

Weekly

March 7, 2008 / Vol. 57 / No. 9

# Self-Reported Falls and Fall-Related Injuries Among Persons Aged <u>>65 Years</u> — 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 >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-

## INSIDE

- 229 Cost of Vaccinating Refugees Overseas Versus After Arrival in the United States, 2005
- 232 U.S.-Incurred Costs of Wild Poliovirus Infections in a Camp with U.S.-Bound Refugees — Kenya, 2006
- 235 Notices to Readers
- 238 QuickStats

DEPARTMENT OF HEALTH AND HUMAN SERVICES CENTERS FOR DISEASE CONTROL AND PREVENTION The *MMWR* series of publications is published by the Coordinating Center for Health Information and Service, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

**Suggested Citation:** Centers for Disease Control and Prevention. [Article title]. MMWR 2008;57:[inclusive page numbers].

## **Centers for Disease Control and Prevention**

Julie L. Gerberding, MD, MPH Director Tanja Popovic, MD, PhD Chief Science Officer James W. Stephens, PhD Associate Director for Science Steven L. Solomon, MD Director, Coordinating Center for Health Information and Service Jay M. Bernhardt, PhD, MPH Director, National Center for Health Marketing Katherine L. Daniel, PhD Deputy Director, National Center for Health Marketing

### **Editorial and Production Staff**

Frederic E. Shaw, MD, JD Editor, MMWR Series Teresa F. Rutledge (Acting) Managing Editor, MMWR Series Douglas W. Weatherwax Lead Technical Writer-Editor Donald G. Meadows, MA Jude C. Rutledge Writers-Editors Peter M. Jenkins (Acting) Lead Visual Information Specialist Lynda G. Cupell Malbea A. LaPete Visual Information Specialists Quang M. Doan, MBA Erica R. Shaver Information Technology Specialists

#### **Editorial Board**

William L. Roper, MD, MPH, Chapel Hill, NC, Chairman Virginia A. Caine, MD, Indianapolis, IN David W. Fleming, MD, Seattle, WA William E. Halperin, MD, DrPH, MPH, Newark, NJ Margaret A. Hamburg, MD, Washington, DC King K. Holmes, MD, PhD, Seattle, WA Deborah Holtzman, PhD, Atlanta, GA John K. Iglehart, Bethesda, MD Dennis G. Maki, MD, Madison, WI Sue Mallonee, MPH, Oklahoma City, OK Stanley A. Plotkin, MD, Doylestown, PA Patricia Quinlisk, MD, MPH, Des Moines, IA Patrick L. Remington, MD, MPH, Madison, WI Barbara K. Rimer, DrPH, Chapel Hill, NC John V. Rullan, MD, MPH, San Juan, PR Anne Schuchat, MD, Atlanta, GA Dixie E. Snider, MD, MPH, Atlanta, GA John W. Ward, MD, Atlanta, GA

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  $\geq$ 80 years (20.8%). Although the percentage of persons reporting falls increased with age, the percentage of persons reporting fallrelated 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).

**Reported by:** JA Stevens, PhD, KA Mack, PhD, LJ Paulozzi, MD, MF Ballesteros, PhD, Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.

Editorial Note: Falls are the leading cause of fatal and nonfatal injuries for persons aged  $\geq 65$  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  $\geq 65$ 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

## **MMWR**

<u>,</u>	At I fall du	east one self-repo ring preceding 3	orted months	Amo who w	ng those who fell, vere injured at lea	those st once
State <sup>s</sup>	%	(95% Cl¹)	No. (estimated)**	%	(95% CI)	No. (estimated)**
Overall	15.9	(15.4–16.4)	5,828,731	31.3	(29.7–32.8)	1,812,315
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 <sup>††</sup>	`	2.097 <sup>††</sup>
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 <sup>††</sup>		2.672 <sup>††</sup>
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	(12.0 17.0)	120 338	33.0	(26.9-39.6)	39 105
lowa	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	17.4	(15.3-20.2)	84 252	30.8	(24.3_38.1)	25 375
	16.1	(10.0-20.2)	84.210	28.0	(23.1.35.6)	23,373
Maina	16.0	(14.1 - 10.3)	32 200	20.9	(23.1-33.0)	24,070
Mondand	10.9	(14.3-19.0)	32,300	23.011	(00 1 04 0)	7,373''
Magaaabuaatta	15.7	(13.8-17.9)	99,342	27.8	(22.1-34.3)	27,472
Massachuseus	10.0	(14.9–18.0)	100 550	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	36.911		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 <sup>††</sup>	—	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 <sup>††</sup>		29,290 <sup>††</sup>
Wvomina	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 <sup>††</sup>	( in the second se	435 <sup>††</sup>

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

\* 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?"

<sup>†</sup> 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.

<sup>¶</sup> 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.

<sup>++</sup> Estimate might be unstable (n<50).

	At le fall duri	ast one self-re	ported 3 months	Among who wei	those who fe re injured at le	ell, those east once
Characteristic	%	(95% Cl <sup>§</sup> )	No. (estimated) <sup>¶</sup>	%	(95% CI)	No. (estimated) <sup>¶</sup>
Overall	15.9	(15.4–16.4)	5,828,731	31.3	(29.7–32.8)	1,812,315
Sex						
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
Race/Ethnicity**						
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
Age group (yrs)						
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
<u>≥</u> 80	20.8	(19.7–21.9)	1,840,600	32.1	(29.1–35.3)	588,376
Marital status						
Married	14.2	(13.5–14.8)	2,951,196	28.4	(26.4-30.6)	836,610
Single <sup>§§</sup>	18.1	(17.4–18.9)	2,858,244	34.0	(31.7–36.3)	963,822
General health (self-reported)						
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

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

\* 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?"

<sup>†</sup> 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.

<sup>¶</sup> 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.

<sup>††</sup> 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  $\geq 65$  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 fallrelated 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, persons 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 evidencebased 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 fallprevention 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 fallprevention programs. These publications and other fallrelated 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.

- 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.
- 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.
- 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.

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).

<sup>\*</sup> 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:

Cost of vaccination = (cost of vaccine/dose × doses/person × persons) + (cost of administration/dose × doses/person × persons).

The cost of purchasing each of the 10 vaccines recommended by ACIP in 2005<sup>\*\*</sup> 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 pneumo-coccal 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 o	f vaccinating refugees overseas
versus after arrival in the Un	ited States,* by age group, 2005

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

\* 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.

<sup>†</sup>Totals might differ because of rounding.

<sup>&</sup>lt;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>lt;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>lt;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.

<sup>\*\*</sup> 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>lt;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.

	Age group and associated cost (\$)										
Vaccine	0–3 mos	4–11 mos	12-14 mos	15–24 mos	25 mos–6 yrs	7–18 yrs	19–64 yrs	<u>&gt;</u> 65 yrs	cost (\$)		
United States											
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		
Total	64,945	935,138	222,346	565,278	3,510,216	8,074,774	11,669,263	948,619	25,990,579		
Overseas											
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		
Haemophilus influenzae 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		
Total	48,706	632,775	135,221	338,630	1,410,235	2,208,488	2,685,146	246,825	7,706,026		

TABLE 2. Vaccine-specific cos	* of vaccinating 50,787 refugees oversea	is versus after arrival in the United Sta	ates, by age group, 2005
-------------------------------	--	---	--------------------------

\* 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 vaccinepreventable 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-

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

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

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**

This report is based, in part, on contributions from L Ortega, MD, M Meltzer, PhD, M Weinberg, MD, Y Liu, MS, National Center for Preparedness, Detection, and Control of Infectious Diseases; G Armstrong, MD, M Messonier, PhD, National Center for Immunization and Respiratory Diseases, CDC.

### 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.
- 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.

- 6. 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/adult immunizations/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.
- 8. 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 vaccinepreventable 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

<sup>\*</sup> 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 laboratoryconfirmed 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 receiv-

<sup>&</sup>lt;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

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

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

\* 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 ≤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 shigh as those for this outbreak.

