88.1	(79.2–93.6)	53.7	(42.8–64.2)††
Oklahoma	140	80.3	(70.5–87.4)	88.1	(78.6–93.7)	67.7	(57.7–76.4)
Oregon	156	77.0	(67.9–84.2)	87.5	(79.2–92.8)	54.4	(45.2–63.2)
Pennsylvania	245	86.4	(79.8–91.1)	97.3	(94.2–98.8)	51.4	(42.9–59.9)
Rhode Island	147	50.9	(40.0–61.6)††	87.6	(79.0–93.0)	36.6	(26.6–48.0)††
South Carolina	118	72.9	(61.6–81.8)††	92.2	(84.9–96.1)	41.7	(30.9–53.4)††
South Dakota	119	92.6	(86.2–96.2)	95.4	(89.6–98.1)	51.4	(40.6–62.1)††
Tennessee	163	86.7	(79.1–91.9)	94.2	(86.7–97.6)	59.4	(49.2–68.8)
Texas	605	93.2	(89.4–95.7)	96.1	(93.4–97.7)	51.7	(43.3–60.1)
Utah	137	82.2	(73.5–88.4)	91.8	(84.1–95.9)	52.1	(42.2–61.8)
Vermont	166	88.5	(80.4–93.6)	88.5	(80.4–93.6)	44.9	(36.6–53.5)
Virginia	142	79.1	(65.2–88.4)††	89.8	(79.0–95.4)	52.2	(40.7–63.5)††
Washington	236	94.6	(90.3–97.0)	95.0	(90.8–97.3)	53.5	(44.9–61.9)
West Virginia	102	81.9	(70.6–89.5)	87.8	(78.7–93.3)	32.6	(23.4–43.4)
Wisconsin	149	64.6	(55.2–73.0)	93.8	(86.7–97.2)	48.7	(39.2–58.2)
Wyoming	129	81.8	(73.1–88.1)	90.9	(83.6–95.2)	61.4	(51.8–70.2)

* A subset of 2008–09 between-year NIS data was analyzed, consisting of children with interviews during January–June 2009. Interviews for the entire between-year NIS were conducted from July 2, 2008, to August 11, 2009, based on the NIS samples drawn for the third quarter of 2008 through the second quarter of 2009. The 8,122 children in the subset analyzed had birthdates from January 9, 2006, through December 19, 2007.

† Under the previous measure, children were considered fully vaccinated if they had 3 or more doses of Hib vaccine of any type.

§ Children are considered to have completed the primary series if they received either 3 or more doses of any type of Hib vaccine or 2 doses of Hib vaccine and both were Merck products. A Hib vaccine reported with an unknown type was assumed to not be a Merck product.

¶ Under this new measure, children are considered fully vaccinated if they received either 4 or more doses of any type of Hib vaccine, or if they received 3 doses of Hib and the first 2 of those doses were Merck products, with the third dose of any type. Hib vaccines reported with unknown types for the first 2 doses were assumed to not be Merck products.

** Confidence interval.

†† Estimate might be unreliable because confidence interval is >20.

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Notes from the Field

Measles Transmission Associated with International Air Travel — Massachusetts and New York, July–August 2010

On July 8, 2010, the Massachusetts Department of Public Health (MDPH) notified CDC of a case of laboratory-confirmed measles in an unvaccinated airline passenger aged 23 months (*1*). The child had arrived hours earlier on a flight from Switzerland and was contagious during the flight. After obtaining the flight manifest, CDC shared locating information with relevant state health departments; of 31 passengers considered exposed (i.e., seated within two rows and any infant seated anywhere on the airplane), 29 (94%) were notified.

On July 28, the New York State Department of Health (NYSDOH) notified CDC and MDPH that one of the airline contacts had developed laboratory-confirmed measles. The ill traveler came to the United States as a chaperone for students from Europe and Asia attending an educational program. During July 20–23 (while contagious and before being isolated), he exposed 270 students and counselors in Massachusetts and New York. Member of this group were scheduled to return to their home countries from July 30 through August 6. Because exposed, susceptible persons who are incubating measles might be infectious 5–21 days after initial exposure, the surveillance period was determined to be until August 14 (*2,3*). CDC Quarantine Stations in Boston and New York worked with NYSDOH and MDPH to assess the immune status of contacts before permitting them to fly. Presumptive evidence of immunity to measles was defined as 1) documentation of at least 1 dose of measles-containing vaccine or 2) serologic evidence of immunity.

Of the 270 persons considered exposed, 268 (99%) were cleared to fly as scheduled: 242 provided documentation of vaccination and 26 had serologic evidence of immunity. Two persons lacked evidence of immunity and voluntarily postponed their departures until the end of the surveillance period. CDC requested that the airlines waive any fees for changing flights. No febrile rash illnesses have been reported among exposed persons.

To prevent the spread of measles, international travelers are encouraged to have evidence of measles immunity. Persons with measles or those who might be incubating measles should avoid travel aboard commercial airlines until they are no longer infectious. Organizations hosting international students should consider asking participants to provide documentation of adequate vaccination.

Reported by

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3. CDC. Measles, mumps, and rubella–vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(No. RR-8).

Announcement

Epidemic Intelligence Service Application Deadline — September 15, 2010

The Epidemic Intelligence Service (EIS) is a 2-year, postgraduate program of service and on-the-job training for health professionals interested in the practice of epidemiology. Each year, EIS provides approximately 80 persons from around the world opportunities to gain hands-on experience in epidemiology at CDC or state or local health departments. EIS officers, often called CDC's "disease detectives," have assumed leadership positions at CDC and other public health agencies. The EIS experience also is useful for health professionals who would like to gain a population-based perspective on public health practice.

Persons with a strong interest in applied epidemiology who meet at least one of the following qualifications may apply to EIS: 1) physicians with >1 year of clinical training; 2) persons with a doctoral degree in epidemiology, biostatistics, the social or behavioral sciences, natural sciences, or the nutrition sciences; 3) dentists, physician assistants, and nurses with a master of public health (MPH) or equivalent degree; 4) veterinarians with an MPH or equivalent degree or relevant public health experience.

Deadline for submitting applications for the July 2011–June 2013 EIS program is September 15, 2010. Application information and EIS program details are available at http://www.cdc.gov/eis/index.html, by telephone (404-498-6110), or via e-mail (eisepo@cdc.gov).

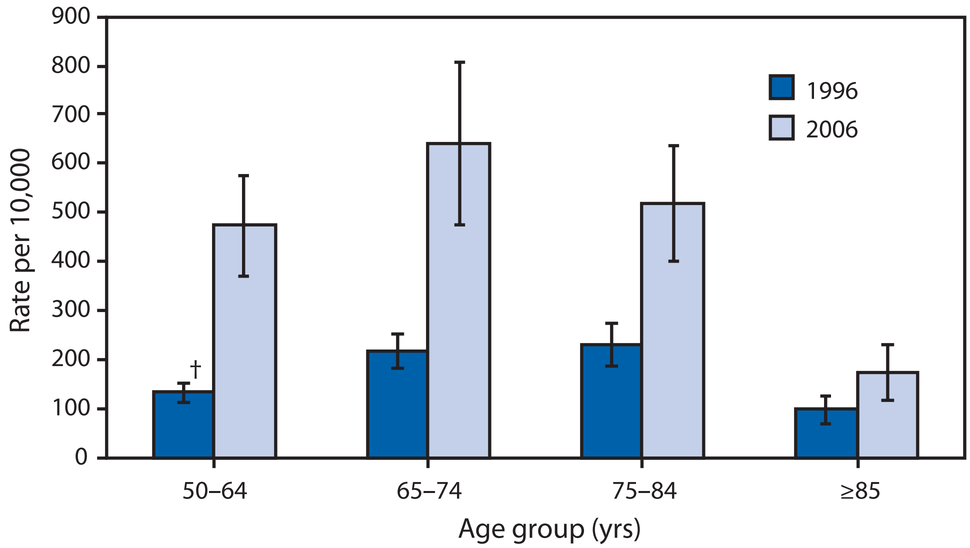
Erratum: Vol. 58, No. RR-2

In the report, "Prevention of Rotavirus Gastroenteritis Among Infants and Children: Recommendations of the Advisory Committee on Immunization Practices (ACIP)," an error occurred in a confidence interval in the last sentence of the fourth paragraph on page 6. The sentence should read, "Among the limited number of infants from phase III trials who received at least 1 dose of RV5 (n = 144) or placebo (n = 135) >10 weeks after a previous dose, the estimate of efficacy of the RV5 series for protection against G1–G4 rotavirus gastroenteritis of any severity was 63% (CI = **-53%**–94%) (*94*)."

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Outpatient Colonoscopy Procedure Rates,* by Age Group — National Survey of Ambulatory Surgery, United States, 1996 and 2006



* Per 10,000 population, based on U.S. Census Bureau civilian population as of July 1, 1996 and July 1, 2006. Colonoscopy procedures are assigned codes 45.23 and 45.25 under the *International Classification of Diseases, Ninth Revision, Clinical Modification* and are performed in hospital-based and freestanding ambulatory surgery facilities. The majority of colonoscopies (up to 90% in 2006) take place in ambulatory settings compared with inpatient facilities; no change in the colonoscopy rate in inpatient facilities was observed from 1996 to 2006.
† 95% confidence interval.

From 1996 to 2006, the rate of outpatient colonoscopy procedures increased for adults aged ≥50 years. For persons aged 50–64 years, the rate in 2006 was 3.5 times higher than the rate in 1996 (472.4 versus 132.2 procedures per 10,000 population), and for those aged 65–74 years, the rate was nearly three times higher (638.5 versus 216.2). For persons aged 75–84 years, the rate in 2006 was more than twice the rate in 1996 (517.3 versus 230.5), and for persons aged ≥85 years, the increase was approximately double (173.6 versus 96.9).

Sources: National Survey of Ambulatory Surgery. Data files, 1996 and 2006. Available at http://www.cdc.gov/nchs/nsas.htm.

