

Weekly

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### Hepatitis A Vaccination Coverage Among Children Aged 24–35 Months – United States, 2006 and 2007

During 1995–1996, hepatitis A vaccines were licensed in the United States as 2-dose regimens for children aged  $\geq 24$ months. In 1996, the Advisory Committee on Immunization Practices (ACIP) recommended vaccinating children aged  $\geq 24$ months who lived in communities or states with high rates of hepatitis A (1). In 1999, ACIP updated its guidelines, recommending routine vaccination for children aged  $\geq 24$  months in areas with hepatitis A rates twice the national average, and recommending consideration of routine vaccination in areas with rates higher than the national average (2). However, in 2005, this regional vaccination strategy was reevaluated because national hepatitis A rates had decreased to such an extent that differences among states were no longer substantial (3). Additionally, in 2005, hepatitis A vaccine was licensed for children aged 12–23 months. As a result of these developments, in 2006, ACIP expanded its hepatitis A vaccination recommendation to all children in the United States and reduced the recommended age for vaccination to 12-23 months (4). This report updates previous findings regarding hepatitis A vaccination coverage, providing estimates based on National Immunization Survey (NIS) data for 2006 and 2007. From 2006 to 2007, estimated national hepatitis A vaccination coverage levels among children aged 24-35 months who received at least 1 dose increased from 26.3% to 47.4%. The increase in hepatitis A vaccination coverage likely is the result of the expanded 2006 ACIP recommendations; adherence to these recommendations should lead to further declines in hepatitis A incidence in the United States.

NIS is an ongoing, random-digit-dialed survey of households with children aged 19–35 months at the time of interview, followed by a mail survey of each child's vaccination provider to obtain vaccination data (5). Data from NIS are used to produce timely estimates of vaccination coverage rates for all childhood vaccinations recommended by ACIP.\* Data are weighted to adjust for households with multiple telephone lines, household nonresponse, and exclusion of households without landline telephones. The 2006 NIS interviews were conducted during January 2006–February 2007 and included children who were born during January 2003–July 2005. The 2007 NIS interviews were conducted during January 2008 and included children who were born during January 2006, the survey was conducted in all 50 states and 30 local areas.<sup>†</sup> In 2007, the number of local areas

#### INSIDE

694 Recurring Norovirus Outbreaks in a Long-Term Residential Treatment Facility — Oregon, 2007

699 QuickStats

<sup>\*</sup>Additional information available at http://www.cdc.gov/nis.

<sup>&</sup>lt;sup>†</sup> The 30 local areas sampled separately for the 2006 NIS included six areas that receive federal immunization grant funds and have been included in the NIS every year since its inception in 1994 (District of Columbia; Chicago, Illinois; New York, New York; Philadelphia County, Pennsylvania; Bexar County, Texas; and Houston, Texas). Also included were 18 areas that had been included each year during 1994–2004 (Maricopa County, Arizona; Los Angeles County, California; San Diego County, California; Santa Clara County, California; Duval County, Florida; Miami-Dade County, Florida; Fulton and DeKalb counties, Georgia; Marion County, Indiana; Baltimore, Maryland; Boston, Massachusetts; Detroit, Michigan; Newark, New Jersey; Cuyahoga County, Ohio; Shelby County, Tennessee; Dallas County, Texas; King County, Washington; and Milwaukee County, Wesonsin). Also included were six areas sampled for the first time (northern California counties; Fresno County, California; eastern Kansas counties; southern New Mexico counties; Allegheny County, Pennsylvania; and eastern Washington counties).

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was reduced to 14.<sup>§</sup> The NIS household survey response rate was 64.5% in 2006 and 64.9% in 2007.

Among children aged 19–35 months for whom NIS household interviews were completed, health-care provider vaccination records were obtained for 21,044 children (70.4%) in 2006 and 17,017 children (68.6%) in 2007. Among the children with vaccination records, 14,804 children in 2006 and 12,018 in 2007 met the age criteria of 24–35 months for this study. Although hepatitis A vaccine is licensed as a 2-dose regimen (with the second dose recommended 6–18 months after the initial dose), this analysis was of vaccination coverage among children who had received at least 1 dose of vaccine. Tests for differences in 2006 and 2007 coverage estimates were conducted using t-tests with significant differences at p<0.05.

Nationally, among children aged 24–35 months, estimated hepatitis A vaccination coverage with at least 1 dose increased from 26.3% in 2006 to 47.4% in 2007 (Table). By ACIP vaccination recommendation status, the largest increase in vaccination coverage, from 7.2% to 32.7%, was observed in the 33 states<sup>¶</sup> (and the District of Columbia [DC]) that had not been recommended for vaccination before 2006. Vaccination coverage also increased (from 62.8% to 74.1%) in the 11 states where vaccination had been recommended since 1999 and in the six states where vaccination had been recommended for consideration since 1999 for children aged ≥24 months (from 48.8% to 66.6%).

By individual state, substantial variability in estimated vaccination coverage was observed. Among the 33 states (and DC) first recommended for hepatitis A vaccination in 2006, coverage in 2006 ranged from 0.4% (Maine) to 17.7% (Tennessee), and coverage in 2007 ranged from 11.6% (Maine) to 60.1% (Rhode Island). Among the 11 states where vaccination had been recommended since 1999, coverage in 2006 ranged from 7.4% (South Dakota) to 73.7% (Oklahoma), and coverage in 2007 ranged from 31.6% (South Dakota) to 82.8% (Alaska). Among the six states where vaccination had been recommended for consideration since 1999, coverage in 2006 ranged from

<sup>&</sup>lt;sup>§</sup> Fourteen local areas were sampled separately for the 2007 NIS. These included the six areas that receive federal immunization grant funds and have been included in the NIS sample every year since its inception in 1994. Also included were seven previously sampled areas (Alameda County, California; Los Angeles County, California; San Bernardino County, California; Miami-Dade County, Florida; Marion County, Indiana; Dallas County, Texas; and El Paso County, Texas) and one area sampled for the first time (western Washington). Local areas sampled by NIS might change yearly as state immunization programs conduct local assessments where they are most needed.

The 17 other states included 11 where routine hepatitis A vaccination had been recommended since 1999 (Alaska, Arizona, California, Idaho, Nevada, New Mexico, Oklahoma, Oregon, South Dakota, Utah, and Washington) and six states where routine vaccination had been recommended for consideration include (Arkansas, Colorado, Missouri, Montana, Texas, and Wyoming).

TABLE. Estimated hepatitis A vaccination coverage (at least 1 dose) among children aged 24–35 months,* by ACIP vaccination
recommendation status <sup>†</sup> and state/local area — National Immunization Survey (NIS), United States, 2006 and 2007

		2006§	2	- % point difference		
State/Local area	%	(95% Cl**)	%	(95% CI)	from 2006 to 2007	
United States	26.3	(25.1–27.4)	47.4	(45.9–49.0)	21.1 <sup>+†</sup>	
Vaccination recommended since 1999	62.8	(59.5-66.1)	74.1	(70.2–77.9)	11.3 <sup>+†</sup>	
(11 states overall) <sup>††</sup>		. ,		. ,		
Alaska	65.9	(57.1–73.7)	82.8	(75.4-88.4)	16.9 <sup>††</sup>	
Arizona	66.2	(60.4–71.5)	76.3	(68.2–82.8)	10.1 <sup>++</sup>	
Maricopa County	69.5	(62.3–76.0)	§§	·	_	
Rest of state	59.9	(50.0-69.0)	_	_	_	
California	66.5	(60.8–71.8)	77.3	(70.1-83.2)	10.8 <sup>++</sup>	
Alameda County	—	_	76.4	(68.7-82.6)	—	
Fresno County	70.8	(62.8–77.7)	—	—	—	
Los Angeles County	75.9	(68.3-82.2)	79.3	(71.6–85.4)	3.4	
Northern California	45.7	(37.4–54.2)	—	—	—	
San Bernardino County	—	_	79.6	(72.7–85.1)	_	
San Diego County	65.4	(57.4–72.7)	—	—	_	
Santa Clara County	67.0	(58.4–74.5)	—	—	_	
Rest of state	62.2	(52.4–71.0)	76.2	(64.9-84.8)	14.0 <sup>+†</sup>	
Idaho	56.3	(47.5–64.6)	66.2	(57.0–74.3)	9.9	
Nevada	61.7	(52.9–69.8)	71.3	(62.9–78.5)	9.6	
New Mexico	48.9	(42.3–55.6)	67.9	(57.8–76.5)	19.0 <sup>++</sup>	
Southern New Mexico	56.8	(48.2–65.0)	—	—	—	
Rest of state	45.5	(36.9–54.3)	—	—	—	
Oklahoma	73.7	(65.9–80.3)	79.8	(72.5–85.6)	6.1	
Oregon	50.1	(41.2–58.9)	59.3	(49.5–68.5)	9.2	
South Dakota	7.4	(4.4–12.3)	31.6	(23.8–40.6)	24.2 <sup>††</sup>	
Utah	68.3	(59.7–75.8)	78.2	(70.3–84.4)	9.9	
Washington	45.9	(40.0–51.9)	62.0	(53.6–69.8)	16.1**	
Eastern Washington	36.2	(28.6-44.5)	—	—	—	
King County	69.8	(60.3–77.8)	_		—	
Western Washington			59.6	(51.1–67.6)		
Rest of state	36.4	(28.1–45.6)	62.6	(52.4–71.7)	26.2††	
Vaccination recommended to be considered	48.8	(45.1–52.5)	66.6	(62.7–70.5)	17.8 <sup>††</sup>	
since 1999 (six states overall) <sup>††</sup>						
Arkansas	3.6	(1.0–11.9)	11.7	(7.7–17.4)	8.1 <sup>++</sup>	
Colorado	¶¶	(	11	(	<b>11</b>	
Missouri	26.5	(19.7–34.6)	54.0	(44.7–63.1)	27.5††	
Montana	16.9	(11.9–23.4)	39.1	(31.0–47.9)	22.2 <sup>††</sup>	
Texas	62.5	(57.2–67.5)	77.5	(72.0-82.2)	15.0 <sup>††</sup>	
Bexar County	65.9	(56.6–74.1)	75.7	(67.7–82.2)	9.8	
City of Houston	67.7	(59.9–74.7)	81.3	(74.7–86.5)	13.6††	
Dallas County	60.0	(50.2–69.1)	78.9	(71.2-84.9)	18.9 <sup>††</sup>	
El Paso County	77.6	(70.6-83.3)	89.3	(83.0–93.5)	11.7 <sup>††</sup>	
Rest of state	60.7	(53.1–67.9)	76.0	(67.7–82.8)	15.3 <sup>††</sup>	
Wyoming	19.8	(13.9–27.4)	33.8	(26.0–42.6)	14.0 <sup>††</sup>	
Vaccination recommended since 2006 (33 states	7.2	(6.5–7.9)	32.7	(31.0–34.3)	25.5 <sup>++</sup>	
and District of Columbia overall) <sup>††</sup>						
Alabama	3.0	(1.3–6.7)	28.7	(21.4–37.2)	25.7††	
Connecticut	3.7	(1.8–7.6)	22.0	(15.6–30.0)	18.3††	
Delaware	4.4	(2.2-8.5)	28.1	(21.2–36.3)	23.7 <sup>††</sup>	
District of Columbia	8.8	(5.6–13.7)	52.2	(43.5–60.7)	43.4 <sup>††</sup>	
Florida	5.1	(3.3-8.0)	28.1	(21.0–36.5)	23.0††	
Duval County	6.1	(3.5–10.4)				
Miami-Dade County	10.4	(6.2–17.0)	27.1	(20.2–35.4)	16.7 <sup>††</sup>	
Rest of state	4.0	(2.0-7.8)	28.2	(20.1–38.1)	24.2 <sup>††</sup>	
Georgia	9.8	(7.2–13.2)	32.7	(24.8–41.6)	22.9 <sup>††</sup>	
Fulton/DeKalb counties	24.8	(18.3–32.7)	_	_	—	
	6.5	(4.0–10.6)		_	_	
Rest of state		```	<b>F</b> 4 4		++	
Rest of state Hawaii Illinois	12.4 12.1	(7.2–20.5) (9.1–16.0)	54.1 37.2	(44.7–63.3) (31.2–43.5)	41.7 <sup>††</sup> 25.1 <sup>††</sup>	