<sup>§</sup> 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 National Children's Fund (UNICEF); the cost to UNICEF for all doses was \$168.

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

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

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

This report is based, in part, on data contributed by the International Organization for Migration, the Office of Refugee Resettlement, US Dept of Health and Human Svcs, state and local health departments, Lutheran Social Svcs of North Dakota, Catholic Charities (Charlotte, North Carolina; Kansas City, Missouri; San Diego, California; Kentucky; and Texas), US Committee for Refugees and Immigrants of Vermont, World Relief of Illinois, Catholic Community Svcs of Utah, International Rescue Committee of Utah, and the International Institute of Erie, Pennsylvania.

#### References

- 1. Pallansch MA, Sandhu HS. The eradication of polio—progress and challenges. N Engl J Med 2006;355:2508–11.
- 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.
- 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.
- 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.
- 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.

- CDC. Progress toward interruption of wild poliovirus transmission worldwide, January 2006–May 2007. MMWR 2007;56:682–5.
- 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. 2. 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/healthyyouth/sexualbehaviors/index.htm.

### References

- 1. 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.
- 2. CDC. Current trends AIDS in women—United States. MMWR 1990;39:845–6.
- 3. CDC. Web-based Injury Statistics Query and Reporting System (WISQARS<sup>™</sup>). 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.
- 3. 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.
- 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.
- 5. 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.
- 6. 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.
- 7. 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/home ownerscheck.shtml.
- 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/annual checkup.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 40 35 30 Gestational age (wks) 25 20 15 10 5 0 Twins Triplets Singletons Quadruplets Quintuplets and higher Plurality

\* 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)\*

	5-year Current Current Weekly Total cases reported for previous ye				syears				
Disease	week	2008	averaget	2007	2006	2005	2004	2003	States reporting cases during current week (No.)
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	
Cvclosporiasis§	1	9	3	99	137	543	160	75	FL (1)
Diphtheria		_	_	_				1	. = (.)
Domestic arboviral diseases <sup>§,¶,</sup>								•	
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	_	_	_	_			12	-	
Ehrlichiosis/Anaplaemosis <sup>§</sup>									
Ehrlichia chaffaonsis	1	1	_	N	N	N	N	N	MD (1)
Ehrlichia oningii	1	4	_	N	N	N	N	N	
Ananlaama nhaqoo tanhiium		1	_	N	IN N	N	N	IN N	NV (1)
undetermined	1	1	_	IN N	IN N	N	N	IN N	Nf(I)
Undetermined Hoomonbilus influenzas **	_		_	IN	IN	IN	IN	IN	
invasive disease (age <5 yis).		F	0	20	20	0	10	20	
serotype b		04	0	170	175	105	105	117	SC (1) ID (1)
nonserotype b	2	24	4	1/0	170	135	135	007	
Unknown serolype	3	41	э 1	194	179	217	105	227	(1), OH(2)
	1	9	1	70	40	87	105	95	
Hamavirus pulmonary syndrome <sup>3</sup>	_	_	0	32	40	20	24	20	00(1)
Hemolytic uremic syndrome, postdiarrneal <sup>3</sup>	I	8	2	262	288	221	200	1/8	
Hepatitis C Viral, acute	3	11	15	780	766	652	/20	1,102	NY (2), IN (1)
HIV Infection, pediatric (age <13 yrs)			4		40	380	436	504	
Influenza-associated pediatric mortality <sup>3/33</sup>	10	33	2	76	43	45	750	IN	GA (2), IA (3), IL (1), MIN (1), MIS (1), NYC (1), OH (1)
LISTERIOSIS	4	53	10	//8	884	896	/53	696	WI (1), MO (1), MD (1), TN (1)
	_	I	1	40	55	60	37	50	
Meningococcal disease, invasive	0	05	0	070	010	007			00 (1) TV (1) 00 (1)
A, C, Y, & W-135	3	25	8	2/9	318	297	_	_	SU(1), TX(1), UU(1)
serogroup B	I	17	4	146	193	156	_	_	FL(I)
otherserogroup	_	5	1	31	32	27	_	_	NN( (0) OLI (4) OO (0) EL (4) TN (4) MO (4) OA (4)
unknown serogroup	9	/8	20	606	051	765	050		NY (2), OH (1), SC (2), FL (1), TN (1), MS (1), CA (1)
Numps	3	96	18	//1	6,584	314	258	231	OH (1), FL (1), 1X (1)
Novel influenza A virus infections	_		_	4	N	N	IN	N	
Plague	_		0	6	17	8	3	1	
Poliomyelitis, paralytic	_	_	_	_					
Pollovirus infection, nonparalytic <sup>®</sup>	_		_		N	N 10	IN 10	N 10	
PSIIIacosis <sup>®</sup>	_	_	0	10	21	16	12	12	
Q fevers:		•							
acute		2	_	—	—	_	_	—	
chronic	_		_	_	_	_		_	
Rables, numan	_		_		3	2	1	2	
Rubella		_	0	12	11	11	10		
Rubella, congenital syndrome	—	_	0	_	1	1	—	1	
SARS-COV <sup>8,833</sup>	—	_	0	_	_	_	_	8	
Smallpox <sup>9</sup>									
Streptococcal toxic-shock syndromes	1	14	4	103	125	129	132	161	MD(1)
Sypnilis, 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.

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

<sup>§</sup> 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.

<sup>++</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.

St 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.

M No measles cases were reported for the current week.

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

ttt No rubella cases were reported for the current week.

Step 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)\*

	Current	Cum	5-year weekly	Total	cases rep	orted for	previous	syears	
Disease	week	2008	averaget	2007	2006	2005	2004	2003	States reporting cases during current week (No.)
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 Staphylococcus aure	eus§ —	_	_	28	6	2	_	N	
Vancomycin-resistant Staphylococcus aureus§	_		_	_	1	3	1	N	
Vibriosis (noncholera Vibrio 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.

<sup>†</sup> Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. 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.

