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Recreational Water Illness and Injury Prevention Week — May 23–29, 2011

May 23–29, 2011, marks the seventh annual Recreational Water Illness and Injury Prevention Week. This observance highlights simple steps swimmers and pool operators can take to reduce health and safety risks at pools, water parks, and other recreational water venues.

Recreational water illness can result from ingesting, inhaling aerosols of, or having contact with contaminated water in swimming pools, hot tubs, water parks, water play areas, interactive fountains, lakes, rivers, or oceans. These illnesses also can be caused by chemicals in the water or chemicals that evaporate from the water.

This year's observance focuses on preventing swimmer's ear (acute otitis externa), a common and painful infection of the outer ear canal that results in 2.4 million health-care visits and nearly half a billion dollars in health-care costs every year (*1*). Simple steps, such as keeping ears as dry as possible, can help prevent this illness. More information on preventing swimmer's ear is available at http://www.cdc.gov/healthywater/swimming/rwi/illnesses/swimmers-ear-prevention-guidelines.html.

Injuries and drowning also can occur in and around the water. Drowning is the second leading cause of unintentional injury death among children aged ≤14 years (*2*). Additional information on drowning prevention is available at http://www.cdc.gov/safechild/drowning/index.html.

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1. CDC. Estimated burden of acute otitis externa—United States, 2003–2007. MMWR 2011;60:605–9.
2. CDC. Web-based Injury Statistics Query and Reporting System (WISQARS). Available at http://www.cdc.gov/injury/wisqars. Accessed April 29, 2011.

Estimated Burden of Acute Otitis Externa — United States, 2003–2007

Acute otitis externa (AOE) (swimmer's ear) is inflammation of the external auditory canal most often caused by bacterial infection. AOE is characterized by pain, tenderness, redness, and swelling of the external ear canal, and occasionally, purulent exudate. AOE is associated with water exposure (e.g., recreational water activities, bathing, and excessive sweating) and warm, humid environments (*1*–*5*). Because the overall burden and epidemiology of AOE in the United States have not been well described, data from national ambulatory-care and emergency department (ED) databases were analyzed to characterize the incidence, demographics, and seasonality of AOE and associated health-care costs. The analysis showed that in 2007, an estimated 2.4 million U.S. health-care visits (8.1 visits per 1,000 population) resulted in a diagnosis of AOE. Estimated annual rates of ambulatory-care visits for AOE during 2003–2007 were highest among children aged 5–9 years (18.6) and 10–14 years (15.8); however, 53% of visits occurred among adults aged ≥20 years (5.3). Incidence peaked during summer months, and the regional rate was highest in the

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South (9.1). Direct health-care costs for nonhospitalized AOE visits total as much as $0.5 billion annually, and ambulatory-care clinicians spend nearly 600,000 hours annually treating AOE. Suggested AOE prevention measures include reducing exposure of the ears to water (e.g., using ear plugs or swim caps and using alcohol-based ear-drying solutions) (*3*–*5*). To reduce the national incidence of AOE, additional preventive measures should be investigated, and effective prevention messages should be developed and disseminated.

To help direct future prevention efforts for AOE, the current epidemiology of AOE in the United States and its impact on the U.S. health-care system must be understood and quantified. Ambulatory-care estimates were calculated by using 2003–2007 National Ambulatory Medical Care Survey (NAMCS) data,* and ED estimates by using 2007 Nationwide Emergency Department Sample (NEDS) data.† Total national visits were estimated by summing the NAMCS and NEDS estimates, and a range derived by summing the respective 95% confidence limits.§

The 2006–2007 Marketscan database¶ was used to estimate costs for nonhospitalized visits (ambulatory-care visits and ED visits that did not result in hospital admission). Only visits resulting in a diagnosis of AOE without concurrent otitis media were included in the analyses.** Statistical software was used to apply sampling weights and account for complex sample design. Statistical significance was determined by the Rao-Scott modified chi-square test (alpha = 0.05).

AOE was diagnosed in an estimated 2,067,335 ambulatory-care clinic visits and 377,440 ED visits (Table) during 2007, for a total of 2,444,775 (range: 1,953,159–2,936,392) visits for AOE, representing 8.1 visits per 1,000 population (range: 6.5–9.7).†† Thus, an estimated one in 123 persons was affected by AOE in the United States during 2007. AOE accounted for an estimated one in 324 ED visits and one in 481 ambulatory-care visits.

*A national sample of visits to nonfederally employed, office-based physicians from CDC's National Center for Health Statistics.