		2006 <sup>§</sup>		- % point difference	
State/Local area	%	(95% Cl**)	%	(95% CI)	from 2006 to 2007
City of Chicago	30.7	(23.7–38.7)	47.2	(38.4–56.3)	16.5††
Rest of state	5.5	(2.8–10.4)	33.7	(26.4-41.8)	28.2 <sup>††</sup>
Indiana	6.1	(3.5–10.3)	31.8	(25.5–38.9)	25.7 <sup>+†</sup>
Marion County	12.0	(6.8–20.3)	27.7	(21.6-34.8)	15.7 <sup>††</sup>
Rest of state	4.9	(2.3–10.1)	32.6	(25.2-41.1)	27.7 <sup>††</sup>
Iowa	7.2	(4.1–12.3)	25.5	(19.4–32.7)	18.3 <sup>††</sup>
Kansas	14.1	(10.5–18.6)	34.3	(26.6–43.0)	20.2 <sup>+†</sup>
Eastern Kansas	28.6	(21.8–36.5)	_		_
Rest of state	8.9	(5.1–14.9)	_	_	_
Kentucky	3.2	(1.3–7.6)	27.8	(21.3-35.3)	24.6 <sup>††</sup>
Louisiana	4.9	(2.5–9.5)	38.4	(30.0–47.5)	33.5 <sup>++</sup>
Maine	0.4	(0.1–3.1)	11.6	(6.5–19.9)	11.2 <sup>††</sup>
Maryland	13.9	(9.9–19.2)	49.6	(39.8–59.4)	35.7 <sup>††</sup>
City of Baltimore	42.7	(34.2–51.6)	_	(	_
Rest of state	9.8	(5.8–16.2)	_	_	_
Massachusetts	3.3	(1.5–6.9)	20.0	(12.0–31.5)	16.7 <sup>+†</sup>
City of Boston	4.5	(2.3-8.7)	_	( ) 	_
Rest of state	3.1	(1.3–7.3)	_	_	_
Michigan	1.8	(0.7–4.5)	29.8	(22.2-38.6)	28.0 <sup>††</sup>
City of Detroit	4.2	(2.1–8.4)		(	
Rest of state	1.5	(0.4–5.0)	_	_	_
Minnesota	3.1	(1.3–7.3)	23.2	(17.0–30.7)	20.1**
Mississippi	1.7	(0.5–5.5)	21.6	(14.8–30.4)	19.9 <sup>††</sup>
Nebraska	8.9	(5.6–13.9)	38.5	(29.9–47.9)	29.6††
New Hampshire	1.2	(0.3–5.0)	22.2	(15.3–31.1)	21.0 <sup>+†</sup>
New Jersey	9.7	(5.7–15.9)	40.9	(32.5–49.9)	31.2 <sup>+†</sup>
City of Newark	3.6	(1.8–7.0)		(0210 1010)	
Rest of state	9.9	(5.8–16.4)	_	_	_
New York	11.7	(8.6–15.6)	31.6	(26.3–37.4)	19.9 <sup>††</sup>
City of New York	16.1	(11.6–22.1)	34.6	(27.8–42.1)	18.5 <sup>††</sup>
Rest of state	7.5	(3.9–13.7)	28.8	(21.1–38.0)	21.3 <sup>+†</sup>
North Carolina	3.3	(1.3–7.7)	31.9	(23.8–41.2)	28.6 <sup>††</sup>
North Dakota	10.5	(5.6–19.0)	47.1	(39.0–55.3)	36.6 <sup>††</sup>
Ohio	3.6	(1.9–6.7)	23.5	(17.9–30.2)	19.9 <sup>††</sup>
Cuyahoga County	3.1	(1.3–7.2)		(11.0 00.2)	
Rest of state	3.7	(1.8–7.3)	_	_	_
Pennsylvania	3.8	(2.3–6.1)	41.0	(35.1–47.1)	37.2 <sup>+†</sup>
Allegheny County	6.8	(3.2–13.7)		(0011 111)	
Philadelphia County	6.0	(3.0–11.8)	49.6	(40.2–58.9)	43.6††
Rest of state	2.9	(1.4–6.1)	39.4	(32.8–46.5)	36.5 <sup>††</sup>
Rhode Island	13.0	(8.9–18.6)	60.1	(49.8–69.6)	47.1 <sup>+†</sup>
South Carolina	2.4	(1.1–5.1)	29.4	(23.4–36.2)	27.0 <sup>+†</sup>
Tennessee	17.7	(11.9–25.3)	48.2	(39.4–57.1)	30.5 <sup>††</sup>
Shelby County	27.0	(19.6–36.0)		(00.+ 01.1)	
Rest of state	15.6	(9.1–25.3)	_	_	_
Vermont	1.3	(0.3–5.3)	23.1	(15.3–33.2)	21.8††
Virginia	8.6	(5.1–14.2)	34.5	(27.5–42.2)	25.9††
West Virginia	2.5	(1.0–5.9)	23.9	(18.0–31.1)	23.9 <sup>++</sup> 21.4 <sup>++</sup>
West Virginia Wisconsin	2.5	(8.2–15.0)	23.9 34.6	(26.6–43.5)	23.5 <sup>††</sup>
Milwaukee County	33.2	(24.8–42.8)	04.0	(20.0-40.0)	
,	5.2	( /			—
Rest of state	5.2	(2.7–9.6)			

TABLE. (Continued) Estimated hepatitis A vaccination coverage (at least 1 dose) among children aged 24–35 months,\* by ACIP vaccination recommendation status<sup>+</sup> and state/local area — National Immunization Survey (NIS), United States, 2006 and 2007

\* 2006: n = 14,804; 2007: n = 12,018.

<sup>†</sup> CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-12). CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2006;55(No. RR-7).

§ Among children born during January 2003–March 2005.

<sup>¶</sup> Among children born during January 2004–March 2006.

\*\* Confidence interval.

<sup>++</sup> Difference is statistically significant (p<0.05).

§§ Area was not sampled. Local areas sampled by NIS might change yearly as state immunization programs conduct local assessments where they are most needed.

Il Estimate not reported because it is unstable; 95% CI >20 percentage points.

3.6% (Arkansas) to 62.5% (Texas), and coverage in 2007 ranged from 11.7% (Arkansas) to 77.5% (Texas).

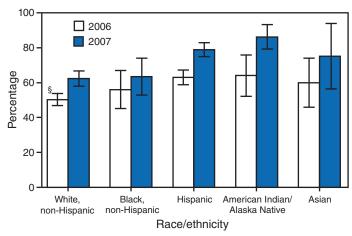
In 2006, children who were American Indian/Alaska Native (AI/AN) (64.0%) or Hispanic (63.0%) had significantly higher estimates of hepatitis A vaccination coverage than non-Hispanic whites (50.3%). In 2007, children who were AI/AN (86.2%), Hispanic (78.9%), or Asian (75.1%) had significantly higher coverage than non-Hispanic whites (62.4%) (Figure 1). No other significant differences were found in the pairwise comparisons of race/ethnicity for either year.

After the 2006 ACIP recommendations lowered the minimum age for hepatitis A vaccination from  $\geq$ 24 months to 12–23 months, approximately half of children in the 2007 NIS received their first dose at age <24 months in states where routine vaccination had been recommended or recommended for consideration since 1999 (Figure 2). Among states where vaccination was not recommended until 2006, approximately two thirds received their first dose at age <24 months.

**Reported by:** SS Chaves, MD, Div of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention; N Darling, MPH, T Santibanez, PhD, Immunization Services Div, National Center for Immunization and Respiratory Diseases, CDC.

Editorial Note: The estimated 21.1% increase in hepatitis A vaccination coverage observed in 2007 overall in the United States, and particularly among those 33 states where no previous recommendation was in effect, likely resulted in large part from the 2006 ACIP recommendations that expanded use of hepatitis A vaccine to children nationwide and reduced the recommended age for vaccination from >24 months to 12–23 months. The percentage of children in compliance with the well-child visit recommendations of the American Academy of Pediatrics has been found substantially higher among infants and children aged <24 months, when well-child visits are more frequent, than children aged  $\geq 24$  months, when such visits occur annually (6). Therefore, incorporation of hepatitis A vaccine into the routine early childhood vaccination schedule was an important strategy to improve vaccination coverage after the 2006 ACIP recommendation.

Compared with the prevaccination era, the number of cases and rates of acute hepatitis A in the United States have declined substantially (7). Historically, hepatitis A rates have differed by race/ethnicity. In the prevaccination era, rates of acute hepatitis A were five times greater among AI/ANs and three times greater among Hispanics than the national average (7–9). However, after several years of focused efforts to increase hepatitis A vaccination in AI/AN communities, during 2001–2007, hepatitis A rates among AI/ANs were lower than rates among persons in other racial/ethnic populations. In 2007, the hepatitis A rate was 0.5 cases per 100,000 population among AI/ANs and 1.4 cases per 100,000 population among Hispanics (a decline of FIGURE 1. Estimated hepatitis A vaccination coverage (at least 1 dose) among children aged 24–35 months\* in states and local areas where routine vaccination has been recommended or recommended for consideration by ACIP since 1999,<sup>†</sup> by race/ethnicity — National Immunization Survey, United States, 2006 and 2007

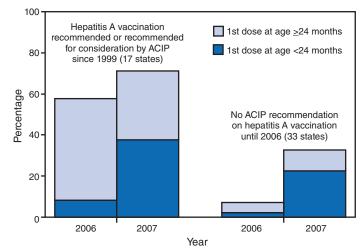


\* 2006: n = 14,804; 2007: n = 12,018.

<sup>†</sup> CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-12).

§ 95% confidence interval.

FIGURE 2. Estimated hepatitis A vaccination coverage (at least 1 dose) among children aged 24–35 months,\* by age at first vaccine dose and by state's ACIP vaccination recommendation status<sup>†</sup> — National Immunization Survey, United States, 2006 and 2007



\* 2006: n = 14,804; 2007: n = 12,018.

<sup>†</sup> CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-12). CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2006;55(No. RR-7). 94% since 1997) (7). In this report, the significantly higher percentages in 2006 and 2007 of hepatitis A vaccination coverage among AI/AN and Hispanic children compared with non-Hispanic white children likely reflect earlier emphasis on these minority populations in areas with elevated rates of hepatitis A and exemplify the substantial progress made toward eliminating racial/ethnic disparities.

The findings in this report are subject to at least three limitations. First, NIS is a landline telephone survey; although statistical adjustments compensate for nonresponse and households without telephones, some bias might remain. Second, NIS relies on provider-verified vaccination histories; incomplete records and reporting might result in biased estimates. Finally, estimates for certain state and local areas with small sample sizes and wide confidence intervals should be interpreted with caution.

Studies have found that 97%–100% of children aged 2–18 years had protective levels of antibody 1 month after receiving their first dose of hepatitis A vaccine and 100% had protective levels 1 month after receiving their second dose (4). Although current studies show long-term protection more than a decade after vaccination, the second dose might be more important for lasting vaccine-induced immunity as younger children aged 12–23 months are vaccinated. Thus, for hepatitis A vaccination to be effective, the vaccine must confer long-term protection.

Continued surveillance and monitoring is critical because the hypothetical possibility of waning immunity might lead to the higher probability of symptomatic infections during adolescence and adulthood (4). Despite the increase in hepatitis A vaccination coverage with at least 1 dose observed in 2007, the impact of the 2006 ACIP recommendation cannot yet be fully assessed. Based on 2007 NIS data, national estimated vaccination coverage with at least 2 doses of hepatitis A vaccine was 36.7% for children who were aged <12 months on May 19, 2006, when the new ACIP recommendations were published (CDC, unpublished data, 2009). Measurement of vaccination coverage with at least 2 doses of hepatitis A vaccine among children aged 19–35 months is important to assess the effect of hepatitis A immunization on the control and potential elimination of hepatitis A in the United States.

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### Recurring Norovirus Outbreaks in a Long-Term Residential Treatment Facility – Oregon, 2007

On November 9, 2007, the Oregon Public Health Division (OPHD) was notified of an outbreak of acute gastroenteritis in a long-term residential treatment facility. Two previous outbreaks caused by norovirus had occurred at the facility in March and July 2007. OPHD initiated an in-depth epidemiologic investigation, which included submitting archived and recent specimens from the three outbreaks to CDC for genotyping. This report summarizes findings of the outbreak investigation and laboratory testing. The overall attack rate for the most recent outbreak was approximately 14% among patients and 7% among employees. The outbreak was unusual in that it lasted 63 days, versus 24-27 days for the two previous outbreaks in 2007. Person-to-person transmission was suggested by a prolonged and dispersed epidemic curve and lack of illness in some wards, although all wards were served by one central kitchen. Barriers to conducting adequate hygiene (e.g., lack of handwashing stations) and multiple lapses in infection control (e.g., noncompliance with staff wellness policies) were identified. Timely and sustained implementation of comprehensive and effective infection control measures are needed to prevent and contain norovirus outbreaks in large institutional settings.

At the time of the third outbreak, the long-term treatment facility had 740 employees and approximately 690 adult patients in 22 wards in multiple buildings. Each ward houses 20–45 patients, and 1–6 patients live in each room. The median length of stay for patients is >12 months and patients' mobility outside and within the facility is restricted. Staffing in each ward often includes 4–5 physicians and social workers,

3–6 nurses, and 12–18 nursing aides. Housekeeping staff and approximately 27 nurses and nursing aides work from ward to ward as needed. A single kitchen prepares food solely for patients of the facility. Nursing aides often help serve the food to patients in each ward.

The first two norovirus outbreaks occurred in March and July of 2007, lasting 24 and 27 days, respectively (Table 1). Both outbreaks were thought to be transmitted primarily from person to person, and each affected eight wards. During the first two outbreaks, basic control measures were recommended by OPHD (1), including hand hygiene, asking ill employees to stay home until 72 hours after symptom resolution, segregating patients and employees on affected wards from unaffected wards, and using detergents registered by the U.S. Environmental Protection Agency (EPA) for thorough environmental surface disinfection.

For the third norovirus outbreak, infection control staff in the facility recorded daily information about patients and employees who had norovirus-like illnesses beginning on November 8 and retrospectively from the end of October. Demographic characteristics, onset dates and times, symptoms, and outcomes of the infection were recorded. A case was defined as acute onset of vomiting or diarrhea (three or more loose stools within any 24-hour period) in an employee or patient of the facility during October 26–December 27, 2007.

A notable increase in cases (23 patients and one employee) was observed on November 9 in three wards that had reported sporadic cases on November 6 and November 7, which prompted reporting the outbreak to OPHD (Figure). On November 9, the same basic control measures recommended during the first two outbreaks were recommended again.

Although similar foods were distributed to all wards, no kitchen staff reported norovirus-like illness and not all wards were infected, suggesting that the outbreak did not result from a common foodborne source. The outbreak lasted 63 days and affected 16 (73%) wards, 94 (14%) patients, and 51 (7%) employees. The median age among ill persons was 51 years

(range: 19–85 years) for patients and 46 years (range: 21–60 years) for employees. No deaths were reported.

