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### Self-Reported Falls and Fall-Related Injuries Among Persons Aged $\geq 65$ Years — United States, 2006

Each year, an estimated one third of older adults fall, and the likelihood of falling increases substantially with advancing age. In 2005, a total of 15,802 persons aged  $\geq 65$  years died as a result of injuries from falls (1). However, the number of older adults who fall and are not injured or who sustain minor or moderate injuries and seek treatment in clinics or physician offices is unknown. To estimate the percentage of older adults who fell during the preceding 3 months, CDC analyzed data from the 2006 Behavioral Risk Factor Surveillance System (BRFSS) survey. This report summarizes the results of that analysis, which indicated that approximately 5.8 million persons aged  $\geq 65$  years, or 15.9% of all U.S. adults in that age group, fell at least once during the preceding 3 months, and 1.8 million (31.3%) of those who fell sustained an injury that resulted in a doctor visit or restricted activity for at least 1 day. The percentages of women and men who fell during the preceding 3 months were similar (16.4% versus 15.2%, respectively), but women reported significantly more fall-related injuries than men (35.7% versus 24.6%, respectively). The effect these injuries have on the quality of life of older adults and on the U.S. health-care system reinforces the need for broader use of scientifically proven fall-prevention interventions.

BRFSS surveys are conducted in all 50 states, the District of Columbia (DC), and selected U.S. territories (Puerto Rico, the U.S. Virgin Islands, and Guam) (2). BRFSS uses a multistage sampling design based on random-digit-dialing methods to select a representative sample of the noninstitutionalized, civilian population aged  $\geq 18$  years in each state or territory. Details on the design, random sampling procedures, and reliability and validity of measures used in BRFSS have been described previously (3,4). In 2006, the median response rate among states, based on

Council of American Survey Research Organizations (CASRO) guidelines, was 51.4% (range: 35.1%–66.0%). Data were weighted to account for probability of selection and to match the age-, race/ethnicity-, and sex-specific populations from annually adjusted intercensal estimates. Statistical significance was determined by nonoverlap of 95% confidence intervals. Estimates were considered unstable if the unweighted sample size for the subgroup was less than 50. In 2006, interviews with 92,808 persons aged  $\geq 65$  years were completed. Data from all 50 states, DC, Puerto Rico, and the U.S. Virgin Islands are included in this report.

Two questions about falls were included in the 2006 survey. The first was, “The next question asks about a recent fall. By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level. In the past 3 months, how many times have you fallen?” Those who reported a fall were asked a second question, “How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor.” In response to the first question, the number of reported falls ranged from 0 to 76; the mean number of falls among those who fell was 1.9; median = 1.0. Of respondents who said they had fallen, 23.1% reported falling three times or more. Overall, 15.9% of respondents reported one or more falls (Table 1). The num-

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ber of reported falls that resulted in injury ranged from 0 to 50. Among those who fell and were injured, the mean number of injurious falls was 1.4; median = 1.0. Overall, 31.3% of respondents who reported falling also reported a fall-related injury.

The percentages of men and women who reported falling during the preceding 3 months were similar (15.2% and 16.4%, respectively) (Table 2), but women reported more fall-related injuries than men (35.7% versus 24.6%). By race/ethnicity, American Indians/Alaska Natives reported the greatest percentage of falls (27.8%); Hispanics reported the greatest percentage of falls with injuries (41.0%). The percentages of persons aged 65–69 years and 70–74 years who reported falling during the preceding 3 months were similar (13.4% versus 14.0%) but increased significantly for persons aged 75–79 years (15.7%) and ≥80 years (20.8%). Although the percentage of persons reporting falls increased with age, the percentage of persons reporting fall-related injuries was nearly identical for each age group (range: 29.9%–32.1%).

Reports of falls ranged from 12.8% among respondents in Hawaii to 20.1% among those in Vermont, but no geographic patterns were apparent. The 50 states and DC were ranked according to their age-adjusted fall mortality rates for 2003–2004. Of the seven states at or above the 90th percentile nationally (Arizona, Minnesota, New Mexico, Rhode Island, South Dakota, Vermont, and Wisconsin) (1), only Vermont (first) and New Mexico (seventh) also were among the 10 states with the greatest proportion of reported falls; only Rhode Island (first) and Arizona (seventh) appeared among the 10 states with the greatest proportion of fall-related injuries. The percentage of respondents who fell and were injured ranged from 23.7% (Nebraska) to 48.0% (Rhode Island).

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**Editorial Note:** Falls are the leading cause of fatal and non-fatal injuries for persons aged ≥65 years (1). National estimates for rates of fatal falls and fall-related injuries treated in emergency departments have been published previously (1); however, this report presents the first national estimates of the number and proportion of persons experiencing fall-related injuries associated with either restricted activity or doctor visits. The results in this study suggest that in 2006, approximately 1.8 million persons aged ≥65 years (nearly 5% of all persons in that age group) sustained some type of recent fall-related injury. Even when those injuries are minor, they can seriously affect older adults' quality of life by inducing a fear of falling, which can lead

**TABLE 1. Percentage and estimated number of self-reported falls\* and fall-related injuries† during the preceding 3 months among persons aged ≥65 years, by state§ — Behavioral Risk Factor Surveillance System, United States, 2006**

State§	At least one self-reported fall during preceding 3 months			Among those who fell, those who were injured at least once		
	%	(95% CI¶)	No. (estimated)**	%	(95% CI)	No. (estimated)**
<b>Overall</b>	<b>15.9</b>	<b>(15.4–16.4)</b>	<b>5,828,731</b>	<b>31.3</b>	<b>(29.7–32.8)</b>	<b>1,812,315</b>
Alabama	17.4	(14.7–20.6)	103,772	40.0	(31.3–49.3)	41,241
Alaska	19.6	(13.5–27.6)	8,654	24.2††	—	2,097††
Arizona	13.9	(11.1–17.3)	104,105	36.8	(25.0–50.5)	38,298
Arkansas	16.4	(14.5–18.5)	63,752	26.8	(21.5–33.0)	17,116
California	17.7	(15.0–20.7)	649,771	33.8	(25.5–43.2)	219,493
Colorado	16.6	(14.5–19.0)	75,760	28.9	(22.9–35.8)	21,723
Connecticut	13.6	(12.0–15.4)	64,083	28.6	(23.1–34.9)	18,347
Delaware	14.8	(12.1–17.9)	16,637	39.1	(29.0–50.2)	6,502
District of Columbia	14.5	(11.9–17.5)	9,400	28.4††	—	2,672††
Florida	13.6	(12.1–15.1)	406,745	34.7	(29.4–40.4)	140,319
Georgia	17.5	(15.3–19.8)	152,546	35.3	(28.7–42.6)	53,613
Hawaii	12.8	(10.8–15.1)	22,172	28.2	(20.9–36.8)	6,231
Idaho	19.5	(17.1–22.3)	31,347	34.8	(27.8–42.4)	10,831
Illinois	14.8	(12.6–17.3)	228,551	31.5	(23.8–40.5)	71,851
Indiana	15.6	(13.7–17.7)	120,338	33.0	(26.9–39.6)	39,105
Iowa	14.4	(12.5–16.5)	60,738	27.0	(21.1–34.0)	16,340
Kansas	17.4	(15.8–19.2)	61,809	30.2	(25.5–35.3)	18,548
Kentucky	17.6	(15.3–20.2)	84,252	30.8	(24.3–38.1)	25,375
Louisiana	16.1	(14.1–18.3)	84,210	28.9	(23.1–35.6)	24,070
Maine	16.9	(14.3–19.8)	32,300	23.0††	—	7,373††
Maryland	15.7	(13.8–17.9)	99,342	27.8	(22.1–34.3)	27,472
Massachusetts	16.6	(14.9–18.6)	139,314	29.3	(24.3–34.9)	40,590
Michigan	15.9	(13.9–18.0)	199,553	29.4	(23.5–36.2)	58,741
Minnesota	15.5	(13.4–18.0)	97,794	31.5	(24.6–39.2)	30,762
Mississippi	18.4	(16.4–20.7)	65,852	34.2	(28.2–40.6)	22,342
Missouri	16.2	(13.6–19.3)	125,146	30.8	(23.6–39.0)	38,502
Montana	18.0	(15.9–20.4)	22,909	27.2	(21.5–33.8)	6,232
Nebraska	15.0	(13.3–16.9)	34,589	23.7	(18.7–29.6)	8,183
Nevada	15.1	(12.1–18.7)	41,465	36.9††	—	15,291††
New Hampshire	16.5	(14.3–18.9)	26,200	33.1	(26.2–40.8)	8,680
New Jersey	13.1	(11.9–14.5)	145,105	30.0	(25.5–35.0)	43,163
New Mexico	18.4	(16.1–20.9)	42,491	30.7	(24.4–37.7)	12,885
New York	15.2	(13.2–17.3)	366,860	27.0	(21.2–33.8)	98,348
North Carolina	16.7	(15.4–18.1)	177,518	34.0	(29.8–38.4)	59,953
North Dakota	16.4	(14.1–18.9)	15,007	29.8	(23.0–37.6)	4,466
Ohio	14.3	(11.6–17.6)	214,596	31.6	(22.0–43.1)	67,448
Oklahoma	16.0	(14.3–17.9)	74,965	30.1	(24.7–36.1)	22,474
Oregon	15.3	(13.3–17.6)	71,255	28.7	(22.6–35.7)	20,466
Pennsylvania	15.7	(13.7–17.8)	291,355	26.7	(20.9–33.3)	77,622
Rhode Island	16.5	(14.3–19.0)	24,877	48.0	(40.5–55.7)	11,899
South Carolina	14.2	(12.6–16.0)	76,214	39.6	(33.6–46.0)	30,040
South Dakota	16.1	(14.2–18.0)	17,602	29.1	(23.5–35.4)	5,100
Tennessee	15.0	(12.4–18.0)	111,181	28.8††	—	30,642††
Texas	17.9	(15.3–20.8)	401,689	28.5	(21.6–36.7)	113,820
Utah	18.8	(15.9–22.1)	39,967	27.5	(20.5–35.9)	10,924
Vermont	20.1	(18.1–22.2)	16,600	28.7	(23.7–34.3)	4,738
Virginia	14.4	(12.1–17.0)	122,966	28.2	(21.1–36.6)	34,400
Washington	18.3	(17.1–19.5)	132,251	32.0	(28.6–35.6)	42,218
West Virginia	16.6	(14.3–19.3)	46,979	35.7	(28.4–43.7)	16,654
Wisconsin	15.0	(12.6–17.6)	106,861	27.4††	—	29,290††
Wyoming	18.0	(15.8–20.5)	11,361	33.8	(27.3–40.9)	3,816
Puerto Rico	18.6	(16.3–21.0)	86,640	39.0	(32.3–46.2)	33,573
U.S. Virgin Islands	14.8	(11.4–19.0)	1,284	33.9††	—	435††

\* Based on a response indicating one or more falls in answer to the following: "The next question asks about a recent fall. By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level. In the past 3 months, how many times have you fallen?"

† Based on a response indicating one or more injuries among those persons who reported falls in answer to the following: "How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor."

§ Includes the 50 states, District of Columbia, Puerto Rico, and U.S. Virgin Islands.

¶ Confidence interval.

\*\* Estimates are weighted to account for probability of selection to match age-, race/ethnicity-, and sex-specific populations from annually adjusted intercensal estimates.

†† Estimate might be unstable (n<50).

**TABLE 2. Percentage and estimated number of self-reported falls\* and fall-related injuries† during the preceding 3 months among persons aged ≥65 years, by selected characteristics — Behavioral Risk Factor Surveillance System, United States, 2006**

Characteristic	At least one self-reported fall during preceding 3 months			Among those who fell, those who were injured at least once		
	%	(95% CI§)	No. (estimated)¶	%	(95% CI)	No. (estimated)¶
<b>Overall</b>	<b>15.9</b>	<b>(15.4–16.4)</b>	<b>5,828,731</b>	<b>31.3</b>	<b>(29.7–32.8)</b>	<b>1,812,315</b>
<b>Sex</b>						
Women	16.4	(15.8–17.0)	3,496,036	35.7	(33.7–37.9)	1,241,684
Men	15.2	(14.4–16.0)	2,332,696	24.6	(22.5–26.8)	570,631
<b>Race/Ethnicity**</b>						
American Indian/Alaska Native	27.8	(19.1–38.5)	72,398	34.3	(18.2–55.0)	24,803
Asian/Hawaiian/Pacific Islander	13.0	(8.3–19.7)	72,330	25.7††	—	18,449††
Black	13.0	(11.4–14.8)	346,155	32.8	(26.2–40.1)	111,527
Hispanic	17.4	(14.5–20.8)	457,096	41.0	(30.9–51.8)	185,595
Other/Multiple race	18.8	(15.5–22.6)	149,891	28.9	(21.5–37.8)	43,217
White	15.8	(15.4–16.3)	4,643,692	30.3	(28.9–31.7)	1,400,498
<b>Age group (yrs)</b>						
65–69	13.4	(12.7–14.2)	1,419,074	29.9	(27.4–32.6)	421,955
70–74	14.0	(13.2–14.9)	1,196,065	31.8	(28.5–35.3)	378,685
75–79	15.7	(14.7–16.8)	1,372,992	31.0	(27.8–34.4)	423,300
≥80	20.8	(19.7–21.9)	1,840,600	32.1	(29.1–35.3)	588,376
<b>Marital status</b>						
Married	14.2	(13.5–14.8)	2,951,196	28.4	(26.4–30.6)	836,610
Single§§	18.1	(17.4–18.9)	2,858,244	34.0	(31.7–36.3)	963,822
<b>General health (self-reported)</b>						
Excellent	9.7	(8.7–10.9)	416,543	29.3	(23.9–35.3)	121,814
Very good	11.7	(11.0–12.4)	1,101,974	23.8	(21.3–26.5)	261,020
Good	14.4	(13.7–15.2)	1,771,034	28.1	(25.7–30.7)	495,184
Fair	19.8	(18.7–20.9)	1,438,467	35.9	(32.8–39.1)	514,058
Poor	32.5	(30.1–35.0)	1,056,012	39.1	(34.3–44.1)	409,705

\* Based on a response indicating one or more falls in answer to the following: "The next question asks about a recent fall. By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level. In the past 3 months, how many times have you fallen?"

† Based on a response indicating one or more injuries among those persons who reported one or more falls in answer to the following: "How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor."

§ Confidence interval.

¶ Estimates are weighted to account for probability of selection to match age-, race/ethnicity-, and sex-specific populations from annually adjusted intercensal estimates.

\*\* Hispanics are only included in the Hispanic category.

†† Estimate might be unstable (n<50).

§§ Includes widowed, divorced, separated, and never married.

to self-imposed activity restrictions, social isolation, and depression (5). In addition, fall-related medical treatment places a burden on U.S. health-care services. In 2000, direct medical costs for fall-related injuries totaled approximately \$19 billion (6). A recent study determined that 31.8% of older adults who sustained a fall-related injury required help with activities of daily living as a result, and among them, 58.5% were expected to require help for at least 6 months (7).

Few studies of falls have used a 3-month time frame, so comparison with other studies is challenging. A recent analysis of data from the National Health Interview Survey (NHIS) presented the number and rate of medically attended falls reported during the preceding 3 months. However, the NHIS design did not permit calculation of the number of persons injured (7).

Among persons aged ≥65 years, other studies have reported that women fall more frequently and are treated for fall-related injuries, especially fractures, more often than men (8). Similarly, the analysis of BRFSS data indicated that a greater proportion of women than men reported fall-related injuries, but it did not find a significant difference between the proportion of women and men that experienced falls. The reasons for the differences in results between these studies are uncertain. Women might be less likely than men to report a noninjurious fall, or more likely than men to restrict their activities or seek medical attention after a fall.