National Hospital Discharge Survey. Annual files, 1996 and 2006. Available at http://www.cdc.gov/nchs/nhds.htm.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending August 21, 2010 (33rd week)*

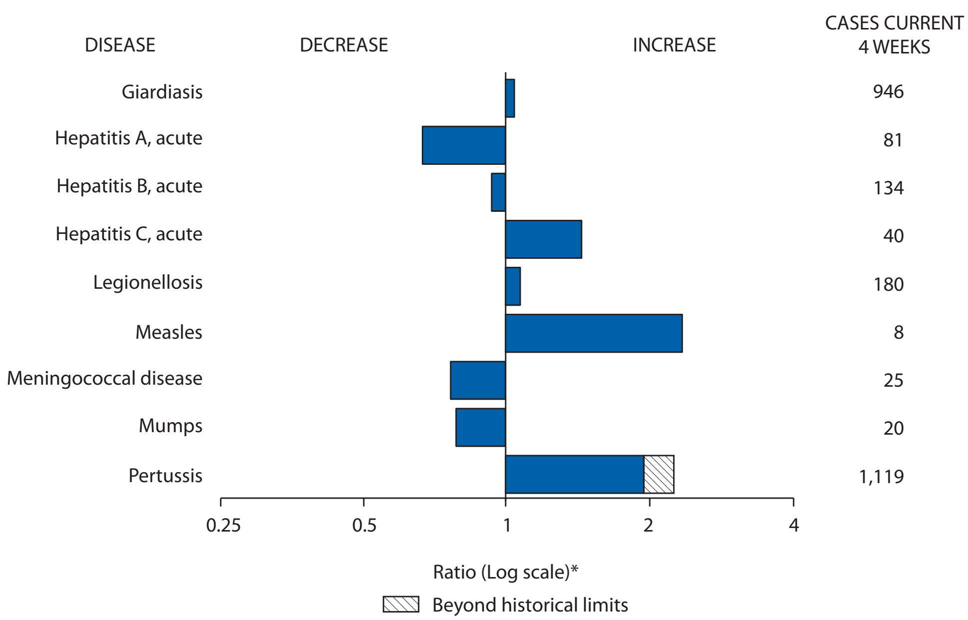
Disease	Current week	Cum 2010	5-year weekly average†	Total cases reported for previous years 2009	2008	2007	2006	2005	States reporting cases during current week (No.)
Anthrax	—	—	0	1	—	1	1	—	
Botulism, total	4	55	4	118	145	144	165	135	
foodborne	—	5	1	10	17	32	20	19	
infant	—	38	2	83	109	85	97	85	
other (wound and unspecified)	4	12	1	25	19	27	48	31	CA (4)
Brucellosis	2	78	3	115	80	131	121	120	MN (1), CA (1)
Chancroid	—	30	0	28	25	23	33	17	
Cholera	—	2	0	10	5	7	9	8	
Cyclosporiasis§	3	123	4	141	139	93	137	543	NY (1), FL (1), WA (1)
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases§,¶:									
California serogroup virus disease	—	11	5	55	62	55	67	80	
Eastern equine encephalitis virus disease	—	8	1	4	4	4	8	21	
Powassan virus disease	—	2	0	6	2	7	1	1	
St. Louis encephalitis virus disease	—	2	1	12	13	9	10	13	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Haemophilus influenzae,** invasive disease (age <5 yrs):									
serotype b	—	7	0	35	30	22	29	9	
nonserotype b	—	125	3	236	244	199	175	135	
unknown serotype	1	145	3	178	163	180	179	217	FL (1)
Hansen disease§	3	28	2	103	80	101	66	87	FL (2), CA (1)
Hantavirus pulmonary syndrome§	—	11	0	20	18	32	40	26	
Hemolytic uremic syndrome, postdiarrheal§	2	107	8	242	330	292	288	221	CA (2)
HIV infection, pediatric (age <13 yrs)††	—	—	1	—	—	—	—	380	
Influenza-associated pediatric mortality§,§§	—	54	1	358	90	77	43	45	
Listeriosis	15	471	22	851	759	808	884	896	NY (1), OH (2), MD (2), FL (3), TX (1), CO (1), CA (5)
Measles¶¶	1	43	1	71	140	43	55	66	VA (1)
Meningococcal disease, invasive***:									
A, C, Y, and W-135	2	168	4	301	330	325	318	297	NC (1), TX (1)
serogroup B	—	72	2	174	188	167	193	156	
other serogroup	—	8	0	23	38	35	32	27	
unknown serogroup	10	252	8	482	616	550	651	765	VA (1), KY (1), CA (8)
Mumps	3	2,273	14	1,991	454	800	6,584	314	NY (1), CA (2)
Novel influenza A virus infections†††	—	1	0	43,774	2	4	NN	NN	
Plague	—	1	0	8	3	7	17	8	
Poliomyelitis, paralytic	—	—	—	1	—	—	—	1	
Polio virus Infection, nonparalytic§	—	—	—	—	—	—	NN	NN	
Psittacosis§	—	4	0	9	8	12	21	16	
Q fever, total§,§§§	—	70	3	114	120	171	169	136	
acute	—	53	1	94	106	—	—	—	
chronic	—	17	0	20	14	—	—	—	
Rabies, human	—	—	—	4	2	1	3	2	
Rubella¶¶¶	—	6	0	3	16	12	11	11	
Rubella, congenital syndrome	—	—	—	2	—	—	1	1	
SARS-CoV§,****	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	2	116	1	161	157	132	125	129	OH (2)
Syphilis, congenital (age <1 yr)††††	—	114	9	423	431	430	349	329	
Tetanus	—	2	1	18	19	28	41	27	
Toxic-shock syndrome (staphylococcal)§	1	49	2	74	71	92	101	90	CA (1)
Trichinellosis	—	2	0	13	39	5	15	16	
Tularemia	1	58	4	93	123	137	95	154	WA (1)
Typhoid fever	2	235	10	397	449	434	353	324	NE (1), CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	—	63	1	78	63	37	6	2	
Vancomycin-resistant *Staphylococcus aureus*§	—	1	—	1	—	2	1	3	
Vibriosis (noncholera *Vibrio* species infections)§	27	390	17	789	588	549	NN	NN	OH (1), MD (1), FL (7), TX (4), WA (4), OR (1), CA (9)
Viral hemorrhagic fever§§§§	—	1	—	NN	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table I footnotes on next page.

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending August 21, 2010 (33rd week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable Cum: Cumulative year-to-date counts.
* Incidence data for reporting years 2009 and 2010 are provisional, whereas data for 2005 through 2008 are finalized.
† Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/ncphi/disss/nndss/phs/files/5yearweeklyaverage.pdf.
§ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table except starting in 2007 for the domestic arboviral diseases, STD data, TB data, and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/ncphi/disss/nndss/phs/infdis.htm.
¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
** Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
†† Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.
§§ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since April 26, 2009, a total of 286 influenza-associated pediatric deaths associated with 2009 influenza A (H1N1) virus infection have been reported. Since August 30, 2009, a total of 279 influenza-associated pediatric deaths occurring during the 2009–10 influenza season have been reported. A total of 133 influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.
¶¶ The one measles case 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, three cases of novel influenza A virus infections, unrelated to the 2009 pandemic influenza A (H1N1) virus, were reported to CDC. The one case of novel influenza A virus infection reported to CDC during 2010 was identified as swine influenza A (H3N2) virus and is unrelated to pandemic influenza A (H1N1) virus. Total case count for 2009 was provided by the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD).
§§§ In 2009, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
¶¶¶ No rubella cases were reported for the current week.
**** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.
†††† 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. 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 August 21, 2010, 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 August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	*Chlamydia trachomatis* infection					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max		
United States	11,450	23,023	26,131	726,089	798,635	105	121	284	4,082	4,281
New England	837	745	1,396	24,929	25,584	5	8	55	279	261
Connecticut	225	216	736	6,053	7,327	—	0	49	49	38
Maine[†]	54	49	75	1,590	1,554	1	1	4	47	31
Massachusetts	459	396	638	12,918	12,327	3	3	15	91	96
New Hampshire	42	40	116	1,457	1,356	—	1	6	37	47
Rhode Island[†]	20	68	116	2,116	2,299	—	0	8	9	4
Vermont[†]	37	24	63	795	721	1	1	9	46	45
Mid. Atlantic	2,864	3,191	4,619	105,933	99,481	26	15	38	485	491
New Jersey	438	462	698	15,837	15,728	—	0	4	—	35
New York (Upstate)	702	674	2,530	21,153	18,646	9	3	16	118	114
New York City	1,171	1,188	2,144	39,662	37,256	—	1	5	46	55
Pennsylvania	553	869	1,091	29,281	27,851	17	9	25	321	287
E.N. Central	672	3,550	4,413	108,465	128,799	24	29	69	992	1,032
Illinois	15	854	1,322	22,755	39,436	—	3	7	95	100
Indiana	—	344	786	11,569	15,008	—	4	10	116	180
Michigan	536	896	1,417	30,686	29,604	8	6	12	199	173
Ohio	121	963	1,077	30,516	31,222	16	7	24	275	259
Wisconsin	—	404	495	12,939	13,529	—	9	39	307	320
W.N. Central	250	1,343	1,651	42,054	45,529	16	22	59	689	650
Iowa	6	184	293	6,134	6,242	6	4	12	181	146
Kansas	15	188	381	5,861	6,866	—	2	6	74	61
Minnesota	—	275	337	8,510	9,223	—	3	31	98	174
Missouri	188	490	606	15,618	16,736	—	3	18	157	124
Nebraska[†]	30	95	237	2,998	3,444	10	2	10	101	59
North Dakota	—	34	93	1,083	1,084	—	0	18	16	7
South Dakota	11	60	82	1,850	1,934	—	2	10	62	79
S. Atlantic	2,469	4,501	5,681	142,648	163,340	11	19	51	632	650
Delaware	73	87	156	2,675	2,965	—	0	2	3	4
District of Columbia	105	100	177	3,199	4,504	—	0	1	2	5
Florida	650	1,399	1,669	46,775	47,516	10	8	24	235	214
Georgia	—	309	1,388	9,426	26,526	1	5	31	194	236
Maryland[†]	549	448	1,031	14,425	14,438	—	1	3	21	29
North Carolina	319	802	1,562	27,288	27,345	—	1	12	53	68
South Carolina[†]	608	514	705	17,241	17,671	—	1	5	46	41
Virginia[†]	165	597	902	19,365	20,032	—	2	8	67	44
West Virginia	—	68	137	2,254	2,343	—	0	2	11	9
E.S. Central	955	1,712	2,410	55,286	60,673	1	4	11	138	130
Alabama[†]	441	474	661	16,012	17,601	—	1	5	51	42
Kentucky	258	304	642	10,060	8,280	—	1	6	46	37
Mississippi	—	390	780	11,387	15,530	—	0	3	7	11
Tennessee[†]	256	588	734	17,827	19,262	1	1	5	34	40
W.S. Central	1,077	2,919	4,578	94,469	104,946	4	8	40	214	303
Arkansas[†]	362	239	402	6,679	9,242	1	1	4	22	33
Louisiana	—	97	1,055	2,922	18,786	—	1	4	21	31
Oklahoma	—	264	1,365	10,063	9,508	—	2	9	51	64
Texas[†]	715	2,180	3,203	74,805	67,410	3	5	30	120	175
Mountain	370	1,482	2,118	43,758	49,192	11	9	20	299	347
Arizona	—	471	713	12,867	16,525	—	0	3	18	25
Colorado	110	385	709	11,700	10,978	6	2	9	83	90
Idaho[†]	41	66	191	1,985	2,381	2	2	6	55	54
Montana[†]	—	58	75	1,788	1,922	2	1	4	32	34
Nevada[†]	219	175	337	6,215	6,584	1	0	2	11	14
New Mexico[†]	—	168	453	4,531	5,623	—	2	8	56	92
Utah	—	117	175	3,507	3,939	—	1	4	32	23
Wyoming[†]	—	38	70	1,165	1,240	—	0	2	12	15
Pacific	1,956	3,471	5,350	108,547	121,091	7	13	27	354	417
Alaska	—	107	147	3,666	3,422	—	0	1	2	4
California	1,637	2,735	4,406	87,282	92,810	2	8	20	209	230
Hawaii	—	112	158	3,357	3,930	—	0	0	—	1
Oregon	—	119	468	1,367	6,883	3	2	10	91	134
Washington	319	396	497	12,875	14,046	2	1	8	52	48
Territories										
American Samoa	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	4	31	157	244	—	0	0	—	—
Puerto Rico	122	94	266	3,388	5,093	N	0	0	N	N
U.S. Virgin Islands	—	8	15	132	354	—	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.
* Incidence data for reporting years 2009 and 2010 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, 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 August 21, 2010, and August 22, 2009 (33rd week)*