Infection control staff at the facility collected 25 stool specimens from 25 ill patients and employees in six wards with 10 or more reported cases for norovirus testing. OPHD investigators collected 20 environmental swab samples from surfaces of patient rooms, door knobs, bathrooms, dining tables, and work stations in these six wards on November 20, 2007. Stool and environmental specimens were tested at the Oregon State Public Health Laboratory for norovirus by real-time reverse transcription–polymerase chain reaction. To determine whether all three outbreaks were caused by the same norovirus strain, positive stool specimens from all three 2007 outbreaks were genotyped at CDC.

Of the 25 stool specimens collected during the third outbreak, 15 (60%) from five of the six wards were positive for a norovirus GII.4 variant that was different from all previously named GII.4 variants. Stool specimens from the previous two norovirus outbreaks were positive for GII.6 and GII.4 Minerva, respectively. One of the 20 environmental specimens collected from one ill patient's room was positive for norovirus GII; no sequencing was done for this specimen. Results for other environmental specimens were negative.

Because most patients in the facility were unable to give reliable information regarding potential risk factors, risk factor assessment was limited to employees. All employees in the six wards with 10 or more cases were asked to complete a printed questionnaire anonymously. The questionnaire included information on illness status, onset dates and times, duration and outcomes of illness, and potential risk factors (e.g., length of employment at the facility, previous infection in the 2007 norovirus outbreaks, cleaning vomitus, use of gloves and masks when cleaning vomitus, and hand hygiene behaviors). Questionnaires were distributed from the nursing station of each ward, beginning November 20, 2007. Completed questionnaires were collected at the nursing stations. On January 3, 2008, 1 week after the illness onset of the last case, all completed questionnaires were sent to OPHD for data entry and

TABLE 1. Epidemiologic characteristics of three norovirus outbreaks in a 22-ward, long-term residential treatment facility — Oregon, 2007

		Duration -	No. of	cases*	No. of – laboratorv-	No. of wards	
Starting date	Ending date	(days)	Patients Employees		confirmed cases	affected	Genotype (variant)
March 30	April 22	24	14	43	2	8	GII.6
July 24	August 19	27	28	58	5	8	GII.4 (Minerva)
October 26	December 27	63	94	51	15†	16	GII.4 (uncharacterized)§

\* Defined as acute onset of vomiting or diarrhea (three or more loose stools within any 24-hour period) in an employee or patient of the facility during the outbreak period.

<sup>+</sup> From 25 stool specimens (15–20 g of whole stool per specimen) collected from 25 ill patients and employees on six wards and submitted to the Oregon State Public Health Laboratory for norovirus testing by real-time reverse transcription–polymerase chain reaction.

§ Different from all previously named GII.4 strains.

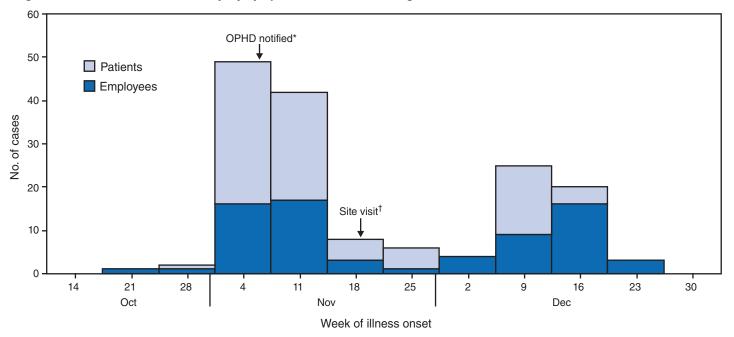


FIGURE. Number of cases (N = 145) of acute gastroenteritis among patients and employees during a norovirus outbreak at a long-term residential treatment facility, by symptom onset week — Oregon, October–December 2007

\* Oregon Public Health Division (OPHD) was notified of outbreak November 9, 2007, and recommended initial control measures.
 † OPHD conducted site visit November 20, 2007, collected environmental swabs, initiated self-adminstered, anonymous employee questionnaires, and identified control barriers.

analysis. Pearson chi-square testing was used to compare attack rates between different exposure groups. Variables associated with illness with p<0.2 in bivariate analyses were included in a multivariate binomial regression model to assess independent associations with illness.

From among 242 employees on surveyed wards, 146 (60%) completed surveys were returned, and 51 (35%) respondents reported illnesses meeting the case definition. The symptom profile included diarrhea (100%), nausea (82%), cramps (76%), fatigue (65%), vomiting (61%), and headache (61%). The median duration of vomiting or diarrhea was 3 days (range: 1–12). Two (4%) of the ill employees reported seeing a physician. Among surveyed ill employees, 94% went to work while ill, and 8% vomited at work.

A total of 29 employees reported cleaning up vomitus at work, including in patient rooms (55%), hallways (45%), and bathrooms (48%). Of the 29 employees, 97% reported wearing gloves, 17% reported wearing masks, and none reported wearing gowns when cleaning up vomitus. Employees who reported having cleaned up vomitus were more likely to contract illness than those who did not (adjusted risk ratio  $[_aRR] = 1.6$ ) (Table 2). Shorter length of employment in the facility was also associated with an increased risk of illness ( $_aRR = 1.6$ ).

During a site visit on November 20, 2007, OPHD interviewed the infection control staff and identified major barriers or lapses in infection control. First, staff shortages and restrictions on sick-leave days made it difficult to ask ill employees to stay at home for the period recommended by OPHD guidelines and to restrict employees from working across wards (1). Second, most patients cleaned their own rooms (without EPA-registered disinfectants) because of a lack of housekeeping staff. Third, the number of handwashing stations was insufficient in most wards, and no handwashing sinks were available in dining areas or patient rooms.

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**Editorial Note:** Although norovirus outbreaks are common in health-care settings (2), recurrences within a short period in a single facility are rare. This facility experienced a substantial increase in norovirus activities in 2007 compared with previous years, with three norovirus outbreaks reported in 2007, one reported in 2006, and none reported during 2003–2005. Statewide in Oregon, no increase in norovirus outbreaks in similar settings was observed during 2006–2007. Each of the three outbreaks at the facility in 2007 was caused by different norovirus variants, indicating that the recurrences of outbreaks likely resulted from repeated introduction of different norovirus variants.

Potential risk factors	Response	No. ill	Attack rate (%)	p value	aRR <sup>†</sup>	(95% Cl§)
Sex						
Male	43	12	(28)	0.19		
Female	99	39	(39)			
Age						
20–39	36	15	(42)	0.51		
40–49	50	15	(30)			
50 or more	48	18	(38)			
Job type						
Nurse or doctor	58	17	(29)	0.43		
Nursing aide	70	26	(37)			
Other positions	18	8	(44)			
Cleaned vomitus						
Yes	29	17	(59)	<0.01	1.6	(1.1–2.5)
No (Referent)	117	34	(29)			
Wore mask when cleaning vomitus						
Yes	5	4	(80)	0.22		
No	22	11	(50)			
Wore gloves when cleaning vomitus						
Yes	28	15	(55)	0.37		
No	1	1	(100)			
Handwashing before eating						
Sometimes	19	4	(21)	0.16		
All/Most of the time	125	47	(38)			
Handwashing after touching patients						
Sometimes	47	17	(36)	0.87		
All/Most of the time	95	33	(35)			
Previously infected during 2007						
Yes	12	7	(58)	0.08	1.3	(0.8-2.1)
No (Referent)	132	44	(33)			
Length of employment at facility						
<4 yrs	61	29	(48)	0.01	1.6	(1.0-2.5)
≥4 yrs (Referent)	83	22	(27)			

TABLE 2. Attack rate and adjusted risk ratio for illness among employees of wards with  $\geq$ 10 cases,\* by potential risk factors in a norovirus outbreak at a long-term residential treatment facility — Oregon, October–December 2007

\* Based on 146 self-administered, anonymous questionnaires submitted by employees of wards with 10 or more cases; some employees did not answer all guestions.

<sup>†</sup> Adjusted risk ratio: cleaned vomitus, previous infection in 2007, and length of employment variables were mutually adjusted in the multivariate analysis. § Confidence interval.

Although all wards were served by a common food supply, prolonged transmission occurred only within certain wards, suggesting that this third outbreak, similar to the two previous outbreaks, likely resulted from to person-to-person transmission rather than a foodborne source. Because of the patients' long-term residency and lack of mobility outside and within the facility, employees or visitors were more likely to have contributed to the introduction of new infection and dissemination across wards. In fact, the six unaffected wards were administratively separate from the other 16 wards; neither patients nor employees transferred from the 16 affected wards to the six unaffected wards. In this facility, employees are required to use their limited sick leave days (approximately 12 days/year) when furloughed. This administrative policy and the concurrent shortage of staff might account for the number of infected employees reporting to work while sick. Barriers to conducting adequate hygiene (e.g., lack of handwashing stations), multiple lapses in infection control (e.g., noncompliance with staff wellness policies), and permitting employee mobility between affected and unaffected wards likely contributed to the recurrent and sustained outbreaks.

Facility employees who cleaned up vomitus were at higher risk for illness. This is consistent with previous reports of norovirus transmission through aerosolized vomitus (3). Gloves were worn by 97% of surveyed employees who cleaned vomitus, but they rarely wore gowns or aprons and masks while cleaning vomitus. Masks have been shown to reduce the risk for norovirus infection among nursing home employees (4). To reduce the risk for norovirus transmission through aerosolized vomitus, OPHD recommends the following steps: 1) remove vomitus and fecal material carefully to limit aerosolization (e.g., soaking up vomitus or diarrhea with paper towels or other disposable cloths with minimal agitation and removing those in impervious bags), 2) thoroughly clean surfaces and disinfect with freshly made 5,000 ppm hypochlorite solution or other EPA-registered norovirus disinfectants, and 3) wear appropriate personal protective equipment (PPE) (e.g., gloves, masks, and gowns) when cleaning vomitus or feces (1,5).

The findings in this report are subject to at least four limitations. First, illness among patients and employees might have been underreported. Second, the employee survey was anonymous; an employee could have submitted multiple questionnaires containing differing responses to health status or other questions. Third, only limited information regarding employee characteristics was collected. The difference in attack rate between short-term and long-term employees cannot be fully explained by hand hygiene or practices of cleaning vomitus. Finally, because only six wards were surveyed and the response rate was relatively low, the findings might not be generalizable to all employees of the facility.

Norovirus is infectious at low doses (as few as 10 viral particles), and long-term or cross-strain immunity is limited. Norovirus is transmitted readily in health-care settings with close contacts between ill and well persons, which makes rapid implementation of effective control measures important (6, 7). The findings of this report highlight the importance of timely implementation of standard infection control practices (8) and targeted norovirus control measures as recommended by CDC for the use of masks (9), and by OPHD to prevent and control norovirus outbreaks in large residential treatment facilities (1,5). In addition, when inconsistent use of PPE is identified, CDC recommends thorough evaluation of workplace programs, such as a review of workplace policies and practices, training, selection of PPE, and disposal of used PPE. In response to this outbreak, OPHD officials worked with facility administrators to increase staff capacity and emphasize the importance of employees staying home while ill. In addition, patient rooms are now cleaned by housekeeping staff using EPA-registered products.

#### **Acknowledgments**

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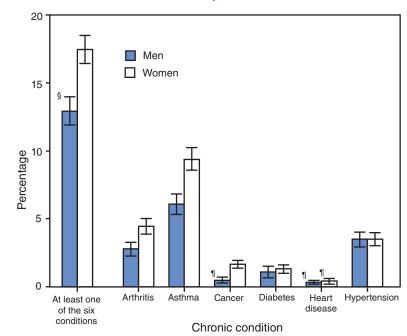
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# **QuickStats**

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

#### Percentage of Young Adults Aged 18–29 Years\* with Selected Chronic Conditions,<sup>†</sup> by Sex — National Health Interview Survey, United States, 2005–2007



\* Overall respondents: 6,898 men and 8,532 women.

- <sup>†</sup> Estimates are based on household interviews with a sample of the civilian, noninstitutionalized, adult U.S. population. The prevalence of diagnosed chronic conditions was determined by asking respondents if a doctor or other health professional ever told them that they had a specified condition. Asthma estimates are for current asthma and are based on the additional question "Do you still have asthma?" Arthritis includes arthritis, rheumatoid arthritis, gout, lupus, and fibromyalgia. Cancer excludes nonmelanoma skin cancer or skin cancer or unknown type. Diabetes includes all types with the exception of diabetic conditions related to pregnancy. Heart disease includes coronary heart disease, angina or angina pectoris, or heart attack or myocardial infarction. Hypertension is based on respondents indicating that on two or more separate visits they were told by a doctor or health professional that they had hypertension. Young adults who reported more than one condition are counted in each category.
- § 95% confidence interval.
- <sup>¶</sup> Estimate is statistically unreliable; data have a relative standard error of 20%–30%.

During 2005–2007, young women aged 18–29 years (17.4%) were more likely to report having at least one of six selected chronic conditions than young men (12.9%) in the same age group. For both young men and young women, asthma, arthritis, and hypertension were the three most common of the six conditions. Greater percentages of women than men reported having asthma, arthritis, or cancer; similar percentages of women and men reported having hypertension or diabetes.