 Notifiable Disease Data Team and 122 Cities Mortality Data Team

 Patsy A. Hall

 Deborah A. Adams
 Rosaline Dhara

 Willie J. Anderson
 Carol Worsham

 Lenee Blanton
 Pearl C. Sharp

Vol. 57 / No. 9

		Chlamydia <sup>†</sup>					Coccidioidomycosis						Cryptosporidiosis			
		Pre	vious				Pre	vious				Pre	evious		_	
Benorting area	Current	<u>52 v</u>	<u>veeks</u> Max	Cum 2008	Cum 2007	Current	52 v Med	Max	Cum 2008	Cum 2007	Current	52 w	veeks Max	Cum 2008	Cum 2007	
Inited States	8 153	20.905	25 186	140 596	175 337	6	139	280	950	1.356	30	84	975	433	509	
New England Connecticut Maine <sup>§</sup> Massachusetts New Hampshire	975 301 54 499 37	686 223 49 305 39	1,516 1,091 74 661 73	5,739 1,176 454 3,161 403	5,404 1,058 425 2,782 353	N 	000000000000000000000000000000000000000	1 0 0 1	1 N — 1	N 		4 0 1 2 1	16 2 5 11 5	14 2 	65 42 4 7 8	
Vermont <sup>§</sup>	84	14	98 32	539	174	N	0	0	N	N	_	1	3	9	4	
<b>Vid. Atlantic</b> New Jersey New York (Upstate) New York City Pennsylvania	1,350 215 566 72 497	2,818 404 548 929 801	4,196 524 2,037 2,206 1,761	17,459 1,968 3,486 5,301 6,704	26,393 3,871 3,098 9,052 10,372	N N N N	0 0 0 0	0 0 0 0	N N N	N   N   N   N   N	5 3 2	10 1 3 1 6	118 8 20 10 103	58 3 11 7 37	57 3 7 17 30	
E. <b>N. Central</b> Illinois Indiana Michigan Ohio Wisconsin	508 1 328 33 146	3,362 1,009 395 706 815 375	6,195 2,181 629 988 3,618 600	21,540 5,110 2,975 6,287 3,724 3,444	29,183 8,493 3,781 7,087 6,392 3,430	1 — 1 N	1 0 0 0 0	3 0 2 1 0	5  3 2 N	8  6 2 N	5  -   2 3	20 2 4 5 7	134 13 32 11 61 59	109 4 12 27 32 34	107 18 7 18 37 27	
W.N. Central owa Kansas Viinnesota Missouri Nebraska <sup>§</sup> North Dakota South Dakota	752 164 195 	1,187 157 149 252 462 91 26 51	1,462 251 394 318 551 183 61 81	8,388 1,466 860 1,059 3,912 579 37 475	10,817 1,475 1,380 2,327 4,049 822 331 433	 N   N N N	0 0 0 0 0 0 0	30 0 30 1 0 0	Z Z     Z Z Z	2 N   2 N N N	11 7 _2 _2 	14 3 2 3 2 2 0 2	125 61 16 34 13 24 6 16	72 19 7 22 8 10 1 5	62 12 9 11 10 4 1 15	
5. Atlantic Delaware District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup> West Virginia	2,042 107 1,293 3 - 4 232 397 6	4,026 64 113 1,260 527 451 383 523 490 59	6,238 140 182 1,565 1,502 696 2,595 3,030 628 96	29,136 654 748 11,259 54 3,051 4,946 4,473 3,473 478	29,897 651 885 5,999 6,258 2,577 4,767 4,374 3,847 539	1   N N 1   N N N	0 0 0 0 0 0 0 0 0	1 0 0 1 0 0 0 0 0	1       N    N    N    N	1                   	6  -  -  -  -  -	19 0 9 5 0 1 1 0	69 4 0 35 17 2 18 15 5 5	109 4 	121 2 3 61 26 3 4 11 10 10	
E.S. Central Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	853 25 233  595	1,520 484 191 279 505	2,247 605 357 1,049 719	11,829 3,134 2,021 2,078 4,596	14,485 4,410 1,024 4,024 5,027	N N N N	0 0 0 0	0 0 0 0 0	N N N	N N N N	1 	4 1 1 0 1	65 14 40 11 18	16 9 2 1 4	27 10 7 8 2	
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	564 204 195 165	2,534 204 353 248 1,687	3,531 395 851 467 3,156	20,332 2,283 1,876 1,803 14,370	18,386 1,397 2,902 2,021 12,066	N N N	0 0 0 0	1 0 1 0 0	N N N	N N N	2 — 1 1	6 0 1 1 3	28 8 4 11 16	26 1 1 8 16	28 2 10 5 11	
Mountain Arizona Colorado daho <sup>§</sup> Montana <sup>§</sup> Nevada <sup>§</sup> New Mexico <sup>§</sup> Jtah Wyoming <sup>§</sup>	159 — 148 11 — — —	1,230 444 185 57 44 183 161 118 22	1,667 665 384 233 344 291 394 218 35	4,963 527 423 674 452 1,086 873 917 11	10,309 3,462 1,788 611 488 1,558 1,428 772 202	1 N N 1 	94 91 0 0 1 0 1 0	171 170 0 0 5 2 7 1	795 780 N N 11 2 2	899 875 N N 5 7 12		8 1 2 1 1 0 1 1 0	572 6 26 72 7 6 9 488 8	23 6 8 4 1 3 -	29 5 12 1 1 	
Pacific Alaska California Hawaii Dregon <sup>§</sup> Washington	950 99 621 7 223 —	3,369 86 2,688 109 180 148	4,046 123 3,430 134 403 621	21,210 686 17,854 762 1,800 108	30,463 805 24,026 974 1,633 3,025	3 N 3 N N N	40 0 40 0 0	176 0 176 0 0	148 N 148 N N N	446 N 446 N N N	 	1 0 0 1 0	20 2 0 4 16 0	6  6	13 — — 13 —	
American Samoa C.N.M.I. Guam Puerto Rico J.S. Virgin Islands	8  113 	0 13 116 3	32 — 34 612 10	37  14 779	 143 1,337 36	N  -   	0 0 0	0 0 0 0	N  N	N 	  N	0  0 0	0 0 0 0	  	  	

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

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. Chamydia refers to genital infections caused by *Chlamydia trachomatis*. S Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

	Giardiasis								1	Hae	Haemophilus influenzae, invasive All ages, all serotypes <sup>†</sup>				
	0	Prev	/ious	0	0	0	Pre	evious	0	0	0	Pre	vious	0	0
Reporting area	week	<u> </u>	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	181	298	1,058	1,813	2,445	3,108	6,784	7,953	42,059	58,163	37	42	116	443	472
New England	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>s</sup> Massachusetts	_	3	10 29	15	26 88	4 56	2 50	8 127	15 447	16 505	_	0	4	2	21
New Hampshire	_	Ő	3	7	2	2	2	6	17	24	_	Ö	2	1	4
Rhode Island <sup>§</sup>	4	1	15	14		4	7	14	64	93	_	0	2	2	
vermonts	2	3	0	20	19		1	C C		21		0	1	3	
New Jersey	23	59 7	117	309 21	439	355	672 117	1,012	4,010	7,141 1 113	10	9	27	92 15	104
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
E.N. Central	16	48 14	91 33	286 49	374 106	168 1	1,291 377	2,579 758	7,777	12,140	5	6	14	64 15	66 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 Wisconsin	14	15 7	37 21	136	106 52	15 57	345 126	1,558 210	1,295	3,290 1 257	5	2	6	36	28
WN Control	10	22	579	222	157	152	360	446	2 200	2 561	2	3	24	/1	10
lowa		4	23	38	36	19	33	56	2,200	368		0	1	1	
Kansas	_	3	11	20	21	42	38	102	218	439	—	0	1	1	4
Minnesota	6	0	573	81 54	3 71		62 188	90 255	282	646 1 856	3	1	21	22	12
Nebraska <sup>§</sup>	_	3	8	21	16		26	57	174	183		ò	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		
S. Atlantic	67	53	94	391	404	1,537	1,592	2,339	10,741	12,147	9	12	30	130	113
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 Manuland <sup>§</sup>	35	12	36	135	89	5	217	621	21	2,646	1	2	8	35	25
North Carolina		4 0	0			833	231	1,176	2,402	2,443		1	9	10	23
South Carolina <sup>§</sup>	_	3	6	15	9	110	203	1,361	1,713	1,821	2	1	4	8	8
Virginia <sup>®</sup> West Virginia	2	10	39	27	72	116	129	224	1,016	733	_	1	23	5	9
ES Control	6	10	23	56	03	2	592	969	4 330	5 463		2	0	22	20
Alabama <sup>§</sup>	1	4	11	34	57	12	208	281	1,319	1,905	_	0	3	23 5	8
Kentucky	N	0	0	N	Ν	91	76	161	788	371	_	0	1		2
Mississippi	N 5	0	0	N 22	N 36	168	118	400	809 1 4 1 4	1,453	_	0	2	1	18
W.C. Control	0	7	01	22	50	051	1 004	1 007	7 105	7.051		2	15	10	14
Arkansas <sup>§</sup>	1	1	21	6	25	201	77	1,327	7,195	685	_	2	2		14
Louisiana		2	14	3	14	108	207	384	1,112	1,814	_	0	2		3
Oklahoma Texas <sup>§</sup>	1 N	3	9	13 N	12 N	62	90 622	235	741	802	7	1	8	18	10
Meuntein	10	01	67	111	000		022	001	4,000	9,000		5	14	50	57
Arizona	12	3	10	18	232		234 97	130	153	2,069 712		5 2	14	53 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
Nevada <sup>§</sup>	1	2	8	17	13		45	40 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
Decific		61	205	204	511	220	667	700	4 010	6 9 1 0		0	6	10	י דר
Alaska		1	205	324 9	12	239	9	18	4,212	87	1	2	4	4	4
California	27	42	84	231	382	189	585	712	3,782	5,801	_	0	5		5
Hawaii Oregon <sup>§</sup>	- 1	1	4	2	12	2	12	23	86	103	_	0	2	1	10
Washington	9	8	117	23	24		23	142	16	633	_	0	3		
American Samoa	_	0	0	_	_		0	2	1	_		0	0	_	
C.N.M.I.	_	_	_	_	_	_		_		_	_	_	_	_	_
Guam	—	0	1		40		1	13	4	13	—	0	0	—	_
U.S. Virgin Islands	_	3 ()	∠ı 0	3	49	1	5 1	∠3 3	40	12	_	0	0	_	_

Med: Median. Max: Maximum.