	Dengue Virus Infection									
	Dengue Fever†					Dengue Hemorrhagic Fever§				
	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum
Reporting area	week	Med	Max	2010	2009	week	Med	Max	2010	2009
United States	—	2	16	165	NN	—	0	1	2	NN
New England	—	0	1	2	NN	—	0	0	—	NN
Connecticut	—	0	0	—	NN	—	0	0	—	NN
Maine¶	—	0	1	1	NN	—	0	0	—	NN
Massachusetts	—	0	0	—	NN	—	0	0	—	NN
New Hampshire	—	0	0	—	NN	—	0	0	—	NN
Rhode Island¶	—	0	0	—	NN	—	0	0	—	NN
Vermont¶	—	0	1	1	NN	—	0	0	—	NN
Mid. Atlantic	—	0	4	30	NN	—	0	0	—	NN
New Jersey	—	0	0	—	NN	—	0	0	—	NN
New York (Upstate)	—	0	0	—	NN	—	0	0	—	NN
New York City	—	0	4	23	NN	—	0	0	—	NN
Pennsylvania	—	0	2	7	NN	—	0	0	—	NN
E.N. Central	—	0	2	7	NN	—	0	0	—	NN
Illinois	—	0	0	—	NN	—	0	0	—	NN
Indiana	—	0	0	—	NN	—	0	0	—	NN
Michigan	—	0	0	—	NN	—	0	0	—	NN
Ohio	—	0	2	5	NN	—	0	0	—	NN
Wisconsin	—	0	1	2	NN	—	0	0	—	NN
W.N. Central	—	0	2	9	NN	—	0	0	—	NN
Iowa	—	0	1	1	NN	—	0	0	—	NN
Kansas	—	0	0	—	NN	—	0	0	—	NN
Minnesota	—	0	2	8	NN	—	0	0	—	NN
Missouri	—	0	0	—	NN	—	0	0	—	NN
Nebraska¶	—	0	0	—	NN	—	0	0	—	NN
North Dakota	—	0	0	—	NN	—	0	0	—	NN
South Dakota	—	0	0	—	NN	—	0	0	—	NN
S. Atlantic	—	0	14	101	NN	—	0	1	1	NN
Delaware	—	0	0	—	NN	—	0	0	—	NN
District of Columbia	—	0	0	—	NN	—	0	0	—	NN
Florida	—	0	13	86	NN	—	0	1	1	NN
Georgia	—	0	2	5	NN	—	0	0	—	NN
Maryland¶	—	0	0	—	NN	—	0	0	—	NN
North Carolina	—	0	0	—	NN	—	0	0	—	NN
South Carolina¶	—	0	3	8	NN	—	0	0	—	NN
Virginia¶	—	0	0	—	NN	—	0	0	—	NN
West Virginia	—	0	1	2	NN	—	0	0	—	NN
E.S. Central	—	0	1	1	NN	—	0	0	—	NN
Alabama¶	—	0	0	—	NN	—	0	0	—	NN
Kentucky	—	0	0	—	NN	—	0	0	—	NN
Mississippi	—	0	0	—	NN	—	0	0	—	NN
Tennessee¶	—	0	1	1	NN	—	0	0	—	NN
W.S. Central	—	0	0	—	NN	—	0	1	1	NN
Arkansas¶	—	0	0	—	NN	—	0	1	1	NN
Louisiana	—	0	0	—	NN	—	0	0	—	NN
Oklahoma	—	0	0	—	NN	—	0	0	—	NN
Texas¶	—	0	0	—	NN	—	0	0	—	NN
Mountain	—	0	1	6	NN	—	0	0	—	NN
Arizona	—	0	1	1	NN	—	0	0	—	NN
Colorado	—	0	0	—	NN	—	0	0	—	NN
Idaho¶	—	0	0	—	NN	—	0	0	—	NN
Montana¶	—	0	1	1	NN	—	0	0	—	NN
Nevada¶	—	0	1	3	NN	—	0	0	—	NN
New Mexico¶	—	0	1	1	NN	—	0	0	—	NN
Utah	—	0	0	—	NN	—	0	0	—	NN
Wyoming¶	—	0	0	—	NN	—	0	0	—	NN
Pacific	—	0	2	9	NN	—	0	0	—	NN
Alaska	—	0	0	—	NN	—	0	0	—	NN
California	—	0	1	4	NN	—	0	0	—	NN
Hawaii	—	0	0	—	NN	—	0	0	—	NN
Oregon	—	0	0	—	NN	—	0	0	—	NN
Washington	—	0	2	5	NN	—	0	0	—	NN
Territories										
American Samoa	—	0	0	—	NN	—	0	0	—	NN
C.N.M.I.	—	—	—	—	NN	—	—	—	—	NN
Guam	—	0	0	—	NN	—	0	0	—	NN
Puerto Rico	—	8	83	1,068	NN	—	0	3	27	NN
U.S. Virgin Islands	—	0	0	—	NN	—	0	0	—	NN

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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.
* Incidence data for reporting years 2009 and 2010 are provisional.
† Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage.
§ 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 August 21, 2010, and August 22, 2009 (33rd week)*