SOURCE: National Health Inteview Survey data files, 2005, 2006, and 2007. Available at http://www.cdc.gov/nchs/nhis.htm.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending June 27, 2009 (25th week)\*

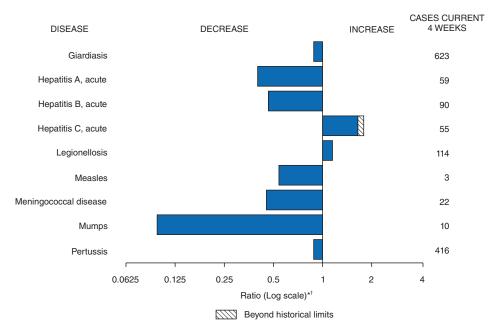
week ending June 27, 2009 (25th week)"	Current	Cum	5-year weekly			ases re evious		I	States reporting cases
Disease	week	2009	average <sup>†</sup>	2008	2007	2006	2005	2004	during current week (No.)
Anthrax	_	_	_		1	1	_	_	
Botulism:		-							
foodborne	_	9	0	17	32	20	19	16	
infant other (wound and unspecified)	_	25 12	2 1	109 19	85 27	97 48	85 31	87 30	
Brucellosis	4	41	2	80	131	121	120	114	VA (1), FL (1), CA (2)
Chancroid	_	18	0	25	23	33	17	30	VA (1), 1 E (1), OA (2)
Cholera	_	2	Ő	3	7	9	8	6	
Cyclosporiasis§	3	41	13	139	93	137	543	160	NY (2), FL (1)
Diphtheria	—	—	—	_	_	—	_	—	
Domestic arboviral diseases <sup>§</sup> , <sup>¶</sup> :			-						
California serogroup	_	_	2	62	55	67	80	112	
eastern equine Powassan	_	_	0 0	4 2	4 7	8 1	21 1	6 1	
St. Louis	_	_	0	13	9	10	13	12	
western equine	_	_	_		_				
Ehrlichiosis/Anaplasmosis <sup>§</sup> ,**:									
Ehrlichia chaffeensis	12	144	21	1,137	828	578	506	338	NY (2), OH (1), MD (2), NC (2), SC (1), FL (1),
									TN (2), OK (1)
Ehrlichia ewingii			0	9					
Anaplasma phagocytophilum	4	70	24	1,026	834	646	786	537	ME (1), CT (1), NY (2)
undetermined Haemophilus influenzae. <sup>††</sup>	_	28	10	180	337	231	112	59	
invasive disease (age <5 yrs):									
serotype b	_	13	0	30	22	29	9	19	
nonserotype b	1	97	3	244	199	175	135	135	NC (1)
unknown serotype	4	103	3	163	180	179	217	177	NY (1), FL (1), AR (1), AZ (1)
Hansen disease§	_	30	2	80	101	66	87	105	
Hantavirus pulmonary syndrome§	_	3	1	18	32	40	26	24	
Hemolytic uremic syndrome, postdiarrheal§	2	66	6	330	292	288	221	200	CT (1), CO (1)
Hepatitis C viral, acute	12	416	15	878	845	766	652	720	NY (2), MI (1), IA (3), NC (1), FL (1), KY (2),
HIV infection, pediatric (age <13 years)§§	_	_	3	_	_	_	380	436	WA (1), CA (1)
Influenza-associated pediatric mortality <sup>§</sup> , <sup>¶¶</sup>	8	85	1	85	77	43	45		RI (1), NJ (2), TX (1), AZ (1), UT (1), OR (1), WI (1
Listeriosis	4	228	16	759	808	884	896	753	MD (1), FL (1), AR (1), WA (1)
Measles***	3	29	3	140	43	55	66	37	NYC (3)
Meningococcal disease, invasive <sup>†††</sup> :									
A, C, Y, and W-135		143	6	330	325	318	297	_	
serogroup B	4	78	4	188	167	193	156	_	MI (1), SC (1), GA (1), OK (1)
other serogroup		13 231	1	38	35 550	32 651	27 765	_	
unknown serogroup Mumps	5	167	12 25	616 454		6,584	314	258	MI (1), KS (1), ID (1), CA (2)
Novel influenza A virus infections§§§	_	27,717		2	4	0,004 N	N	230 N	
Plague	_		0	2	7	17	8	3	
Poliomyelitis, paralytic	_	_	_	_	_	_	1	_	
Polio virus infection, nonparalytic§	_	—	_	_	_	N	N	N	
Psittacosis§	—	6	0	8	12	21	16	12	
Q fever total <sup>§</sup> , <sup>¶¶¶</sup> :	—	32	4	124	171	169	136	70	
acute	_	28 4	2	110	_	_	_	_	
chronic Rabies, human	_	4	0	14 1	1	3	2	7	
Rubella****	_	1	0	16	12	11	11	10	
Rubella, congenital syndrome	_	1	_			1	1		
SARS-CoV <sup>§,††††</sup>	_	_	_	_	_		_	_	
Smallpox§	_	_	—	_	—	—	—	_	
Streptococcal toxic-shock syndrome§	—	79	2	157	132	125	129	132	
Syphilis, congenital (age <1 yr)	—	77	8	420	430	349	329	353	
Tetanus	_	4	1	19	28	41	27	34	
Toxic-shock syndrome (staphylococcal)§ Trichinellosis	1	39	2 0	71	92	101	90	95	CA(1)
Tularemia	1	10 18	0 5	39 123	5 137	15 95	16 154	5 134	CA (1)
Typhoid fever	2	156	6	447	434	353	324	322	MN (1), GA (1)
Vancomycin-intermediate Staphylococcus aureus		29	0	63	434	6	2	522	NY (1)
Vancomycin-resistant Staphylococcus aureus§	_		_	_	2	1	3	1	
Vibriosis (noncholera Vibrio species infections)§	6	112	5	492	549	Ν	Ν	Ν	FL (2), AL (2), OK (1), CA (1)
Yellow fever	—	—	_	_	_	_	_	_	

See Table I footnotes on next page.

# TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending June 27, 2009 (25th week)\*

- -: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts.
- \* Incidence data for reporting year 2008 and 2009 are provisional, whereas data for 2004, 2005, 2006, and 2007 are finalized.
- <sup>†</sup> 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. The total sum of incident cases is then divided by 25 weeks. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf.
  <sup>§</sup> 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 information are queried and the state. Data from states where the condition is not reportable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and information are queried and the state.
- influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. <sup>1</sup> Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
- \*\* The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).
- <sup>++</sup> Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
- <sup>§§</sup> 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.
- 11 Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Eighty-four influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.
- \*\*\* The three measles cases reported for the current week were indigenous.
- <sup>+++</sup> Data for meningococcal disease (all serogroups) are available in Table II.
- SSS These cases were obtained from state and territorial health departments in response to the pandemic influenza A (H1N1) virus infections and include both confirmed and probable cases in addition to those reported to the National Notifiable Diseases Surveillance System (NNDSS). Because of the volume of cases and the method by which they are being collected, a 5-year weekly average for this disease is not calculated.
- In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
- \*\*\*\* No rubella cases were reported for the current week.
- titt Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

## FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals June 27, 2009, with historical data



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

Notifiable Disease Data Team and	122 Cities Mortality Data Team
Patsy A. H	Hall
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Lenee Blanton	Pearl C. Sharp

(25th week)*	Chlamydia <sup>†</sup>						Cocc	idiodom	/cosis		Cryptosporidiosis				
		Prev	<u> </u>	-			Prev	-				Prev	· ·		
	Current	52 we		Cum	Cum	Current	52 w		Cum	Cum	Current	52 w		Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States New England	12,578 550	22,815 773	25,700 1,655	509,692 19,097	560,133 16,930	94	140 0	383 1	4,167 1	3,174 1	71	110 5	482 23	2,148 108	2,022 155
Connecticut	279	233	1,306	5,669	4,681	Ν	0	0	Ň	Ň	_	0	14	14	41
Maine <sup>§</sup> Massachusetts	61 182	48 326	72 949	1,224 9,399	1,187 8,162	N N	0 0	0 0	N N	N N	_	1 2	6 13	13 35	10 45
New Hampshire Rhode Island <sup>§</sup>	4 12	32 58	63 244	627 1,617	965 1,386	_	0 0	1 0	1	1	_	1 0	4 3	17 2	32 4
Vermont§	12	22	53	561	549	Ν	ŏ	ŏ	Ν	Ν	_	1	7	27	23
Mid. Atlantic New Jersev	1,702	2,852 425	6,734 879	72,114 10.184	71,758 10.875	N	0	0 0	N	N	2	13 0	35 4	248 1	238 16
New York (Upstate)	488	566	4,563	14,116	12,937	N	0	0	N	N	2	4	17	63	69
New York City Pennsylvania	1,214	1,087 793	3,130 1,072	29,227 18,587	27,767 20,179	N N	0 0	0 0	N N	N N	_	1 7	8 15	29 155	46 107
E.N. Central Illinois	1,216	3,464 1,104	4,382 1,356	75,417 22,254	93,287 27,809	N	0	3 0	17 N	27 N	16	25 2	126 13	513 38	500 46
Indiana	355	405	713	10,925	10,426	Ň	0	Ō	N	N	_	3	17	83	67
Michigan Ohio	647 107	833 782	1,321 1,300	21,906 12,518	22,597 22,029	_	0 0	3 2	7 10	20 7	1 11	5 8	13 59	101 172	94 109
Wisconsin	107	384	494	7,814	10,426	Ν	0	0	N	Ν	4	8	46	119	184
W.N. Central lowa	267 125	1,330 193	1,547 257	30,416 4,637	31,698 4,073	N	0	1 0	2 N	N	13 3	17 4	68 30	324 73	299 67
Kansas Minnesota	42	178 267	401 326	4,201 5,376	4,338 7,010	N	0	0 0	N	N	2 2	1 4	8 14	36 78	24 76
Missouri Nebraska <sup>§</sup>	 39	497 98	583 254	12,060 2,212	11,701 2,372	N	0	1 0	2 N	N	_	3 2	13 8	53 30	67 42
North Dakota	1	27	60	471	868	N	0	0	Ν	Ν	5	0	10	6	1
South Dakota S. Atlantic	60 2,654	57 4,386	85 5,730	1,459 86,928	1,336 109,834	N	0 0	0 1	N 5	N 2	1 14	2 21	9 49	48 417	22 354
Delaware	84	73	180	2,308	1,794	—	Ō	1	1			0	1	417	6
District of Columbia Florida	155	129 1,384	228 1,596	3,346 32,134	3,271 34,751	N	0 0	0 0	N	N	11	0 8	2 35	132	7 150
Georgia Maryland <sup>§</sup>	1	749 436	1,909 772	11,657 9,498	19,368 11,067	N	0	0 1	N 4	N 2	2	6 1	20 5	172 19	106 12
North Carolina		509	1,814	· —	10,801	N	0	0	Ň	N	_	1	16	47	11
South Carolina <sup>§</sup> Virginia <sup>§</sup>	1,474 903	534 608	887 903	11,213 14,995	12,548 14,705	N N	0 0	0 0	N N	N N	1	1	6 4	19 22	21 30
West Virginia	37	68	101	1,777	1,529	Ν	0	0	N	N	_	0	3	5	11
E.S. Central Alabama <sup>§</sup>	1,097	1,695 470	2,166 600	40,430 9,862	39,117 12,095	N	Õ	0 0	N	N	3	3 1	9 6	64 17	52 19
Kentucky Mississippi	458	238 440	380 841	5,227 10,917	5,281 8,780	N N	0	0 0	N N	N N	_	1 0	4 2	18 4	11 6
Tennessee§	639	564	796	14,424	12,961	N	0	0	N	Ν	3	1	5	25	16
W.S. Central Arkansas <sup>§</sup>	3,208 371	2,875 278	4,004 418	69,778 7,031	71,268 6,754	N	0 0	1 0	N	2 N	4 3	8 1	271 10	72 15	95 16
Louisiana Oklahoma	100 2,737	434 181	1,134 1,753	11,289 5.461	9,797 6,268	N	0 0	1 0	N	2 N	1	1 2	5 16	7 36	20 19
Texas§		1,963	2,509	45,997	48,449	N	0	0	N	N	—	3	258	14	40
Mountain Arizona	330 78	1,360 417	2,145 627	28,754 6,858	35,388 11,768	26 23	93 91	343 341	3,033 2,993	2,192 2,131	7 1	8 1	38 10	152 17	165 22
Colorado Idaho <sup>§</sup>	_	335 69	1,109 314	8,688	8,607 1,818	N N	0	0	Ń	Ń	5 1	2 1	12 5	52 19	31 31
Montana§	28	58	88	1,766 1,466	1,474	N	Ō	Ō	N	N		Ó	4	14	21
Nevada <sup>§</sup> New Mexico <sup>§</sup>	124 100	174 159	365 540	4,585 3,253	4,835 3,388	3	1 0	3 2	33 2	31 19	_	0 2	4 23	6 30	6 31
Utah Wyoming <sup>§</sup>	_	85 32	251 97	1,175 963	2,797 701	_	0 0	1 1	5	9 2	_	0 0	6 2	1 13	13 10
Pacific	1,554	3,618	4,607	86,758	90,853	68	39	172	1,109	950	12	11	19	250	164
Alaska California	1,194	93 2,866	199 3,584	2,138 68,779	2,223 70,657	N 68	0 39	0 172	N 1,109	N 950	10	0 6	1 14	2 133	1 89
Hawaii	´ —	113	247	2,532	2,795	N	0	0	N	N		0	1	1	1
Oregon <sup>§</sup> Washington	172 188	201 400	631 557	4,605 8,704	4,874 10,304	N N	0 0	0 0	N N	N N	2	2 2	8 7	80 34	36 37
American Samoa C.N.M.I.	_	0	8	_	62	N	0	0	N	N	N	0	0	N	N
Guam	_	3	9		93	_	0	0	_	_	_	0	0	_	_
Puerto Rico U.S. Virgin Islands	_	130 9	269 22	3,479 173	3,447 332	N	0 0	0 0	N	N	N	0 0	0 0	N	N
		-					-	-				-	-		