The BRFSS definition of a fall-related injury does not specify severity; an injury could be as minor as a small bruise or as severe as a broken hip. This broad definition could have obscured age-related differences if, for example, per-

sons aged 65–69 years sustained less severe injuries and persons aged  $\geq 80$  years experienced more severe injuries.

The findings in this report are subject to at least five limitations. First, BRFSS is a telephone-based survey and excludes households without landline telephones, so the results might be subject to selection bias. Second, data are self-reported and subject to recall bias; therefore, prevalence estimates of falls might be underestimated. Third, BRFSS does not include institutionalized persons, thereby excluding persons in long-term-care facilities, who are most at risk for falls. Fourth, the broad definition of injury might have led participants to report minor falls as injurious, resulting in an estimate of fall-related injuries that is higher than in other similar studies. Finally, the low response rate and possible response bias might have affected the representativeness of these data.

Falls and fall-related injuries seriously affect older adults' quality of life and present a substantial burden to the U.S. health-care system. Modifiable fall risk factors include muscle weakness, gait and balance problems, poor vision, use of psychoactive medications, and home hazards (8). Falls among older adults can be reduced through evidence-based fall-prevention programs that address these modifiable risk factors. Most effective interventions focus on exercise, alone or as part of a multifaceted approach that includes medication management, vision correction, and home modifications (8). One example of an effective fall-prevention program is "Moving for Better Balance," a Tai Chi program based on a randomized controlled trial conducted at the Oregon Research Institute, which reduced the frequency of falls by 55% (9). The program is conducted in senior centers in Oregon; participants learn eight body-movement exercises during 1-hour classes offered twice weekly for 12 weeks. This program and 13 other proven fall-prevention strategies are described in a new publication, *Preventing Falls: What Works. A Compendium of Effective Community-Based Interventions from Around the World*. The companion publication, *Preventing Falls: How to Develop Community-Based Fall Prevention Programs for Older Adults*, offers guidelines to help organizations develop fall-prevention programs. These publications and other fall-related educational materials are available at <http://www.cdc.gov/ncipc/duip/fallsmaterial.htm>.

#### References

1. CDC. Fatalities and injuries from falls among older adults—United States, 1993–2003 and 2001–2005. *MMWR* 2006;55:1222–4.
2. CDC. Public health surveillance for behavioral risk factors in a changing environment: recommendations from the Behavioral Risk Factor Surveillance team. *MMWR* 2003;52(No. RR-9).

3. Nelson D, Holtzman D, Bolen J, Stanwyck CA, Mack K. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Int J Pub Health* 2001;46:S3–35.
4. CDC. Behavioral Risk Factor Surveillance System operational and user's guide, version 3.0. Atlanta, GA: US Department of Health and Human Services, CDC; 2004.
5. Vellas BJ, Wayne SJ, Romer LJ, Baumgarner RN, Garry PJ. Fear of falling and restriction of mobility in elderly fallers. *Age Ageing* 1997;26:189–93.
6. Stevens JA, Corso PS, Finkelstein EA, Miller TR. The costs of fatal and non-fatal falls among older adults. *Inj Prev* 2006;12:290–5.
7. Schiller JS, Kramarow EA, Dey AN. Fall injury episodes among noninstitutionalized older adults: United States, 2001–2003. *Adv Data* 2007;392:1–16.
8. Stevens JA, Sogolow ED. Gender differences for non-fatal unintentional fall related injuries among older adults. *Inj Prev* 2005;11:115–9.
9. Fuzhong L, Harmer P, Fisher KJ, McAuley E, Chaumeton N, Eckstrom E. Tai Chi and fall reductions in older adults: a randomized controlled trial. *J Gerontol* 2005;60A:187–94.

## Cost of Vaccinating Refugees Overseas Versus After Arrival in the United States, 2005

Since 2000, approximately 50,000 refugees have entered the United States each year from various regions of the world (1). Although persons with immigrant status are legally required to be vaccinated before entering the United States, this requirement does not extend to U.S.-bound persons with refugee status.\* After 1 year in the United States, refugees can apply for a change of status to that of legal permanent resident, at which time they are required to be fully vaccinated in accordance with recommendations of the Advisory Committee on Immunization Practices (ACIP) (2,3). A potentially less costly alternative might be to vaccinate U.S.-bound refugees overseas routinely, before they depart from refugee camps. To compare the cost of vaccinating refugees overseas versus after their arrival in the United States, CDC analyzed 2005 data on the number of refugees, cost of vaccine, and cost of vaccine administration. This report summarizes the results of that analysis, which suggested that, in 2005, vaccinating 50,787 refugees overseas would have cost an estimated \$7.7 million, less than one third of the estimated \$26.0 million cost of vaccinating in the United States. Costs were calculated from the perspective of the U.S. health-care system. To achieve public health cost savings, routine overseas vaccination of U.S.-bound refugees should be considered.

\* Immigration and Nationality Act section 212 (8 U.S.C. 1182)(a)(1)(A)(ii) as amended by section 341 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996.

To facilitate the cost analysis, refugees who were U.S. bound in 2005 were divided into age groups, using the CDC Information on Migrant Populations (IMP) database.<sup>†</sup> For 2005, IMP contained demographic information on 50,787 refugees.<sup>§</sup> Two assumptions were made in the cost analysis: 1) that 100% of refugees would receive vaccinations and 2) that all refugees would be vaccinated in accordance with the ACIP schedule<sup>¶</sup> within either 180 days of departure or 180 days of their arrival in the United States. All costs were estimated in 2005 dollars; because all costs were incurred in less than 1 year, no future costs or discounts to current values were calculated. The following equation was used to calculate the cost of vaccinations overseas and in the United States:

$$\text{Cost of vaccination} = (\text{cost of vaccine/dose} \times \text{doses/person} \times \text{persons}) + (\text{cost of administration/dose} \times \text{doses/person} \times \text{persons}).$$

The cost of purchasing each of the 10 vaccines recommended by ACIP in 2005\*\* in the United States was assumed to be in accordance with the CDC vaccine contract price list (4). The cost of administering vaccines in the United States for persons aged  $\leq 18$  years was established as \$14.95 per child vaccination<sup>††</sup>; this assumption was based on the average of maximum allowable regional charges in the federal Vaccines for Children program (5). The cost of administering vaccine to adults was established at \$18.81 per adult vaccination; this assumption was based on the average of maximum allowable state charges in the 2005–2006 Medicare Administration and Vaccine Reimbursement Rates (6).

The costs of obtaining each of the 10 vaccines overseas were based on the 2005 United Nations Children's Fund (UNICEF) vaccine price list (7) or in-country purchase prices where UNICEF prices were not available.<sup>§§</sup> The total cost of administering all vaccine doses to all refugees overseas was estimated from vaccination program budget

estimates (CDC, unpublished data, 2005) and costs previously billed by the International Organization for Migration (IOM). Overseas administration costs then were calculated as \$48.17 per refugee, regardless of the number of vaccinations.

By age group, the estimated cost of vaccinating all refugees in the United States ranged from \$64,945 for infants aged 0–3 months to \$11,669,263 for persons aged 19–64 years (Table 1). The estimated cost of vaccinating all refugees overseas ranged from \$48,706 to \$2,685,146 for the same respective age groups. Total cost of vaccinating 50,787 refugees in 2005 would have been \$25,990,579 in the United States, compared with \$7,706,026 overseas (Table 1).

When costs were analyzed by vaccine type, nine of the 10 recommended vaccines were less costly when administered overseas than in the United States. Only pneumococcal vaccine cost less to administer in the United States (\$1,085,320) than overseas (\$1,490,493) (Table 2).

**Reported by:** S Bagga, PhD, D Posey, MD, Div of Global Migration and Quarantine, National Center for Preparedness, Detection, and Control of Infectious Diseases, CDC.

**TABLE 1. Estimated cost of vaccinating refugees overseas versus after arrival in the United States,\* by age group, 2005**

Age group	No. of refugees	Cost per refugee (\$)			Total cost (\$)
		Vaccine	Admini- stration	Total	
<b>United States</b>					
0–3 mos	118	311	239	550	<b>64,945</b>
4–11 mos	1,083	505	359	863	<b>935,138</b>
12–14 mos	290	438	329	767	<b>222,346</b>
15–24 mos	787	419	299	718	<b>565,278</b>
25 mos–6 yrs	6,124	304	269	573	<b>3,510,216</b>
7–18 yrs	13,976	339	239	578	<b>8,074,774</b>
19–64 yrs	26,413	254	188	442	<b>11,669,263</b>
$\geq 65$ yrs	1,996	268	207	475	<b>948,619</b>
<b>Total†</b>	<b>50,787</b>				<b>25,990,579</b>
<b>Overseas</b>					
0–3 mos	118	365	48	413	<b>48,706</b>
4–11 mos	1,083	536	48	584	<b>632,775</b>
12–14 mos	290	418	48	466	<b>135,221</b>
15–24 mos	787	382	48	430	<b>338,630</b>
25 mos–6 yrs	6,124	182	48	230	<b>1,410,235</b>
7–18 yrs	13,976	110	48	158	<b>2,208,488</b>
19–64 yrs	26,413	53	48	102	<b>2,685,146</b>
$\geq 65$ yrs	1,996	75	48	124	<b>246,825</b>
<b>Total†</b>	<b>50,787</b>				<b>7,706,026</b>

\* Calculated using available demographic information from the CDC Information on Migrant Populations database for 50,787 refugees. The actual total number of refugees entering the United States in 2005 was 53,738. Total cost of vaccinating the entire population of 53,738 refugees can be estimated by assuming the same age distribution and extrapolating the costs for the 2,951 refugees for whom information was not available. Making that assumption, the total cost of vaccinating 53,738 refugees in the United States would be \$27,500,772, and the total cost of vaccinating the same refugees overseas would be \$8,153,788.

† Totals might differ because of rounding.

<sup>†</sup> IMP is an internal CDC database maintained by the Division of Global Migration and Quarantine that contains information on refugees, including date of birth, date of arrival in the United States, overseas medical screening, and follow-up for certain medical conditions.

<sup>§</sup> The total number of refugees in 2005 was 53,738. However, the IMP database did not include information on 2,951 refugees.

<sup>¶</sup> The ACIP schedule includes catch-up immunizations. Refugees do not generally have proof of previous immunizations; therefore, they generally receive all the vaccinations in the schedule.

\*\* Diphtheria-tetanus-acellular pertussis/tetanus-diphtheria; *Haemophilus influenzae* type b; hepatitis A; hepatitis B; inactivated poliovirus; influenza; measles, mumps, and rubella; meningococcal; pneumococcal; and varicella.

<sup>††</sup> The administration fee was charged for each vaccination performed, regardless of whether one vaccine was administered in one visit or many vaccines in one visit.

<sup>§§</sup> UNICEF prices were not available for hepatitis A, *Haemophilus influenzae* type B, meningococcal, pneumococcal, and varicella vaccines.

TABLE 2. Vaccine-specific cost\* of vaccinating 50,787 refugees overseas versus after arrival in the United States, by age group, 2005

Vaccine	Age group and associated cost (\$)								Total cost (\$)
	0–3 mos	4–11 mos	12–14 mos	15–24 mos	25 mos–6 yrs	7–18 yrs	19–64 yrs	≥65 yrs	
<b>United States</b>									
Inactivated poliovirus	9,123	111,636	29,893	81,124	631,262	1,080,485	0	0	1,943,522
Hepatitis B	8,496	77,976	20,880	56,664	440,928	1,006,272	3,280,495	247,903	5,139,614
Diphtheria-tetanus-acellular pertussis/tetanus-diphtheria	9,806	89,997	24,099	65,400	508,904	774,270	1,593,760	120,439	3,186,676
<i>Haemophilus influenzae</i> type b	8,574	104,921	21,071	19,061	148,323	0	0	0	301,951
Measles, mumps, and rubella	0	69,810	18,693	50,730	394,753	900,893	1,906,490	144,071	3,485,441
Influenza	3,267	29,988	8,030	21,792	169,574	386,995	889,062	67,185	1,575,894
Hepatitis A	0	58,753	15,733	42,695	332,227	758,198	0	0	1,207,605
Varicella	0	77,814	20,837	56,546	440,009	2,008,351	3,999,456	302,234	6,905,247
Meningococcal	0	0	0	0	0	1,159,309	0	0	1,159,309
Pneumococcal	25,679	314,243	63,110	171,267	444,235	0	0	66,786	1,085,320
<b>Total</b>	<b>64,945</b>	<b>935,138</b>	<b>222,346</b>	<b>565,278</b>	<b>3,510,216</b>	<b>8,074,774</b>	<b>11,669,263</b>	<b>948,619</b>	<b>25,990,579</b>
<b>Overseas</b>									
Inactivated poliovirus	1,108	9,215	2,679	7,960	68,494	131,261	0	0	220,716
Hepatitis B	1,161	7,398	2,140	6,324	54,126	137,550	403,089	27,839	639,627
Diphtheria-tetanus-acellular pertussis/tetanus-diphtheria	1,115	6,976	2,027	6,017	51,738	88,066	261,858	18,040	435,837
<i>Haemophilus influenzae</i> type b	7,438	86,671	17,565	16,061	126,621	0	0	0	254,355
Measles, mumps, and rubella	0	8,030	2,256	6,467	53,599	131,671	344,267	24,268	570,557
Influenza	1,417	11,921	3,245	8,978	71,505	167,860	364,948	26,705	656,579
Hepatitis A	0	36,837	9,970	27,401	216,497	503,433	0	0	794,138
Varicella	0	23,834	6,435	17,635	138,869	643,193	1,310,983	97,321	2,238,270
Meningococcal	0	0	0	0	0	405,452	0	0	405,452
Pneumococcal	36,466	441,895	88,905	241,786	628,789	0	0	52,653	1,490,493
<b>Total</b>	<b>48,706</b>	<b>632,775</b>	<b>135,221</b>	<b>338,630</b>	<b>1,410,235</b>	<b>2,208,488</b>	<b>2,685,146</b>	<b>246,825</b>	<b>7,706,026</b>

\*Vaccine plus administration. Number of doses administered was matched to the Advisory Committee on Immunization Practices (ACIP) recommended vaccination schedule, 2005. Costs were calculated using 2005 vaccine prices as outlined in the CDC vaccine price list and the United Nations Children's Fund (UNICEF) vaccine price list, in-country purchase prices, and published lists for administration costs.

**Editorial Note:** The results of the analysis described in this report suggest that vaccinating refugees overseas would be less costly than after their arrival in the United States. The cost of vaccination, both overseas and in the United States, has two components: the cost of the vaccine and the cost of its administration. The findings indicate that most of the cost savings would result from savings in administration costs. For 2005, vaccine administration costs overseas were estimated at approximately one sixth of vaccine administration costs in the United States.

Refugee vaccinations in the United States are paid for by various domestic agencies, including state and local health departments, Medicaid, the federal Vaccines for Children Program, and the Refugee Medical Assistance program of the U.S. Department of Health and Human Services' Office of Refugee Resettlement. Unknown proportions of refugees have acquired immunity to vaccine-preventable diseases or have received routine vaccinations overseas. However, record-keeping for vaccinations often is unreliable, and the majority of refugees arrive in the United States with vaccinations undocumented. In the event of an outbreak in an overseas camp of U.S.-bound refugees, the U.S.

Department of State or other U.S. agencies usually will bear the cost of emergency vaccinations. If U.S.-bound refugees were vaccinated overseas routinely, the Department of State or other U.S. agencies likely also would bear those costs.

In addition to cost savings, vaccination of refugees overseas has the potential to reduce importation of diseases into the United States and reduce costs associated with response to outbreaks. Refugees often come from areas where vaccine-preventable diseases are endemic (e.g., measles in Africa). During 2004–2007, CDC responded to 19 outbreaks of vaccine-preventable diseases that occurred in overseas camps housing U.S.-bound refugees (Table 3).