	Ehrlichiosis/Anaplasmosis†														
	Ehrlichia chaffeensis					*Anaplasma phagocytophilum*					Undetermined				
	Current week	Previous 52 weeks		Cum	Cum	Current week	Previous 52 weeks		Cum	Cum	Current week	Previous 52 weeks		Cum	Cum
Reporting area		Med	Max	2010	2009		Med	Max	2010	2009		Med	Max	2010	2009
United States	9	12	181	376	648	14	14	309	351	626	1	2	35	63	133
New England	—	0	3	3	36	—	1	17	38	188	—	0	1	2	2
Connecticut	—	0	0	—	—	—	0	13	6	2	—	0	0	—	—
Maine§	—	0	1	2	3	—	0	2	13	11	—	0	0	—	—
Massachusetts	—	0	1	—	9	—	0	4	—	81	—	0	0	—	—
New Hampshire	—	0	1	1	3	—	0	3	8	15	—	0	1	2	1
Rhode Island§	—	0	2	—	20	—	0	8	11	79	—	0	0	—	1
Vermont§	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	—	1	15	30	114	12	4	17	123	186	—	0	2	2	37
New Jersey	—	0	6	—	70	—	0	2	1	57	—	0	0	—	—
New York (Upstate)	—	1	15	19	27	12	3	17	120	124	—	0	1	2	4
New York City	—	0	2	10	7	—	0	1	2	4	—	0	0	—	1
Pennsylvania	—	0	5	1	10	—	0	1	—	1	—	0	2	—	32
E.N. Central	—	0	4	18	71	—	2	22	126	228	1	1	4	35	56
Illinois	—	0	2	7	32	—	0	1	—	6	—	0	2	3	3
Indiana	—	0	0	—	—	—	0	0	—	—	1	0	2	18	29
Michigan	—	0	1	1	4	—	0	0	—	—	—	0	1	2	—
Ohio	—	0	2	4	9	—	0	0	—	1	—	0	0	—	2
Wisconsin	—	0	3	6	26	—	2	22	126	221	—	0	3	12	22
W.N. Central	—	2	11	79	124	—	0	261	9	5	—	0	30	15	16
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	1	4	6	—	0	1	—	1	—	0	0	—	—
Minnesota	—	0	6	—	—	—	0	261	—	3	—	0	30	—	3
Missouri	—	1	10	74	116	—	0	3	9	1	—	0	4	15	13
Nebraska§	—	0	1	1	2	—	0	1	—	—	—	0	0	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	5	4	19	173	174	1	0	7	40	13	—	0	1	2	2
Delaware	—	0	3	14	14	—	0	1	4	2	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	—	0	2	7	7	—	0	1	2	2	—	0	0	—	—
Georgia	—	0	4	15	15	—	0	1	1	1	—	0	1	1	—
Maryland§	—	0	2	14	32	—	0	2	9	3	—	0	1	1	—
North Carolina	2	1	13	68	44	1	0	4	16	3	—	0	0	—	—
South Carolina§	—	0	2	2	8	—	0	0	—	—	—	0	0	—	—
Virginia§	3	1	13	53	53	—	0	2	8	2	—	0	0	—	2
West Virginia	—	0	0	—	1	—	0	0	—	—	—	0	1	—	—
E.S. Central	2	1	10	56	100	—	0	3	14	3	—	0	2	6	20
Alabama§	—	0	2	9	6	—	0	2	5	1	—	0	0	—	—
Kentucky	—	0	2	6	9	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	2	5	—	0	1	1	—	—	0	0	—	—
Tennessee§	2	1	10	39	80	—	0	3	8	2	—	0	2	6	20
W.S. Central	2	0	141	16	27	1	0	23	1	1	—	0	1	1	—
Arkansas§	1	0	34	2	4	—	0	6	—	—	—	0	0	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	105	11	22	1	0	16	1	1	—	0	0	—	—
Texas§	1	0	2	3	1	—	0	1	—	—	—	0	1	1	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Colorado	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Idaho§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Nevada§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	1	2	—	0	1	—	2	—	0	1	—	—
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
California	—	0	1	1	2	—	0	1	—	2	—	0	1	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2009 and 2010 are provisional.
† Cumulative total *E. ewingii* cases reported for year 2010 = 7.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009
United States	243	334	666	10,470	11,200	2,762	5,414	6,656	168,891	193,642	14	58	171	1,900	1,972
New England	14	31	65	923	975	71	100	196	3,280	3,043	1	3	21	110	132
Connecticut	—	5	15	158	179	17	45	169	1,458	1,390	—	0	15	24	39
Maine§	3	3	11	123	132	2	3	11	117	85	—	0	2	9	15
Massachusetts	3	13	36	391	408	43	41	72	1,408	1,250	—	2	8	57	62
New Hampshire	—	3	11	92	122	3	2	7	96	71	—	0	2	7	6
Rhode Island§	—	1	7	35	37	3	5	13	156	218	—	0	2	7	6
Vermont§	8	4	14	124	97	3	1	17	45	29	1	0	1	6	4
Mid. Atlantic	41	60	112	1,805	2,048	562	672	941	21,597	19,520	5	11	34	377	377
New Jersey	—	7	15	192	275	84	100	151	3,362	3,018	—	2	7	54	90
New York (Upstate)	19	24	84	654	743	102	106	422	3,352	3,338	3	3	20	101	90
New York City	6	16	27	518	528	231	221	394	7,570	6,975	1	2	6	75	43
Pennsylvania	16	15	37	441	502	145	215	283	7,313	6,189	1	4	9	147	154
E.N. Central	20	49	92	1,591	1,741	257	971	1,536	29,544	41,060	1	9	20	317	316
Illinois	—	11	22	319	386	9	194	441	5,175	13,204	—	2	9	85	124
Indiana	—	7	14	159	166	—	96	214	3,275	4,883	—	1	6	64	53
Michigan	5	12	25	387	403	207	247	502	8,631	9,533	—	0	4	25	16
Ohio	15	17	28	521	493	41	315	372	9,609	10,071	1	2	6	78	73
Wisconsin	—	7	23	205	293	—	92	193	2,854	3,369	—	2	5	65	50
W.N. Central	13	25	165	866	1,039	77	274	367	8,453	9,654	—	3	24	109	114
Iowa	6	5	10	179	194	3	31	53	1,008	1,102	—	0	1	1	—
Kansas	—	4	8	123	99	2	39	83	1,186	1,665	—	0	1	9	13
Minnesota	—	0	135	136	250	—	41	64	1,195	1,494	—	0	17	25	35
Missouri	—	8	27	225	317	61	124	172	4,076	4,214	—	1	6	52	43
Nebraska§	5	4	8	137	114	11	23	54	711	868	—	0	2	14	18
North Dakota	2	0	8	16	8	—	2	11	76	81	—	0	4	8	5
South Dakota	—	2	10	50	57	—	6	16	201	230	—	0	0	—	—
S. Atlantic	68	73	143	2,362	2,257	740	1,309	1,691	41,425	48,475	4	14	27	504	533
Delaware	—	0	3	14	18	18	19	34	626	587	—	0	1	5	3
District of Columbia	—	1	4	19	42	33	40	86	1,234	1,745	—	0	1	1	2
Florida	59	38	87	1,284	1,216	197	378	482	12,536	13,796	2	3	9	121	169
Georgia	—	13	52	486	462	—	130	494	3,346	8,872	1	3	9	125	103
Maryland§	4	6	12	170	170	156	127	237	4,184	3,900	—	1	6	38	63
North Carolina	N	0	0	N	N	108	259	596	9,101	9,345	1	2	9	88	63
South Carolina§	—	2	7	78	56	180	156	233	5,174	5,435	—	2	7	59	46
Virginia§	5	8	36	290	264	48	163	271	4,925	4,465	—	2	4	53	61
West Virginia	—	1	5	21	29	—	8	20	299	330	—	0	5	14	23
E.S. Central	—	6	22	144	252	267	478	699	15,085	17,447	1	3	12	115	128
Alabama§	—	4	8	92	125	131	140	216	4,711	4,923	—	0	3	19	31
Kentucky	N	0	0	N	N	71	80	156	2,602	2,426	—	0	2	23	17
Mississippi	N	0	0	N	N	—	113	216	3,172	4,845	—	0	2	9	7
Tennessee§	—	2	18	52	127	65	151	206	4,600	5,253	1	2	10	64	73
W.S. Central	2	9	18	222	305	313	778	1,228	24,931	30,621	2	2	20	89	86
Arkansas§	1	2	9	72	84	115	72	139	2,002	2,845	—	0	3	12	15
Louisiana	1	3	10	87	122	—	21	343	910	6,097	—	0	3	17	15
Oklahoma	—	3	9	63	99	—	81	359	2,866	2,991	2	1	15	53	53
Texas§	N	0	0	N	N	198	571	963	19,153	18,688	—	0	2	7	3
Mountain	24	28	60	902	988	67	171	266	5,180	5,819	—	5	15	205	174
Arizona	—	3	7	90	124	—	61	109	1,505	1,906	—	2	10	77	55
Colorado	20	13	27	444	299	18	51	127	1,614	1,768	—	1	5	63	50
Idaho§	1	4	9	122	110	1	2	8	53	69	—	0	2	12	3
Montana§	1	2	11	68	75	—	2	6	67	49	—	0	1	2	1
Nevada§	2	1	11	35	67	48	28	94	1,116	1,130	—	0	2	5	13
New Mexico§	—	2	6	55	89	—	21	41	613	665	—	1	5	26	24
Utah	—	3	13	67	184	—	7	15	188	184	—	0	4	15	25
Wyoming§	—	1	5	21	40	—	1	4	24	48	—	0	2	5	3
Pacific	61	53	133	1,655	1,595	408	576	787	19,396	18,003	—	2	9	74	112
Alaska	—	2	7	57	63	—	23	36	793	598	—	0	2	15	13
California	43	33	61	1,047	1,065	359	480	693	16,445	14,801	—	0	4	12	38
Hawaii	—	0	4	15	13	—	12	24	404	404	—	0	2	3	26
Oregon	7	9	15	281	236	—	7	43	106	708	—	1	5	40	32
Washington	11	8	75	255	218	49	48	66	1,648	1,492	—	0	4	4	3
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	2	3	—	0	4	20	12	—	0	0	—	—
Puerto Rico	1	1	9	17	109	4	4	14	164	172	—	0	1	1	3
U.S. Virgin Islands	—	0	0	—	—	—	1	4	25	90	—	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.
* Incidence data for reporting years 2009 and 2010 are provisional.
† Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2010, and August 22, 2009 (33rd week)*