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

			Giardiasi	s				Gonorrhe	a		Haemophilus influenzae, invasive All ages, all serotypes <sup>†</sup>				
			/ious					vious					vious		
Reporting area	Current week	52 w Med	veeks Max	Cum 2009	Cum 2008	Current week	52 v	weeks Max	Cum 2009	Cum 2008	Current week	52 w Med	Max	Cum 2009	Cum 2008
United States	147	320	641	6,725	7,209	2,972	5,713	7,164	119,536	156,551	30	48	124	1,327	1,545
New England	4	26	64	438	620	77	98	301	2,356	2,363	_	3	16	83	85
Connecticut Maine <sup>§</sup>	4	5 4	14 12	84 89	148 57	50 5	49 2	275 9	1,079 70	1,028 46	_	0	12 2	29 12	18 8
Massachusetts	-	10	27	150	265	14	38	112	973	1,051	_	1	5	32	43
New Hampshire Rhode Island <sup>§</sup>	—	2	10 8	39 23	55	8	2 5	6	52	58	—	0 0	2 7	5	6 4
Vermont <sup>§</sup>	_	1 3	15	23 53	39 56	<u> </u>	э 1	16 4	159 23	162 18	_	0	1	2 3	4
Mid. Atlantic	19	60	116	1,225	1,407	323	590	1,138	14,007	15,544	5	11	25	275	278
New Jersey		7	21	85	227		92	127	2,056	2,539	_	1	7	31	46
New York (Upstate) New York City	19	24 15	81 30	523 321	459 402	88 235	111 209	664 577	2,478 5,419	2,913 4,787	5	2 2	20 11	70 65	79 47
Pennsylvania	—	16	46	296	319	_	181	267	4,054	5,305	—	4	10	109	106
E.N. Central	20	45	90	965	1,125	499	1,143	1,627	23,267	33,068	2	7	27	169	251
Illinois Indiana	N	10 0	32 11	171 N	304 N	126	364 154	499 256	6,624 3,597	9,451 4,202	_	2 1	9 22	63 32	76 45
Michigan	1	12	22	263	249	304	290	493	7,193	8,274	_	ò	3	12	14
Ohio Wisconsin	16 3	16 9	31 19	362 169	371 201	45 24	251 101	482 149	3,832 2,021	8,044 3,097	_2	1	6 4	53 9	79 37
Wisconsin W.N. Central	9	9 26	143	610	201 698	24 59	297	393	6,495	7,954	1	3	4 15	9 78	113
lowa	9 5	20	143	128	122	24	33	53	779	7,954	_	0	0	/0	2
Kansas	—	3	11	54	53	28	39	83	1,000	1,055	1	0	2	11	14
Minnesota Missouri	_	0 8	106 22	137 183	191 190	_	46 141	78 184	879 2,991	1,556 3,797	_	0 1	10 4	18 31	27 48
Nebraska§		3	10	67	96	5	26	51	633	657	_	Ó	2	13	15
North Dakota South Dakota	4	0 2	16 11	8 33	10 36	2	2 8	7 20	26 187	53 122	_	0 0	4 0	5	7
S. Atlantic	45	66	108	1,631	1,199	624	1,396	2,142	24,309	37.988	16	13	27	391	390
Delaware		0	3	13	໌ 19	10	<sup>′</sup> 16	35	409	563		0	2	3	4
District of Columbia Florida	21	0 31	5 57	804	26 533	40	53 416	89 507	1,372 9,262	1,184 11,733	6	0 5	2 10	141	3 96
Georgia	17	14	67	483	274	_	276	876	3,826	7,016	1	2	9	77	82
Maryland§	4	5	10	105	110	_	121	212	2,468	2,911	4	1	6	50	62
North Carolina South Carolina§	N 1	0 2	0 8	N 42	N 59	422	218 167	647 316	3,463	4,981 4,641	_4	1	17 5	48 24	40 36
Virginia§	_	8	31	164	146	148	157	308	3,259	4,589	1	1	6	30	54
West Virginia	2	1	5	20	32	4	11	26	250	370		0	3	18	13
E.S. Central Alabama <sup>§</sup>	3 2	8 4	22 12	151 66	194 108	322	517 153	771 216	11,606 2,794	14,153 4,793	1	3 0	6 4	84 23	86 14
Kentucky	N	0	0	N	N	132	77	153	1,536	2,061	_	0	3	13	6
Mississippi Tennessee§	N 1	0 4	0 13	N 85	N 86	190	143 159	253 301	3,331 3,945	3,244 4,055	_	0 2	1 5	48	11 55
W.S. Central	7	8	22	150	130	768	924	1,307	20,014	24,337	4	2	22	61	72
Arkansas§	2	2	8	54	50	115	86	167	2,121	2,097	1	0	2	10	6
Louisiana Oklahoma	5	2 3	10 18	43 53	48 32	37 616	162 69	420 437	3,592 1,936	4,419 2,312	3	0	1 20	8 43	7 53
Texas <sup>§</sup>	Ň	0	0	N	N		572	725	12,365	15,509		0	1	43	6
Mountain	6	26	62	485	570	57	186	374	3,685	5,817	1	5	11	127	183
Arizona Colorado	4	3 9	10 27	87 171	51 212	16	53 61	82 293	812 1,411	1,725 1,781	1	1	7 5	47 41	76 34
Idaho§	4	3	14	50	65	_	3	13	46	78	_	0	5 2	41	34 8
Montana§	—	2	9	40	30		2	6	38	53	—	0	1	1	1
Nevada <sup>§</sup> New Mexico <sup>§</sup>	_	2 2	8 8	36 34	51 41	25 16	32 23	86 52	828 453	1,198 669	_	0 1	2 3	10 15	10 28
Utah	—	7	18	47	102	_	5	15	63	267	_	0	2	11	26
Wyoming§	_	1	4	20	18	_	2	8	34	46	—	0	2	_	
Pacific Alaska	34	54 2	130 10	1,070 33	1,266 32	243	561 14	755 24	13,797 338	15,327 238	_	2 0	7 3	59 8	87 11
California	29	35	59	764	886	193	473	657	11,747	12,599	_	0	3	12	31
Hawaii Oregon <sup>§</sup>	_	0 7	4 17	5 137	15 204	31	13 20	19 48	274 493	284 611	_	0 1	2 3	13 23	10 33
Washington	5	8	74	137	129	19	49	40 81	493 945	1,595	_	0	2	23	2
American Samoa	_	0	0	_	_	_	0	1	_	2	_	0	0	_	_
C.N.M.I.	—	_	_	—	—	—	_	_	—	_	—	_	_	—	—
Guam Puerto Rico	_	0 2	0 15	25	78	_	1 4	15 16	101	37 137	_	0 0	0 1	_	_
U.S. Virgin Islands		0	0			_	2	7	54	61	Ν	õ	0	Ν	Ν

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

#### **MMWR**

(25th week)*				Hepat	itis (viral,	acute), by	type <sup>†</sup>								
			Α					В				Le	gionellosi	s	
	Current	52 w	rious reeks	Cum	Cum	Current	52 w	rious reeks	Cum	Cum	Current	52 w	vious veeks	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States New England	13	37 2	89 8	793 34	1,285 61	21	69 1	197 4	1,440 16	1,790 41	34 5	48 2	152 18	753 27	971 47
Connecticut	_	0	4	12	11	—	Ó	3	6	14	5	0	5	17	8
Maine <sup>§</sup> Massachusetts	_	0 1	5 3	1 14	3 31	_	0 0	2 2	7 1	8 12	_	0 1	2 7	6	1 18
New Hampshire	_	0	2	3	5	—	0	2	2	3	—	0	5	1	7
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	0 0	2 1	3 1	10 1	_	0 0	1 1	_	3 1	_	0 0	14 1	2 1	9 4
Mid. Atlantic	_	5	13	85	139	_	6	17	134	229	5	13	60	185	232
New Jersey New York (Upstate)	_	0 1	5 4	5 24	32 31	_	1	5 11	22 33	65 33	5	1 5	14 24	11 74	27 62
New York City	—	2	6	26	42	_	1	4	27	50	_	2	12	20	30
Pennsylvania E.N. Central	_	1 4	4 12	30 90	34 191	_	2 9	8 21	52 191	81 239	5	5 8	35 41	80 125	113 205
Illinois	_	4	4	21	72	_	9	7	24	88		1	13	8	29
Indiana Michigan	_	0	3 5	7 33	10 69	_	1 3	18 8	34 60	17 69	1	0 2	6 16	8 27	19 53
Ohio	_	1	4	24	22	_	2	13	55	54	4	4	18	77	95
Wisconsin	_	0	3	5	18	_	0	4	18	11	_	0	6	5	9
W.N. Central lowa	_	2 1	16 5	56 13	164 77	_	2 0	16 3	69 11	37 11	3	2 0	8 2	28 8	45 8
Kansas	_	0	1	6	9	—	0	2	4	6		0	1	2	1
Minnesota Missouri	_	0 0	12 3	12 14	18 21	_	0 1	11 5	11 33	4 13	3	0 1	4 7	5 9	4 22
Nebraska§	_	0 0	2 2	10	37	_	0	2	9	3	_	0	3 3	3	9
North Dakota South Dakota	_	0	∠ 1	1	2	_	0 0	1 1	1	_	_	0 0	1	1	1
S. Atlantic	7	7	15	192	160	12	18	31	454	453	10	9	22	179	197
Delaware District of Columbia		0	1 0	3 U	4 U	U	0	1 0		U	_	0	1 2	2	5 7
Florida	2	4	8	95	69	5	6	11	151	160	2	3	7	68	66
Georgia Maryland <sup>§</sup>	1 1	1 0	4 4	30 17	26 18	1	3 2	9 6	64 41	83 42	2 6	1 2	5 9	25 40	16 50
North Carolina	2	1	9	22	17	4	0 1	19	119	47	_	0	7	29	11
South Carolina <sup>§</sup> Virginia <sup>§</sup>	1	0 1	3 6	12 13	6 17	1	2	5 10	21 35	35 47	_	0 1	1 5	2 13	4 25
West Virginia	—	0	1	_	3	—	1	6	23	39	—	0	3	_	13
E.S. Central Alabama <sup>§</sup>	1	1 0	5 2	19 6	39 5	_	8 2	13 7	145 45	174 48	_2	2 0	5 2	43 5	61 7
Kentucky	_	0	2	3	15	—	2	7	40	48	—	1	3	20	30
Mississippi Tennessee§	1	0 0	2 4	5 5	2 17	_	1 2	3 8	6 54	16 62	2	0 0	1 4	1 17	1 23
W.S. Central	_	4	43	73	127	4	11	99	210	370	_	2	21	40	33
Arkansas <sup>§</sup> Louisiana	_	0 0	1 2	4 2	3 7	1	1 1	5 4	14 20	25 50	_	0 0	2 2	2 1	5 4
Oklahoma	_	0	6	1	3	2	2	17	50	41	_	0	6	3	3
Texas§	_	3	37	66	114	1	6	76	126	254	_	1	19	34	21
Mountain Arizona	2 1	3 1	31 28	74 36	100 42	1	3 1	10 5	61 23	86 33	1	2 0	8 3	41 22	37 9
Colorado	_	0	5	20	20	—	0	3	12	12	1	0	2	3	3
Idaho <sup>§</sup> Montana <sup>§</sup>	1	0 0	1 1	1 3	13	_	0 0	2 1	_2	3	_	0 0	1 2	4	2 3
Nevada <sup>§</sup> New Mexico <sup>§</sup>	_	0 0	3 1	6 5	3 14	1	0 0	3 2	14 5	21 7	_	0 0	2 2	6	6 3
Utah	_	0	2	3	5	_	0	3	3	6	_	0	2	5	11
Wyoming§	_	0	0		3	_	0	1	2	4	_	0	1	1	
Pacific Alaska	3	8 0	25 1	170 3	304 2	4	7 0	36 1	160 3	161 5	3	3 0	10 1	85 2	114 1
California	2	6	25	128	244	3	5	28	121	113	3	3	9	66	86
Hawaii Oregon§	_	0 0	2 3	3 10	6 20	_	0 1	1 3	3 17	3 21	_	0 0	1 2	1 6	4 11
Washington	1	1	4	26	32	1	1	8	16	19	_	0	4	10	12
American Samoa C.N.M.I. Guam	_	0 0	0	_	_	_	0	0	_	_	N	0	0	<u>N</u>	
Puerto Rico	_	0	2	7	15	_	0	5	3	25	_	0	0	_	_
U.S. Virgin Islands	_	0	0	_	_	_	0	0	_	_	_	0	0		_

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 27, 2009, and June 21, 2008 (25th week)\*