†A national sample of hospital-based ED visits from the Healthcare Cost and Utilization Project, Agency for Healthcare Research and Quality.

§Range is derived by summing respective 95% confidence limit upper and lower bounds, but does not represent a 95% confidence limit for the summary estimate.

¶ The Marketscan Commercial Claims and Encounters database, from Thomson Reuters, includes insurance claims and payments for commercially insured patients only, unlike the other databases used in this analysis, which include data on patients with all types of insurance and the uninsured. Costs (the sum of insurer and out-of-pocket payments, including prescription drug costs) are in 2007 dollars.

**AOE includes *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) codes 380.10, 380.12, and 380.14; otitis media includes codes 381.0–382.9. Concurrent otitis media was diagnosed in 16.5% of total ambulatory-care AOE visits before exclusion.

†† Based on U.S. Census Bureau population data. Avialable at http://www.census.gov/popest/estimates.html.

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TABLE. Estimated number of ambulatory-care and emergency department visits with a recorded diagnosis of acute otitis externa, by selected characteristics — United States, 2003–2007*

Characteristic	Ambulatory				Emergency department†			
	No. (1,000s)§	(%)	95% CI (1,000s)	Rate (per 1,000)¶	No. (1,000s)§	(%)	95% CI (1,000s)	Rate (per 1,000)¶
Year								
2003	2,686	—	(1,772–3,560)	9.3	—	—	—	—
2004	2,460	—	(1,898–3,022)	8.4	—	—	—	—
2005	1,884	—	(1,264–2,504)	6.4	—	—	—	—
2006	1,728	—	(1,153–2,303)	5.8	—	—	—	—
2007	2,067	—	(1,597–2,537)	6.9	377	—	(356–399)	1.3
Age (yrs)								
0–4	142**	7	(70–213)	6.9	30	8	(28–33)	1.5
5–9	367	17	(196–538)	18.6	41	11	(38–44)	2.0
10–14	328	15	(223–434)	15.8	41	11	(38–44)	2.0
15–19	186	9	(124–247)	8.8	32	8	(30–34)	1.5
20–39	283	13	(177–389)	3.5	135	36	(127–142)	1.6
40–64	613	28	(437–789)	6.4	82	22	(76–88)	0.8
≥65	247	11	(183–311)	6.7	17	5	(15–19)	0.4
Sex								
Female	1,159	54	(928–1,391)	7.7	208	55	(196–219)	1.4
Male	1,006	46	(823–1,188)	6.9	169	45	(159–180)	1.1
Region††								
Northeast	434	20	(331–537)	7.9	68	18	(56–80)	1.2
Midwest	463	21	(314–613)	7.0	83	22	(73–92)	1.2
South	976	45	(757–1,196)	9.1	158	42	(145–171)	1.4
West	291	14	(238–345)	4.3	69	18	(61–76)	1.0
MSA								
Urban	1,806	83	(1,501–2,112)	7.3	291	77	(272–310)	1.2
Rural	359	17	(171–546)	7.3	83	22	(76–89)	1.7

Abbreviations: CI = confidence interval; MSA = Metropolitan Statistical Area.
* Excludes visits for otitis externa with a concurrent diagnosis of otitis media.
† Emergency department data for 2007 only.
§ Annual weighted estimate.
¶ Based on U.S. Census Bureau estimated civilian noninstitutionalized population as of July 1 for each year. Available at http://www.census.gov/popest/estimates.html.
** Small sample number might result in unreliable weighted population estimate for this stratum.
†† Geographic regions as defined by the U.S. Census Bureau. Available at http://www.census.gov/popest/geographic.

During 2003–2007, annual estimates of ambulatory care visits for AOE varied from 1,728,824 to 2,685,861, with no significant difference by year (p=0.19). Children aged 5–9 and 10–14 years had the highest annual visit rates for AOE (Table); however, 52.8% of visits occurred among adults aged ≥20 years. Women accounted for 54% of AOE visits, which was not significantly more than for men (p=0.30). A similar demographic distribution was observed among ED visits, with the exception that a larger proportion of AOE visits to the ED occurred among persons aged 20–39 years.

Ambulatory-care diagnoses of AOE displayed a pronounced seasonality (Figure); visits peaked in the summer (44% occurred during June–August) and reached their lowest point in the winter. Although ED rates were similar by U.S. region, the annual rate of ambulatory-care visits for AOE was highest in the South (9.1 per 1,000 population) and lowest in the West (4.3) (Table). Urban and rural rates did not differ. An annual mean of 77,077 (3.6%) ambulatory-care visits for AOE

What is already known on this topic?