	Hepatitis (viral, acute), by type														
	A					B					C				
	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum
Reporting area	week	Med	Max	2010	2009	week	Med	Max	2010	2009	week	Med	Max	2010	2009
United States	15	30	69	928	1,269	26	57	204	1,844	2,131	9	15	44	522	479
New England	—	2	5	66	67	—	1	5	37	38	—	1	4	22	43
Connecticut	—	0	2	18	14	—	0	2	11	9	—	0	3	15	33
Maine†	—	0	1	7	1	—	0	2	11	9	—	0	1	—	1
Massachusetts	—	1	4	34	41	—	0	2	8	16	—	0	1	7	8
New Hampshire	—	0	1	1	6	—	0	2	5	4	N	0	0	N	N
Rhode Island†	—	0	4	6	3	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	0	—	2	—	0	1	2	—	—	0	0	—	1
Mid. Atlantic	4	4	10	123	179	3	5	10	194	231	—	2	5	66	64
New Jersey	—	0	3	10	51	—	1	5	48	69	—	0	2	5	4
New York (Upstate)	3	1	3	37	28	2	1	6	37	38	—	1	3	38	31
New York City	1	1	4	42	57	—	2	4	57	44	—	0	1	—	3
Pennsylvania	—	1	6	34	43	1	1	5	52	80	—	0	3	23	26
E.N. Central	—	4	10	117	200	2	8	15	269	304	2	2	8	97	65
Illinois	—	1	5	25	95	—	2	6	56	76	—	0	1	1	4
Indiana	—	0	2	15	15	—	1	5	35	48	—	0	2	17	13
Michigan	—	1	4	36	44	—	2	6	73	96	1	1	6	69	22
Ohio	—	0	4	19	26	2	2	6	72	68	1	0	1	7	23
Wisconsin	—	0	3	22	20	—	1	3	33	16	—	0	1	3	3
W.N. Central	—	1	12	42	77	—	2	15	79	87	1	0	11	21	8
Iowa	—	0	3	5	26	—	0	2	10	25	—	0	4	1	3
Kansas	—	0	2	8	7	—	0	2	4	5	—	0	0	—	1
Minnesota	—	0	12	13	13	—	0	13	6	14	1	0	9	9	1
Missouri	—	0	3	13	12	—	1	5	49	29	—	0	1	9	—
Nebraska†	—	0	1	3	16	—	0	2	9	12	—	0	1	2	2
North Dakota	—	0	1	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	0	—	3	—	0	1	1	2	—	0	1	—	1
S. Atlantic	5	8	13	229	267	12	16	40	533	584	3	4	7	111	109
Delaware	—	0	1	5	3	—	1	2	18	22	U	0	0	U	U
District of Columbia	—	0	1	1	1	—	0	1	3	9	—	0	1	2	—
Florida	4	3	8	84	116	4	5	11	187	191	3	1	4	36	26
Georgia	—	1	3	27	33	1	3	7	93	93	—	0	2	6	28
Maryland†	—	0	4	16	29	3	1	6	37	52	—	0	2	14	16
North Carolina	—	1	5	40	30	4	1	15	56	78	—	1	3	30	13
South Carolina†	—	1	4	23	36	—	1	4	34	35	—	0	0	—	1
Virginia†	1	1	6	32	19	—	2	14	68	58	—	0	2	9	7
West Virginia	—	0	2	1	—	—	0	14	37	46	—	0	5	14	18
E.S. Central	—	1	3	26	28	2	7	13	206	210	1	3	7	84	62
Alabama†	—	0	1	5	7	—	1	5	38	64	—	0	2	3	5
Kentucky	—	0	2	11	5	1	2	7	72	48	—	2	5	59	38
Mississippi	—	0	1	1	8	1	0	3	20	19	U	0	0	U	U
Tennessee†	—	0	2	9	8	—	2	6	76	79	1	0	4	22	19
W.S. Central	—	3	19	78	117	5	9	109	258	370	—	1	14	45	38
Arkansas†	—	0	3	—	5	—	1	4	31	48	—	0	1	—	1
Louisiana	—	0	2	6	3	—	1	5	26	40	—	0	1	3	6
Oklahoma	—	0	3	—	3	3	1	19	54	63	—	0	12	14	8
Texas†	—	2	18	72	106	2	5	87	147	219	—	1	3	28	23
Mountain	1	3	8	99	108	—	2	8	79	92	1	1	5	30	36
Arizona	—	1	5	46	44	—	0	2	20	35	U	0	0	U	U
Colorado	—	1	3	23	37	—	0	3	18	17	—	0	2	6	23
Idaho†	—	0	2	6	3	—	0	1	5	7	1	0	2	8	2
Montana†	—	0	1	4	5	—	0	1	1	—	—	0	0	—	1
Nevada†	1	0	2	10	7	—	1	3	27	20	—	0	1	3	2
New Mexico†	—	0	1	3	7	—	0	1	3	5	—	0	2	7	5
Utah	—	0	2	4	3	—	0	1	5	4	—	0	1	6	3
Wyoming†	—	0	3	3	2	—	0	0	—	4	—	0	0	—	—
Pacific	5	5	16	148	226	2	6	20	189	215	1	1	6	46	54
Alaska	—	0	1	1	2	—	0	1	2	2	U	0	2	U	U
California	4	4	15	120	176	—	4	17	131	153	—	0	4	20	27
Hawaii	—	0	2	1	8	—	0	1	—	4	U	0	0	U	U
Oregon	—	0	2	12	10	—	1	4	28	27	1	0	3	11	15
Washington	1	0	2	14	30	2	1	4	28	29	—	0	6	15	12
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	6	12	4	—	0	6	24	42	—	0	6	24	33
Puerto Rico	—	0	1	3	20	—	0	5	10	21	—	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.
* Incidence data for reporting years 2009 and 2010 are provisional.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	Legionellosis Current week	Legionellosis Previous 52 weeks Med	Legionellosis Previous 52 weeks Max	Legionellosis Cum 2010	Legionellosis Cum 2009	Lyme disease Current week	Lyme disease Previous 52 weeks Med	Lyme disease Previous 52 weeks Max	Lyme disease Cum 2010	Lyme disease Cum 2009	Malaria Current week	Malaria Previous 52 weeks Med	Malaria Previous 52 weeks Max	Malaria Cum 2010	Malaria Cum 2009
United States	52	60	112	1,742	1,957	312	432	2,340	14,866	26,558	20	25	89	822	880
New England	4	3	9	115	133	57	127	348	3,889	9,478	—	1	4	43	38
Connecticut	2	0	4	23	37	—	36	103	1,071	3,299	—	0	1	1	5
Maine†	—	0	1	6	5	49	12	76	348	474	—	0	1	5	2
Massachusetts	1	1	7	67	67	2	42	129	1,456	4,206	—	1	3	30	23
New Hampshire	—	0	3	7	9	1	22	56	760	1,041	—	0	1	1	3
Rhode Island†	—	0	3	5	10	—	1	19	35	170	—	0	1	4	2
Vermont†	1	0	2	7	5	5	4	26	219	288	—	0	1	2	3
Mid. Atlantic	19	15	44	410	711	153	199	626	7,528	11,379	4	7	17	210	243
New Jersey	—	2	13	38	129	—	44	146	1,716	3,953	—	0	5	1	63
New York (Upstate)	11	5	19	145	206	100	56	577	1,879	2,442	3	1	4	44	34
New York City	—	2	12	63	154	—	1	40	8	722	1	4	12	129	107
Pennsylvania	8	6	16	164	222	53	74	342	3,925	4,262	—	1	3	36	39
E.N. Central	5	12	36	382	390	1	22	107	875	2,324	—	2	12	88	123
Illinois	—	2	11	69	62	—	1	9	50	112	—	1	7	28	53
Indiana	1	1	6	57	36	—	1	7	45	67	—	0	4	7	18
Michigan	—	3	13	84	75	—	1	14	70	60	—	0	4	18	18
Ohio	4	5	12	143	171	1	0	5	18	26	—	1	5	31	27
Wisconsin	—	1	6	29	46	—	18	92	692	2,059	—	0	2	4	7
W.N. Central	1	2	19	71	75	4	3	1,395	82	177	1	1	11	38	40
Iowa	—	0	3	6	15	—	0	9	56	90	—	0	1	7	9
Kansas	—	0	2	6	5	—	0	1	5	15	—	0	1	4	5
Minnesota	1	0	16	23	8	—	0	1,380	—	67	—	0	11	3	13
Missouri	—	0	4	22	36	—	0	1	3	2	—	0	3	10	8
Nebraska†	—	0	2	6	9	—	0	2	9	2	1	0	2	12	4
North Dakota	—	0	1	4	1	4	0	15	8	—	—	0	1	—	—
South Dakota	—	0	1	4	1	—	0	1	1	1	—	0	2	2	1
S. Atlantic	12	10	25	323	309	94	62	155	2,257	2,925	8	6	36	222	241
Delaware	1	0	3	11	12	3	12	36	455	725	—	0	1	2	3
District of Columbia	—	0	4	12	14	—	0	3	13	45	—	0	3	7	10
Florida	9	4	10	114	96	3	2	11	52	37	6	2	6	80	63
Georgia	—	1	4	31	29	—	0	2	8	35	—	0	3	3	54
Maryland†	2	2	12	63	80	41	26	67	928	1,464	1	1	19	51	55
North Carolina	—	1	7	36	37	2	1	9	64	65	—	0	13	32	18
South Carolina†	—	0	2	6	6	—	1	3	20	23	—	0	1	3	3
Virginia†	—	1	6	41	31	35	14	79	639	468	1	1	5	43	33
West Virginia	—	0	3	9	4	10	0	33	78	63	—	0	2	1	2
E.S. Central	3	2	10	87	82	—	1	4	30	20	1	0	3	19	26
Alabama†	—	0	2	9	9	—	0	1	—	2	—	0	2	3	6
Kentucky	3	0	3	18	33	—	0	1	2	1	1	0	3	5	8
Mississippi	—	0	3	8	4	—	0	0	—	—	—	0	2	2	3
Tennessee†	—	1	6	52	36	—	1	4	28	17	—	0	2	9	9
W.S. Central	3	3	14	82	71	1	3	44	45	111	—	2	31	70	41
Arkansas†	—	0	2	11	5	—	0	0	—	—	—	0	1	1	3
Louisiana	—	0	3	3	7	—	0	0	—	—	—	0	1	—	4
Oklahoma	—	0	4	9	3	—	0	2	—	—	—	0	1	3	1
Texas†	3	2	10	59	56	1	3	42	45	111	—	1	30	66	33
Mountain	1	3	9	98	74	—	0	4	13	43	1	1	3	38	37
Arizona	—	1	5	33	27	—	0	1	3	3	—	0	2	16	5
Colorado	1	1	5	22	10	—	0	1	1	—	1	0	2	12	22
Idaho†	—	0	1	3	3	—	0	3	4	13	—	0	1	1	2
Montana†	—	0	1	4	4	—	0	0	—	3	—	0	1	2	4
Nevada†	—	0	2	17	9	—	0	1	—	12	—	0	1	3	—
New Mexico†	—	0	2	4	3	—	0	1	3	4	—	0	1	1	—
Utah	—	0	3	12	17	—	0	1	2	7	—	0	1	3	4
Wyoming†	—	0	2	3	1	—	0	1	—	1	—	0	0	—	—
Pacific	4	5	19	174	112	2	5	10	147	101	5	3	19	94	91
Alaska	—	0	2	2	1	—	0	1	2	4	—	0	1	2	2
California	4	3	19	147	88	2	3	9	104	62	5	2	13	64	67
Hawaii	—	0	1	1	1	N	0	0	N	N	—	0	1	1	1
Oregon	—	0	3	9	7	—	1	3	35	30	—	0	1	6	9
Washington	—	0	4	15	15	—	0	3	6	5	—	0	5	21	12
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	1	N	0	0	N	N	—	0	1	1	3
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting years 2009 and 2010 are provisional.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	Meningococcal disease, invasive† All groups					Pertussis					Rabies, animal				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	12	16	43	500	641	383	290	1,756	9,782	9,910	95	72	147	2,184	3,355
New England	—	0	2	13	23	1	8	17	217	451	3	4	24	156	218
Connecticut	—	0	2	2	3	—	1	5	30	34	—	1	22	59	93
Maine§	—	0	1	3	3	—	0	5	23	68	2	1	4	40	35
Massachusetts	—	0	1	3	11	—	4	10	134	261	—	0	0	—	—
New Hampshire	—	0	1	—	1	—	0	3	7	58	1	0	5	9	25
Rhode Island§	—	0	0	—	4	1	0	8	19	21	—	0	5	14	28
Vermont§	—	0	1	5	1	—	0	1	4	9	—	1	5	34	37
Mid. Atlantic	—	1	4	42	71	52	21	45	716	775	18	18	41	680	383
New Jersey	—	0	2	9	11	—	3	8	59	160	—	0	0	—	—
New York (Upstate)	—	0	3	9	16	23	7	27	283	120	18	9	22	351	272
New York City	—	0	2	10	12	—	0	11	41	57	—	1	12	105	11
Pennsylvania	—	0	2	14	32	29	8	23	333	438	—	3	24	224	100
E.N. Central	—	3	8	83	111	76	68	122	2,466	2,041	17	2	14	166	163
Illinois	—	0	4	16	27	—	11	27	387	466	3	1	9	83	59
Indiana	—	0	3	20	24	—	9	26	325	227	—	0	1	—	24
Michigan	—	0	2	12	18	13	22	43	653	476	2	1	6	48	50
Ohio	—	1	2	21	26	63	20	69	905	750	12	0	5	35	30
Wisconsin	—	0	2	14	16	—	4	11	196	122	—	0	0	—	—
W.N. Central	—	1	6	35	51	155	25	627	952	1,518	2	5	18	170	259
Iowa	—	0	3	8	7	—	5	23	230	152	—	0	2	7	25
Kansas	—	0	2	4	9	—	3	9	86	169	—	1	4	44	56
Minnesota	—	0	2	2	9	118	0	601	269	315	—	1	9	20	39
Missouri	—	0	3	15	18	—	8	30	209	736	—	1	6	52	40
Nebraska§	—	0	2	5	5	7	2	10	105	105	2	1	6	37	59
North Dakota	—	0	1	1	1	30	0	9	30	17	—	0	7	10	4
South Dakota	—	0	2	—	2	—	1	6	23	24	—	0	4	—	36
S. Atlantic	2	3	7	100	115	9	27	71	882	1,074	19	23	81	686	1,449
Delaware	—	0	1	1	2	—	0	3	5	9	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	1	3	3	—	0	0	—	—
Florida	—	1	5	44	39	5	5	28	199	342	—	0	68	68	161
Georgia	—	0	2	9	22	1	3	15	136	175	—	0	13	—	273
Maryland§	—	0	1	4	6	1	2	8	69	94	—	6	15	220	255
North Carolina	1	0	2	14	20	—	1	32	124	138	—	0	17	—	325
South Carolina§	—	0	1	9	11	1	5	19	210	177	—	0	0	—	—
Virginia§	1	0	2	17	10	1	4	15	110	119	16	10	26	348	357
West Virginia	—	0	2	2	5	—	0	7	26	17	3	2	6	50	78
E.S. Central	1	0	4	24	22	9	14	25	460	581	1	3	7	116	102
Alabama§	—	0	2	4	6	—	4	9	134	228	—	0	4	34	—
Kentucky	1	0	2	11	4	—	4	13	146	170	—	0	4	13	34
Mississippi	—	0	1	3	3	1	1	6	42	47	—	0	3	9	3
Tennessee§	—	0	2	6	9	8	3	10	138	136	1	1	4	60	65
W.S. Central	1	1	9	55	58	48	58	753	1,772	2,043	30	1	40	58	544
Arkansas§	—	0	2	5	5	2	4	29	100	241	—	0	10	20	28
Louisiana	—	0	4	11	11	—	1	4	19	120	—	0	0	—	—
Oklahoma	—	0	7	14	5	3	0	41	26	21	30	0	15	38	20
Texas§	1	0	7	25	37	43	49	681	1,627	1,661	—	0	30	—	496
Mountain	—	1	6	41	49	12	20	41	650	627	1	1	8	41	69
Arizona	—	0	2	11	12	—	6	14	219	148	—	0	5	—	—
Colorado	—	0	4	13	14	5	3	13	119	168	—	0	0	—	—
Idaho§	—	0	1	5	6	6	2	19	110	55	—	0	2	5	3
Montana§	—	0	1	1	5	1	1	8	33	16	1	0	4	9	18
Nevada§	—	0	1	7	4	—	0	7	18	16	—	0	1	2	4
New Mexico§	—	0	1	3	3	—	1	6	39	45	—	0	3	9	19
Utah	—	0	1	1	1	—	4	10	107	158	—	0	2	2	6
Wyoming§	—	0	1	—	4	—	0	1	5	21	—	0	3	14	19
Pacific	8	3	16	107	141	21	33	186	1,667	800	4	3	12	111	168
Alaska	—	0	2	1	4	—	1	6	25	31	—	0	2	11	10
California	8	1	13	69	90	1	22	162	1,219	381	4	3	11	90	149
Hawaii	—	0	1	1	5	—	0	4	18	26	—	0	0	—	—
Oregon	—	1	3	24	29	1	6	15	217	180	—	0	2	10	9
Washington	—	0	7	12	13	19	4	24	188	182	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	—	—	0	0	—	1	2	1	3	30	27
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.
* Incidence data for reporting years 2009 and 2010 are provisional.
† Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†					Shigellosis				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009
United States	800	885	1,555	25,776	28,494	72	80	198	2,567	2,790	145	245	528	8,165	10,502
New England	18	30	320	1,398	1,629	—	3	36	132	178	—	5	39	198	235
Connecticut	—	0	303	303	430	—	0	36	36	67	—	0	33	33	43
Maine§	—	2	7	69	88	—	0	2	11	14	—	0	2	4	2
Massachusetts	14	21	47	775	755	—	2	8	59	58	—	4	18	147	162
New Hampshire	1	3	9	113	209	—	0	2	16	24	—	0	2	4	13
Rhode Island§	—	2	17	97	95	—	0	26	2	—	—	0	7	9	10
Vermont§	3	1	5	41	52	—	0	2	8	15	—	0	1	1	5
Mid. Atlantic	79	96	208	3,103	3,393	7	8	24	296	263	13	34	70	1,021	2,005
New Jersey	—	14	46	370	719	—	1	4	29	73	—	6	23	173	434
New York (Upstate)	51	24	78	845	781	5	3	15	121	76	6	4	19	126	140
New York City	5	25	53	777	773	—	1	4	37	38	—	7	15	186	292
Pennsylvania	23	29	68	1,111	1,120	2	2	13	109	76	7	17	35	536	1,139
E.N. Central	34	82	215	2,968	3,463	6	12	31	399	509	8	25	235	1,105	1,947
Illinois	—	25	107	1,033	998	—	2	6	62	125	—	9	228	611	422
Indiana	—	9	25	245	405	—	1	8	57	70	—	1	5	26	51
Michigan	4	15	39	519	649	1	2	16	100	86	1	4	10	142	162
Ohio	30	24	47	876	953	5	2	11	98	89	7	7	23	219	916
Wisconsin	—	9	39	295	458	—	2	8	82	139	—	4	15	107	396
W.N. Central	16	44	94	1,431	1,772	3	11	42	391	486	3	49	88	1,633	621
Iowa	2	7	36	315	286	1	2	15	105	114	1	1	5	36	45
Kansas	—	6	20	228	255	—	1	6	42	44	—	3	14	159	156
Minnesota	—	7	32	178	382	—	1	17	31	115	—	0	6	14	52
Missouri	—	13	38	462	398	—	3	29	151	89	—	44	75	1,395	342
Nebraska§	6	4	13	149	264	2	1	6	47	67	2	0	4	25	19
North Dakota	8	0	39	25	34	—	0	7	—	4	—	0	5	—	3
South Dakota	—	2	6	74	153	—	0	5	15	53	—	0	2	4	4
S. Atlantic	348	265	520	7,377	7,418	13	12	29	412	413	57	40	83	1,404	1,629
Delaware	1	3	9	81	67	—	0	2	3	10	—	2	10	36	66
District of Columbia	—	1	4	38	63	—	0	1	4	2	—	0	4	16	17
Florida	225	126	277	3,200	3,146	6	4	14	140	104	41	13	49	614	289
Georgia	57	40	105	1,213	1,369	—	1	13	60	48	12	12	25	427	432
Maryland§	31	15	44	575	481	2	1	6	52	52	4	2	11	75	289
North Carolina	3	32	144	952	1,039	—	1	7	40	72	—	2	17	112	311
South Carolina§	—	20	74	617	493	—	0	3	12	22	—	1	5	42	85
Virginia§	31	18	68	586	612	5	2	15	87	86	—	2	15	81	134
West Virginia	—	3	16	115	148	—	0	5	14	17	—	0	2	1	6
E.S. Central	28	49	115	1,651	1,844	1	4	10	145	143	5	12	40	432	569
Alabama§	—	14	40	394	508	—	1	4	31	37	—	2	10	83	106
Kentucky	4	8	29	304	312	—	1	4	30	50	1	4	28	175	137
Mississippi	2	13	44	450	541	—	0	2	10	6	—	1	3	27	29
Tennessee§	22	14	40	503	483	1	2	8	74	50	4	5	11	147	297
W.S. Central	47	110	547	2,664	3,143	2	5	68	141	183	36	47	251	1,381	1,999
Arkansas§	15	10	36	363	364	1	1	5	36	25	—	2	9	34	228
Louisiana	1	19	46	576	680	—	0	3	7	15	—	3	10	133	142
Oklahoma	14	10	46	328	371	—	0	27	13	18	4	6	96	177	173
Texas§	17	57	477	1,397	1,728	1	3	41	85	125	32	34	144	1,037	1,456
Mountain	23	49	105	1,481	1,990	20	9	25	317	357	6	14	39	409	772
Arizona	—	18	50	463	651	—	1	5	40	45	—	8	25	215	560
Colorado	10	11	23	377	422	8	2	18	128	122	4	2	6	71	59
Idaho§	2	3	8	95	121	5	1	7	42	48	—	0	3	17	6
Montana§	2	2	7	63	83	2	1	7	28	19	1	0	1	5	11
Nevada§	9	4	14	161	174	5	0	4	20	18	1	1	7	20	42
New Mexico§	—	5	12	162	255	—	1	3	22	26	—	2	7	69	78
Utah	—	5	17	131	223	—	1	11	26	71	—	0	4	12	15
Wyoming§	—	1	9	29	61	—	0	2	11	8	—	0	2	—	1
Pacific	207	115	299	3,703	3,842	20	10	46	334	258	17	21	64	582	725
Alaska	—	1	5	53	48	—	0	1	1	1	—	0	2	—	1
California	168	84	227	2,785	2,907	10	5	35	144	142	15	16	51	471	567
Hawaii	—	4	62	81	172	—	0	4	12	4	—	0	4	10	28
Oregon	3	8	48	354	294	4	2	11	57	37	—	1	4	35	35
Washington	36	14	61	430	421	6	3	19	120	74	2	2	22	66	94
Territories															
American Samoa	—	1	1	2	—	—	0	0	—	—	—	0	1	1	3
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	3	7	—	0	0	—	—	—	0	3	1	5
Puerto Rico	1	6	39	127	337	—	0	0	—	—	—	0	1	—	10
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 August 21, 2010, and August 22, 2009 (33rd week)*