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

704

			yme disea	se				Malaria			ivie		cal diseas		
			vious veeks					vious veeks					/ious /eeks		_
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	232	461	1,915	4,433	8,417	9	23	46	410	434	9	17	48	465	692
New England	40	69	837	539	3,306	3	1	5	13	22	_	0	4	15	18
Connecticut Maine <sup>§</sup>	36	15 5	264 73	122	1,376 68	3	0 0	4	4	5 1	_	0	1	1 2	1 3
Massachusetts	—	17	403	117	1,324	—	0	4	6	11	—	0	3	9	13
New Hampshire Rhode Island <sup>§</sup>	_	13 0	145 78	217 13	400 105	_	0 0	1	1	2 1	_	0	1	1	1
Vermont§	4	5	41	70	33	_	Ő	1	1	2	_	ŏ	1	1	_
Vid. Atlantic	142	206	1,401	2,549	3,095	1	5	17	95	111	—	2	5	49	75
New Jersey New York (Upstate)	142	30 87	231 1,368	509 970	1,469 641	1	0	4 10	20	19 13	_	0	1 2	2 11	10 19
New York City	—	5	54	_	172	—	3	11	58	63	_	0	2	9	13
Pennsylvania	—	51	338	1,070	813	—	1	3	17	16	—	1	4	27	33
E.N. Central Illinois	1	9 0	205 13	102 4	563 36	_	3 1	6 5	53 20	74 35	_2	3 1	8 6	80 17	116 42
Indiana	_	Ő	8	9	2	_	Ó	1	7	3	_	Ó	4	20	16
Michigan Ohio	1	1 0	10 6	12 8	3 8	_	0	3 2	9 14	9 18	_2	0	3 3	14 23	15 27
Wisconsin	_	9	187	69	8 514	_	0	2	3	9	_	0	3	23 6	16
W.N. Central	_	7	336	66	139	_	1	10	25	21	1	1	9	39	63
lowa	—	1	9	24	50	_	0	3	5	2	_	0	1	4	11
Kansas Minnesota	_	0 2	4 326	8 28	4 81	_	0 0	2 8	2 10	3 6	1	0	2 4	8 8	3 18
Missouri	_	0	1	2	1	_	0	2	5	5	_	0	2	13	20
Nebraska <sup>§</sup> North Dakota	_	0 0	2 10	3	_2	_	0 0	1	2	5	_	0	1 3	_4	9 1
South Dakota	_	ŏ	1	1	1	_	ŏ	1	1	_	_	Ő	1	2	1
6. Atlantic	45	63	223	1,061	1,206	4	6	16	146	109	2	3	9	89	93
Delaware District of Columbia	14	12 0	36 5	283	360 24	_	0	1 2	1	1	_	0	1 0	_2	1
Florida	1	1	6	15	14	1	1	7	37	22	_	1	4	31	33
Georgia Marvland <sup>§</sup>		0	6 163	18 506	15 570	1	1	4 8	32	26 34	1	0 0	2 1	17 4	12
North Carolina	22	27 1	6	30	570	_2	1	7	39 18	34 4	_	0	5	15	12 5
South Carolina§	_	0	3	12	11	—	0	1	1	4	1	0	1	7	14
Virginia <sup>§</sup> West Virginia	1	13 1	61 17	163 34	158 52	_	1 0	4	17 1	17 1	_	0 0	2 2	9 4	13 3
E.S. Central	1	0	5	10	18	_	0	2	12	8	_	0	3	16	36
Alabama§	—	Ō	1	1	7	_	0	1	3	3	_	0	1	4	3
Kentucky Mississippi	_	0 0	2 0	1	1	_	0	2 1	5	3	_	0	1	3 1	7 9
Tennessee§	1	Õ	3	8	9	_	Õ	2	4	2	_	Õ	1	8	17
N.S. Central	_	2	21	12	37	_	1	10	11	22	1	1	12	41	73
Arkansas <sup>§</sup> Louisiana	_	0 0	0 1	_	_	_	0 0	1	1	2	_	0 0	2 3	5 9	10 17
Oklahoma	_	0	2	_	_	_	0	2	1	2	1	0	3	3	9
Texas <sup>§</sup>	_	2	21	12	37		1	10	9	18	_	1	9	24	37
<b>Nountain</b> Arizona	_	1 0	13 2	13 1	14 2	1	0	3 2	5 1	13 5	1	1 0	4 2	40 8	38 5
Colorado	_	0	1	1	2	1	0	1	2	3	_	0	2	12	8
Idaho <sup>§</sup> Montana <sup>§</sup>	—	0 0	2 13	5 1	3 1	—	0 0	1 0	1	—	1	0 0	1 2	5 4	4 4
Nevada§	_	0	2	5	2	_	0	1	_	4	_	0	2	3	7
New Mexico <sup>§</sup>	_	0	2	—	3	—	0	1	_	1	—	0	1	3	4
Utah Wyoming <sup>§</sup>	_	0 0	1	_	1	_	0 0	1 0	1	_	_	0 0	1 2	1 4	4 2
Pacific	3	3	13	81	39	_	3	10	50	54	2	4	14	96	180
Alaska	_	0	2	1	1	—	0	1	1	2		0	2	2	3
California Hawaii	3 N	2 0	6 0	72 N	26 N	_	2 0	8 1	38 1	42 2	_2	2 0	8 1	61 3	139 2
Oregon§	_	0	3	5	12	_	0	2	5	4	_	1	7	21	21
Washington	—	0	12	3	_	—	0	3	5	4	_	0	6	9	15
American Samoa C.N.M.I.	N	0	0	N	N	_	0	0	_	_	_	0	0	_	_
Guam	_	0	0	_	_	_	0	2	_	1	_	0	0	_	_
Puerto Rico	Ν	0	0	N	Ν	—	0	1	1	2	—	0	1	—	2
J.S. Virgin Islands	N	0	0	N	N	—	0	0	_	—	_	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting year 2008 and 2009 are provisional. \* Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(25th week)*	Portuggia										Rocky Mountain spotted fever				
			Pertussis	;				abies, anin	nal		R		· ·	tted fever	
			vious veeks					vious veeks			<b>.</b> .		/ious /eeks		•
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	101	241	1,697	5,232	3,631	43	69	120	1,552	1,884	12	32	179	461	438
New England	—	17	35	224	415	9	8	15	158	183	_	0	2	4	2
Connecticut Maine <sup>†</sup>	_	0 1	4 10	13 56	30 14	8	3 1	10 5	73 22	89 28	_	0 0	0 2	4	_
Massachusetts New Hampshire	_	12 1	30 6	105 37	327 13	_	0 1	0 7	18	17	_	0 0	1 0	_	1
Rhode Island <sup>†</sup>	_	1	6	5	25	_	0	3	17	16	_	0	2	_	1
Vermont <sup>†</sup>	_	0	2	8	6	1	1	6	28	33	—	0	0		
Mid. Atlantic New Jersev	8	24 4	64 12	458 56	417 76	11	17 0	30 0	295	381	_	1 0	29 6	14	47 32
New York (Upstate)	5	6	41	89	131	11	8	20	177	195	_	0	29	1	4
New York City Pennsylvania	3	0 11	21 33	47 266	44 166	_	0 7	2 17	118	10 176	_	0 0	3 2	10 3	6 5
E.N. Central	42	44	238	1,129	681	5	2	28	49	65	_	1	15	19	29
Illinois Indiana	_	14 2	45 158	234 87	78 21	_	1 0	20 6	6 6	26 1	_	1 0	10 3	9 1	22 1
Michigan	4	9	21	242	91	1	1	9	22	26	_	0	1	3	2
Ohio Wisconsin	38	14 4	57 10	523 43	447 44	4 N	0	7 0	15 N	12 N	_	0 0	4 0	6	4
W.N. Central	_	32	872	907	298	_	5	17	118	121	_	3	33	58	106
lowa Kansas	_	5 2	21 12	74 91	45 30	_	0	5 6	9 49	10 39	_	0	1	1	5
Minnesota	—	1	808	165	69	—	Ó	11	20	18	—	0	Ó	_	_
Missouri Nebraska†	_	14 4	51 32	479 86	115 27	_	1 0	8 2	17	13 17	_	3 0	32 4	52 4	96 2
North Dakota	_	0	24	1	1	_	0	9	4	13	_	0	1	—	_
South Dakota S. Atlantic	— 19	0 26	10 71	11 703	11 348	— 11	0 25	4 93	19 699	11 890	 10	0 16	0 72	252	3 111
Delaware		0	3	6	5	—	0	0		690		0	5	252	6
District of Columbia Florida	 10	0 8	2 33	249	1 81	_	0 0	0 77	77	138	_	0 0	1 3	4	3 3
Georgia	_	3	9	79	30	—	5	52	154	197		1	5	13	29
Maryland <sup>†</sup> North Carolina	4	3 0	10 65	47 178	49 76	N	6 4	13 4	146 N	221 N	1 9	1 10	7 55	22 175	17 14
South Carolina <sup>†</sup>	3	3	11	77	46	8	0	0	_	_	—	1	9	12	12
Virginia† West Virginia		3 0	24 2	62 5	54 6	3	11 1	24 6	266 56	278 56	_	2 0	15 1	22 1	22 5
E.S. Central	8	12	33	329	120	2	3	7	63	83	1	4	23	77	72
Alabama† Kentucky	1	3 5	19 15	121 103	19 20	2	0 1	0 4	29	13	1	1 0	8 0	14	17 1
Mississippi		1	5	21	53	—	0	2	_	2	—	0	3	4	4
Tennessee <sup>†</sup> W.S. Central	7 2	2 40	14 389	84 759	28 393	—	2 0	6 9	34 26	68 51	1	3 2	19 161	59 29	50 57
Arkansas <sup>†</sup>		2	38	33	38	_	0	5	20	33	1	0	61	14	1
Louisiana Oklahoma	2	2 0	7 45	39 15	23 12	_	0	0	4	16	_	0	2 98	5	3 40
Texas <sup>†</sup>	_	35	304	672	320	_	Ō	1	1	2	_	1	6	10	13
Mountain Arizona	11	15 3	31 8	379 86	455 132	N	2 0	9 0	47 N	28 N	_	1 0	3 2	7 2	13 5
Colorado	10	4	12	138	70		0	0		_	_	0	1		_
Idaho† Montana†	1	1 0	5 4	39 9	20 58	_	0 0	2 4	13	1	_	0 0	1	3	1
Nevada <sup>†</sup>	_	0	3	6	18	_	0	5	1	2	_	0	2	—	—
New Mexico <sup>†</sup> Utah	_	1 4	10 19	30 70	25 124	_	0	2 6	15 1	17 1	_	0 0	1	1	1 2
Wyoming <sup>†</sup>	—	0	2	1	8	—	Ō	4	17	6	—	Ō	2	_	4
Pacific Alaska	11	22 3	98 21	344 28	504 42	5	4 0	13 2	97 9	82 12	N	0	1 0	1 N	1 N
California	_	5	19	58	266	5	3	12	88	68	_	0	1	1	_
Hawaii Oregon†	_	0 4	3 14	13 106	6 74	_	0	0 2	_	2	N	0	0 1	N	N 1
Washington	11	6	76	139	116	_	0	0	_	—	_	0	0	_	—
American Samoa C.N.M.I.	_	0	0	_	_	N	0	0	N	N	N	0	0	Ν	N
Guam	_	0	0	_	_	_	0	0	_	_	Ν	0	0	N	Ν
Puerto Rico U.S. Virgin Islands		0 0	1 0	1	_	N	1 0	5 0	15 N	27 N	N N	0 0	0 0	N N	N N
0.0. Virgin Islanus		0	0			IN	0	0	IN	11	11	0	0	IN	IN

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		S	almonello	sis		Shig	a toxin-pr	oducing	E. coli (S1	TEC)†	Shigellosis					
			vious				Prev					Previous 52 weeks				
Reporting area	Current week	Med	veeks Max	Cum 2009	Cum 2008	Current week	52 w	еекs Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	
United States	554	825	2,318	14,924	16,546	41	76	255	1,300	1,565	148	411	1,268	6,748	8,179	
New England Connecticut	3	28 0	206 180	701 180	1,118 491	_	3 0	43 43	87 43	111 47	_	3 0	18 13	66 13	109 40	
Maine§	2	2	8	49	62	_	0	3	9	3	_	0	6	2	3	
Massachusetts New Hampshire	1	20 3	51 33	263 136	434 61	_	1	11 3	15 16	38 11	_	2 0	9 1	40 1	56 2	
Rhode Island <sup>§</sup> Vermont <sup>§</sup>		2	9 7	50	34 36		0 0	1	_	7	—	Ŭ O	1	7 3	7	
Mid. Atlantic	30	1 84	201	23 1,629	2.063	4	6	6 27	4 89	5 164	4	54	2 93	3 1,184	1 1,034	
New Jersey New York (Upstate)	30	14 26	55 65	122 469	488 488	4	1 3	12 12	14 39	57 45	4	18 7	38 23	249 98	268 304	
New York City	30	19	49	418	489	4	1	5	30	22	4	10	23	196	404	
Pennsylvania E.N. Central		28 88	78 194	620 1,881	598 2,064	4	0 12	8 74	6 212	40 231	 18	18 86	38	641	58	
Illinois	40	25	50	460	625	—	1	10	34	37	—	16	132 34	1,323 284	1,426 474	
Indiana Michigan	3	7 18	53 38	124 405	187 375	_	1 3	14 43	19 57	18 49	_	2 5	39 24	27 118	362 44	
Ohio Wisconsin	37	27 14	49 30	632 260	560 317	_4	3 3	15 16	52 50	62 65	18	42 10	80 42	677 217	388 158	
W.N. Central	28	51	148	1,138	1,089	13	12	58	205	247	3	14	49	360	427	
lowa Kansas	3 9	7 7	16 29	180 154	187 150	- 1	3 1	21 7	52 18	56 18	2	3 3	12 11	41 120	75 7	
Minnesota Missouri	14	11 12	69 48	277 209	278 288	11	2 2	21 11	63 41	53 71	1	3	25 33	34 151	113 131	
Nebraska§	_	5	41	188	106	_	2	30	26	29	_	0	3	9	_	
North Dakota South Dakota	2	0 3	30 22	17 113	18 62	1	0 0	28 4	2 3	1 19	_	0 0	9 1	3 2	27 74	
S. Atlantic	241	234	457	4,021	3,932	5	13	48	268	271 7	53	47 0	85	1,069	1,655	
Delaware District of Columbia	_	2 0	9 2	33	60 36	_	0 0	2 1	6	4	_	0	8 2	40	6 8	
Florida Georgia	131 39	100 39	174 96	1,728 707	1,695 684	3	2 1	10 8	78 26	70 27	10 19	10 13	26 30	207 295	453 667	
Maryland§	11 49	16 25	35 106	278	320 356	1	2	11 21	38 63	42 24	10	5	12 27	153 219	30 47	
North Carolina South Carolina§	5	16	57	657 245	344	1	1	3	9	18	12 2	4	17	65	345	
Virginia <sup>§</sup> West Virginia	2 4	19 3	88 10	302 71	340 97	_	3 0	27 3	40 8	58 21	_	4 0	59 3	85 5	80 19	
E.S. Central	39	49	140	906	1,019	3	5	12	88	108	12	24	58	465	1,018	
Alabama <sup>ş</sup> Kentucky	7 11	16 10	49 18	250 190	274 168	2 1	1 2	4 7	22 25	37 21	4	4 2	12 25	75 124	241 183	
Mississippi Tennessee <sup>§</sup>	5 16	13 14	57 62	203 263	295 282	_	0 2	1 6	6 35	3 47	8	1 14	6 48	14 252	229 365	
W.S. Central	36	108	1,328	1,092	1,881	3	5	139	52	144	39	91	967	1,267	1,633	
Arkansas <sup>§</sup> Louisiana	20 1	12 14	39 54	207 191	186 333	1	0 0	5 1	8	25 4	8	10 6	27 26	168 64	186 307	
Oklahoma Texas <sup>§</sup>	15	14 75	102 1,199	232 462	221 1,141	2	0 3	82 55	9 35	13 102	5 26	4 61	61 889	98 937	45 1,095	
Mountain	31	55	109	1,077	1,373	4	9	40	160	183	8	27	54	501	301	
Arizona Colorado	5 23	20 12	43 19	410 258	377 369	2	1 3	4 18	21 77	26 54	6 2	17 2	35 11	372 40	134 34	
Idaho <sup>§</sup> Montana <sup>§</sup>	2	3	12 7	69 49	74 44	1	2 0	15 3	23 6	36 18	—	0	2 5	3 11	5	
Nevada§	1	4	12	108	100	1	0	3	10	9	_	2	13	31	1 90	
New Mexico <sup>§</sup> Utah	_	6 6	25 19	88 73	241 132	_	1 1	4 9	15 7	19 16	_	3 0	12 3	41 3	24 10	
Wyoming§	_	1	5	22	36		0	2	1	5		0	1		3	
Pacific Alaska	106	123 1	537 4	2,479 25	2,007 20	5	10 0	31 1	139	106 3	11	29 0	82 1	513 2	576	
California Hawaii	93	90 5	516 15	1,894 106	1,477 98	_2	5 0	15 2	83 2	59 3	9	25 0	75 3	408 10	499 19	
Oregon§	_	8	20	178	171		1	7	12	13	2	1 2	10	17	25	
Washington American Samoa	13	11 0	85 1	276	241 1		3 0	16 0	42	28		2	13 2	76 3	33 1	
C.N.M.I. Guam	_		2	_	6	_			_	_	_		2	_	11	
Puerto Rico	3	10	40	85	267	_	0	0	—	—	—	0	4	1	9	
U.S. Virgin Islands	-	0	0	_	_	_	0	0	_	_	_	0	0	_	_	