The findings in this report are subject to at least two limitations. First, assumptions regarding overseas prices of vaccines were based on the UNICEF price list or from in-country purchase prices. However, purchase prices of vaccines might differ from one region of a country to another, which might result in overestimates or underestimates of the actual cost of vaccinating overseas. Second, this analysis does not include potential direct and indirect savings (e.g., medical costs and lost productivity) resulting from any reduction in the number of treated cases of vaccine-

**TABLE 3. Outbreaks of vaccine-preventable diseases among U.S.-bound refugees, by refugee population, refugee camp, and country affected, 2004–2007**

Year	Disease	Refugee population	Refugee camp	Country affected
2004	Hepatitis A, varicella	Hmong	Wat Tham Krabok	Thailand
	Rubella, varicella	Liberian	Abidjan transit centers	Côte d'Ivoire
2005	Measles, rubella, varicella	Ethiopian, Somali	Eastleigh area of Nairobi	Kenya, United States
2006	Varicella	Burmese Karen	Tham Him	Thailand
	Polio	Somali	Dadaab	Kenya
2007	Measles, typhoid, varicella	Burmese Karen	Mae La	Thailand
	Malaria, meningitis	Somali, Sudanese	Kakuma	Kenya
	Measles	Somali	Dadaab	Kenya
	Malaria, meningitis, mumps	Burundian	Kibondo	Tanzania
	Mumps	Eritrean Kunama	Shimelba	Ethiopia

preventable disease and their sequelae. Also not included are any savings resulting from the potential reduction in costs of responding to outbreaks of vaccine-preventable diseases among refugees and the communities in which they settle. In October 2006, two cases of poliomyelitis in the Dadaab refugee camp in Kenya resulted in U.S. containment measures that cost \$309,283 (8). In 2004, the cost of containing one case of imported measles in Iowa was \$142,452 (9); in 2005, the cost of controlling a measles outbreak that resulted from a case of imported measles in Indiana was \$167,685 (10).

This analysis suggests that substantial cost savings can be realized by vaccinating U.S.-bound refugees overseas, before they depart for the United States. In addition, vaccinating refugees overseas might help to reduce importation of vaccine-preventable diseases, reducing the costs of responding to and containing outbreaks that result from imported disease.

#### Acknowledgments

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#### References

- US Department of Homeland Security. Yearbook of immigration statistics: 2005. Washington, DC: US Department of Homeland Security, Office of Immigration Statistics; 2006.
- CDC. Recommended childhood and adolescent immunization schedule—United States 2006. *MMWR* 2006;54(52):Q1–4.
- CDC. Recommended adult immunization schedule—United States, October 2006–September 2007. *MMWR* 2006;55(40):Q1–4.
- CDC. CDC vaccine price list 2006. Atlanta, GA: US Department of Health and Human Services, CDC; 2006.
- CDC. Vaccines for Children (VFC) maximum regional charges for vaccine administration by state. Atlanta, GA: US Department of Health and Human Services, CDC; 2004. Available at <http://www.cdc.gov/vaccines/programs/vfc/fee-fedreg.htm#table>.
- Centers for Medicare and Medicaid. 2005–2006 immunizers' question and answer guide to Medicare coverage of influenza and pneumococcal vaccination benefits. Dallas, TX: Centers for Medicare and Medicaid; 2005. Available at <http://www.cms.hhs.gov/adultimmunizations/downloads/0506qanda033006.pdf>.
- United Nations International Children's Fund (UNICEF). 2005 vaccine projections: quantities and pricing. New York, NY: UNICEF; 2005. Available at [http://www.who.int/immunization\\_delivery/new\\_vaccines/1.Projections\\_Vaccines\\_2005.pdf](http://www.who.int/immunization_delivery/new_vaccines/1.Projections_Vaccines_2005.pdf).
- CDC. U.S.-incurred costs of wild poliovirus infections in a camp with U.S.-bound refugees—Kenya, 2006. *MMWR* 2008;57:232–5.
- Dayan GH, Ortega-Sanchez IR, LeBaron CW, Quinlisk MP, The Iowa Measles Response Team. The cost of containing one case of measles: the economic impact on the public health infrastructure—Iowa 2004. *Pediatrics* 2005;116:e1–4.
- Parker AA, Staggs W, Dayan GH, et al. Implications of a 2005 measles outbreak in Indiana for sustained elimination of measles in the United States. *N Engl J Med* 2006;335:447–55.

## U.S.-Incurred Costs of Wild Poliovirus Infections in a Camp with U.S.-Bound Refugees — Kenya, 2006

Routine predeparture vaccinations are not required for U.S.-bound refugees,\* a policy that potentially leaves U.S. communities vulnerable to importation of vaccine-preventable diseases. During October–December 2006, an outbreak of poliomyelitis associated with wild poliovirus type 1 (WPV1) occurred in a camp occupied by refugees awaiting resettlement to the United States. This report describes the costs of domestic and international activities borne by U.S. federal and state governments, U.S.-funded organizations, and U.S. voluntary agencies during their response to this outbreak. Requiring predeparture polio vaccinations for U.S.-bound refugees might reduce the risk

\*Immigration and Nationality Act section 212 (8 U.S.C. 1182)(a)(1)(A)(ii) as amended by section 341 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996.

for poliovirus importation and reduce the costs associated with responses to polio outbreaks among refugees.

On October 16, 2006, CDC was notified of a laboratory-confirmed case of WPV1 infection in a refugee aged 3 years with paralytic polio living in one of three refugee camps in the Dadaab region of northeastern Kenya near Somalia. The camps mostly were occupied by Somali refugees and recently had received an influx of approximately 30,000 persons from Somalia. A second case of WPV1 infection in a child aged 12 years who was living in the same refugee camp was confirmed on December 19. These were the first virologically confirmed cases of polio reported in Kenya in 22 years (1). Viral isolates were genetically linked to WPV1 isolated from specimens in Somalia (2,3). Both children had been born in the camp, had not traveled outside the camp, and had completed all routine childhood vaccinations, including trivalent oral poliovirus vaccine (tOPV), in accordance with World Health Organization (WHO) Expanded Program on Immunization recommendations.<sup>†</sup> In response to the first polio case, the Kenya Ministry of Health, the United Nations High Commissioner for Refugees, the United Nations Children's Fund (UNICEF), WHO, and several nongovernmental organizations conducted three campaigns to vaccinate children aged <5 years in the camps with monovalent oral poliovirus vaccine type 1 (mOPV1), which is more immunogenic on a per-dose basis against WPV1 than tOPV.

At the time of CDC notification of the first case on October 16, a total of 944 refugees from Kenyan camps had recently arrived in or were en route to the United States; of these, 733 refugees had arrived during September 1–October 15 (group 1), 48 were on a trans-Atlantic flight (group 2), and 163 were staying in the Nairobi Transit Center in Kenya, awaiting imminent departure for the United States (group 3). The center is operated by the International Organization for Migration (IOM), which provides overseas medical assessments and care for U.S.-bound refugees during the resettlement process. CDC tracked these 944 refugees, notified the 34 receiving state health departments, and provided recommendations for polio vaccination and follow-up (5).

On October 17, before departure from Kenya, group 3 refugees were checked for signs and symptoms of polio (e.g., paralysis, weakness, or meningitis). IOM administered 1 dose of tOPV because mOPV was not available

before departure. After arrival in the United States, all three groups of refugees received at least 1 dose of inactivated poliovirus vaccine (IPV) and, for 4 weeks after arrival, all refugees were under active surveillance for signs and symptoms of polio conducted by state and local health departments. Because they could not be vaccinated before departure, the refugees who arrived on the flight on October 16 (group 2) had one stool specimen tested for poliovirus in addition to postarrival vaccination and active surveillance. Some states chose to test one stool specimen from refugees who arrived on other dates. Recommendations for overseas and domestic testing of stool specimens for poliovirus have been published previously (5).

In addition to the 944 refugee arrivals, approximately 1,200 refugees were living in the three Dadaab camps awaiting resettlement to the United States during the next several months (group 4). Future travel of these U.S.-bound refugees in the camps was suspended until they could receive 2 doses of mOPV separated by at least 1 week.

To obtain polio response-related cost data, CDC requested information from the following sources: IOM; U.S. state and local health departments that conducted vaccination and follow-up of refugees after arrival in the United States; U.S. Department of Health and Human Services agencies, including CDC and the Office of Refugee Resettlement (ORR), that provided funding and guidance for domestic refugee medical screenings, follow-up, and treatment (6); and 13 U.S. voluntary agencies that assisted refugees with resettlement. Data collected on the response included the cost of the following: tOPV and IPV and administration; salary, hours allocated, and associated overhead; stool-specimen evaluation; transportation, such as nonrefundable tickets, travel within Kenya, and transport of refugees for vaccination and predeparture checks; and communication. Data collected from IOM represented the costs to the U.S. government of vaccinating refugees against polio before embarkation. Because UNICEF provided the mOPV1 used to vaccinate the refugees in the camps, no direct cost was incurred by the U.S. government or government-funded agencies for mOPV1 administered to refugees overseas.

An average cost per refugee was calculated, based on cost data for 603 (64%) of the 944 refugees, provided by 20 (59%) of the 34 receiving states. The average cost per refugee was then extrapolated to all 944 refugees to estimate the total cost. Because all costs were incurred within 1 year, no future costs or discounts to current values were calculated.

CDC received follow-up health data on 833 (88%) of the 944 refugee arrivals, from 32 (94%) of the 34 receiving

<sup>†</sup> For various reasons (e.g., malnutrition and enteric infections), the effectiveness of tOPV in children living in tropical, less developed countries is lower than in children living in temperate, more developed countries (4). Therefore, not all children who are vaccinated with 3 doses of tOPV through routine immunization programs are immune to WPV infection and paralysis.

ing states. As part of the response, 163 (17%) of the refugees received tOPV overseas, and 691 (83%) received IPV domestically. Approximately 1,200 refugees received 2 doses of mOPV1 overseas while awaiting resettlement. No cases of polio were identified in the United States, and WPV was not isolated from any of the 372 stool specimens tested by CDC and state health departments.

The total U.S.-incurred cost of this response was \$309,283 (Table). Personnel compensation, at \$229,035, accounted for approximately 74% of the total cost; transportation-associated costs, at \$29,842, accounted for nearly 10% of the total. A total of 5,271 personnel hours were logged, 3,271 doses of polio vaccine were administered, and 1,052 miles were traveled by automobile as part of this response.

**Reported by:** CDC International Emerging Infections Program, Kenya. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn, Germany. United Nations High Commissioner for Refugees. Office of Refugee Resettlement, US Dept of Health and Human Svcs. A Casano, Div of Global Migration and Quarantine, Div of Emerging Infections and Surveillance Svcs, National Center for Preparedness, Detection, and Control of Infectious Diseases; Div of Viral Diseases, Global Immunization Div, National Center for Immunization and Respiratory Diseases, CDC.

**Editorial Note:** Risk for paralytic polio is low in the U.S. population because of sustained high routine vaccination coverage of infants and children and decreasing risk for importation of WPV from a declining number of countries

where polio is endemic or outbreaks occur (7). However, certain U.S. subpopulations remain at risk because of vaccination refusal, including refusals based on religious or personal beliefs. Despite progress in global polio eradication, the risk for WPV importation will continue until eradication has been achieved.

The identification of WPV1 cases in the Dadaab refugee camps led to a resource-intensive response, with costs incurred for emergency vaccination of refugees who had recently arrived or were en route to the United States, mass polio vaccination campaigns for refugees awaiting resettlement, intensified surveillance, and resettlement logistics. Until polio is eradicated worldwide, the potential remains for the U.S. government or government-funded agencies to incur certain costs associated with measures to prevent importation of poliovirus into the United States. However, the cost of responding to outbreaks might be reduced by requiring that vaccines recommended by the Advisory Committee on Immunization Practices (ACIP) (8) be administered to U.S.-bound refugees before departure. Routine predeparture vaccinations can be administered at the time of the required medical examination, which is usually performed 6 months before departure, allowing sufficient time for seroconversion and the development of immunity. The costs of outbreak responses are substantially higher than those of routinely administering vaccinations overseas. A cost analysis indicated that predeparture vaccination of approximately 50,000 refugees with all doses of all routine ACIP-recommended vaccination would cost approximately \$7.7 million overseas, compared with \$26 million domestically (9), a savings of approximately \$18 million.

Funds for vaccinating refugee children in the United States are provided as part of the federal Vaccines for Children Program. Coverage of costs for vaccinating adult refugees depends on program policies in the receiving state. The cost of certain adult vaccinations is covered by Refugee Medical Assistance, federal funds that are provided to the states by ORR to cover postarrival medical screening of refugees (6). Because routine poliovirus vaccination of adults is not recommended by ACIP (8), many states do not routinely administer IPV to recently arrived adult refugees.

The findings in this report are subject to at least three limitations. First, certain states and voluntary agencies did not submit data; therefore, total costs might be underestimated. Although costs from 20 states were extrapolated to the 34 affected states, the 14 states that did not provide such data might

**TABLE. U.S.-incurred costs resulting from a poliomyelitis outbreak in a camp with U.S.-bound refugees, by type of cost and source of funds — Kenya, October–December 2006**

Type of cost	Source of funds				Total (\$)
	IOM* (\$)	State government† (\$)	Federal government (\$)	U.S. voluntary agencies (\$)	
Personnel	12,376	168,302	43,464	4,892	<b>229,035</b>
Transportation	700	838	27,927	377	<b>29,842</b>
Stool testing	—	21,490	3,000	38	<b>24,528</b>
Vaccination§	—	11,646	6,529	—	<b>18,175</b>
Other¶	2,500	4,406	767	30	<b>7,703</b>
<b>Total</b>	<b>15,576</b>	<b>206,682</b>	<b>81,687</b>	<b>5,337</b>	<b>309,283</b>
Cost per refugee (N = 944)	17	219	87	6	<b>329</b>

\* International Organization for Migration. IOM receives funding from the U.S. Department of State to assist with resettlement of U.S.-bound refugees.

† Estimated costs were extrapolated for 14 (41%) of 34 affected states that did not report cost data. Of those vaccinated, 498 were children aged  $\leq 18$  years who would have been vaccinated routinely as part of the federal Vaccines for Children Program. However, personnel costs for routine vaccination were unlikely to be as high as those for this outbreak.

§ Includes costs of vaccine doses (as reported by state health departments), supplies, administration, equipment, and storage. Costs for trivalent oral poliovirus vaccine were paid directly with federal funds, although the vaccines were administered by IOM. Funds for monovalent oral poliovirus vaccine in the refugee camps were provided by the United Nations Children's Fund (UNICEF); the cost to UNICEF for all doses was \$168.

¶ Includes telephone charges, postage, printed program materials, and translation/interpretation services.

have incurred higher costs; in addition, costs were not extrapolated to voluntary agencies that did not report such data. Second, the percentage of costs exclusively attributable to the resettlement program is difficult to estimate. A portion of the costs associated with the outbreak response in the camps would have been incurred as a result of controlling the outbreak, regardless of resettlement status, although these costs would have been reduced if the refugees had been routinely vaccinated overseas. Finally, although the cost of this outbreak included nonrefundable tickets, previous outbreak costs have also included rebooking fees. During an outbreak response in 2003, rebooking fees were estimated at \$400,000 (i.e., \$1,000 per ticket) (IOM, unpublished data, 2003). Because rebooking fees might be greater in future responses, the costs presented in this report might underestimate future costs.

The response by U.S. public health agencies described in this report did not identify any cases of imported poliovirus or any poliovirus-infected persons in the United States. However, the cost of the response suggests that routine predeparture vaccination of U.S.-bound refugees in accordance with ACIP recommendations might further decrease the small risk for poliovirus importation and result in cost savings to the United States by reducing the number of future responses to polio outbreaks among refugees.