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

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Me \* 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).

<u>.</u>			Hepat														
		Drou	A				Droi	B			Legionellosis						
	Current	52 w	eeks	Cum	Cum	Current	52 w	reeks	Cum	Cum	Current	52 w	eeks	Cum	Cum		
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007		
United States	20	53	132	372	443	31	80	151	441	671	26	47	91	283	260		
New England	_	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>s</sup> Massachusetts	_	0	1	1	4	_	0	2	_	1	_	0	2	_	7		
New Hampshire	_	Ő	3	_	1	_	õ	1	_	2	_	õ	2	1			
Rhode Island <sup>§</sup>	_	0	2	8	—	-	0	3	—	2	—	0	6	6			
	_	0	1		_	_	0					0	2	2	1		
New Jersev	4	2	21	48 4	68 22	2	9	17	40	104 32	5	13	37	63	63 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		
	1	2	5	17	12	1	3	13	32	30	1	5	21	41	21		
E.N. Central Illinois	_	6 2	13	41	58 26	4	8	15	52 5	94 24	10	2	30 12	66 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		
Wisconsin	_	0	4	2	3	4	0	2	20	20	9	4	1	41	25		
W.N. Central	1	3	18	44	10	_	2	8	12	29	_	1	9	14	11		
lowa	_	1	5	14	4	-	0	2	2	7	—	0	2	2	1		
Minnesota	_	0	17	2	_	_	0	4		1	_	0	6	1	1		
Missouri	_	Ō	3	11	3	_	1	5	6	15	_	1	3	5	6		
Nebraska§	1	0	4	12	1	—	0	1	1	3	—	0	2	5	2		
South Dakota	_	0	1	1	2	_	0	1	_	2	_	0	1	1	1		
S. Atlantic	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		
Florida	1	3	5	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		
South Carolina <sup>§</sup>	_	0	9 4	2	3	_	1	6	13	10	_	0	2	1	4 3		
Virginia <sup>§</sup>	_	1	5	6	11	3	2	14	11	23	_	1	6	3	3		
WestVirginia	_	0	2	1		_	0	23	5	7	_	0	5	2	1		
E.S. Central	_	2	5 1	6	20	2	7	14	49	54 19	1	2	6	12	14		
Kentucky	_	0	2	2	2	_	1	7	16	4	_	1	3	6	4		
Mississippi	—	0	1	_	4		0	3	2	8		0	0	_	_		
I ennessee <sup>s</sup>		1	5	3	10	1	2	8	11	23	1	1	4	5	8		
W.S. Central	4	5	45	29	35	7	18	46	81	76	_	2	11	7	3		
Louisiana	_	0	3	_	5	_	1	6	2	16	_	Ö	1	_	_		
Oklahoma	1	0	8	1		3	1	38	7	2	_	0	2	_	_		
Texas <sup>3</sup>	3	3	44	28	28	4	13	28	/1	50	_	2	11	0	3		
Arizona	2	4	15 11	40 27	55 43	2	3	9	14	47 23	1	2	6	16 9	16		
Colorado	2	Ő	2	2	5	_	Ó	3	1	5	1	õ	2	1	4		
Idaho <sup>§</sup>	_	0	2	4	_	1	0	1	1	3	_	0	1	1	1		
Nevada <sup>§</sup>	_	0	2	_	3	1	1	3	7	12	_	0	2	2	2		
New Mexico <sup>§</sup>	_	Ō	1	4	1	_	0	2	1	2	_	Ō	1	_	2		
Utah Wulaming <sup>§</sup>	_	0	2	1	2	_	0	2	2	2	_	0	3	2	3		
Regifie		10	14	200	101		0	20	40	01		2	15		10		
Alaska		0	44		1		9	32 2	40	2		0	15	20	13		
California	4	11	36	69	113	2	7	23	34	69	1	2	13	24	13		
Hawaii Oregon§	_	0	2	10	2	_	0	2	1	17	1	0	1	-	_		
Washington	3	1	7	10	2	_	1	9	4	3	_	Ő	2	1			
American Samoa	_	0	0	_	_	_	0	13	_	_	Ν	0	0	Ν	Ν		
C.N.M.I.	_			_	_	_	-		_	<u> </u>	_		-	_	_		
Guam Puerto Rico	1	0	0 4	1	16	_	0	1	3	1 15	_	0	0	_			
U.S. Virgin Islands	_	ŏ	0	_		_	Ö	ŏ	_		_	ŏ	ò	_			

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

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 acute hepatitis C, viral are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

	Lyme disease							Malaria		Meningococcal disease, invasive <sup>†</sup> All serogroups					
	Current	Prev	vious	Cum Cum		Current	Prev	vious	Cum	Cum	Current	Pre	vious	Cum	Cum
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	57	321	1,304	748	1,314	4	24	103	113	156	13	18	49	125	199
New England	_	44	302	12	94	_	1	23	_	6	_	0	3	2	7
Connecticut	_	12	214	—	18	—	0	16	—	-	—	0	1	1	1
Massachusetts	_	5 0	31	_	35	_	0	2	_	5	_	0	2		4
New Hampshire	_	8	88	9	36	—	0	4	—	—	—	0	1	—	_
Rhode Island <sup>®</sup> Vermont <sup>®</sup>	_	0	79 13	3	4	_	0	2	_	_	_	0	1	_	1
Mid. Atlantic	20	163	665	443	670	1	7	18	20	34	2	2	8	16	20
New Jersey		36	177	32	207	_	0	4		3	_	ō	2	1	3
New York (Upstate)	13	54	220	43	75	1	1	8	3	3	2	1	3	7	5
Pennsylvania	7	51	322	364	365	_	1	4	6	5	_	1	5	7	9
E.N. Central	_	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
Michigan	_	0	7 5	4	1	_	0	2	1	1	_	0	4	2	5
Ohio	_	Õ	4	1	2	1	Õ	3	8	4	1	1	2	9	. 7
Wisconsin	_	10	149	7	40	_	0	1	1	5	—	0	1	—	5
W.N. Central	_	4	665 11	1	16	_	0	8	1	8	_	1	8	18	16
Kansas	_	0	2	_	1	_	0	1	_	_	_	0	1		2
Minnesota	_	0	665	_	13	_	0	8	_	4	—	0	7	7	_
Nebraska <sup>§</sup>	_	0	4	_	_	_	0	1	1	2	_	0	3	4	1
North Dakota	_	0	2	_	_	_	0	1	_	_	_	0	1		1
South Dakota	_	0	0	_	_	_	0	1	_	_	_	0	1	1	1
S. Atlantic	37	64 11	214	248	460	2	4	14	35	35	5	3	11	20	27
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 Marvland <sup>§</sup>	31	33	132	160	344		1	3	10	11	_	0	3	1	5 8
North Carolina	_	0	8	2	_	—	0	4	2	4		Ō	4	3	_
South Carolina <sup>®</sup>	_	0 17	4 62	1	3 43	_	0	1	_	8	3	0	2	7	2
West Virginia	_	0	9			_	0	1	_	_	_	Ő	1	_	-
E.S. Central	_	1	5	_	4	_	1	3	2	6	2	1	3	14	12
Alabama§	_	0	3	_	1	_	0	1	1	1	_	0	2		3
Mississippi	_	0	2	_	_	_	0	1	_	1	1	0	2	4	4
Tennessee§	—	0	4	—	3	—	0	2	—	3	1	0	2	7	4
W.S. Central	_	1	6	1	6	_	2	50	6	10	1	2	10	10	19
Arkansas <sup>s</sup> Louisiana	_	0	1	_	1	_	0	1	_	3	_	0	2	3	1
Oklahoma	_	Ő	Ö	_	_	_	õ	2	1	1	_	Ő	4	3	4
Texas <sup>§</sup>	—	1	6	1	5	—	1	49	5	6	1	1	5	4	6
Mountain	—	1	3	1	2	—	1	6	5	13	1	1	4	10	15
Colorado	_	0	1	1	_	_	0	2	1	4	1	0	2	1	3
Idaho <sup>§</sup>	_	0	2	_	_	_	0	2	_	_	_	0	2	2	1
Montana <sup>s</sup> Nevada <sup>§</sup>	_	0	2	_	1	_	0	1	3	_	_	0	1	1	1
New Mexico <sup>§</sup>	_	Õ	2	_	_	_	Õ	1	_	1	_	õ	1	2	1
Utah Wyoming§	_	0	2	_	_	_	0	3	_	1	_	0	2	1	6
Pooifio	_	0	10	20	14		2	0	20	17	-	4	10	17	46
Alaska	_	3 0	2	30	2	_	3 0	9	20	2		4 0	19		40
California		2	8	30	12	_	2	8	14	11	1	3	11	7	38
Hawall Oregon <sup>§</sup>	N	0	0 1	N	N	_	0	1	1	3	_	0	2	6	2 4
Washington	_	õ	7	_	_	_	õ	3	2	1	_	0	7	4	1
American Samoa	Ν	0	0	Ν	Ν	_	0	0	_	_	_	0	0	_	
C.N.M.I.	_			_	—	—			_	_	—		_	—	_
Puerto Rico	N	0	0	N	N	_	0	2	_	1	_	0	1	_	2
U.S. Virgin Islands	_	0	0	_			0	0	_	_	_	0	0	_	