	Spotted Fever Rickettsiosis (including RMSF)†									
	Confirmed					Probable				
	Current	Previous 52 weeks		Cum	Cum	Current	Previous 52 weeks		Cum	Cum
Reporting area	week	Med	Max	2010	2009	week	Med	Max	2010	2009
United States	1	2	13	95	112	48	15	421	821	985
New England	—	0	1	—	1	—	0	1	1	9
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine§	—	0	0	—	—	—	0	1	1	4
Massachusetts	—	0	0	—	1	—	0	1	—	5
New Hampshire	—	0	0	—	—	—	0	1	—	—
Rhode Island§	—	0	0	—	—	—	0	0	—	—
Vermont§	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	0	2	13	9	3	1	6	38	72
New Jersey	—	0	0	—	2	—	0	3	—	48
New York (Upstate)	—	0	1	1	—	3	0	3	10	9
New York City	—	0	1	1	—	—	0	4	18	5
Pennsylvania	—	0	2	11	7	—	0	1	10	10
E.N. Central	—	0	1	2	8	—	0	6	48	70
Illinois	—	0	1	2	1	—	0	5	16	43
Indiana	—	0	0	—	3	—	0	5	25	8
Michigan	—	0	1	—	3	—	0	2	3	1
Ohio	—	0	0	—	—	—	0	4	4	15
Wisconsin	—	0	0	—	1	—	0	1	—	3
W.N. Central	—	0	3	8	15	—	2	19	172	205
Iowa	—	0	0	—	1	—	0	1	2	4
Kansas	—	0	1	2	1	—	0	0	—	—
Minnesota	—	0	1	—	1	—	0	1	—	1
Missouri	—	0	1	5	6	—	2	18	166	196
Nebraska§	—	0	2	1	6	—	0	1	3	4
North Dakota	—	0	0	—	—	—	0	1	1	—
South Dakota	—	0	0	—	—	—	0	0	—	—
S. Atlantic	—	1	10	49	55	27	4	58	290	298
Delaware	—	0	1	1	—	—	0	2	14	14
District of Columbia	—	0	0	—	—	—	0	1	—	—
Florida	—	0	1	2	—	1	0	1	6	4
Georgia	—	0	6	33	45	—	0	0	—	—
Maryland§	—	0	1	1	2	1	0	3	18	32
North Carolina	—	0	3	8	5	21	1	48	167	189
South Carolina§	—	0	0	—	3	—	0	2	8	15
Virginia§	—	0	2	4	—	4	0	10	77	43
West Virginia	—	0	0	—	—	—	0	1	—	1
E.S. Central	1	0	2	13	6	7	3	28	219	197
Alabama§	—	0	1	2	3	—	1	8	42	43
Kentucky	—	0	2	6	1	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	1	2	9
Tennessee§	1	0	2	5	2	7	3	20	175	145
W.S. Central	—	0	3	1	6	11	1	408	47	114
Arkansas§	—	0	1	—	—	10	0	110	20	59
Louisiana	—	0	0	—	—	—	0	1	2	2
Oklahoma	—	0	2	—	5	—	0	287	15	39
Texas§	—	0	1	1	1	1	0	11	10	14
Mountain	—	0	2	2	11	—	0	3	5	20
Arizona	—	0	2	—	5	—	0	2	1	9
Colorado	—	0	0	—	1	—	0	0	—	—
Idaho§	—	0	0	—	—	—	0	1	2	—
Montana§	—	0	1	2	4	—	0	1	1	6
Nevada§	—	0	0	—	—	—	0	0	—	1
New Mexico§	—	0	0	—	—	—	0	1	1	1
Utah	—	0	0	—	—	—	0	0	—	1
Wyoming§	—	0	0	—	1	—	0	0	—	2
Pacific	—	0	2	7	1	—	0	1	1	—
Alaska	N	0	0	N	N	N	0	0	N	N
California	—	0	2	6	1	—	0	0	—	—
Hawaii	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	1	1	—	—	0	1	1	—
Washington	—	0	0	—	—	—	0	0	—	—
Territories										
American Samoa	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
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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* Incidence data for reporting years 2009 and 2010 are provisional.
† 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 August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	*Streptococcus pneumoniae*,† invasive disease										Syphilis, primary and secondary				
	All ages					Age <5									
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	62	186	487	9,725	2,041	8	50	156	1,524	1,554	109	236	413	7,211	8,988
New England	—	7	100	558	38	—	1	24	74	49	2	7	22	277	210
Connecticut	—	0	93	255	—	—	0	22	24	—	1	1	10	54	39
Maine§	—	1	6	80	10	—	0	2	7	4	1	0	3	15	1
Massachusetts	—	1	5	53	3	—	1	4	35	35	—	5	12	166	150
New Hampshire	—	0	7	59	—	—	0	2	3	7	—	0	1	13	11
Rhode Island§	—	0	34	53	14	—	0	2	2	1	—	0	4	27	9
Vermont§	—	1	6	58	11	—	0	1	3	2	—	0	2	2	—
Mid. Atlantic	4	12	54	830	124	1	7	48	239	202	32	33	45	1,087	1,145
New Jersey	—	1	8	75	—	—	1	5	38	32	—	4	12	142	153
New York (Upstate)	1	3	12	112	49	1	3	19	83	91	2	2	11	88	79
New York City	2	4	25	307	7	—	1	24	80	66	22	18	31	626	700
Pennsylvania	1	6	22	336	68	—	0	5	38	13	8	7	16	231	213
E.N. Central	13	29	98	1,959	466	—	8	18	246	261	1	28	46	809	978
Illinois	—	1	7	66	—	—	2	5	59	41	—	13	23	289	478
Indiana	—	7	23	393	181	—	1	6	35	53	—	3	13	99	102
Michigan	2	7	27	462	19	—	2	6	56	49	—	4	13	138	152
Ohio	11	14	49	824	266	—	2	6	67	89	1	8	13	256	216
Wisconsin	—	4	22	214	—	—	1	4	29	29	—	1	3	27	30
W.N. Central	2	8	182	576	133	—	2	12	103	129	1	5	13	178	198
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	9	14
Kansas	—	1	7	69	46	—	0	2	11	14	—	0	3	11	19
Minnesota	—	0	179	287	32	—	0	10	44	58	—	1	9	65	46
Missouri	—	2	9	78	46	—	0	3	28	37	1	3	8	88	112
Nebraska§	—	1	7	91	—	—	0	2	11	8	—	0	1	5	4
North Dakota	2	0	11	37	7	—	0	1	2	4	—	0	1	—	3
South Dakota	—	0	3	14	2	—	0	2	7	8	—	0	0	—	—
S. Atlantic	20	40	144	2,262	911	4	12	28	381	364	27	57	218	1,745	2,146
Delaware	—	0	3	24	14	—	0	2	—	—	—	0	2	4	22
District of Columbia	—	0	4	21	17	—	0	2	7	3	1	2	8	89	121
Florida	16	18	89	1,049	536	2	3	18	142	133	—	19	31	607	679
Georgia	2	10	28	365	256	1	4	12	102	87	—	13	167	339	496
Maryland§	1	5	25	323	4	—	1	6	37	57	10	6	11	190	179
North Carolina	—	0	0	—	—	—	0	0	—	—	8	8	31	238	361
South Carolina§	1	5	25	353	—	1	1	4	39	33	1	2	7	91	79
Virginia§	—	0	4	40	—	—	1	4	38	33	7	4	22	184	205
West Virginia	—	1	21	87	84	—	0	4	16	18	—	0	2	3	4
E.S. Central	6	16	50	862	200	—	2	8	84	93	7	18	39	550	748
Alabama§	—	0	0	—	—	—	0	0	—	—	3	5	12	152	298
Kentucky	1	2	16	129	55	—	0	2	10	7	3	2	13	83	39
Mississippi	—	1	6	40	34	—	0	2	9	17	—	5	17	122	136
Tennessee§	5	12	44	693	111	—	2	7	65	69	1	6	17	193	275
W.S. Central	12	16	90	1,226	83	1	6	41	197	230	22	34	71	997	1,835
Arkansas§	—	2	9	117	40	—	0	3	11	31	3	4	14	105	142
Louisiana	—	1	8	55	43	—	0	3	17	17	—	5	23	64	539
Oklahoma	1	0	5	34	—	1	1	5	34	39	—	2	6	51	59
Texas§	11	11	82	1,020	—	—	3	34	135	143	19	26	46	777	1,095
Mountain	5	19	82	1,242	84	2	5	12	172	204	7	9	20	280	339
Arizona	—	7	51	577	—	—	2	7	75	91	—	3	7	92	161
Colorado	4	6	20	366	—	1	1	4	47	29	—	2	5	73	61
Idaho§	—	0	2	11	—	—	0	2	5	7	—	0	1	2	3
Montana§	—	0	2	13	—	—	0	1	1	—	—	0	1	1	—
Nevada§	—	1	4	54	34	—	0	1	5	7	7	1	10	65	61
New Mexico§	—	2	9	113	—	—	0	4	14	24	—	1	4	28	31
Utah	—	2	9	99	41	—	1	4	22	45	—	1	4	19	19
Wyoming§	1	0	1	9	9	1	0	1	3	1	—	0	1	—	3
Pacific	—	4	14	210	2	—	0	7	28	22	10	39	64	1,288	1,389
Alaska	—	1	9	79	—	—	0	5	18	14	—	0	1	1	—
California	—	2	12	131	—	—	0	2	10	—	8	35	59	1,130	1,229
Hawaii	—	0	1	—	2	—	0	1	—	8	—	0	3	21	23
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	5	6	39
Washington	—	0	0	—	—	—	0	0	—	—	2	3	10	130	98
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	11	3	17	144	127
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.
* Incidence data for reporting years 2009 and 2010 are provisional.
† 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 August 21, 2010, and August 22, 2009 (33rd week)*