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				asive, group A	Streptococc	Streptococcus pneumoniae, invasive disease, nondrug resistant <sup>†</sup> Age <5 years							
	Current	Prev 52 w		Cum	Cum	Current	Prev 52 w		Cum	Cum			
Reporting area	week	Med Max		2009	2008	week	Med	Max	2009	2008			
United States	50	95	239	2,945	3,322	17	33	122	901	1,029			
New England	—	5	28	162	245	—	1	12	24	51			
Connecticut Maine <sup>§</sup>	_	0 0	21 3	49 10	66 17	_	0	11	2	1			
Massachusetts	_	2	10	60	118	_	1	2	15	39			
New Hampshire	_	1	4	27	16	—	0	1	5	7			
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	0	2	4	18	_	0	2		4			
		0	3	12	10		0	1	2				
Mid. Atlantic New Jersey	5	18 1	38 6	566 5	699 126	7	4 1	33 4	136 14	133 38			
New York (Upstate)	5	6	25	215	220	2	2	17	70	60			
New York City	_	4	12	117	132	5	0	31	52	35			
Pennsylvania	_	6	18	229	221	N	0	2	N	N			
E.N. Central	6	16	42	596	659	—	5	18	131	190			
Illinois Indiana	_	5 3	12 23	163 99	181 85	_	1 0	5 13	15 15	54 20			
Michigan	1	3	11	100	113	_	1	5	42	53			
Ohio	5	4	13	158	180	_	1	6	43	35			
Wisconsin		2	10	76	100	_	1	4	16	28			
W.N. Central	3	6	37	259	252	_	2	11	68	48			
lowa Kansas	1	0 1	0 5	37	26	N	0 0	0 1	N	N			
Minnesota	_	Ó	34	105	122	_	Ő	7	31	11			
Missouri	_	2	8	61	61	_	1	4	26	22			
Nebraska§	1	1 0	3 4	29 10	23 8	_	0	1 3	3 4	5 5			
North Dakota South Dakota	1	0	3	10	12	_	0	2	4	5			
S. Atlantic	24	22	47	655	652	3	6	16	184	198			
Delaware	—	0	1	8	6	_	õ	0	—				
District of Columbia	_	0	2		7	N	0	0	N	N			
Florida Georgia	7 1	5 5	12 13	161 149	144 146	3	1	6 6	46 47	37 53			
Maryland <sup>§</sup>	9	3	10	97	119	_	1	3	39	38			
North Carolina	5	2	12	72	83	N	0	0	N	N			
South Carolina§	_	1	5	40	40	—	1	6	29	32			
Virginia <sup>§</sup> West Virginia	1 1	3 1	9 4	101 27	82 25	_	0 0	4 2	15 8	33 5			
E.S. Central	4	4	10	118	113		1	6	35	56			
Alabama§	Ň	õ	0	N	Ň	N	Ó	0	Ň	Ň			
Kentucky	2	1	5	23	24	N	0	0	N	N			
Mississippi Tennessee <sup>§</sup>	N 2	0 3	0 8	N 95	N 89	_	0	2 6	35	7 49			
							-						
W.S. Central Arkansas <sup>§</sup>	2	9 0	79 2	259 9	271 7	7 1	6 0	46 4	170 17	150 9			
Louisiana	_	0	3	9	11	_	Õ	3	13	8			
Oklahoma	1	3	20	90	63	1	1	7	32	45			
Texas <sup>§</sup>	1	6	59	151	190	5	4	34	108	88			
<b>Mountain</b> Arizona	6 3	9 3	22 7	256 86	363 123	_	4 2	16 10	135 77	172 79			
Colorado	2	3	9	96	92	_	1	4	28	39			
Idaho§		0	2	3	11	—	0	2	6	3			
Montana <sup>§</sup> Nevada <sup>§</sup>	N	0 0	0 1	N 5	N 6	N	0 0	0	N	N 2			
New Mexico§	1	2	7	5 44	92	_	0	4	13	2 25			
Utah	_	1	6	21	34	_	õ	4	11	23			
Wyoming§	—	0	1	1	5	_	0	1	—	1			
Pacific	—	3	9	74	68	—	1	3	18	31			
Alaska California	N	0 0	4 0	10 N	16 N	N	0 0	2 0	13 N	20 N			
Hawaii	IN	3	8	64	52		0	2	5	11			
Oregon <sup>§</sup>	Ν	0	0	N	N	N	ŏ	0	Ň	N			
Washington	N	0	0	N	Ν	N	0	0	N	N			
American Samoa	_	0	8	_	22	N	0	0	Ν	Ν			
C.N.M.I. Guam	—	0		—	_	_	0	0	—	—			
Puerto Rico	N	0	0	N	N	N	0	0	N	N			
J.S. Virgin Islands	_	0	0	_	_	N	0	0 0	N	N			

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

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

(25th week)*		S	treptococ	cus pneur	noniae, in	vasive dise	ease, dru	g resistan	t <sup>†</sup>								
			All ages				-	ged <5 yea			Syphilis, primary and secondary						
	Previous 52 weeks		Cum	Cum	Current		vious veeks	Cum	Cum	Current		ious eeks	Cum	Cum			
Reporting area	Current week	Med	Max	Cum 2009	2008	week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	2008		
United States	19	56	276	1,661	1,926	1	9	21	254	282	89	262	452	5,836	5,847		
New England Connecticut	_	1 0	48 48	30	39	_	0 0	5 5	1	5	5 3	5 1	15 5	149 32	150 10		
Maine <sup>§</sup> Massachusetts	_	0	2 1	8 1	12	_	0 0	1	1	_	2	0 3	2 11	1 102	6 116		
New Hampshire Rhode Island <sup>§</sup>	_	0	3 6	5 7	 14	_	0	0 1	_	3	_	0	2 5	10 4	7 6		
Vermont§	—	0	1	9	13	—	0	Ó	—	2	_	0	2	—	5		
Mid. Atlantic New Jersey	1	4 0	14 0	96	198	_	0 0	3 0	19	16	25	32 4	51 13	869 101	826 99		
New York (Upstate) New York City	1	1 0	10 4	41 2	38 83	_	0 0	2 2	10	5	1 24	2 22	8 36	53 552	67 517		
Pennsylvania	_	1	8	53	77	—	0	2	9	11	—	6	12	163	143		
E.N. Central Illinois	3 N	9 0	41 0	362 N	425 N	N	1 0	7 0	51 N	58 N	6	24 9	44 19	455 119	523 199		
Indiana Michigan	_	2 0	32 2	110 16	149 15	_	0 0	6 1	17 2	18 2	1 3	2 4	10 18	74 116	66 96		
Ohio Wisconsin	3	7 0	18 0	236	261	_	1 0	4 0	32	38	1	6 1	16 4	122 24	139 23		
W.N. Central	1	3	161	87	139	_	1	3	20	28	_	6	14	141	195		
lowa Kansas	_	0 1	0 5	38	56	_	0 0	0 2	13	3	_	0 0	2 3	12 13	10 17		
Minnesota Missouri	_	0 1	156 5	 37	20 58	_	0 0	3 1	5	20 2	_	2 3	6 10	29 69	46 116		
Nebraska <sup>§</sup> North Dakota	1	0	0 3	10	2	_	Ö O	0	_	_	_	0 0	2	14 3	6		
South Dakota	—	0	2	2	3	—	0	2	2	3	_	0	1	1	_		
S. Atlantic Delaware	9	25 0	53 2	795 10	760 2	1	4 0	14 0	115	116	26 3	63 0	262 3	1,386 17	1,230 6		
District of Columbia Florida	N 7	0 15	0 36	N 488	N 410	N 1	0 3	0 13	N 80	N 72	2	3 20	9 31	86 435	62 477		
Georgia Maryland <sup>§</sup>	2	8	25 1	220 4	266 4		1 0	5	28	37 1	1	14 6	227 16	270 125	215 153		
North Carolina	Ν	0	0	Ν	Ν	Ν	0	0	Ν	N	8	8	19	257	139		
South Carolina <sup>§</sup> Virginia <sup>§</sup>	N	0	0 0	N	N	N	0	0	N	N	2 10	2 5	6 16	51 143	43 130		
West Virginia E.S. Central	4	2 5	13 25	73 181	78 216	_	0 1	3 3	7 26	6 38	8	0 22	1 36	2 499	5 502		
Alabama <sup>§</sup> Kentucky	N 3	0 1	0	N 51	N 52	N	0 0	0 2	N 7	N 9	1	8	15 10	179 25	222 44		
Mississippi	1	0	3	_	26	_	0	1		8	-7	3	18	87	67		
Tennessee <sup>§</sup> W.S. Central	_	3 1	22 6	130 52	138 71	_	0 0	3 3	19	21 12	6	8 51	19 80	208 1,128	169 959		
Arkansas <sup>§</sup> Louisiana	_	0	5 5	33 19	13 58	_	Ö O	3	7	3	6	4 14	35 40	97 271	55 234		
Oklahoma Texas <sup>§</sup>	Ν	0	0 0	Ň	N	N	0 0	0	Ň	Ň	_	1 30	7	29 731	40 630		
Mountain	1	2	7	56	77	_	0	3	11	8	2	9	18	142	310		
Arizona Colorado	_	0 0	0 0	_	_	_	0 0	0 0	_	_	_	3 1	11 5	21 42	157 86		
Idaho <sup>§</sup> Montana <sup>§</sup>	N	0 0	1 1	N	N	N	0 0	1 0	N	N	_	0 0	2 7	3	1		
Nevada <sup>§</sup> New Mexico <sup>§</sup>	1	1 0	4 0	27	37	_	0 0	2 0	6	3	1 1	2 1	7 5	52 23	36 15		
Utah	_	1	6	22	40	_	0	3	4	5	—	0	2	_	13		
Wyoming <sup>§</sup> Pacific	_	0 0	2 1	7 2	1	_	0 0	1	1	1	— 11	0 46	1 66	1 1,067	2 1,152		
Alaska California	N	0	0 0	N	N	N	0	0 0	N	N	7	0 42	1 60	977	1,047		
Hawaii Oregon <sup>§</sup>	N	0 0	1 0	2 N	1 N	N	0 0	1 0	1 N	1 N	4	0	3	15 20	11 5		
Washington	Ν	0	0	Ν	Ν	Ν	0	0	N	N	-	2	9	20 55	89		
American Samoa C.N.M.I.	<u>N</u>	0		N	<u>N</u>	<u>N</u>	0		N	N	_			_	_		
Guam Puerto Rico	_	0 0	0 0	_	_	_	0 0	0 0	_	_	_	0 3	0 11	102	84		
U.S. Virgin Islands	_	0	0		_	_	0	Ő	_		_	0	0				