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

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).

244

			Pertussis	6			Rab	ies, anim	al	Rocky Mountain spotted fever					
		Prev	ious	_		_	Prev	vious	_		_	Pre	vious	-	_
Reporting area	Current	<u>52 w</u>	eeks Max	2008	Cum 2007	Current	<u>52 w</u>	/eeks Max	Cum 2008	Cum 2007	Current	52 v	<u>veeks</u> Max	Cum 2008	Cum 2007
United States	.36	172	461	836	1 633	57	103	197	444	731	-	.34	147	35	81
New England		22	45	17	294	4	100	22	36	78	_	0	1		1
Connecticut	_	0	-5		16	3	4	10	21	33	_	ŏ	0	_	
Maine <sup>†</sup>	—	1	5	9	20	_	1	5	2	16	_	0	1	_	_
New Hampshire	_	1	33 5	1	230	1	1	4	5	7	_	0	1	_	
Rhode Island <sup>†</sup>	_	0	8	3	2	_	1	4	4	4	_	0	0	—	_
Vermont <sup>†</sup>	_	0	6	4	15	_	2	13	4	18	_	0	0	_	_
Mid. Atlantic	9	22	38	127	298	3	25	56	42	169	_	1	7	2	7
New York (Upstate)	8	2	24	44	156	3	9	20	42	50	_	0	3	_	
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
E.N. Central	14	25	180	359	326	—	4	49	—	2	—	1	4	1	3
Indiana	_	2	9	3	1	_	0	15	_	_	_	0	2	_	_
Michigan		4	16	17	73	_	1	28	—	1	—	0	1		1
Ohio Wisconsin	14	12	176 24	329	153 47	N	1	11	N	N	_	0	2	1	1
W N Control	1	10	77	96	110	2	1	12	12	22		5	27	0	0
lowa	4	2	8	12	40		4	3	13	22	_	0	4	9	
Kansas	_	2	5	1	43	_	1	7	_	14	_	0	2	—	3
Minnesota Missouri	- 3	0	75 16	 60	11	3	0	6	8	2	_	05	3		
Nebraska†	1	1	12	11	3	_	Ő	0	_	_	_	ő	23		_
North Dakota	—	0	4	_	1	—	0	5	2	3		0	0	_	
South Dakota	_	0	/	2	14		0	2	2	_	_	0	1	_	
S. Atlantic	4	16	48	83	144	41	40	63	306	396	_	15	111	20	42
District of Columbia	_	Ö	1	_	1	_	Ö	ŏ	_	_	_	ŏ	1	_	_
Florida	3	3	17	22	48	3	0	6	22	124	_	0	3	1	1
Georgia Marvland <sup>†</sup>	_	2	3	11	27	28	5	18	70 58	32 57	_	1	6 5	3	3
North Carolina	_	5	34	35	20	10	9	19	66	64	_	7	96	11	18
South Carolina <sup>†</sup>	1	1	22	6	15	—	0	11	77	21	—	0	7		4
West Virginia	_	2	12	<u> </u>	20	_	0	11	13	90 8	_	2	3	_	
E.S. Central	_	6	35	32	56	3	3	6	13	19		5	16	2	17
Alabama <sup>†</sup>	_	1	6	5	18	_	0	0	_		_	1	10	1	9
Kentucky Mississippi	_	0	4	6 15	1	_	0	3	2	5	_	0	2	_	1
Tennessee <sup>†</sup>	_	1	5	6	26	3	2	6	11	14	_	2	10	1	7
W.S. Central	1	20	112	40	58	1	1	23	7	12	_	1	30	1	2
Arkansas <sup>†</sup>	_	2	17	7	3	1	1	3	7	3	_	0	15	—	
Louisiana Oklahoma	_	0	2	1	3	_	0	0 22	_	9	_	0	1 20	_	1
Texas <sup>†</sup>	1	16	102	32	52	_	Ő	0	_	_	_	1	5	1	1
Mountain	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 Idaho <sup>†</sup>	1	5	14 4	12	/1 9	_	0	0	_	_	_	0	2	_	1
Montana <sup>†</sup>	_	1	7	14	8	_	Ő	3	_	_	_	ŏ	1	_	_
Nevada <sup>†</sup>	—	0	6	2	7	_	0	2		—	_	0	0	—	_
New Mexico'	_	6	27	15	10 56		0	2	5	1	_	0	0	_	_
Wyoming <sup>†</sup>	_	Õ	2	_	10	_	Õ	4	1	_	_	Õ	2	_	_
Pacific	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	Ν	N
Hawaii	_	0	28	1	53 7	I N	3	8 0	N N	9 N	N	0	2	N	N
Oregon <sup>†</sup>	1	1	14	8	14	_	Ō	3	_	_	-	Ō	1		_
Washington	—	3	115	13	17	—	0	0	—	—	N	0	0	N	N
American Samoa	—	0	0	—	—	Ν	0	0	Ν	Ν	Ν	0	0	Ν	N
Guam	_	0		_	_	_	0	0	_	_	N	0	0	N	N
Puerto Rico	_	õ	1	_	_	2	õ	5	4	15	N	õ	õ	N	N
U.S. Virgin Islands		0	0		_		0	0	_	_		0	0	_	

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

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).