#### Acknowledgments

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#### References

1. Pallansch MA, Sandhu HS. The eradication of polio—progress and challenges. *N Engl J Med* 2006;355:2508–11.
2. World Health Organization. Outbreak news: poliomyelitis, Ethiopia and Somalia. *Wkly Epidemiol Rec* 2006;81:349.
3. World Health Organization. Outbreak news: poliomyelitis, Kenya. *Wkly Epidemiol Rec* 2006;81:409.
4. Patriarca PA, Wright PF, John TJ. Factors affecting the immunogenicity of oral poliovirus vaccine in developing countries: review. *Rev Infect Dis* 1991;13:926–39.
5. CDC. Refugee health responses. Polio in Kenya. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at [http://www.cdc.gov/ncidod/dq/refugee/response/polio\\_kenya.htm](http://www.cdc.gov/ncidod/dq/refugee/response/polio_kenya.htm).
6. Office of Refugee Resettlement. Health. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Refugee Resettlement; 2007. Available at <http://www.acf.hhs.gov/programs/orr/benefits/health.htm>.

7. CDC. Progress toward interruption of wild poliovirus transmission—worldwide, January 2006–May 2007. *MMWR* 2007;56:682–5.
8. CDC. Recommended adult immunization schedule, by vaccine and age group—United States, October 2006–September 2007. *MMWR* 2007;56(41):Q1–4.
9. CDC. Cost of vaccinating refugees overseas versus after arrival in the United States, 2005. *MMWR* 2008;57:229–32.

#### Notice to Readers

### Brain Injury Awareness Month — March 2008

Each year, traumatic brain injuries (TBIs) contribute to a substantial number of deaths and cases of permanent disability. An estimated 5.3 million persons in the United States (nearly 2% of the U.S. population) have a long-term or lifelong need for help in performing activities of daily living as a result of a TBI (1), and an additional 1.6 million sustain a TBI each year (2).

This March, in recognition of Brain Injury Awareness Month, CDC is launching the Help Seniors Live Better, Longer: Prevent Brain Injury initiative. This initiative was developed in collaboration with 26 organizations to help raise awareness about TBIs and to help adult children and other caregivers prevent, recognize, and respond to TBIs among older adults, one of the groups at highest risk for this type of injury.

As part of this initiative, CDC has developed 1) a brochure and fact sheet for caregivers that includes the signs and symptoms of TBI and how to respond if they suspect that an older adult in their care has sustained a TBI, and 2) a booklet for older adults that includes information on TBI and steps they can take to reduce their risk for falling. In addition, CDC has developed electronic greeting cards, a refrigerator magnet, and posters for caregivers and a media access guide and event planning guide designed to help organizations raise awareness about TBI.

Family members and other caregivers can help protect older adults in their care by reducing their risk for falls, recognizing signs of TBI when a fall occurs, and taking the appropriate steps when signs of TBI are observed. Additional information about CDC's Help Seniors Live Better, Longer: Prevent Brain Injury initiative is available at <http://www.cdc.gov/braininjuryinseniors>. Additional information about CDC's TBI-related activities, educational initiatives, and research is available at <http://www.cdc.gov/ncipc/tbi/tbi.htm>.

#### References

1. Thurman D, Alverson C, Dunn K, Guerrero J, Sniezek J. Traumatic brain injury in the United States: a public health perspective. *J Head Trauma Rehabil* 1999;14:602–15.

- Rutland-Brown W, Langlois JA, Thomas KE, Xi YL. Incidence of traumatic brain injury in the United States, 2003. *J Head Trauma Rehabil* 2006;21:544–8.

### Notice to Readers

## **National Women and Girls HIV/AIDS Awareness Day — March 10, 2008**

March 10 is National Women and Girls HIV/AIDS Awareness Day. In 2005, women accounted for 26% of newly diagnosed acquired immunodeficiency syndrome (AIDS) cases (1), compared with 11% in 1990 (2). Of an estimated 9,708 women and adolescent girls who had human immunodeficiency virus (HIV)/AIDS diagnosed during 2005, the majority (80%) had become infected through high-risk heterosexual contact, and 19% had become infected through injection-drug use.

Black women were especially affected by HIV/AIDS. In 2005, 66% of the new HIV/AIDS diagnoses in women occurred in black women, compared with 17% in white women and 14% in Hispanic women (1). HIV was the third leading cause of death for black women aged 25–44 years and the fourth leading cause of death for Hispanic women aged 35–44 years (3). Additional information on HIV/AIDS among women and girls is available at <http://www.cdc.gov/hiv/topics/women/index.htm> and <http://www.cdc.gov/healthyouth/sexualbehaviors/index.htm>.

### **References**

- CDC. Cases of HIV infection and AIDS in the United States and dependent areas, 2005. HIV/AIDS surveillance report. Vol. 17 (revised). Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at <http://www.cdc.gov/hiv/topics/surveillance/resources/reports>.
- CDC. Current trends AIDS in women—United States. *MMWR* 1990;39:845–6.
- CDC. Web-based Injury Statistics Query and Reporting System (WISQARS™). Leading causes of death reports, 1999–2005. Atlanta, GA: US Department of Health and Human Services, CDC. Available at <http://www.cdc.gov/ncipc/wisqars>.

### Notice to Readers

## **Ground Water Awareness Week — March 9–15, 2008**

Approximately 40%–45% of persons in the United States depend on ground water for their drinking water supply (1–3), and approximately 15% use their own private wells (2). Each year, the National Ground Water Association sponsors Ground Water Awareness Week to stress the importance of protecting ground water and to focus attention on annual private well maintenance and water testing (4). This year, Ground Water Awareness Week is March 9–15.

U.S. Environmental Protection Agency requirements that protect public drinking-water systems do not apply to privately owned wells (2). Owners of private wells are responsible for ensuring that their well water is safe from contaminants of health concern. Certain contaminants, such as arsenic and radon, can occur naturally in the environment, and their concentration in well water depends highly on the geology of the land around the well (5–8). Other contaminants, such as nitrate, are the result of pollutants from local land use (e.g., application of agricultural fertilizer and runoff from animal feedlots) and problems with nearby wastewater systems.

Private wells should be checked and tested every year for mechanical problems, cleanliness, and the presence of certain contaminants, such as coliform bacteria, nitrates and nitrites, and any other contaminants of local concern, such as arsenic and radon (9–10). A water well systems professional can take steps to ensure delivery of high-quality water from an existing well or, if needed, locate and construct a new well in a safer area.

Well water should be tested more frequently if recurrent incidents of gastrointestinal illness have occurred among household members or a change in the taste, odor, or appearance of the well water has been observed. Additional information about Ground Water Awareness Week, well maintenance, and water testing is available at <http://www.wellowner.org> and <http://www.cdc.gov/ncidod/dpd/healthywater/privatewell.htm>.

### **References**

- US Census Bureau. Annual estimates of the population for the United States, regions, and states and for Puerto Rico: April 1, 2000 to July 1, 2007 (NST-EST2007-01). Washington, DC: US Census Bureau; 2008. Available at <http://www.census.gov/popest/states/NST-ann-est.html>.
- US Environmental Protection Agency. Private drinking water wells. Washington, DC: US Environmental Protection Agency; 2006. Available at <http://www.epa.gov/safewater/privatewells/index2.html>.
- US Environmental Protection Agency. Factoids: drinking water and ground water statistics for 2005. Washington, DC: US Environmental Protection Agency; 2006. Available at [http://www.epa.gov/safewater/data/pdfs/statistics\\_data\\_factoids\\_2005.pdf](http://www.epa.gov/safewater/data/pdfs/statistics_data_factoids_2005.pdf).
- National Ground Water Association. National Ground Water Awareness Week: March 9–15, 2008. Westerville, OH: National Ground Water Association; 2008. Available at <http://www.ngwa.org/public/awarenessweek/index.aspx>.
- US Geological Survey. Arsenic in ground water of the United States. Reston, VA: US Geological Survey; 2009. Available at <http://water.usgs.gov/nawqa/trace/arsenic>.
- US Environmental Protection Agency. Arsenic in drinking water. Washington, DC: US Environmental Protection Agency; 2007. Available at <http://www.epa.gov/safewater/arsenic/basicinformation.html>.
- US Environmental Protection Agency. Radon. Washington, DC: US Environmental Protection Agency; 2006. Available at <http://www.epa.gov/ogwdw/radon.html>.
- US Environmental Protection Agency. Consumer factsheet on nitrates/nitrites. Washington, DC: US Environmental Protection Agency; 2006. Available at <http://www.epa.gov/safewater/dwh/c-ioc/nitrates.html>.

9. National Ground Water Association. Well maintenance: a homeowner's checklist. Westerville, OH: National Ground Water Association; 2008. Available at <http://www.wellowner.org/awellmaintenance/homeownerscheck.shtml>.
10. National Ground Water Association. Schedule your annual water well check up. Westerville, OH: National Ground Water Association; 2008. Available at <http://www.wellowner.org/awellmaintenance/annualcheckup.shtml>.

### Errata: Vol. 57, No. 5

In the report, "Adverse Health Conditions and Health Risk Behaviors Associated with Intimate Partner Violence — United States, 2005," in Table 1, on page 115, data in the "Overall" row were incorrect. The correct data are as follows: (for women) **11,552, 26.4, 25.7–27.2**; (for men) **4,175, 15.9, 15.1–16.7**. In addition, in the "College graduate" row, the number of men was incorrect. The correct number is **1,313**.

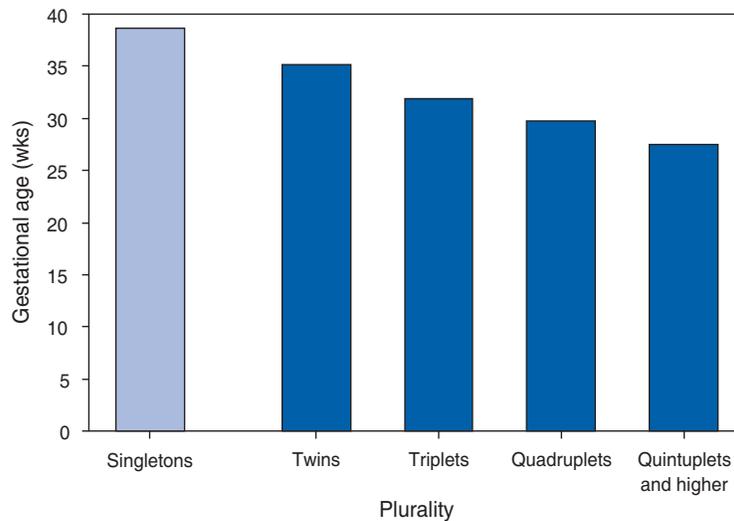
### Errata: Vol. 57, No. 6

In the report, "Invasive Pneumococcal Disease in Children 5 Years After Conjugate Vaccine Introduction — Eight States, 1998–2005," on page 145, the first two complete sentences in the second column should read as follows: Among children born in 2001, **89%** and **68%** received  $\geq 1$  dose and  $\geq 3$  doses, respectively. Among children born in 2005, **95%** and **84%** received  $\geq 1$  dose and  $\geq 3$  doses, respectively.

## QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

### Mean Gestational Age, by Plurality\* — United States, 2005



\* Defined as the number of live births and stillbirths delivered in the pregnancy.

Shorter gestation is associated with poorer birth outcomes, long-term morbidity, and higher infant mortality rates. The risk for shorter gestation is greater with multiple births than singleton births. In 2005, the mean gestational age for singletons was 38.7 weeks, compared with 35.2 weeks for twins, 31.9 weeks for triplets, 29.8 weeks for quadruplets, and 27.4 weeks for quintuplets and higher.

**SOURCE:** National Vital Statistics System. 2005 natality file. Available at <http://www.cdc.gov/nchs/births.htm>.

**TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 1, 2008 (9th Week)\***

Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2007	2006	2005	2004	2003	
Anthrax	—	—	0	—	1	—	—	—	
Botulism:									
foodborne	—	1	0	20	20	19	16	20	
infant	1	7	2	84	97	85	87	76	PA (1)
other (wound & unspecified)	—	—	0	24	48	31	30	33	
Brucellosis	—	7	2	130	121	120	114	104	
Chancroid	—	8	1	31	33	17	30	54	
Cholera	—	—	—	7	9	8	6	2	
Cyclosporiasis§	1	9	3	99	137	543	160	75	FL (1)
Diphtheria	—	—	—	—	—	—	—	1	
Domestic arboviral diseases§¶:									
California serogroup	—	—	0	44	67	80	112	108	
eastern equine	—	—	—	4	8	21	6	14	
Powassan	—	—	—	1	1	1	1	—	
St. Louis	—	—	—	7	10	13	12	41	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§:									
<i>Ehrlichia chaffeensis</i>	1	4	—	N	N	N	N	N	MD (1)
<i>Ehrlichia ewingii</i>	—	1	—	N	N	N	N	N	
<i>Anaplasma phagocytophilum</i>	1	1	—	N	N	N	N	N	NY (1)
undetermined	—	—	—	N	N	N	N	N	
<i>Haemophilus influenzae</i> **,									
invasive disease (age <5 yrs):									
serotype b	—	5	0	22	29	9	19	32	
nonserotype b	2	24	4	170	175	135	135	117	SC (1), ID (1)
unknown serotype	3	41	5	194	179	217	177	227	NY (1), OH (2)
Hansen disease§	1	9	1	70	66	87	105	95	CT (1)
Hantavirus pulmonary syndrome§	—	—	0	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal§	1	8	2	262	288	221	200	178	CO (1)
Hepatitis C viral, acute	3	77	15	786	766	652	720	1,102	NY (2), TN (1)
HIV infection, pediatric (age <13 yrs)††	—	—	4	—	—	380	436	504	
Influenza-associated pediatric mortality§§	10	33	2	76	43	45	—	N	GA (2), IA (3), IL (1), MN (1), MS (1), NYC (1), OH (1)
Listeriosis	4	53	10	778	884	896	753	696	WI (1), MO (1), MD (1), TN (1)
Measles¶¶	—	1	1	40	55	66	37	56	
Meningococcal disease, invasive***:									
A, C, Y, & W-135	3	25	8	279	318	297	—	—	SC (1), TX (1), CO (1)
serogroup B	1	17	4	146	193	156	—	—	FL (1)
other serogroup	—	5	1	31	32	27	—	—	
unknown serogroup	9	78	20	606	651	765	—	—	NY (2), OH (1), SC (2), FL (1), TN (1), MS (1), CA (1)
Mumps	3	96	18	771	6,584	314	258	231	OH (1), FL (1), TX (1)
Novel influenza A virus infections	—	—	—	4	N	N	N	N	
Plague	—	—	0	6	17	8	3	1	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Poliovirus infection, nonparalytic§	—	—	—	—	N	N	N	N	
Psittacosis§	—	—	0	10	21	16	12	12	
Q fever§:									
acute	—	2	—	—	—	—	—	—	
chronic	—	—	—	—	—	—	—	—	
Rabies, human	—	—	—	—	3	2	7	2	
Rubella†††	—	—	0	12	11	11	10	7	
Rubella, congenital syndrome	—	—	0	—	1	1	—	1	
SARS-CoV§§§	—	—	0	—	—	—	—	8	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	1	14	4	103	125	129	132	161	MD (1)
Syphilis, congenital (age <1 yr)	—	8	7	267	349	329	353	413	
Tetanus	—	—	0	23	41	27	34	20	
Toxic-shock syndrome (staphylococcal)§	—	6	3	82	101	90	95	133	

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

\* Incidence data for reporting years 2007 and 2008 are provisional, whereas data for 2003, 2004, 2005, and 2006 are finalized.

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

§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>.

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

\*\* 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. Thirty three cases occurring during the 2007–08 influenza season have been reported.

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

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

††† 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.

**TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 1, 2008 (9th Week)\***

Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2007	2006	2005	2004	2003	
Trichinellosis	—	1	0	6	15	16	5	6	
Tularemia	—	1	0	114	95	154	134	129	
Typhoid fever	3	42	5	361	353	324	322	356	OH (1), TX (1), CA (1)
Vancomycin-intermediate <i>Staphylococcus aureus</i> §	—	—	—	28	6	2	—	N	
Vancomycin-resistant <i>Staphylococcus aureus</i> §	—	—	—	—	1	3	1	N	
Vibriosis (noncholera <i>Vibrio</i> species infections)§	2	17	1	379	N	N	N	N	FL (2)
Yellow fever	—	—	—	—	—	—	—	—	

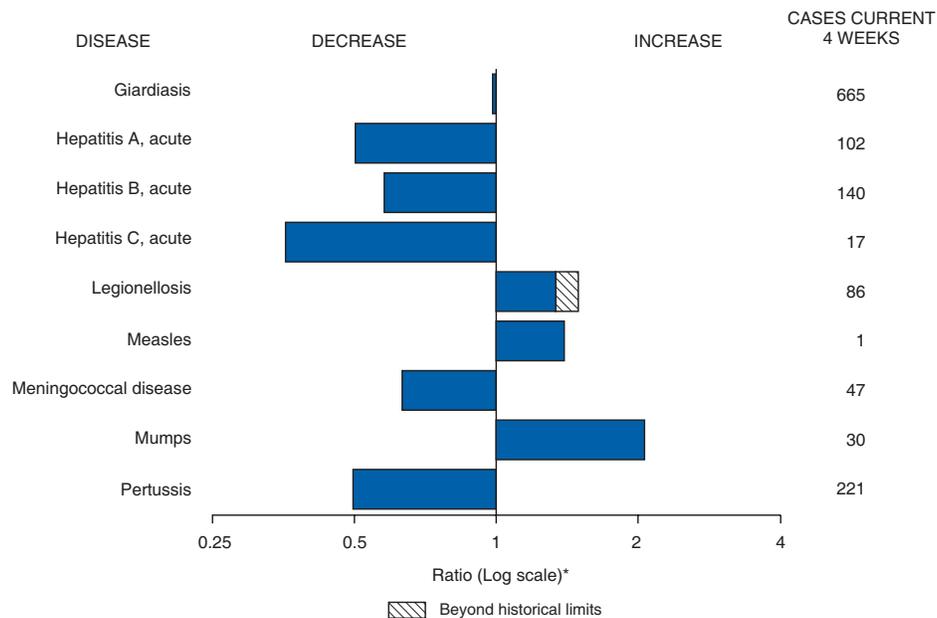
—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

\* Incidence data for reporting years 2007 and 2008 are provisional, whereas data for 2003, 2004, 2005, and 2006 are finalized.

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

§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 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>.

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 1, 2008, 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.

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**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\***

Reporting area	Chlamydia†					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	8,153	20,905	25,186	140,596	175,337	6	139	280	950	1,356	30	84	975	433	509
<b>New England</b>	975	686	1,516	5,739	5,404	—	0	1	1	—	—	4	16	14	65
Connecticut	301	223	1,091	1,176	1,058	N	0	0	N	N	—	0	2	2	42
Maine§	54	49	74	454	425	—	0	0	—	—	—	1	5	—	4
Massachusetts	499	305	661	3,161	2,782	—	0	0	—	—	—	2	11	—	7
New Hampshire	37	39	73	403	353	—	0	1	1	—	—	1	5	3	8
Rhode Island§	84	61	98	539	612	—	0	0	—	—	—	0	3	—	—
Vermont§	—	14	32	6	174	N	0	0	N	N	—	1	4	9	4
<b>Mid. Atlantic</b>	1,350	2,818	4,196	17,459	26,393	—	0	0	—	—	5	10	118	58	57
New Jersey	215	404	524	1,968	3,871	N	0	0	N	N	—	1	8	3	3
New York (Upstate)	566	548	2,037	3,486	3,098	N	0	0	N	N	3	3	20	11	7
New York City	72	929	2,206	5,301	9,052	N	0	0	N	N	—	1	10	7	17
Pennsylvania	497	801	1,761	6,704	10,372	N	0	0	N	N	2	6	103	37	30
<b>E.N. Central</b>	508	3,362	6,195	21,540	29,183	1	1	3	5	8	5	20	134	109	107
Illinois	1	1,009	2,181	5,110	8,493	—	0	0	—	—	—	2	13	4	18
Indiana	—	395	629	2,975	3,781	—	0	0	—	—	—	2	32	12	7
Michigan	328	706	988	6,287	7,087	—	0	2	3	6	—	4	11	27	18
Ohio	33	815	3,618	3,724	6,392	1	0	1	2	2	2	5	61	32	37
Wisconsin	146	375	600	3,444	3,430	N	0	0	N	N	3	7	59	34	27
<b>W.N. Central</b>	752	1,187	1,462	8,388	10,817	—	0	30	—	2	11	14	125	72	62
Iowa	164	157	251	1,466	1,475	N	0	0	N	N	—	3	61	19	12
Kansas	195	149	394	860	1,380	N	0	0	N	N	—	2	16	7	9
Minnesota	—	252	318	1,059	2,327	—	0	30	—	—	7	3	34	22	11
Missouri	341	462	551	3,912	4,049	—	0	1	—	2	2	2	13	8	10
Nebraska§	—	91	183	579	822	N	0	0	N	N	2	2	24	10	4
North Dakota	—	26	61	37	331	N	0	0	N	N	—	0	6	1	1
South Dakota	52	51	81	475	433	N	0	0	N	N	—	2	16	5	15
<b>S. Atlantic</b>	2,042	4,026	6,238	29,136	29,897	1	0	1	1	1	6	19	69	109	121
Delaware	107	64	140	654	651	—	0	0	—	—	—	0	4	4	2
District of Columbia	—	113	182	748	885	—	0	0	—	—	—	0	0	—	3
Florida	1,293	1,260	1,565	11,259	5,999	N	0	0	N	N	6	9	35	52	61
Georgia	3	527	1,502	54	6,258	N	0	0	N	N	—	5	17	35	26
Maryland§	—	451	696	3,051	2,577	1	0	1	1	1	—	0	2	—	3
North Carolina	4	383	2,595	4,946	4,767	—	0	0	—	—	—	1	18	7	4
South Carolina§	232	523	3,030	4,473	4,374	N	0	0	N	N	—	1	15	5	11
Virginia§	397	490	628	3,473	3,847	N	0	0	N	N	—	1	5	3	10
West Virginia	6	59	96	478	539	N	0	0	N	N	—	0	5	3	1
<b>E.S. Central</b>	853	1,520	2,247	11,829	14,485	—	0	0	—	—	1	4	65	16	27
Alabama§	25	484	605	3,134	4,410	N	0	0	N	N	—	1	14	9	10
Kentucky	233	191	357	2,021	1,024	N	0	0	N	N	—	1	40	2	7
Mississippi	—	279	1,049	2,078	4,024	N	0	0	N	N	—	0	11	1	8
Tennessee§	595	505	719	4,596	5,027	N	0	0	N	N	1	1	18	4	2
<b>W.S. Central</b>	564	2,534	3,531	20,332	18,386	—	0	1	—	—	2	6	28	26	28
Arkansas§	204	204	395	2,283	1,397	N	0	0	N	N	—	0	8	1	2
Louisiana	195	353	851	1,876	2,902	—	0	1	—	—	—	1	4	1	10
Oklahoma	165	248	467	1,803	2,021	N	0	0	N	N	1	1	11	8	5
Texas§	—	1,687	3,156	14,370	12,066	N	0	0	N	N	1	3	16	16	11
<b>Mountain</b>	159	1,230	1,667	4,963	10,309	1	94	171	795	899	—	8	572	23	29
Arizona	—	444	665	527	3,462	—	91	170	780	875	—	1	6	6	5
Colorado	—	185	384	423	1,788	N	0	0	N	N	—	2	26	—	12
Idaho§	148	57	233	674	611	N	0	0	N	N	—	1	72	8	1
Montana§	11	44	344	452	488	N	0	0	N	N	—	1	7	4	1
Nevada§	—	183	291	1,086	1,558	1	1	5	11	5	—	0	6	1	—
New Mexico§	—	161	394	873	1,428	—	0	2	2	7	—	1	9	3	8
Utah	—	118	218	917	772	—	1	7	2	12	—	1	488	—	1
Wyoming§	—	22	35	11	202	—	0	1	—	—	—	0	8	1	1
<b>Pacific</b>	950	3,369	4,046	21,210	30,463	3	40	176	148	446	—	1	20	6	13
Alaska	99	86	123	686	805	N	0	0	N	N	—	0	2	—	—
California	621	2,688	3,430	17,854	24,026	3	40	176	148	446	—	0	0	—	—
Hawaii	7	109	134	762	974	N	0	0	N	N	—	0	4	—	—
Oregon§	223	180	403	1,800	1,633	N	0	0	N	N	—	1	16	6	13
Washington	—	148	621	108	3,025	N	0	0	N	N	—	0	0	—	—
American Samoa	8	0	32	37	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	13	34	14	143	—	0	0	—	—	—	0	0	—	—
Puerto Rico	113	116	612	779	1,337	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	3	10	—	36	—	0	0	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.

† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Giardiasis					Gonorrhea					<i>Haemophilus influenzae</i> , invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	181	298	1,058	1,813	2,445	3,108	6,784	7,953	42,059	58,163	37	42	116	443	472
<b>New England</b>	6	23	54	91	184	127	104	227	787	881	—	3	8	8	42
Connecticut	—	6	18	35	49	61	42	199	244	231	—	0	7	—	15
Maine <sup>§</sup>	—	3	10	15	26	4	2	8	15	16	—	0	4	2	2
Massachusetts	—	8	29	—	88	56	50	127	447	505	—	1	6	—	21
New Hampshire	—	0	3	7	2	2	2	6	17	24	—	0	2	1	4
Rhode Island <sup>§</sup>	4	1	15	14	—	4	7	14	64	93	—	0	2	2	—
Vermont <sup>§</sup>	2	3	8	20	19	—	1	5	—	12	—	0	1	3	—
<b>Mid. Atlantic</b>	23	59	117	309	439	355	672	1,012	4,010	7,141	10	9	27	92	104
New Jersey	—	7	15	21	62	93	117	159	778	1,113	—	1	6	15	17
New York (Upstate)	20	23	100	126	117	119	131	517	882	891	7	2	20	26	19
New York City	—	16	29	57	155	11	164	376	672	2,087	—	1	6	12	28
Pennsylvania	3	14	29	105	105	132	247	551	1,678	3,050	3	3	11	39	40
<b>E.N. Central</b>	16	48	91	286	374	168	1,291	2,579	7,777	12,140	5	6	14	64	66
Illinois	—	14	33	49	106	1	377	758	1,645	3,091	—	2	6	15	21
Indiana	N	0	0	N	N	—	161	308	1,302	1,506	—	1	7	9	5
Michigan	—	11	22	51	110	95	292	519	2,474	2,996	—	0	3	3	7
Ohio	14	15	37	136	106	15	345	1,558	1,295	3,290	5	2	6	36	28
Wisconsin	2	7	21	50	52	57	126	210	1,061	1,257	—	0	1	1	5
<b>W.N. Central</b>	12	22	578	223	157	153	360	446	2,200	3,561	3	3	24	41	19
Iowa	—	4	23	38	36	19	33	56	218	368	—	0	1	1	—
Kansas	—	3	11	20	21	42	38	102	218	439	—	0	1	1	4
Minnesota	6	0	573	81	3	—	62	90	282	646	—	1	21	9	—
Missouri	6	8	23	54	71	87	188	255	1,266	1,856	3	1	5	22	12
Nebraska <sup>§</sup>	—	3	8	21	16	—	26	57	174	183	—	0	3	7	2
North Dakota	—	0	3	4	1	—	1	4	2	19	—	0	1	1	1
South Dakota	—	1	6	5	9	5	5	11	40	50	—	0	0	—	—
<b>S. Atlantic</b>	67	53	94	391	404	1,537	1,592	2,339	10,741	12,147	9	12	30	130	113
Delaware	—	1	6	7	5	44	24	43	222	283	—	0	3	1	1
District of Columbia	—	0	6	—	13	—	46	71	256	409	—	0	1	—	1
Florida	25	23	47	172	177	427	491	623	4,111	2,757	3	3	10	39	34
Georgia	35	12	36	135	89	5	217	621	21	2,646	1	2	8	35	25
Maryland <sup>§</sup>	5	4	18	33	38	—	122	234	890	906	3	1	6	29	25
North Carolina	—	0	0	—	—	833	231	1,176	2,402	2,443	—	1	9	10	8
South Carolina <sup>§</sup>	—	3	6	15	9	110	203	1,361	1,713	1,821	2	1	4	8	8
Virginia <sup>§</sup>	2	10	39	27	72	116	129	224	1,016	733	—	1	23	5	9
West Virginia	—	0	8	2	1	2	17	38	110	149	—	0	3	3	2
<b>E.S. Central</b>	6	10	23	56	93	271	582	868	4,330	5,463	—	2	8	23	30
Alabama <sup>§</sup>	1	4	11	34	57	12	208	281	1,319	1,905	—	0	3	5	8
Kentucky	N	0	0	N	N	91	76	161	788	371	—	0	1	—	2
Mississippi	N	0	0	N	N	—	118	400	809	1,453	—	0	2	1	2
Tennessee <sup>§</sup>	5	5	16	22	36	168	176	261	1,414	1,734	—	2	6	17	18
<b>W.S. Central</b>	2	7	21	22	51	251	1,004	1,327	7,195	7,951	7	2	15	19	14
Arkansas <sup>§</sup>	1	1	9	6	25	81	77	138	754	685	—	0	2	—	1
Louisiana	—	2	14	3	14	108	207	384	1,112	1,814	—	0	2	—	3
Oklahoma	1	3	9	13	12	62	90	235	741	802	7	1	8	18	10
Texas <sup>§</sup>	N	0	0	N	N	—	622	929	4,588	4,650	—	0	3	1	—
<b>Mountain</b>	12	31	67	111	232	7	234	321	807	2,069	2	5	14	53	57
Arizona	—	3	10	18	39	—	97	130	153	712	—	2	10	34	31
Colorado	7	9	26	13	85	—	35	85	24	523	1	1	4	1	11
Idaho <sup>§</sup>	3	3	19	25	20	6	5	19	34	31	1	0	1	1	1
Montana <sup>§</sup>	—	2	8	8	10	1	1	48	13	25	—	0	1	1	—
Nevada <sup>§</sup>	1	3	8	17	13	—	45	85	286	368	—	0	1	4	2
New Mexico <sup>§</sup>	1	2	5	8	24	—	31	64	212	271	—	1	4	5	6
Utah	—	7	33	17	35	—	13	36	85	126	—	0	6	7	5
Wyoming <sup>§</sup>	—	1	4	5	6	—	1	5	—	13	—	0	1	—	1
<b>Pacific</b>	37	61	205	324	511	239	667	799	4,212	6,810	1	2	6	13	27
Alaska	—	1	5	9	12	3	9	18	67	87	1	0	4	4	4
California	27	42	84	231	382	189	585	712	3,782	5,801	—	0	5	—	5
Hawaii	—	1	4	2	12	2	12	23	86	103	—	0	2	1	—
Oregon <sup>§</sup>	1	8	17	59	81	45	23	63	261	186	—	1	4	8	18
Washington	9	8	117	23	24	—	21	142	16	633	—	0	3	—	—
American Samoa	—	0	0	—	—	—	0	2	1	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	1	13	4	13	—	0	0	—	—
Puerto Rico	—	3	21	3	49	1	5	23	46	60	—	0	1	—	—
U.S. Virgin Islands	—	0	0	—	—	—	1	3	—	12	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional.