Reporting area	Varicella (chickenpox)§					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive¶				
	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009	Current week	Previous 52 weeks Med	Previous 52 weeks Max	Cum 2010	Cum 2009
United States	84	325	546	9,278	14,516	—	0	45	74	210	1	1	40	70	214
New England	—	16	36	426	714	—	0	0	—	—	—	0	0	—	—
Connecticut	—	6	20	183	340	—	0	0	—	—	—	0	0	—	—
Maine§	—	4	15	130	129	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	1	—	3	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	2	8	84	144	—	0	0	—	—	—	0	0	—	—
Rhode Island§	—	1	12	17	24	—	0	0	—	—	—	0	0	—	—
Vermont§	—	0	10	12	74	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	7	33	66	1,054	1,422	—	0	2	7	2	—	0	3	4	—
New Jersey	—	9	30	385	298	—	0	1	—	1	—	0	0	—	—
New York (Upstate)	N	0	0	N	N	—	0	1	2	1	—	0	3	4	—
New York City	—	0	0	—	—	—	0	2	4	—	—	0	0	—	—
Pennsylvania	7	22	52	669	1,124	—	0	1	1	—	—	0	0	—	—
E.N. Central	19	108	176	3,161	4,528	—	0	4	2	4	—	0	1	1	4
Illinois	3	26	49	809	1,071	—	0	3	—	2	—	0	0	—	—
Indiana§	4	5	35	294	335	—	0	1	—	1	—	0	1	—	2
Michigan	1	35	62	969	1,314	—	0	1	1	—	—	0	1	1	—
Ohio	11	28	56	879	1,401	—	0	1	1	—	—	0	0	—	2
Wisconsin	—	7	24	210	407	—	0	1	—	1	—	0	0	—	—
W.N. Central	—	13	40	363	949	—	0	5	5	15	—	0	8	17	43
Iowa	N	0	0	N	N	—	0	0	—	—	—	0	1	—	3
Kansas§	—	4	18	99	400	—	0	1	—	2	—	0	1	2	6
Minnesota	—	0	0	—	—	—	0	1	2	—	—	0	1	—	1
Missouri	—	6	16	215	455	—	0	2	1	1	—	0	1	—	—
Nebraska§	N	0	0	N	N	—	0	2	2	7	—	0	6	6	22
North Dakota	—	0	26	28	57	—	0	0	—	—	—	0	1	4	1
South Dakota	—	0	7	21	37	—	0	1	—	5	—	0	2	5	10
S. Atlantic	16	37	99	1,431	1,820	—	0	4	4	7	—	0	2	3	—
Delaware§	—	0	4	11	10	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	4	14	24	—	0	0	—	2	—	0	0	—	—
Florida§	8	15	57	721	911	—	0	1	1	—	—	0	1	—	—
Georgia	N	0	0	N	N	—	0	1	1	2	—	0	1	3	—
Maryland§	N	0	0	N	N	—	0	1	2	—	—	0	1	—	—
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina§	—	0	35	74	93	—	0	2	—	1	—	0	0	—	—
Virginia§	3	11	34	323	490	—	0	2	—	2	—	0	0	—	—
West Virginia	5	8	26	288	292	—	0	0	—	—	—	0	0	—	—
E.S. Central	1	6	28	190	376	—	0	5	1	23	1	0	4	3	18
Alabama§	1	6	27	183	373	—	0	0	—	—	—	0	1	1	—
Kentucky	N	0	0	N	N	—	0	1	—	2	—	0	0	—	—
Mississippi	—	0	2	7	3	—	0	3	1	19	1	0	3	2	16
Tennessee§	N	0	0	N	N	—	0	2	—	2	—	0	1	—	2
W.S. Central	34	58	285	1,918	3,664	—	0	12	7	71	—	0	6	3	21
Arkansas§	—	3	32	122	370	—	0	1	—	5	—	0	0	—	—
Louisiana	—	1	8	40	95	—	0	2	5	8	—	0	2	2	7
Oklahoma	N	0	0	N	N	—	0	2	—	3	—	0	2	—	2
Texas§	34	49	272	1,756	3,199	—	0	12	2	55	—	0	4	1	12
Mountain	7	22	37	702	959	—	0	12	36	48	—	0	16	29	81
Arizona	—	0	0	—	—	—	0	8	35	11	—	0	8	19	5
Colorado§	6	8	20	275	358	—	0	7	1	18	—	0	14	9	46
Idaho§	N	0	0	N	N	—	0	2	—	7	—	0	4	—	17
Montana§	1	3	17	153	117	—	0	0	—	2	—	0	1	—	2
Nevada§	N	0	0	N	N	—	0	0	—	7	—	0	0	—	5
New Mexico§	—	1	7	70	95	—	0	2	—	2	—	0	1	—	1
Utah	—	7	22	191	389	—	0	1	—	—	—	0	0	—	1
Wyoming§	—	0	3	13	—	—	0	1	—	1	—	0	2	1	4
Pacific	—	1	5	33	84	—	0	12	12	40	—	0	7	10	47
Alaska	—	0	5	28	50	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	8	12	26	—	0	6	10	28
Hawaii	—	0	2	5	34	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	1	—	—	—	0	1	—	8
Washington	N	0	0	N	N	—	0	6	—	14	—	0	1	—	11
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	3	9	15	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	5	30	180	385	—	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.
* Incidence data for reporting years 2009 and 2010 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, 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.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).
¶ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/ncphi/disss/nndss/phs/infdis.htm.