<u> </u>		s	almonello	sis		Shiga	toxin-pro	ducing E	. coli (STE	Shigellosis					
		Prev	/ious			<u> </u>	Pre	vious	-			Pre	vious		
Reporting area	week	52 w Med	Max	2008	Cum 2007	Current week	52 v Med	Max	2008	Cum 2007	Current week	Med	Max	2008	2007
United States	228	858	1,514	3,613	5,460	23	73	214	234	334	110	359	836	2,010	1,700
New England Connecticut	_	31 0	73 46	94 46	619 430	_	4	11 3	10 3	67 45	_	3 0	11 2	8	73 44
Maine <sup>§</sup>	_	2	14	21	18	—	Ö	4	2	4	_	Ő	4	_	2
Massachusetts New Hampshire	_	21	58 10	7	141 15	_	2	10 4	2	13	_	2	8	1	26 1
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	2	15 5	12 8	8	_	0 0	2 3	1	_	_	0 0	9 1	4	_
Mid. Atlantic	25	108	190	427	740	3	8	27	24	44	6	18	152	122	90
New Jersey	20	19 27	48	10 122	156 150	2	2	7 12	11	14 12	5	4	11 19	26 26	12 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
E.N. Central Illinois	14	105 31	255 188	360 62	681 261	3	9 1	35 13	21	45 7	16	56 15	134 26	393 100	157 94
Indiana		12	34	36	51	_	1	13	3	1	_	3	81	137	8
Michigan Obio	1 9	19 25	43 64	82 135	111 146	3	2	8	5	8 26		1 18	7 104	10 119	7 24
Wisconsin	4	15	50	45	112	_	3	11	5	3	1	4	13	27	24
W.N. Central	13	49	103	252	319	5	12	38 13	38	28	2	30	80	111	260
Kansas	_	7	20	22	50	_	1	4	2	4	_	ō	3	3	6
Minnesota	4	13	40	65	56		4	17	12	12		4	12	20	46
Nebraska§	э 4	5	29 13	30	23	5	2	6	2	5		21	3	48	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
S. Atlantic Delaware	81	228	434	1,227	1,442	5	13	38	60 2	67	34	82	153 2	498	562
District of Columbia		0	4		8	_	0	1				0	_1		3
Florida Georgia	56 4	87 33	181 81	645 203	600 217	3	3	18	24 4	17 10	13 15	36 28	75 86	187 216	335
Maryland§	9	14	44	77	116	1	1	6	13	12		2	7	10	15
North Carolina		26	191	122	231	_	1	24	10	9	6	0	12	12	8
Virginia <sup>§</sup>	° 3	22	50	97 57	131	_	3	9	3	16		3	20 14	10	11
WestVirginia		4	25	13	7	—	0	3	1	—	—	0	62	—	_
E.S. Central	13	59 16	145	256	371	6	4	26 19	25 10	15	12	49 13	177	269 75	137
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
WS Control	8 26	01	496	250	240	2	2	12	11	0 17	4	C 45	32 400	04 270	105
Arkansas <sup>§</sup>	20	13	400	230	249	_	0	3	2	5	1	43	422	18	105
Louisiana	_	16	42	24	70	—	0	2	_	3	_	9	22	11	40
Uklanoma Texas <sup>§</sup>	4 21	9 51	43 439	40 153	36 113	_	0	3 11	2	1 8	4 22	3 32	9 401	328	48
Mountain	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
Idaho§	2	10	24 10	24 20	82 20	_	2	16	16	2	2	2	6 2	5	16
Montana <sup>§</sup>	_	1	9	6	13	_	ō	0				Õ	2	-	2
Nevada§ New Mexico§	_	5	12	32	31 35	_	0	3	2	3	8	1	10	31	9
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
Pacific Alaska	42	115 1	362	510	700	1 N	9	38	11 N	20 N	3	27 0	70 1	131	190 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
Washington	11	12	130	39 37	43 37	_	1	18	3	3 5	1	2	20	9 3	9
- American Samoa	_	0	1	1	_	_	0	0	_	_	_	0	1	1	_
C.N.M.I.	_				_		_				_	_		_	_
Guam Puerto Rico	1	0 12	5 55	1 27	2 114	N	0	0	N	N	_	0	3	1	3
U.S. Virgin Islands	_	0	0		_	_	Ō	Ō	_	_	_	Ō	0	_	_

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

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: N \* 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). Med: Median. Max: Maximum.

	Stre	eptococca	l disease, i	nvasive, gro	oup A	Age <5 years							
	Current	Prev 52 w	ious eeks	Cum	Cum	Current	Pre 52 v	vious veeks	Cum	Cum			
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007			
United States	114	90	170	867	911	33	34	127	263	319			
<b>New England</b> Connecticut Maine <sup>s</sup> Massachusetts	1 	4 0 0 1	28 22 3 12	11 5 	63 2 5 45	1 	1 0 0 1	5 1 1 4	4 1	34 6  25			
New Hampshire Rhode Island <sup>§</sup> Vermont <sup>§</sup>	1 	0 0 0	4 1 1	42	5 6	1 	0 0 0	1 1 1	3	2 1			
<b>Mid. Atlantic</b> New Jersey New York (Upstate)	$\frac{20}{14}$	16 2 6	40 12 20	143 8 66	191 39 40	3	5 1 2	38 5 14	40 7 20	46 11 24			
New York City Pennsylvania	6	3 4	13 11	13 56	50 62	N	20	35 0	13 N	11 N			
E. <b>N. Central</b> Illinois Indiana Michigan Ohio	47 — 2 7	16 4 2 3 4	40 10 10 10 14	218 35 27 35 64	205 76 16 44 62	10  1	4 1 0 1	19 6 11 5 5	55 9 7 12 14	52 7 3 21 17			
wisconsin <b>W.N. Central</b> Iowa	38 _2 	0 5 0	16 33 0	57 67	40	9 1 	0 3 0	2 19 0	13 23 —	4 10 —			
Kansas Minnesota Missouri Nebraska <sup>ş</sup> North Dakota	 1 	0 0 2 0 0	3 29 10 3 3	8 20 27 9 —	10  23 1 4	 	0 1 0 0	1 18 2 3 0	2 6 10 2	 7 2 1			
South Dakota <b>S. Atlantic</b> Dolawara	1 13	0 23	2 49	3 205	2 179	1 5	0 5 0	1 10	3 39	 69			
District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina	   6 3 3 	0 6 4 5 2	3 16 12 9 22	2 59 51 42 19	1 40 42 36 14	2 3	0 1 0 1 0	0 5 4 5 0	 11  17 	11 24 19 			
Virginia <sup>s</sup> West Virginia	— —	3 0	12 3	18 2	20 22 3		0	4 3 1	3	10			
<b>E.S. Central</b> Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	5 N  5	4 0 1 0 3	13 0 3 0 13	29 N 4 N 25	40 N 10 N 30	5 N 5	2 0 0 2	11 0 0 3 9	13 N N 13	19 N N 2 17			
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	13 — 9 4	7 0 0 1 5	47 2 4 8 38	65 — 1 29 35	44 5 4 17 18	4  2 2	5 0 1 2	47 2 3 5 42	36 3  17 16	36 4 12 10 10			
Mountain Arizona Colorado Idaho <sup>§</sup> Montana <sup>§</sup> Novrada <sup>§</sup>	9 6 2 N	9 4 2 0 0	21 9 2 0	106 43 23 6 N	127 47 28 3 N	3 	4 2 1 0 0	12 8 4 1 0	45 32 7 1 N	43 24 8 — N			
New Mexico <sup>§</sup> Utah Wyoming <sup>§</sup>		1 1 0	5 6 1	25 7 —	22 23 2		0000	4 2 0	3 1	8 3 —			
Alaska California Hawaii Oregon <sup>§</sup> Washington	4 3 N 1 N N	0 0 2 0	7 3 0 5 0	23 6 N 17 N N	22 3 N 19 N	1 N N N	0 0 0 0	4 0 2 0	8 N  N	6 N 4 N			
American Samoa C.N.M.I.		0	4	_		N	0	0	N	N			
Guam Puerto Rico U.S. Virgin Islands		0 0	0 0 0			N N 	0 0 0	0 0	N N	N N			

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

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 (NNDSS event code 11717). \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