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

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Hepatitis (viral, acute), by type <sup>†</sup>										Legionellosis				
	A					B									
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
	Med	Max				Med	Max				Med	Max			
<b>United States</b>	20	53	132	372	443	31	80	151	441	671	26	47	91	283	260
<b>New England</b>	—	2	6	12	7	1	1	6	3	8	—	2	14	12	9
Connecticut	—	0	3	3	2	1	0	5	3	3	—	0	4	3	1
Maine <sup>§</sup>	—	0	1	1	—	—	0	2	—	1	—	0	2	—	—
Massachusetts	—	0	4	—	4	—	0	1	—	—	—	0	2	—	7
New Hampshire	—	0	3	—	1	—	0	1	—	2	—	0	2	1	—
Rhode Island <sup>§</sup>	—	0	2	8	—	—	0	3	—	2	—	0	6	6	—
Vermont <sup>§</sup>	—	0	1	—	—	—	0	1	—	—	—	0	2	2	1
<b>Mid. Atlantic</b>	4	9	21	48	68	2	9	17	40	104	5	13	37	63	63
New Jersey	—	2	6	4	22	—	1	4	—	32	—	1	11	6	14
New York (Upstate)	3	1	6	13	10	1	2	7	7	8	4	4	15	14	11
New York City	—	3	9	14	24	—	2	6	1	28	—	3	11	2	11
Pennsylvania	1	2	5	17	12	1	3	13	32	36	1	5	21	41	27
<b>E.N. Central</b>	—	6	13	41	58	4	8	15	52	94	10	10	30	66	71
Illinois	—	2	5	6	26	—	2	6	5	24	—	2	12	5	14
Indiana	—	0	4	3	—	—	0	8	3	2	—	1	7	3	4
Michigan	—	2	5	23	18	—	2	6	14	32	1	3	11	17	24
Ohio	—	1	4	7	11	4	2	7	28	28	9	4	17	41	25
Wisconsin	—	0	3	2	3	—	0	2	2	8	—	0	1	—	4
<b>W.N. Central</b>	1	3	18	44	10	—	2	8	12	29	—	1	9	14	11
Iowa	—	1	5	14	4	—	0	2	2	7	—	0	2	2	1
Kansas	—	0	3	4	—	—	0	2	3	1	—	0	1	—	—
Minnesota	—	0	17	2	—	—	0	4	—	1	—	0	6	1	1
Missouri	—	0	3	11	3	—	1	5	6	15	—	1	3	5	6
Nebraska <sup>§</sup>	1	0	4	12	1	—	0	1	1	3	—	0	2	5	2
North Dakota	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	1	1	2	—	0	1	—	2	—	0	1	1	1
<b>S. Atlantic</b>	2	10	21	63	69	11	19	52	142	168	7	7	27	65	60
Delaware	—	0	1	—	—	—	0	2	—	2	—	0	2	1	1
District of Columbia	—	0	5	—	7	—	0	1	—	—	—	0	1	—	—
Florida	1	3	8	25	28	5	6	12	60	59	6	3	12	31	28
Georgia	1	1	4	10	12	2	2	6	18	26	—	1	3	13	6
Maryland <sup>§</sup>	—	1	5	10	7	1	2	7	11	20	1	1	5	11	14
North Carolina	—	0	9	9	1	—	0	16	24	21	—	0	4	3	4
South Carolina <sup>§</sup>	—	0	4	2	3	—	1	6	13	10	—	0	2	1	3
Virginia <sup>§</sup>	—	1	5	6	11	3	2	14	11	23	—	1	6	3	3
West Virginia	—	0	2	1	—	—	0	23	5	7	—	0	5	2	1
<b>E.S. Central</b>	—	2	5	6	20	2	7	14	49	54	1	2	6	12	14
Alabama <sup>§</sup>	—	0	4	1	4	1	2	6	20	19	—	0	1	1	2
Kentucky	—	0	2	2	2	—	1	7	16	4	—	1	3	6	4
Mississippi	—	0	1	—	4	—	0	3	2	8	—	0	0	—	—
Tennessee <sup>§</sup>	—	1	5	3	10	1	2	8	11	23	1	1	4	5	8
<b>W.S. Central</b>	4	5	45	29	35	7	18	46	81	76	—	2	11	7	3
Arkansas <sup>§</sup>	—	0	2	—	2	—	1	4	1	8	—	0	3	1	—
Louisiana	—	0	3	—	5	—	1	6	2	16	—	0	1	—	—
Oklahoma	1	0	8	1	—	3	1	38	7	2	—	0	2	—	—
Texas <sup>§</sup>	3	3	44	28	28	4	13	28	71	50	—	2	11	6	3
<b>Mountain</b>	2	4	15	40	55	2	3	9	14	47	1	2	6	16	16
Arizona	—	3	11	27	43	—	1	5	2	23	—	0	5	9	3
Colorado	2	0	2	2	5	—	0	3	1	5	1	0	2	1	4
Idaho <sup>§</sup>	—	0	2	4	—	1	0	1	1	3	—	0	1	1	1
Montana <sup>§</sup>	—	0	2	—	—	—	0	1	—	—	—	0	1	1	—
Nevada <sup>§</sup>	—	0	2	—	3	1	1	3	7	12	—	0	2	2	2
New Mexico <sup>§</sup>	—	0	1	4	1	—	0	2	1	2	—	0	1	—	2
Utah	—	0	2	1	2	—	0	2	2	2	—	0	3	2	3
Wyoming <sup>§</sup>	—	0	1	2	1	—	0	1	—	—	—	0	1	—	1
<b>Pacific</b>	7	12	44	89	121	2	9	32	48	91	2	3	15	28	13
Alaska	—	0	1	—	1	—	0	2	2	2	—	0	0	—	—
California	4	11	36	69	113	2	7	23	34	69	1	2	13	24	13
Hawaii	—	0	2	—	2	—	0	2	1	—	—	0	1	—	—
Oregon <sup>§</sup>	—	1	3	10	3	—	1	3	7	17	1	0	2	3	—
Washington	3	1	7	10	2	—	1	9	4	3	—	0	2	1	—
American Samoa	—	0	0	—	—	—	0	13	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	—	1	—	0	0	—	—
Puerto Rico	1	0	4	1	16	—	1	5	3	15	—	0	1	—	2
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

<sup>†</sup> Incidence data for reporting years 2007 and 2008 are provisional.<sup>‡</sup> Data for acute hepatitis C, viral are available in Table I.<sup>§</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serogroups				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	57	321	1,304	748	1,314	4	24	103	113	156	13	18	49	125	199
<b>New England</b>	—	44	302	12	94	—	1	23	—	6	—	0	3	2	7
Connecticut	—	12	214	—	18	—	0	16	—	—	—	0	1	1	1
Maine§	—	5	61	—	1	—	0	2	—	1	—	0	1	1	1
Massachusetts	—	0	31	—	35	—	0	3	—	5	—	0	2	—	4
New Hampshire	—	8	88	9	36	—	0	4	—	—	—	0	1	—	—
Rhode Island§	—	0	79	—	—	—	0	7	—	—	—	0	1	—	—
Vermont§	—	1	13	3	4	—	0	2	—	—	—	0	1	—	1
<b>Mid. Atlantic</b>	20	163	665	443	670	1	7	18	20	34	2	2	8	16	20
New Jersey	—	36	177	32	207	—	0	4	—	3	—	0	2	1	3
New York (Upstate)	13	54	220	43	75	1	1	8	3	3	2	1	3	7	5
New York City	—	5	27	4	23	—	4	9	11	23	—	0	4	1	3
Pennsylvania	7	51	322	364	365	—	1	4	6	5	—	1	5	7	9
<b>E.N. Central</b>	—	12	169	12	48	1	2	7	24	27	1	3	6	18	37
Illinois	—	1	16	—	3	—	1	6	9	13	—	1	3	2	12
Indiana	—	0	7	—	1	—	0	2	1	1	—	0	4	2	6
Michigan	—	0	5	4	2	—	0	2	5	4	—	0	2	5	7
Ohio	—	0	4	1	2	1	0	3	8	4	1	1	2	9	7
Wisconsin	—	10	149	7	40	—	0	1	1	5	—	0	1	—	5
<b>W.N. Central</b>	—	4	665	1	16	—	0	8	1	8	—	1	8	18	16
Iowa	—	1	11	1	2	—	0	1	—	1	—	0	2	5	4
Kansas	—	0	2	—	1	—	0	1	—	—	—	0	1	—	2
Minnesota	—	0	665	—	13	—	0	8	—	4	—	0	7	7	—
Missouri	—	0	4	—	—	—	0	1	—	1	—	0	3	4	7
Nebraska§	—	0	1	—	—	—	0	1	1	2	—	0	2	1	1
North Dakota	—	0	2	—	—	—	0	1	—	—	—	0	1	—	1
South Dakota	—	0	0	—	—	—	0	1	—	—	—	0	1	1	1
<b>S. Atlantic</b>	37	64	214	248	460	2	4	14	35	35	5	3	11	20	27
Delaware	3	11	34	59	67	—	0	1	—	1	—	0	1	—	—
District of Columbia	—	0	7	—	—	—	0	1	—	1	—	0	0	—	—
Florida	3	1	11	12	3	1	1	7	15	8	2	1	7	8	8
Georgia	—	0	3	1	—	1	1	3	10	2	—	0	3	1	5
Maryland§	31	33	132	160	344	—	1	5	8	11	—	0	2	1	8
North Carolina	—	0	8	2	—	—	0	4	2	4	—	0	4	3	—
South Carolina§	—	0	4	1	3	—	0	1	—	—	3	0	2	7	2
Virginia§	—	17	62	13	43	—	1	7	—	8	—	0	2	—	4
West Virginia	—	0	9	—	—	—	0	1	—	—	—	0	1	—	—
<b>E.S. Central</b>	—	1	5	—	4	—	1	3	2	6	2	1	3	14	12
Alabama§	—	0	3	—	1	—	0	1	1	1	—	0	2	—	3
Kentucky	—	0	2	—	—	—	0	1	1	1	—	0	2	4	1
Mississippi	—	0	1	—	—	—	0	1	—	1	1	0	2	3	4
Tennessee§	—	0	4	—	3	—	0	2	—	3	1	0	2	7	4
<b>W.S. Central</b>	—	1	6	1	6	—	2	50	6	10	1	2	10	10	19
Arkansas§	—	0	1	—	—	—	0	1	—	—	—	0	2	—	1
Louisiana	—	0	1	—	1	—	0	2	—	3	—	0	3	3	8
Oklahoma	—	0	0	—	—	—	0	2	1	1	—	0	4	3	4
Texas§	—	1	6	1	5	—	1	49	5	6	1	1	5	4	6
<b>Mountain</b>	—	1	3	1	2	—	1	6	5	13	1	1	4	10	15
Arizona	—	0	1	—	—	—	0	3	1	4	—	0	2	3	2
Colorado	—	0	1	1	—	—	0	2	1	7	1	0	2	1	3
Idaho§	—	0	2	—	—	—	0	2	—	—	—	0	2	2	1
Montana§	—	0	2	—	1	—	0	1	—	—	—	0	1	—	1
Nevada§	—	0	2	—	1	—	0	3	3	—	—	0	1	1	1
New Mexico§	—	0	2	—	—	—	0	1	—	1	—	0	1	2	1
Utah	—	0	2	—	—	—	0	3	—	1	—	0	2	—	6
Wyoming§	—	0	1	—	—	—	0	0	—	—	—	0	1	1	—
<b>Pacific</b>	—	3	10	30	14	—	3	9	20	17	1	4	19	17	46
Alaska	—	0	2	—	2	—	0	0	—	2	—	0	1	—	1
California	—	2	8	30	12	—	2	8	14	11	1	3	11	7	38
Hawaii	N	0	0	N	N	—	0	1	1	—	—	0	2	—	2
Oregon§	—	0	1	—	—	—	0	2	3	3	—	1	3	6	4
Washington	—	0	7	—	—	—	0	3	2	1	—	0	7	4	1
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	—	1	—	0	1	—	2
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional.