TABLE III. Deaths in 122 U.S. cities,* week ending August 21, 2010 (33rd week)

Reporting area	All causes, by age (years) All Ages	≥65	45–64	25–44	1–24	<1	P&I† Total
New England	477	322	109	22	13	11	60
Boston, MA	133	84	37	6	5	1	20
Bridgeport, CT	29	27	1	1	—	—	6
Cambridge, MA	14	11	3	—	—	—	3
Fall River, MA	21	17	2	2	—	—	1
Hartford, CT	42	28	7	1	1	5	3
Lowell, MA	19	13	5	1	—	—	1
Lynn, MA	7	4	2	1	—	—	1
New Bedford, MA	15	12	1	—	2	—	—
New Haven, CT	32	14	14	1	2	1	5
Providence, RI	54	41	8	1	2	2	4
Somerville, MA	3	2	—	1	—	—	—
Springfield, MA	47	31	13	1	—	2	5
Waterbury, CT	22	13	6	3	—	—	4
Worcester, MA	39	25	10	3	1	—	7
Mid. Atlantic	1,645	1,109	386	93	43	14	88
Albany, NY	39	27	10	2	—	—	2
Allentown, PA	21	18	1	1	1	—	—
Buffalo, NY	69	40	20	7	2	—	2
Camden, NJ	28	12	11	3	2	—	2
Elizabeth, NJ	14	10	4	—	—	—	1
Erie, PA	53	40	10	2	1	—	4
Jersey City, NJ	20	19	—	1	—	—	1
New York City, NY	964	666	215	53	24	6	54
Newark, NJ	22	8	11	3	—	—	—
Paterson, NJ	17	9	5	1	1	1	1
Philadelphia, PA	123	61	39	9	10	4	3
Pittsburgh, PA§	50	31	15	1	2	1	2
Reading, PA	25	22	3	—	—	—	2
Rochester, NY	63	37	18	6	—	2	7
Schenectady, NY	16	13	3	—	—	—	—
Scranton, PA	21	17	4	—	—	—	—
Syracuse, NY	48	38	8	2	—	—	1
Trenton, NJ	25	18	6	1	—	—	1
Utica, NY	15	13	2	—	—	—	5
Yonkers, NY	12	10	1	1	—	—	—
E.N. Central	1,818	1,155	443	124	49	47	105
Akron, OH	47	27	12	4	3	1	2
Canton, OH	32	23	7	2	—	—	2
Chicago, IL	248	142	74	17	6	9	12
Cincinnati, OH	84	48	19	8	7	2	8
Cleveland, OH	218	151	45	13	5	4	10
Columbus, OH	151	93	40	10	2	6	8
Dayton, OH	128	85	36	3	1	3	11
Detroit, MI	141	75	44	16	3	3	4
Evansville, IN	54	37	12	4	—	1	2
Fort Wayne, IN	70	48	18	2	—	2	2
Gary, IN	16	9	3	3	—	1	1
Grand Rapids, MI	49	36	7	4	—	2	8
Indianapolis, IN	201	120	45	20	6	10	7
Lansing, MI	45	26	4	5	10	—	2
Milwaukee, WI	67	45	17	1	3	1	5
Peoria, IL	42	25	15	2	—	—	8
Rockford, IL	64	45	15	3	—	1	6
South Bend, IN	32	24	6	1	—	1	1
Toledo, OH	83	59	16	5	3	—	5
Youngstown, OH	46	37	8	1	—	—	1
W.N. Central	592	405	139	25	10	13	43
Des Moines, IA	82	63	16	1	1	1	3
Duluth, MN	32	20	10	2	—	—	4
Kansas City, KS	U	U	U	U	U	U	U
Kansas City, MO	99	75	21	2	1	—	9
Lincoln, NE	41	31	6	2	2	—	4
Minneapolis, MN	72	49	15	1	3	4	4
Omaha, NE	84	62	16	3	—	3	9
St. Louis, MO	122	63	41	10	3	5	7
St. Paul, MN	60	42	14	4	—	—	3
Wichita, KS	U	U	U	U	U	U	U

Reporting area	All causes, by age (years) All Ages	≥65	45–64	25–44	1–24	<1	P&I† Total
S. Atlantic	1,128	686	309	75	21	37	78
Atlanta, GA	126	76	38	10	—	2	7
Baltimore, MD	102	55	32	9	4	2	18
Charlotte, NC	103	68	24	7	—	4	7
Jacksonville, FL	132	83	39	9	—	1	8
Miami, FL	182	122	47	6	5	2	12
Norfolk, VA	47	25	17	—	4	1	2
Richmond, VA	63	29	21	6	2	5	1
Savannah, GA	71	52	12	3	1	3	2
St. Petersburg, FL	52	31	11	5	1	4	4
Tampa, FL	134	87	34	6	2	5	9
Washington, D.C.	108	54	31	14	2	7	7
Wilmington, DE	8	4	3	—	—	1	1
E.S. Central	827	544	199	45	20	19	58
Birmingham, AL	165	107	40	8	6	4	10
Chattanooga, TN	78	50	24	4	—	—	4
Knoxville, TN	121	80	32	5	4	—	13
Lexington, KY	46	27	12	3	1	3	3
Memphis, TN	158	103	38	12	1	4	13
Mobile, AL	65	45	14	3	3	—	2
Montgomery, AL	38	28	6	3	1	—	2
Nashville, TN	156	104	33	7	4	8	11
W.S. Central	1,140	724	273	77	43	23	46
Austin, TX	92	50	33	7	2	—	3
Baton Rouge, LA	74	42	15	11	5	1	—
Corpus Christi, TX	66	38	21	3	1	3	2
Dallas, TX	220	130	57	11	13	9	11
El Paso, TX	84	58	18	4	4	—	1
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	141	86	33	10	6	6	6
Little Rock, AR	63	42	11	5	4	1	—
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	256	174	55	21	4	2	11
Shreveport, LA	35	19	13	—	2	1	2
Tulsa, OK	109	85	17	5	2	—	10
Mountain	786	507	173	66	19	20	52
Albuquerque, NM	119	81	25	10	2	1	12
Boise, ID	49	37	10	—	—	2	3
Colorado Springs, CO	82	53	17	8	1	2	1
Denver, CO	65	41	19	3	2	—	4
Las Vegas, NV	259	171	54	20	6	8	16
Ogden, UT	32	18	9	3	2	—	3
Phoenix, AZ	U	U	U	U	U	U	U
Pueblo, CO	25	17	6	2	—	—	1
Salt Lake City, UT	126	71	27	16	5	7	9
Tucson, AZ	29	18	6	4	1	—	3
Pacific	1,545	1,030	373	74	42	25	109
Berkeley, CA	10	9	1	—	—	—	—
Fresno, CA	104	71	23	7	2	1	10
Glendale, CA	21	18	1	1	1	—	2
Honolulu, HI	47	33	7	3	—	4	5
Long Beach, CA	64	37	19	7	—	1	7
Los Angeles, CA	233	141	62	14	12	4	22
Pasadena, CA	26	22	3	—	1	—	3
Portland, OR	121	74	43	2	1	1	7
Sacramento, CA	192	137	43	8	2	2	16
San Diego, CA	147	98	30	10	4	5	4
San Francisco, CA	107	67	28	4	5	2	5
San Jose, CA	169	123	36	6	3	1	11
Santa Cruz, CA	32	19	11	2	—	—	1
Seattle, WA	92	65	17	4	4	2	3
Spokane, WA	67	46	18	1	2	—	5
Tacoma, WA	113	70	31	5	5	2	8
Total¶	**9,958**	**6,482**	**2,404**	**601**	**260**	**209**	**639**

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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