		S	treptococ	cus pneum	<i>ioniae</i> , inva	sive disease	e, drug re:	sistant†		Syphilis, primary and secondary					
		Prev	vious				Pre		5	Previous					
	Current	52 w	eeks	Cum	Cum	Current	<u>52 w</u>	veeks	Cum	Cum	Current	<u>52 v</u>	/eeks	Cum	Cum
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007
United States	44	41	97	535	656	8	7	23	72	120	85	217	281	1,468	1,601
New England	—	1	7	8	37	—	0	2	2	3	3	6	14	35	34
Connecticut Maine <sup>§</sup>	_	0	4	3	26	_	0	1	1	2	1	0	6	3	5
Massachusetts	_	õ	Ö	_	_	_	Ő	Ö	_	_	2	3	8	28	20
New Hampshire	_	0	0	_	_	_	0	0	_	_	_	0	3	3	3
Vermont <sup>§</sup>	_	0	2	2	4	_	0	1	1		_	0	5 5	_	5
Mid Atlantic	1	2	9	29	41	_	0	5	2	10	35	35	46	284	266
New Jersey	_	ō	Õ	_	—	_	Õ	Õ	_	_	4	5	9	41	30
New York (Upstate)	_	1	5	8	13	-	0	4	—	6	6	3	10	17	20
Pennsylvania	1	1	6	21	28	_	0	2	2	4	8	18	35	54	150 66
F N Central	13	11	38	142	186	1	2	12	18	29	3	15	25	101	143
Illinois		1	13	27	40	_	Ō	6	6	13	_	6	14	13	68
Indiana	_	3	22	30	24	-	0	9	2	3		1	6	15	8
Ohio	13	6	23	82	122	1	1	3	9	13	2	2	12	47	20 40
Wisconsin	Ň	Õ	0	N	N	_	Ö	Õ	_		_	1	4	11	7
W.N. Central	1	2	49	33	47	_	0	3	1	4	3	7	14	58	39
lowa	_	0	0	_		_	0	0	—	_	_	0	2		1
Minnesota	_	0	7 46	2	28	_	0	3	_	2		1	4	5	4
Missouri	1	ĩ	8	31	18	_	Õ	1	1	_	2	5	10	46	23
Nebraska <sup>§</sup>	_	0	1	_	—	_	0	0	_	_	_	0	1	1	_
South Dakota	_	0	1	_	1	_	0	1	_	2	_	0	3	_	_
S. Atlantic	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	140	2		0	0				2	12	14	30
Georgia	14	5	27	143	132	3	2	5	25	27	4	9	35 94	133	86 25
Maryland§	_	Õ	1	1	_	_	Ó	1	1		_	6	15	46	47
North Carolina	—	0	0	_	_	—	0	0	—	—	10	5	23	65	51
Virginia <sup>§</sup>	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
E.S. Central	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
Mississippi	_	0	2	9	9	_	0	0	_	_	_	2	15	13	18
Tennessee§	6	3	12	57	26	3	0	3	6	5	7	8	15	70	40
W.S. Central	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
Oklahoma	_	0	10		24	_	0	2		5	_	10	20	44 9	14
Texas§	—	0	0	—	—	—	0	0	—	—	—	24	39	181	180
Mountain	2	1	5	15	15	_	0	2	1	5	1	7	25	34	66
Arizona	—	0	0	_	_	—	0	0	—	—	—	3	17	2	36
Idaho§	N	0	0	N	N	_	0	0	_	_	1	0	1	9 1	-
Montana§		0	0			_	0	0			_	0	3		1
Nevada <sup>§</sup>	2	0	3	14	9	_	0	2	1	1	_	2	6	16	12
Utah	_	0	5	1	4	_	0	2	_	3	_	0	2	_	2
Wyoming§	—	0	2	—	2	—	0	1	—	1	—	0	1	—	1
Pacific	_	0	0	_	_	_	0	1	1	_	6	42	61	228	382
Alaska	N	0	0	N	N	_	0	0	_	_		0	1 58	186	2
Hawaii		0	0	_		_	0	1	1	_	1	0	2	6	1
Oregon <sup>§</sup>	N	0	0	N	N	—	0	0	—	—	1	0	2	4	3
vvashington	N	0	0	N	N	_	0	0	_	_	_	3	13	32	16
American Samoa	N	0	0	N	N	—	0	1	—	—	—	0	4	—	
Guam	_	0	0	_	_	_	0	0	_	_	_	0	0	_	_
Puerto Rico	Ν	Ō	Ō	Ν	Ν	—	Ō	Ō	_	—	6	3	10	20	16
U.S. Virgin Islands	_	0	0	_		_	0	0	_	_	_	0	0	_	

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

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not no

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

						West Nile virus disease <sup>+</sup>										
		Varic	ella (chick	enpox)			Neu	iroinvasiv	/e	Nonneuroinvasive						
	Current	Prev 52 w	/IOUS	Cum	Cum	Current	Pre 52 v	VIOUS	Cum	Cum	Current	Pre 52 v	vious	Cum	Cum	
Reporting area	week	Med	Max	2008	2007	week	Med	Max	2008	2007	week	Med	Max	2008	2007	
United States	495	586	1,282	4,286	7,700	_	1	141	_	_	_	2	299	_	1	
New England	4	13	47	86	131	_	0	2	_	_	_	0	2	_	_	
Connecticut	_	0	1	_	1	_	0	2	—	—	—	0	1	_	_	
Massachusetts	_	0	0	_	_	_	0	2	_	_	_	0	2	_	_	
New Hampshire	1	6	18	37	54	_	0	0	—	_	_	0	Ō	—	_	
Rhode Island <sup>1</sup> Vermont <sup>1</sup>	3	0	0 38	49	 76	_	0	0	_	_	_	0	1	_	_	
Mid Atlantic	56	68	154	/20	1 210	_	0	° S	_	_	_	0	3	_	_	
New Jersey	N	0	0	420 N	1,210 N	_	0	1	_	_	_	0	0	_	_	
New York (Upstate)	N	0	0	N	N	_	0	1	—	—	_	0	1	—	_	
Pennsvlvania	 56	68	0 154	420	1.210	_	0	3	_	_	_	0	3	_	_	
E.N. Central	102	165	358	1.103	2,660	_	0	18	_	_	_	0	12	_	1	
Illinois	1	2	11	19	39	_	Ő	13	_	_	_	Ő	8	_		
Indiana Michigan	N 28	0 72	0 154	N 485	N 1.064	_	0	4	_	_	_	0	2	_	_	
Ohio	73	69	208	599	1,259	_	0	4	_	_	_	0	3	_	1	
Wisconsin	_	10	80	_	298	_	0	2	_	—	_	0	2	_	_	
W.N. Central	9	25	114	254	384	_	0	41	—	—	—	1	117	—	—	
lowa Kansas	N	0	0 28	N 112	N 209	_	0	4	_	_	_	0	3	_	_	
Minnesota	_	Ő	0			_	Ő	9	_	_	_	Ő	12	_	_	
Missouri	9 N	13	78	129	150 N	—	0	9	—	—	_	0	3	—	_	
North Dakota		0	60	1	6	_	0	11	_	_	_	0	49	_	_	
South Dakota	_	0	14	12	19	_	0	9	—	—	—	0	32	_	_	
S. Atlantic	71	94	214	709	996	_	0	12	—	—	—	0	6	—	_	
Delaware District of Columbia	_	1	4	2	_	_	0	1	_	_	_	0	0	_	_	
Florida	50	26	83	373	232	_	Õ	1	_	_	_	Õ	Õ	_	_	
Georgia Manuland <sup>1</sup>	N	0	0	N	N	_	0	8	_	_	_	0	5	_	_	
North Carolina		0	0			_	0	1	_	_	_	0	1	_	_	
South Carolina <sup>1</sup>	16	14	55	115	304	_	0	2	_	—	_	0	1	_	_	
West Virginia	4	21	85 66	152	266	_	0	0	_	_	_	0	0	_	_	
E.S. Central	13	12	82	176	93	_	0	11	_	_	_	0	14	_	_	
Alabama <sup>1</sup>	13	12	82	175	91	_	0	2	—	—	_	0	1	—	_	
Kentucky Mississippi	N	0	0	N 1	2	_	0	1	_	_	_	0	12	_	_	
Tennessee	Ν	Õ	Ö	Ň	Ň	_	Ő	1	_	_	_	Ő	2	—		
W.S. Central	211	168	589	1,372	1,601	_	0	34	_	_	_	0	18	_		
Arkansas <sup>1</sup>	9	12	46	105	98	_	0	5	—	—	_	0	2	—	_	
Oklahoma	_	0	0			_	0	11	_	_	_	0	7	_	_	
Texas <sup>1</sup>	202	155	572	1,262	1,470	_	0	18	—	—	—	0	10	_	_	
Mountain	29	35	130	164	607	_	0	36	—	—	—	1	143	—	_	
Arizona Colorado	29	0 13	0 62	57	245	_	0	8 17	_	_	_	0	10 65	_	_	
Idaho <sup>1</sup>	Ň	0	0	N	N	_	Õ	3	_	_	_	Õ	22	_	_	
Montana <sup>1</sup>	—	6	40	43	61	—	0	10	—	—	_	0	30	—		
New Mexico <sup>1</sup>	_	5	37	33	76	_	0	8	_	_	_	0	6	_	_	
Utah	_	7	72	30	223	_	0	8	—	—	—	0	8	_	_	
wyorning"	_	0	9	1	10	_	0	4	_	_	_	0	33	_		
Alaska	_	0	4	2	18	_	0	0	_	_	_	0	23	_	_	
California		0	0			_	0	17	—	—	—	0	21	—	—	
nawali Oregon <sup>1</sup>	N N	0 0	U 0	N N	N N	_	0	0 3	_	_	_	0	0 4	_	_	
Washington	N	õ	õ	N	N	_	õ	õ		_	_	õ	Ö	_	_	
American Samoa	Ν	0	0	Ν	Ν	_	0	0	_	_	_	0	0	_	_	
C.N.M.I.	—	-				—			—	—	—			—	—	
Puerto Rico	11	10	37	43	121	_	0	0	_	_	_	0	0	_	_	
U.S. Virgin Islands	_	0	0	_	_	_	0	0	_	_	_	0	0	_		