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

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	36	172	461	836	1,633	57	103	197	444	731	—	34	147	35	81
<b>New England</b>	—	22	45	17	294	4	10	22	36	78	—	0	1	—	1
Connecticut	—	0	5	—	16	3	4	10	21	33	—	0	0	—	—
Maine†	—	1	5	9	20	—	1	5	2	16	—	0	1	—	—
Massachusetts	—	17	33	—	230	—	0	0	—	N	—	0	1	—	1
New Hampshire	—	1	5	1	11	1	1	4	5	7	—	0	1	—	—
Rhode Island†	—	0	8	3	2	—	1	4	4	4	—	0	0	—	—
Vermont†	—	0	6	4	15	—	2	13	4	18	—	0	0	—	—
<b>Mid. Atlantic</b>	9	22	38	127	298	3	25	56	42	169	—	1	7	2	7
New Jersey	—	2	6	1	47	N	0	0	N	N	—	0	3	—	1
New York (Upstate)	8	8	24	44	156	3	9	20	42	50	—	0	1	—	—
New York City	—	2	7	9	30	—	0	5	—	14	—	0	3	1	2
Pennsylvania	1	7	22	73	65	—	15	44	—	105	—	0	3	1	4
<b>E.N. Central</b>	14	25	180	359	326	—	4	49	—	2	—	1	4	1	3
Illinois	—	2	8	10	52	—	1	15	—	1	—	0	3	—	1
Indiana	—	0	9	3	1	—	0	1	—	—	—	0	2	—	—
Michigan	—	4	16	17	73	—	1	28	—	1	—	0	1	—	1
Ohio	14	12	176	329	153	—	1	11	—	—	—	0	2	1	1
Wisconsin	—	0	24	—	47	N	0	0	N	N	—	0	0	—	—
<b>W.N. Central</b>	4	12	77	86	112	3	4	13	13	22	—	5	37	9	8
Iowa	—	2	8	12	40	—	0	3	1	2	—	0	4	—	—
Kansas	—	2	5	1	43	—	1	7	—	14	—	0	2	—	3
Minnesota	—	0	75	—	—	3	0	6	8	2	—	0	3	—	—
Missouri	3	2	16	60	11	—	0	3	—	1	—	5	29	9	5
Nebraska†	1	1	12	11	3	—	0	0	—	—	—	0	2	—	—
North Dakota	—	0	4	—	1	—	0	5	2	3	—	0	0	—	—
South Dakota	—	0	7	2	14	—	0	2	2	—	—	0	1	—	—
<b>S. Atlantic</b>	4	16	48	83	144	41	40	63	306	396	—	15	111	20	42
Delaware	—	0	2	—	1	—	0	0	—	—	—	0	2	—	4
District of Columbia	—	0	1	—	1	—	0	0	—	—	—	0	1	—	—
Florida	3	3	17	22	48	3	0	6	22	124	—	0	3	1	1
Georgia	—	0	3	1	12	28	5	31	70	32	—	0	6	3	3
Maryland†	—	2	6	11	27	—	9	18	58	57	—	1	5	4	7
North Carolina	—	5	34	35	20	10	9	19	66	64	—	7	96	11	18
South Carolina†	1	1	22	6	15	—	0	11	—	21	—	0	7	—	4
Virginia†	—	2	11	8	20	—	12	31	77	90	—	2	11	1	5
West Virginia	—	0	12	—	—	—	0	11	13	8	—	0	3	—	—
<b>E.S. Central</b>	—	6	35	32	56	3	3	6	13	19	—	5	16	2	17
Alabama†	—	1	6	5	18	—	0	0	—	—	—	1	10	1	9
Kentucky	—	0	4	6	1	—	0	3	2	5	—	0	2	—	—
Mississippi	—	3	32	15	11	—	0	1	—	—	—	0	2	—	1
Tennessee†	—	1	5	6	26	3	2	6	11	14	—	2	10	1	7
<b>W.S. Central</b>	1	20	112	40	58	1	1	23	7	12	—	1	30	1	2
Arkansas†	—	2	17	7	3	1	1	3	7	3	—	0	15	—	—
Louisiana	—	0	2	—	3	—	0	0	—	—	—	0	1	—	1
Oklahoma	—	0	26	1	—	—	0	22	—	9	—	0	20	—	—
Texas†	1	16	102	32	52	—	0	0	—	—	—	1	5	1	1
<b>Mountain</b>	2	19	40	54	245	1	3	18	16	9	—	0	4	—	1
Arizona	—	2	10	8	74	—	2	12	10	8	—	0	1	—	—
Colorado	1	5	14	12	71	—	0	0	—	—	—	0	2	—	—
Idaho†	1	0	4	3	9	—	0	4	—	—	—	0	1	—	1
Montana†	—	1	7	14	8	—	0	3	—	—	—	0	1	—	—
Nevada†	—	0	6	2	7	—	0	2	—	—	—	0	0	—	—
New Mexico†	—	1	7	—	10	1	0	2	5	—	—	0	1	—	—
Utah	—	6	27	15	56	—	0	2	—	1	—	0	0	—	—
Wyoming†	—	0	2	—	10	—	0	4	1	—	—	0	2	—	—
<b>Pacific</b>	2	16	138	38	100	1	4	10	11	24	—	0	2	—	—
Alaska	1	1	6	16	9	—	0	3	4	15	N	0	0	N	N
California	—	7	28	—	53	1	3	8	7	9	—	0	2	—	—
Hawaii	—	0	2	1	7	N	0	0	N	N	N	0	0	N	N
Oregon†	1	1	14	8	14	—	0	3	—	—	—	0	1	—	—
Washington	—	3	115	13	17	—	0	0	—	—	N	0	0	N	N
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	1	—	—	2	0	5	4	15	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC) <sup>†</sup>					Shigellosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	228	858	1,514	3,613	5,460	23	73	214	234	334	110	359	836	2,010	1,700
<b>New England</b>	—	31	73	94	619	—	4	11	10	67	—	3	11	8	73
Connecticut	—	0	46	46	430	—	0	3	3	45	—	0	2	2	44
Maine <sup>§</sup>	—	2	14	21	18	—	0	4	2	4	—	0	4	—	2
Massachusetts	—	21	58	—	141	—	2	10	—	13	—	2	8	—	26
New Hampshire	—	2	10	7	15	—	0	4	2	5	—	0	1	1	1
Rhode Island <sup>§</sup>	—	2	15	12	8	—	0	2	1	—	—	0	9	4	—
Vermont <sup>§</sup>	—	1	5	8	7	—	0	3	2	—	—	0	1	1	—
<b>Mid. Atlantic</b>	25	108	190	427	740	3	8	27	24	44	6	18	152	122	90
New Jersey	—	19	48	10	156	—	2	7	—	14	—	4	11	26	12
New York (Upstate)	20	27	63	122	150	2	3	12	11	12	5	3	19	26	14
New York City	—	24	51	123	184	—	1	5	3	3	—	5	13	49	55
Pennsylvania	5	34	69	172	250	1	2	11	10	15	1	2	141	21	9
<b>E.N. Central</b>	14	105	255	360	681	3	9	35	21	45	16	56	134	393	157
Illinois	—	31	188	62	261	—	1	13	—	7	—	15	26	100	94
Indiana	—	12	34	36	51	—	1	13	3	1	—	3	81	137	8
Michigan	1	19	43	82	111	—	2	8	5	8	—	1	7	10	7
Ohio	9	25	64	135	146	3	2	9	8	26	15	18	104	119	24
Wisconsin	4	15	50	45	112	—	3	11	5	3	1	4	13	27	24
<b>W.N. Central</b>	13	49	103	252	319	5	12	38	38	28	2	30	80	111	260
Iowa	—	9	18	41	54	—	2	13	7	—	1	2	6	6	8
Kansas	—	7	20	22	50	—	1	4	2	4	—	0	3	3	6
Minnesota	4	13	40	65	56	—	4	17	12	12	—	4	12	20	46
Missouri	5	15	29	81	97	5	2	12	13	5	1	21	72	48	180
Nebraska <sup>§</sup>	4	5	13	30	23	—	2	6	2	7	—	0	3	—	3
North Dakota	—	0	9	2	6	—	0	1	—	—	—	0	5	9	5
South Dakota	—	3	11	11	33	—	0	5	2	—	—	1	30	25	12
<b>S. Atlantic</b>	81	228	434	1,227	1,442	5	13	38	60	67	34	82	153	498	562
Delaware	1	2	8	13	15	1	0	2	2	3	—	0	2	—	2
District of Columbia	—	0	4	—	8	—	0	1	—	—	—	0	1	—	3
Florida	56	87	181	645	600	3	3	18	24	17	13	36	75	187	335
Georgia	4	33	81	203	217	—	1	6	4	10	15	28	86	216	181
Maryland <sup>§</sup>	9	14	44	77	116	1	1	6	13	12	—	2	7	10	15
North Carolina	—	26	191	122	231	—	1	24	10	9	—	0	12	12	8
South Carolina <sup>§</sup>	8	18	51	97	117	—	0	3	3	—	6	5	20	63	7
Virginia <sup>§</sup>	3	22	50	57	131	—	3	9	3	16	—	3	14	10	11
West Virginia	—	4	25	13	7	—	0	3	1	—	—	0	62	—	—
<b>E.S. Central</b>	13	59	145	256	371	6	4	26	25	15	12	49	177	269	137
Alabama <sup>§</sup>	5	16	50	89	97	4	1	19	10	2	8	13	43	75	47
Kentucky	—	10	23	37	65	—	1	12	3	4	—	8	35	31	13
Mississippi	—	13	57	41	101	—	0	1	1	1	—	18	111	79	33
Tennessee <sup>§</sup>	8	17	35	89	108	2	2	11	11	8	4	5	32	84	44
<b>W.S. Central</b>	26	91	486	250	249	—	5	13	11	17	27	45	422	379	105
Arkansas <sup>§</sup>	1	13	50	33	30	—	0	3	2	5	1	2	11	18	10
Louisiana	—	16	42	24	70	—	0	2	—	3	—	9	22	11	40
Oklahoma	4	9	43	40	36	—	0	3	2	1	4	3	9	22	7
Texas <sup>§</sup>	21	51	439	153	113	—	3	11	7	8	22	32	401	328	48
<b>Mountain</b>	14	49	83	237	339	—	10	42	34	31	10	17	40	99	126
Arizona	—	17	40	106	123	—	2	8	12	9	—	10	30	55	58
Colorado	11	10	24	24	82	—	1	17	—	7	2	2	6	5	16
Idaho <sup>§</sup>	2	3	10	20	20	—	2	16	16	2	—	0	2	1	1
Montana <sup>§</sup>	—	1	9	6	13	—	0	0	—	—	—	0	2	—	2
Nevada <sup>§</sup>	—	5	12	32	31	—	0	3	2	3	8	1	10	31	9
New Mexico <sup>§</sup>	—	5	13	33	35	—	1	3	4	8	—	1	6	5	24
Utah	—	4	17	7	24	—	1	9	—	2	—	0	5	—	4
Wyoming <sup>§</sup>	1	1	5	9	11	—	0	0	—	—	—	0	5	2	12
<b>Pacific</b>	42	115	362	510	700	1	9	38	11	20	3	27	70	131	190
Alaska	—	1	5	6	11	N	0	0	N	N	—	0	1	—	4
California	28	86	227	398	564	1	5	33	6	12	2	21	61	114	162
Hawaii	2	5	14	30	45	—	0	4	1	—	—	0	3	5	6
Oregon <sup>§</sup>	1	6	16	39	43	—	1	11	1	3	—	1	6	9	9
Washington	11	12	130	37	37	—	1	18	3	5	1	2	20	3	9
American Samoa	—	0	1	1	—	—	0	0	—	—	—	0	1	1	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	5	1	2	N	0	0	N	N	—	0	3	1	3
Puerto Rico	1	12	55	27	114	—	0	0	—	—	—	0	2	—	9
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional.

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

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Streptococcal disease, invasive, group A					<i>Streptococcus pneumoniae</i> , invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max		
<b>United States</b>	114	90	170	867	911	33	34	127	263	319
<b>New England</b>	1	4	28	11	63	1	1	5	4	34
Connecticut	—	0	22	—	2	—	0	1	—	6
Maine§	—	0	3	5	5	—	0	1	1	—
Massachusetts	—	1	12	—	45	—	1	4	—	25
New Hampshire	1	0	4	4	5	1	0	1	3	—
Rhode Island§	—	0	1	—	—	—	0	1	—	2
Vermont§	—	0	1	2	6	—	0	1	—	1
<b>Mid. Atlantic</b>	20	16	40	143	191	3	5	38	40	46
New Jersey	—	2	12	8	39	—	1	5	7	11
New York (Upstate)	14	6	20	66	40	3	2	14	20	24
New York City	—	3	13	13	50	—	2	35	13	11
Pennsylvania	6	4	11	56	62	N	0	0	N	N
<b>E.N. Central</b>	47	16	40	218	205	10	4	19	55	52
Illinois	—	4	10	35	76	—	1	6	9	7
Indiana	—	2	10	27	16	—	0	11	7	3
Michigan	2	3	10	35	44	—	1	5	12	21
Ohio	7	4	14	64	62	1	1	5	14	17
Wisconsin	38	0	16	57	7	9	0	2	13	4
<b>W.N. Central</b>	2	5	33	67	40	1	3	19	23	10
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	3	8	10	—	0	1	2	—
Minnesota	—	0	29	20	—	—	1	18	6	—
Missouri	1	2	10	27	23	—	0	2	10	7
Nebraska§	—	0	3	9	1	—	0	3	2	2
North Dakota	—	0	3	—	4	—	0	0	—	1
South Dakota	1	0	2	3	2	1	0	1	3	—
<b>S. Atlantic</b>	13	23	49	205	179	5	5	10	39	69
Delaware	—	0	1	2	1	—	0	0	—	—
District of Columbia	—	0	3	—	1	—	0	0	—	—
Florida	6	6	16	59	40	2	1	5	11	11
Georgia	3	4	12	51	42	—	0	4	—	24
Maryland§	3	5	9	42	36	3	1	5	17	19
North Carolina	—	2	22	19	14	—	0	0	—	—
South Carolina§	1	1	7	12	20	—	1	4	8	5
Virginia§	—	3	12	18	22	—	0	3	3	10
West Virginia	—	0	3	2	3	—	0	1	—	—
<b>E.S. Central</b>	5	4	13	29	40	5	2	11	13	19
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	—	1	3	4	10	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	—	2
Tennessee§	5	3	13	25	30	5	2	9	13	17
<b>W.S. Central</b>	13	7	47	65	44	4	5	47	36	36
Arkansas§	—	0	2	—	5	—	0	2	3	4
Louisiana	—	0	4	1	4	—	0	3	—	12
Oklahoma	9	1	8	29	17	2	1	5	17	10
Texas§	4	5	38	35	18	2	2	42	16	10
<b>Mountain</b>	9	9	21	106	127	3	4	12	45	43
Arizona	—	4	9	43	47	—	2	8	32	24
Colorado	6	2	9	23	28	3	1	4	7	8
Idaho§	2	0	2	6	3	—	0	1	1	—
Montana§	N	0	0	N	N	N	0	0	N	N
Nevada§	—	0	1	2	2	—	0	1	1	—
New Mexico§	1	1	5	25	22	—	0	4	3	8
Utah	—	1	6	7	23	—	0	2	1	3
Wyoming§	—	0	1	—	2	—	0	0	—	—
<b>Pacific</b>	4	3	7	23	22	1	0	4	8	10
Alaska	3	0	3	6	3	1	0	4	8	6
California	N	0	0	N	N	N	0	0	N	N
Hawaii	1	2	5	17	19	—	0	2	—	4
Oregon§	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	—	0	4	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	0	—	—	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 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 (NNDS event code 11717).

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	<i>Streptococcus pneumoniae</i> , invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Age <5 years					Current week	Previous 52 weeks		Cum 2008	Cum 2007
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007		Med	Max		
		Med	Max				Med	Max							
<b>United States</b>	44	41	97	535	656	8	7	23	72	120	85	217	281	1,468	1,601
<b>New England</b>	—	1	7	8	37	—	0	2	2	3	3	6	14	35	34
Connecticut	—	0	4	—	26	—	0	1	—	2	1	0	6	3	5
Maine§	—	0	1	3	3	—	0	1	1	—	—	0	2	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	2	3	8	28	20
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	3	3	3
Rhode Island§	—	0	3	2	4	—	0	1	—	1	—	0	5	1	5
Vermont§	—	0	2	3	4	—	0	1	1	—	—	0	5	—	1
<b>Mid. Atlantic</b>	1	2	9	29	41	—	0	5	2	10	35	35	46	284	266
New Jersey	—	0	0	—	—	—	0	0	—	—	4	5	9	41	30
New York (Upstate)	—	1	5	8	13	—	0	4	—	6	6	3	10	17	20
New York City	—	0	0	—	—	—	0	0	—	—	17	18	35	172	150
Pennsylvania	1	1	6	21	28	—	0	2	2	4	8	8	17	54	66
<b>E.N. Central</b>	13	11	38	142	186	1	2	12	18	29	3	15	25	101	143
Illinois	—	1	13	27	40	—	0	6	6	13	—	6	14	13	68
Indiana	—	3	22	30	24	—	0	9	2	3	—	1	6	15	8
Michigan	—	0	1	3	—	—	0	1	1	—	1	2	12	15	20
Ohio	13	6	23	82	122	1	1	3	9	13	2	4	10	47	40
Wisconsin	N	0	0	N	N	—	0	0	—	—	—	1	4	11	7
<b>W.N. Central</b>	1	2	49	33	47	—	0	3	1	4	3	7	14	58	39
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	—	1
Kansas	—	0	7	2	28	—	0	1	—	2	1	0	4	5	4
Minnesota	—	0	46	—	—	—	0	3	—	—	—	1	4	6	11
Missouri	1	1	8	31	18	—	0	1	1	—	2	5	10	46	23
Nebraska§	—	0	1	—	—	—	0	0	—	—	—	0	1	1	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	1	—	1	—	0	1	—	2	—	0	3	—	—
<b>S. Atlantic</b>	20	19	43	233	249	3	4	11	36	58	20	50	109	318	294
Delaware	—	0	1	1	1	—	0	1	—	1	—	0	3	1	2
District of Columbia	—	0	1	—	2	—	0	0	—	—	—	2	12	14	30
Florida	14	11	27	143	132	3	2	7	25	27	4	17	35	133	86
Georgia	6	5	16	85	107	—	1	5	9	26	—	9	94	7	25
Maryland§	—	0	1	1	—	—	0	1	1	—	—	6	15	46	47
North Carolina	—	0	0	—	—	—	0	0	—	—	10	5	23	65	51
South Carolina§	—	0	0	—	—	—	0	0	—	—	1	1	11	18	15
Virginia§	N	0	0	N	N	—	0	0	—	—	5	4	16	34	37
West Virginia	—	1	12	3	7	—	0	1	1	4	—	0	1	—	1
<b>E.S. Central</b>	6	4	12	66	35	3	1	3	7	5	10	20	31	166	110
Alabama§	N	0	0	N	N	—	0	0	—	—	2	8	17	73	35
Kentucky	—	0	2	9	9	—	0	1	1	—	1	1	7	10	17
Mississippi	—	0	0	—	—	—	0	0	—	—	—	2	15	13	18
Tennessee§	6	3	12	57	26	3	0	3	6	5	7	8	15	70	40
<b>W.S. Central</b>	1	1	12	9	46	1	0	3	4	6	4	37	55	244	267
Arkansas§	1	0	1	2	1	1	0	1	2	—	3	2	10	10	22
Louisiana	—	1	4	7	21	—	0	2	2	1	1	10	20	44	51
Oklahoma	—	0	10	—	24	—	0	2	—	5	—	1	3	9	14
Texas§	—	0	0	—	—	—	0	0	—	—	—	24	39	181	180
<b>Mountain</b>	2	1	5	15	15	—	0	2	1	5	1	7	25	34	66
Arizona	—	0	0	—	—	—	0	0	—	—	—	3	17	2	36
Colorado	—	0	0	—	—	—	0	0	—	—	—	1	5	9	7
Idaho§	N	0	0	N	N	—	0	0	—	—	1	0	1	1	—
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	3	—	1
Nevada§	2	0	3	14	9	—	0	2	1	1	—	2	6	16	12
New Mexico§	—	0	1	—	—	—	0	0	—	—	—	1	3	6	7
Utah	—	0	5	1	4	—	0	2	—	3	—	0	2	—	2
Wyoming§	—	0	2	—	2	—	0	1	—	1	—	0	1	—	1
<b>Pacific</b>	—	0	0	—	—	—	0	1	1	—	6	42	61	228	382
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	1	—	2
California	N	0	0	N	N	—	0	0	—	—	4	38	58	186	360
Hawaii	—	0	0	—	—	—	0	1	1	—	1	0	2	6	1
Oregon§	N	0	0	N	N	—	0	0	—	—	1	0	2	4	3
Washington	N	0	0	N	N	—	0	0	—	—	—	3	13	32	16
American Samoa	N	0	0	N	N	—	0	1	—	—	—	0	4	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	0	—	—	6	3	10	20	16
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional.

† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 1, 2008, and March 3, 2007 (9th Week)\*

Reporting area	Varicella (chickenpox)					West Nile virus disease†										
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Neuroinvasive					Nonneuroinvasive§					
		Med	Max			Current week	Med	Max	Cum 2008	Cum 2007	Current week	Med	Max	Cum 2008	Cum 2007	
<b>United States</b>	495	586	1,282	4,286	7,700	—	1	141	—	—	—	—	2	299	—	1
<b>New England</b>	4	13	47	86	131	—	0	2	—	—	—	—	0	2	—	—
Connecticut	—	0	1	—	1	—	0	2	—	—	—	—	0	1	—	—
Maine¶	—	0	0	—	—	—	0	0	—	—	—	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	2	—	—	—	—	0	2	—	—
New Hampshire	1	6	18	37	54	—	0	0	—	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	0	—	—	—	—	0	1	—	—
Vermont¶	3	6	38	49	76	—	0	0	—	—	—	—	0	0	—	—
<b>Mid. Atlantic</b>	56	68	154	420	1,210	—	0	3	—	—	—	—	0	3	—	—
New Jersey	N	0	0	N	N	—	0	1	—	—	—	—	0	0	—	—
New York (Upstate)	N	0	0	N	N	—	0	1	—	—	—	—	0	1	—	—
New York City	—	0	0	—	—	—	0	3	—	—	—	—	0	3	—	—
Pennsylvania	56	68	154	420	1,210	—	0	1	—	—	—	—	0	1	—	—
<b>E.N. Central</b>	102	165	358	1,103	2,660	—	0	18	—	—	—	—	0	12	—	1
Illinois	1	2	11	19	39	—	0	13	—	—	—	—	0	8	—	—
Indiana	N	0	0	N	N	—	0	4	—	—	—	—	0	2	—	—
Michigan	28	72	154	485	1,064	—	0	5	—	—	—	—	0	0	—	—
Ohio	73	69	208	599	1,259	—	0	4	—	—	—	—	0	3	—	1
Wisconsin	—	10	80	—	298	—	0	2	—	—	—	—	0	2	—	—
<b>W.N. Central</b>	9	25	114	254	384	—	0	41	—	—	—	—	1	117	—	—
Iowa	N	0	0	N	N	—	0	4	—	—	—	—	0	3	—	—
Kansas	—	6	28	112	209	—	0	3	—	—	—	—	0	7	—	—
Minnesota	—	0	0	—	—	—	0	9	—	—	—	—	0	12	—	—
Missouri	9	13	78	129	150	—	0	9	—	—	—	—	0	3	—	—
Nebraska¶	N	0	0	N	N	—	0	5	—	—	—	—	0	15	—	—
North Dakota	—	0	60	1	6	—	0	11	—	—	—	—	0	49	—	—
South Dakota	—	0	14	12	19	—	0	9	—	—	—	—	0	32	—	—
<b>S. Atlantic</b>	71	94	214	709	996	—	0	12	—	—	—	—	0	6	—	—
Delaware	—	1	4	2	7	—	0	1	—	—	—	—	0	0	—	—
District of Columbia	—	0	8	—	—	—	0	0	—	—	—	—	0	0	—	—
Florida	50	26	83	373	232	—	0	1	—	—	—	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	8	—	—	—	—	0	5	—	—
Maryland¶	N	0	0	N	N	—	0	2	—	—	—	—	0	2	—	—
North Carolina	—	0	0	—	—	—	0	1	—	—	—	—	0	1	—	—
South Carolina¶	16	14	55	115	304	—	0	2	—	—	—	—	0	1	—	—
Virginia¶	1	21	85	67	187	—	0	1	—	—	—	—	0	1	—	—
West Virginia	4	21	66	152	266	—	0	0	—	—	—	—	0	0	—	—
<b>E.S. Central</b>	13	12	82	176	93	—	0	11	—	—	—	—	0	14	—	—
Alabama¶	13	12	82	175	91	—	0	2	—	—	—	—	0	1	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	—	0	0	—	—
Mississippi	—	0	1	1	2	—	0	7	—	—	—	—	0	12	—	—
Tennessee¶	N	0	0	N	N	—	0	1	—	—	—	—	0	2	—	—
<b>W.S. Central</b>	211	168	589	1,372	1,601	—	0	34	—	—	—	—	0	18	—	—
Arkansas¶	9	12	46	105	98	—	0	5	—	—	—	—	0	2	—	—
Louisiana	—	1	8	5	33	—	0	5	—	—	—	—	0	3	—	—
Oklahoma	—	0	0	—	—	—	0	11	—	—	—	—	0	7	—	—
Texas¶	202	155	572	1,262	1,470	—	0	18	—	—	—	—	0	10	—	—
<b>Mountain</b>	29	35	130	164	607	—	0	36	—	—	—	—	1	143	—	—
Arizona	—	0	0	—	—	—	0	8	—	—	—	—	0	10	—	—
Colorado	29	13	62	57	245	—	0	17	—	—	—	—	0	65	—	—
Idaho¶	N	0	0	N	N	—	0	3	—	—	—	—	0	22	—	—
Montana¶	—	6	40	43	61	—	0	10	—	—	—	—	0	30	—	—
Nevada¶	—	0	1	—	1	—	0	1	—	—	—	—	0	3	—	—
New Mexico¶	—	5	37	33	76	—	0	8	—	—	—	—	0	6	—	—
Utah	—	7	72	30	223	—	0	8	—	—	—	—	0	8	—	—
Wyoming¶	—	0	9	1	1	—	0	4	—	—	—	—	0	33	—	—
<b>Pacific</b>	—	0	4	2	18	—	0	18	—	—	—	—	0	23	—	—
Alaska	—	0	4	2	18	—	0	0	—	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	17	—	—	—	—	0	21	—	—
Hawaii	N	0	0	N	N	—	0	0	—	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	3	—	—	—	—	0	4	—	—
Washington	N	0	0	N	N	—	0	0	—	—	—	—	0	0	—	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	3	21	4	71	—	0	0	—	—	—	—	0	0	—	—
Puerto Rico	11	10	37	43	121	—	0	0	—	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	—	0	0	—	—

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

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

\* Incidence data for reporting years 2007 and 2008 are provisional.

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

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

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

TABLE III. Deaths in 122 U.S. cities,\* week ending March 1, 2008 (9th Week)

Reporting Area	All causes, by age (years)							P&I <sup>†</sup> Total	Reporting Area	All causes, by age (years)							P&I <sup>†</sup> Total
	All Ages	≥65	45-64	25-44	1-24	<1	All Ages			≥65	45-64	25-44	1-24	<1			
<b>New England</b>	655	481	128	26	8	12	77	<b>S. Atlantic</b>	1,384	851	360	94	44	34	97		
Boston, MA	153	91	38	12	3	9	22	Atlanta, GA	160	99	40	16	5	—	7		
Bridgeport, CT	28	21	6	1	—	—	2	Baltimore, MD	205	117	64	12	5	7	22		
Cambridge, MA	27	22	4	1	—	—	3	Charlotte, NC	142	88	38	9	5	2	15		
Fall River, MA	31	28	2	1	—	—	6	Jacksonville, FL	218	133	64	5	9	7	12		
Hartford, CT	85	68	14	1	2	—	5	Miami, FL	89	47	26	10	4	2	6		
Lowell, MA	28	24	3	1	—	—	3	Norfolk, VA	43	30	8	2	2	1	1		
Lynn, MA	7	5	2	—	—	—	1	Richmond, VA	51	29	19	3	—	—	3		
New Bedford, MA	25	23	2	—	—	—	5	Savannah, GA	77	47	17	6	5	2	8		
New Haven, CT	46	34	7	4	1	—	7	St. Petersburg, FL	64	41	14	3	3	3	3		
Providence, RI	76	60	14	1	—	1	7	Tampa, FL	217	158	38	13	4	3	14		
Somerville, MA	1	1	—	—	—	—	1	Washington, D.C.	99	49	28	13	2	7	1		
Springfield, MA	55	38	13	1	1	2	5	Wilmington, DE	19	13	4	2	—	—	5		
Waterbury, CT	24	16	6	2	—	—	1	<b>E.S. Central</b>	910	618	212	51	9	20	90		
Worcester, MA	69	50	17	1	1	—	9	Birmingham, AL	222	147	58	9	1	7	30		
<b>Mid. Atlantic</b>	2,706	1,880	592	148	43	41	181	Chattanooga, TN	76	58	13	5	—	—	7		
Albany, NY	39	31	4	3	—	1	8	Knoxville, TN	121	87	25	7	1	1	11		
Allentown, PA	25	20	3	2	—	—	1	Lexington, KY	78	44	23	8	1	2	9		
Buffalo, NY	118	84	26	7	1	—	8	Memphis, TN	115	78	25	7	—	5	14		
Camden, NJ	59	40	11	6	1	1	3	Mobile, AL	94	67	20	4	3	—	6		
Elizabeth, NJ	29	21	6	—	1	1	5	Montgomery, AL	37	28	8	—	—	1	4		
Erie, PA	56	49	4	2	—	1	7	Nashville, TN	167	109	40	11	3	4	9		
Jersey City, NJ	35	20	12	1	2	—	3	<b>W.S. Central</b>	1,675	1,078	401	118	39	39	140		
New York City, NY	1,188	845	238	66	19	18	58	Austin, TX	106	67	24	8	3	4	10		
Newark, NJ	82	42	27	10	—	3	12	Baton Rouge, LA	58	27	19	6	5	1	—		
Paterson, NJ	37	24	8	2	1	2	4	Corpus Christi, TX	64	41	16	4	2	1	8		
Philadelphia, PA	540	341	151	33	7	8	32	Dallas, TX	195	114	53	14	9	5	12		
Pittsburgh, PA <sup>§</sup>	47	25	17	5	—	—	2	El Paso, TX	121	96	19	6	—	—	15		
Reading, PA	36	24	8	2	1	1	3	Fort Worth, TX	130	84	39	4	3	—	5		
Rochester, NY	153	118	27	2	6	—	11	Houston, TX	387	228	98	37	9	15	27		
Schenectady, NY	25	21	4	—	—	—	3	Little Rock, AR	97	55	30	7	2	3	4		
Scranton, PA	30	21	8	—	1	—	—	New Orleans, LA <sup>†</sup>	U	U	U	U	U	U	U		
Syracuse, NY	132	98	24	4	2	4	14	San Antonio, TX	292	208	56	21	4	3	35		
Trenton, NJ	30	18	9	2	—	1	—	Shreveport, LA	67	44	14	4	—	5	7		
Utica, NY	21	17	3	—	1	—	2	Tulsa, OK	158	114	33	7	2	2	17		
Yonkers, NY	24	21	2	1	—	—	5	<b>Mountain</b>	1,162	771	262	77	21	31	97		
<b>E.N. Central</b>	2,347	1,568	561	148	34	36	198	Albuquerque, NM	149	107	24	16	1	1	13		
Akron, OH	48	36	9	1	1	1	2	Boise, ID	45	29	9	3	—	4	1		
Canton, OH	42	31	8	1	1	1	5	Colorado Springs, CO	111	71	27	7	2	4	7		
Chicago, IL	287	177	72	24	7	7	28	Denver, CO	92	53	31	3	—	5	5		
Cincinnati, OH	110	70	27	8	2	3	16	Las Vegas, NV	275	180	71	16	4	4	29		
Cleveland, OH	245	171	55	12	1	6	12	Ogden, UT	35	23	9	2	—	1	4		
Columbus, OH	255	175	63	14	2	1	22	Phoenix, AZ	154	87	41	12	7	7	12		
Dayton, OH	174	121	35	17	1	—	10	Pueblo, CO	35	27	4	2	1	1	7		
Detroit, MI	174	92	63	14	4	1	8	Salt Lake City, UT	123	82	25	12	2	2	9		
Evansville, IN	58	43	11	4	—	—	7	Tucson, AZ	143	112	21	4	4	2	10		
Fort Wayne, IN	93	68	22	2	1	—	5	<b>Pacific</b>	1,873	1,372	356	94	24	27	224		
Gary, IN	17	10	5	1	1	—	—	Berkeley, CA	16	12	3	—	1	—	1		
Grand Rapids, MI	74	46	22	3	1	2	11	Fresno, CA	U	U	U	U	U	U	U		
Indianapolis, IN	240	152	58	18	7	5	22	Glendale, CA	42	35	7	—	—	—	10		
Lansing, MI	52	36	14	1	—	1	6	Honolulu, HI	85	69	13	2	—	1	7		
Milwaukee, WI	113	68	33	8	—	4	9	Long Beach, CA	78	55	13	6	2	2	18		
Peoria, IL	77	60	12	3	—	2	16	Los Angeles, CA	317	236	55	18	7	1	58		
Rockford, IL	64	46	14	3	1	—	6	Pasadena, CA	37	32	3	1	1	—	9		
South Bend, IN	46	35	6	3	1	1	1	Portland, OR	120	76	27	9	1	7	10		
Toledo, OH	107	71	24	9	2	1	5	Sacramento, CA	256	184	59	11	1	1	26		
Youngstown, OH	71	60	8	2	1	—	7	San Diego, CA	203	147	38	11	3	4	19		
<b>W.N. Central</b>	780	547	151	39	26	17	77	San Francisco, CA	132	92	31	4	—	5	14		
Des Moines, IA	154	113	32	7	2	—	19	San Jose, CA	221	168	38	11	3	1	23		
Duluth, MN	44	32	6	3	2	1	2	Santa Cruz, CA	35	29	5	1	—	—	2		
Kansas City, KS	31	13	9	6	1	2	1	Seattle, WA	145	105	28	7	3	2	15		
Kansas City, MO	136	95	26	5	6	4	16	Spokane, WA	65	46	12	4	1	2	6		
Lincoln, NE	36	25	9	—	1	1	3	Tacoma, WA	121	86	24	9	1	1	6		
Minneapolis, MN	69	45	11	7	4	2	4	<b>Total</b>	<b>13,492**</b>	<b>9,166</b>	<b>3,023</b>	<b>795</b>	<b>248</b>	<b>257</b>	<b>1,181</b>		
Omaha, NE	85	62	16	5	1	1	16										
St. Louis, MO	79	51	19	—	5	4	3										
St. Paul, MN	73	59	7	3	2	2	8										
Wichita, KS	73	52	16	3	2	—	5										

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.

¶ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

\*\* Total includes unknown ages.



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