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

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

(25th week)*						West Nile virus disease <sup>†</sup>										
		Varice	ella (chicke	enpox)			Ne	euroinvasi	ve		Nonneuroinvasive§					
			/ious				Prev						vious			
Reporting area	Current week	Med	veeks Max	Cum 2009	Cum 2008	Current week	Med	eeks Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008	
United States	58	356	711	7,919	18,366	_	0	75	1	14		0	77	1	36	
New England	_	14	46	152	949	_	0	2	—	_	_	0	1	—	2 2	
Connecticut Maine <sup>¶</sup>	_	7 0	21 11	_	471 156	_	0 0	2 0	_	_	_	0 0	1 0	_		
Massachusetts	—	0	1		_	_	0	1	—	_	—	0	0	—	—	
New Hampshire Rhode Island <sup>¶</sup>	_	4	11 0	109	157	_	0	0 1	_	_	_	0 0	0	_	_	
Vermont <sup>¶</sup>	_	3	17	43	165	_	Ō	ò	_	_	—	0	ŏ	_	_	
Mid. Atlantic New Jersey	N	38 0	58 0	883 N	1,460 N	_	0	8 2	_	_	_	0 0	4	—	—	
New York (Upstate)	N	0	0	N	N	_	0	5	_	_	_	0	2	_	_	
New York City	_	0 38	0 58	883	1,460	—	0	2	_	—	—	0 0	2	—	_	
Pennsylvania E.N. Central	34	151	58 254	3,867	4,535	_	0	2 8	_	_	_	0	3	_	_	
Illinois	—	33	73	822	628	_	Ō	4	_	_	_	Ō	2	_	_	
Indiana Michigan	9	0 48	19 90	153 1,219	1,935	_	0	1 4	_	_	_	0 0	1 2	_	_	
Ohio	9	42	91	1,334	1,478	_	0	3	_	_	_	0	1	_	_	
Wisconsin	16	14	52	339	494	_	0	2	_	_	—	0	1	_	_	
W.N. Central lowa	N	22 0	114 0	623 N	732 N	_	0	6 2	_	1	_	0 0	21 1	1	6	
Kansas	—	6	22	171	295	_	0	2	_	1	_	0	3	_	2	
Minnesota Missouri	_	0 11	0 51	400	411	_	0	2 3	_	_	_	0 0	4	_	_	
Nebraska <sup>¶</sup>	Ν	0	0	N	N	_	0	1	_	—	_	0	6	_	_	
North Dakota South Dakota	_	0 0	108 4	52	26	_	0	2 5	_	_	_	0 0	11 6	1	3 1	
S. Atlantic	23	57	146	1,190	2,885	_	0	4	_	2	_	0	4	_	_	
Delaware	—	0	5	2	<sup>′</sup> 16	—	0	0	—	—	—	0	1	—	—	
District of Columbia Florida	17	0 28	3 67	835	17 1,052	_	0 0	2 2	_	_	_	0 0	1 0	_	_	
Georgia	N	0	0	N	Ń	—	0	1	—	—	—	0	1	—	—	
Maryland¶ North Carolina	N N	0 0	0	N N	N N	_	0	2 1	_	1	_	0 0	3 1	_	_	
South Carolina <sup>¶</sup>	_	5	39	82	548	_	0	Ö	_	—	_	0	1	_	_	
Virginia <sup>¶</sup> West Virginia	6	8 10	119 32	28 243	840 412	_	0	0 0	_	1	_	0	1 0	_	_	
E.S. Central	_	3	28	17	804	_	0	7	_	2	_	0	9	_	7	
Alabama <sup>¶</sup>		3	28 0	16	795	_	0 0	3 1	_	_	_	0 0	2 0	_	1	
Kentucky Mississippi	N	0 0	1	N 1	N 9	_	0	4	_	1	_	0	8	_	4	
Tennessee <sup>¶</sup>	Ν	0	0	N	Ν	—	0	2	—	1	—	0	3	—	2	
W.S. Central Arkansas <sup>1</sup>	_	56 3	308 47	492 19	5,582 409	_	0	8 1	1	7 3	_	0	7 1	_	8	
Louisiana	_	1	4	38	47	_	0	3	_	_	_	0	5	_	1	
Oklahoma Texas <sup>¶</sup>	N	0 42	0 282	N 435	N 5,126	_	0	1 6	1	2 2	_	0 0	1 4	_	3 4	
Mountain	1	26	83	634	1,353	_	0	12	_	2	_	0	22	_	9	
Arizona	_	0	0	_	· —	—	Ō	10	—	1	—	0	8	—	_	
Colorado Idaho¶	1 N	13 0	44 0	326 N	551 N	_	0	4 1	_	1	_	0	10 6	_	6 1	
Montana <sup>¶</sup>		2	27	70	182	_	0	0	_	_	_	0	2	_	_	
Nevada <sup>¶</sup> New Mexico <sup>¶</sup>	N	0 2	0 10	N 67	N 137	_	0 0	2 1	_	_	_	0 0	3 1	_	_	
Utah	—	10	31	171	474	_	0	2	_	_	_	0	5	_	1	
Wyoming <sup>1</sup>	—	0	1		9	_	0	0	_	_	—	0	2	_	1	
Pacific Alaska	_	2 1	7 6	61 40	66 27	_	0	38 0	_	_	_	0	23 0	_	_4	
California	—	0	0	_	_	—	0	37	—	—	—	0	20	—	4	
Hawaii Oregon <sup>¶</sup>	N	1 0	4 0	21 N	39 N	_	0	0 2	_	_	_	0 0	0 4	_	_	
Washington	N	0	Ő	N	N	_	0	1	—	—	—	0	1	—	—	
American Samoa C.N.M.I.	Ν	0	0	Ν	N	_	0	0	—	—	_	0	0	—	—	
Guam	_	0	3	_	55	_	0	0	_	_	_	0	0	_	_	
Puerto Rico	5	7	17	126	335	_	0	0	—	—	—	0	Ö	—	—	
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. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting year 2008 and 2009 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly. † 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.

<sup>§</sup> 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/epo/dphsi/phs/infdis.htm. <sup>1</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### TABLE III. Deaths in 122 U.S. cities,\* week ending June 27, 2009 (25th week)

		All cau	uses, by a	age (year	rs)				All causes, by age (years)						
Reporting area	All Ages	≥65	45–64	25–44	1–24	<1	P&I <sup>†</sup> Total	Reporting area	All Ages	≥65	45–64	25–44	1–24	<1	P&I <sup>†</sup> Total
New England	491	328	111	40	6	6	47	S. Atlantic	1,174	726	308	86	29	25	55
Boston, MA	133	80	38	8	2	5	12	Atlanta, GA	179	109	49	11	7	3	6
Bridgeport, CT	33	27	5	1	—	_	6	Baltimore, MD	171	104	52	10	2	3	7
Cambridge, MA	16	12	3	1	—	—	1	Charlotte, NC	98	51	36	7	2	2	7
Fall River, MA	22	17	3	2	_	—	2	Jacksonville, FL	181	119	39	15	4	4	6
Hartford, CT	60	36	15	6	3	—	7	Miami, FL	U	U	U	U	U	U	U
Lowell, MA	18	15	2	1	_	—	—	Norfolk, VA	67	42	13	6	4	2	1
Lynn, MA	9	6	2	1	_	—	_	Richmond, VA	60	33	23	3	1	_	2
New Bedford, MA	21	19	2	_	_	-	2	Savannah, GA	48	37	2	5 2	2	2 3	4
New Haven, CT	23	17	5			1	3	St. Petersburg, FL	47	32	7		3	3 5	2
Providence, RI	55 U	34 U	13 U	7 U	1 U	U	2 U	Tampa, FL Washington, D.C.	201	131	49	14 11	2 2	5	18
Somerville, MA	30	16	7	7	U		1		106 16	58 10	34 4	2		I	1
Springfield, MA Waterbury, CT	22	15	7		_	_	2	Wilmington, DE E.S. Central	748	464	205	47	11	21	59
Worcester, MA	49	34	9	6	_	_	9	Birmingham, AL	160	105	36	9	5	5	18
Mid. Atlantic	1,583	1,105	323	90	27	37	76	Chattanooga, TN	73	49	19	9 4	1	_	3
Albany, NY	34	22	8	90 1	1	2		Knoxville, TN	103	49 65	32	4	2	_	
Allentown, PA	27	22	3	1	_	1	1	Lexington, KY	48	33	8	4	1	2	7
Buffalo, NY	64	22 49	6	3	5	1	9	Memphis, TN	130	67	0 41	13	2	7	16
Camden, NJ	39	21	11	3	1	3	2	Mobile, AL	54	41	8	4		1	3
Elizabeth, NJ	16	12	2	1	1			Montgomery, AL	38	22	8	6	_	2	5
Erie, PA	45	32	10	1	1	1	2	Nashville, TN	142	82	53	3	_	4	7
Jersey City, NJ	Ű	U	Ŭ	Ů	Ů	Ů	Ū	W.S. Central	1,227	753	316	89	36	33	73
New York City, NY		565	168	48	12	12	31	Austin, TX	U,227	7.00 U	Ű	Ŭ	Ű	U	Ű
Newark, NJ	25	10	9	3		2	1	Baton Rouge, LA	54	45	6	2	1	_	_
Paterson, NJ	10	7	3	_	_		1	Corpus Christi, TX	42	30	9	3	_		2
Philadelphia, PA	150	87	40	11	3	9	10	Dallas, TX	196	107	53	13	11	12	11
Pittsburgh, PA§	38	26	7	1	1	3	4	El Paso, TX	98	60	27	9	2		4
Reading, PA	27	20	6	1		_	3	Fort Worth, TX	Ŭ	Ŭ	 U	Ŭ	Ū	U	Ů
Rochester, NY	113	90	17	4	1	1	7	Houston, TX	331	183	90	39	5	14	19
Schenectady, NY	25	14	6	5	_	_	1	Little Rock, AR	94	62	20	5	4	3	6
Scranton, PA	26	21	3	2	_	_	_	New Orleans, LA	U	U	U	Ū	U	Ũ	Ū
Syracuse, NY	80	56	17	4	1	2	3	San Antonio, TX	236	139	69	14	12	2	19
Trenton, NJ	30	28	1	1	_	_	_	Shreveport, LA	74	56	17	1	_	_	7
Utica, NY	11	8	3	_	_	_	_	Tulsa, OK	102	71	25	3	1	2	5
Yonkers, NY	18	15	3	_	_	_	1	Mountain	1,033	686	234	60	31	22	70
E.N. Central	1,816	1,189	418	130	44	33	125	Albuquerque, NM	123	87	21	10	2	3	7
Akron, OH	45	27	12	2	3	1	5	Boise, ID	48	34	10	1	1	2	7
Canton, OH	38	31	6	1	_	_	7	Colorado Springs, CO	68	44	15	5	2	2	1
Chicago, IL	275	161	65	34	10	3	24	Denver, CO	87	60	13	6	4	4	6
Cincinnati, OH	81	49	23	6	1	2	8	Las Vegas, NV	260	174	66	11	7	2	18
Cleveland, OH	196	148	37	8	3	_	6	Ogden, UT	30	20	7	2	_	1	1
Columbus, OH	191	118	46	19	4	4	9	Phoenix, AZ	147	82	43	9	9	4	7
Dayton, OH	133	93	30	5	2	3	9	Pueblo, CO	25	17	5	2	1	—	2
Detroit, MI	123	65	37	14	4	3	11	Salt Lake City, UT	132	90	28	6	5	3	13
Evansville, IN	46	32	12	—	2	—	2	Tucson, AZ	113	78	26	8	—	1	8
Fort Wayne, IN	67	48	10	2	4	3	5	Pacific	1,579	1,077	347	90	36	29	121
Gary, IN	21	13	3	3	1	1	_	Berkeley, CA	12	11	1	_	—	—	2
Grand Rapids, MI	49	33	10	1	2	3	3	Fresno, CA	119	78	24	11	3	3	7
Indianapolis, IN	199	127	50	13	4	5	14	Glendale, CA	30	26	4	_	—	_	3
Lansing, MI	32	17	13	2	—	_	2	Honolulu, HI	87	62	17	5	2	1	4
Milwaukee, WI	86	56	19	6	2	3	6	Long Beach, CA	48	31	13	1	3	—	8
Peoria, IL	48	35	10	2	—	1	5	Los Angeles, CA	229	148	58	17	5	1	25
Rockford, IL	47	35	7	4	—	1	3	Pasadena, CA	24	21	3	—	_	_	1
South Bend, IN	U	U	U	U	U	U	U	Portland, OR	133	80	39	8	1	5	8
Toledo, OH	91	61	20	8	2	—	4	Sacramento, CA	170	109	43	9	4	5	14
Youngstown, OH	48	40	8			_	2	San Diego, CA	136	93	28	8	3	4	9
W.N. Central	512	317	131	33	17	14	37	San Francisco, CA	106	72	24	7	1	2	6
Des Moines, IA	U	U	U	U	U	U	U	San Jose, CA	166	120	28	10	6	2	9
Duluth, MN	27	19	8	_	—	—	4	Santa Cruz, CA	30	26	4	_	_	_	7
Kansas City, KS	17	12	5	_	—	—	1	Seattle, WA	118	77	25	7	3	6	8
Kansas City, MO	79	53	20	2	3	1	8	Spokane, WA	85	60	21	3	1	_	7
Lincoln, NE	39	28	7	1	—	3	2	Tacoma, WA	86	63	15	4	4	_	3
Minneapolis, MN	58	35	12	5	3	3	3	Total <sup>1</sup>	10,163	6,645	2,393	665	237	220	663
Omaha, NE	76	54	18	3	1	—	7								
St. Louis, MO	112	48	35	18	7	4	5								
St. Paul, MN	50	30	14	1	3	2	3								
				3		1	4								

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.

<sup>5</sup> 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. <sup>1</sup> Total includes unknown ages.

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