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

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)

	All causes, by age (years)						All causes, by age (years)									
Reporting Area	All Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	P&l⁺ Total	Reporting Area	All Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	
New England	655	481	128	26	8	12	77	S. Atlantic	1,384	851	360	94	44	34	97	
Boston, MA Bridgenert, CT	153	91	38	12	3	9	22	Atlanta, GA	160	99	40	16	5		7	
Cambridge MA	20 27	21	4	1	_	_	2	Charlotte NC	205	88	38	12 Q	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	10	_	_	_	1	Washington, D.C.	99	49	28	13	2	1	1	
Springfield, MA	55	38	13	1	I	2	5	VVilmington, DE	19	13	4	2	_	_	5	
Worcester MA	24 60	50	0 17	2	1	_	0	E.S. Central	910	618	212	51	9	20	90	
WOICester, WA	05	50	17	1	'		3	Birmingham, AL	222	147	58	9	1	7	30	
Mid. Atlantic	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	/8	44	23	8	1	2	14	
Camdon NJ	50	84 40	∠0 11	6	1	1	0	Mebile Al	115	78	20	/		э	14	
Elizaboth NI	29	40	6	0	1	1	5	Montgomon/ Al	94	20	20	4	3	1	0	
	29 56	49	4	2	_	1	7	Nashville TN	167	109	40	11	3	4	9	
Jersev City, NJ	35	20	12	1	2		3									
New York City, NY	1.188	845	238	66	19	18	58	W.S. Central	1,675	1,078	401	118	39	39	140	
Newark, NJ	82	42	27	10	_	3	12	Austin, TX	106	67	24	8	3	4	10	
Paterson, NJ	37	24	8	2	1	2	4	Baton Rouge, LA	58	27	19	6	5	1		
Philadelphia, PA	540	341	151	33	7	8	32		105	41	10	4	2	1	10	
Pittsburgh, PA§	47	25	17	5	—	_	2		195	96	19	6	9		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		14	New Orleans, LA <sup>1</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	
Litica NV	21	17	3		1		2	Shreveport, LA	67	44	14	4	—	5	7	
Yonkers NY	24	21	2	1	_	_	5	Tulsa, OK	158	114	33	7	2	2	17	
		4 500	-				100	Mountain	1,162	771	262	77	21	31	97	
E.N. Central	2,347	1,568	561	148	34	36	198	Albuquerque, NM	149	107	24	16	1	1	13	
Akron, OH	48	30	9	1	1	1	2	Boise, ID	45	29	9	3	_	4	1	
Canton, On Chicago II	42	177	0 70	24	7	7	20	Colorado Springs, CO	111	71	27	7	2	4	7	
Cincinnati OH	110	70	27	24	2	3	16	Denver, CO	92	53	31	3	—	5	5	
Cleveland, OH	245	171	55	12	1	6	12	Las Vegas, NV	275	180	71	16	4	4	29	
Columbus, OH	255	175	63	14	2	1	22	Ogden, UT	35	23	9	2	_	1	4	
Dayton, OH	174	121	35	17	1	_	10	Phoenix, AZ	154	87	41	12	(		12	
Detroit, MI	174	92	63	14	4	1	8	Salt ako City LIT	102	27	4 25	12	1	1	/	
Evansville, IN	58	43	11	4	—	_	7		143	112	20	4	4	2	10	
Fort Wayne, IN	93	68	22	2	1	_	5				21	-	-			
Gary, IN	17	10	5	1	1	_		Pacific	1,873	1,372	356	94	24	27	224	
Grand Rapids, MI	74	46	22	3	1	2	11	Berkeley, CA	16	12	3		1		1	
Indianapolis, IN	240	102	00 1/	10	/	5 1	22	Fresho, CA	40	25	0	0	U	0	10	
Milwaukoo WI	113	68	33	і 8	_	1	0	Hopolulu HI	42		13	2	_	1	10	
Peoria II	77	60	12	3	_	2	16	Long Beach CA	78	55	13	6	2	2	18	
Rockford, IL	64	46	14	3	1	_	6	Los Angeles, CA	317	236	55	18	7	1	58	
South Bend, IN	46	35	6	3	1	1	1	Pasadena, CA	37	32	3	1	1		9	
Toledo, OH	107	71	24	9	2	1	5	Portland, OR	120	76	27	9	1	7	10	
Youngstown, OH	71	60	8	2	1	_	7	Sacramento, CA	256	184	59	11	1	1	26	
W N Control	790	547	151	20	26	17	77	San Diego, CA	203	147	38	11	3	4	19	
Des Moines 14	154	113	32	7	20		19	San Francisco, CA	132	92	31	4	-	5	14	
Duluth, MN	44	32	6	3	2	1	2	San Jose, CA	221	168	38	11	3	1	23	
Kansas City, KS	31	13	9	6	1	2	1	Santa Cruz, CA	35	29	5	1	_	_	.2	
Kansas City, MO	136	95	26	5	6	4	16	Seattle, WA	145	105	28	7	3	2	15	
Lincoln, NE	36	25	9	_	1	1	3	Spokane, WA	65	46	12	4	1	2	6	
Minneapolis, MN	69	45	11	7	4	2	4	I acoma, WA	121	86	24	9	1	1	6	
Omaha, NE	85	62	16	5	1	1	16	Total	13,492**	9,166	3,023	795	248	257	1,181	
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	1								

U: Unavailable.

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. <sup>†</sup> Pneumonia and influenza.

<sup>1</sup>Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks. <sup>1</sup>Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted. \*\*Total includes unknown ages.

The Morbidity and Mortality Weekly Report (MMWR) Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format. To receive an electronic copy each week, send an e-mail message to *listserv@listserv.cdc.gov*. The body content should read *SUBscribe mmwrtoc*. Electronic copy also is available from CDC's Internet server at *http://www.cdc.gov/mmwr* or from CDC's file transfer protocol server at *ftp://ftp.cdc.gov/pub/publications/mmwr*. Paper copy subscriptions are available through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Data are compiled in the National Center for Public Health Informatics, Division of Integrated Surveillance Systems and Services. Address all inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop E-90, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333 or to *www.mmwrq@cdc.gov*.

All material in the MMWR Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of these sites. URL addresses listed in *MMWR* were current as of the date of publication.

☆U.S. Government Printing Office: 2008-723-026/41080 Region IV ISSN: 0149-2195