Acute otitis externa (AOE) (swimmer's ear) is more likely to occur among swimmers, particularly in warm, humid environments. Greater time spent in the water and greater frequency of head submersion increases the risk for AOE.

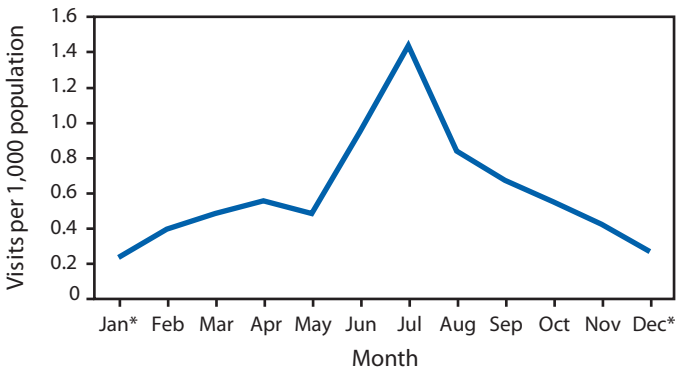
What is added by this report?

This is the first report to describe overall U.S. epidemiology and associated costs of AOE. An estimated 2.4 million U.S. health-care visits result in a diagnosis of AOE annually (8.1 visits per 1,000 population), costing approximately $0.5 billion in direct health-care costs and nearly 600,000 hours of clinicians' time.

What are the implications for public health practice?

Although AOE is generally a mild illness, it is a frequently diagnosed condition responsible for a substantial health-care burden. Disseminating effective prevention messages to clinicians and the public could reduce the national impact of AOE.

FIGURE. Estimated number of ambulatory-care visits for acute otitis externa per 1,000 population, by month — United States, 2003–2007



* Small sample number might result in unreliable weighted estimates for January and December.

resulted in referral to another physician, but no ambulatory-care AOE patients in the sample were admitted to a hospital. An estimated 2.7% of ED visits for AOE during 2007 led to hospital admission. An estimated 597,761 hours were spent annually by health-care providers on ambulatory-care visits for AOE (median: 15 minutes per visit; mean: 17 minutes). With a mean cost of $200 per nonhospitalized AOE visit, estimated annual direct health-care payments totaled $489 million.

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Editorial Note

This is the first study to describe the epidemiology of AOE alone (excluding concurrent otitis media) in the general U.S. population and to estimate AOE-associated health-care costs. Exclusion of concurrent otitis media provides a conservative estimate for the actual burden of AOE. The finding of 2.4 million annual visits (8.1 visits per 1,000 population) is consistent with previous reports. As expected, general population rate estimates are slightly lower than in previous reports limited to children aged <18 years (9.9–13.9 per 1,000 population) (*6*) or when concurrent otitis media was not excluded (3.3 million U.S. outpatient visits) (*7*).

AOE must be distinguished from other painful ear conditions, such as acute otitis media, because treatment and prevention are different. Although both commonly are caused by bacteria (particularly *Pseudomonas aeruginosa* or *Staphylococcus* species in the case of AOE), uncomplicated cases of AOE usually respond favorably to topical antimicrobials (with or without a topical corticosteroid) (*3,8*). Systemic antimicrobials usually are not indicated unless the AOE infection is complicated by an associated cellulitis of the surrounding skin, or other conditions (e.g., diabetes or immunosuppression) (*3,4*). Although AOE generally is a mild illness, it is a frequently diagnosed condition responsible for a substantial health-care burden, with estimated costs of $0.5 billion and nearly 600,000 hours of clinicians' time annually. Development and dissemination of prevention messages potentially could lower the incidence of AOE and reduce the health-care burden.

The findings in this report are subject to at least two limitations. First, return visits for the same illness episode could not be excluded, and 3.6% of ambulatory-care visits for AOE resulted in referral, leading to a potential overestimate of AOE incidence; however, because AOE generally responds quickly to appropriate treatment, the proportion of return visits likely was minimal.[§§] Regardless, each visit (whether initial or return) places a burden on the health-care system in health-care costs and clinicians' time. Finally, this analysis used a commercial insurance database to determine average costs. Visit costs might differ for persons with a different insurance provider (i.e., Medicaid or Medicare) or persons without insurance. Overall AOE costs likely are higher than estimated because visits to federal facilities and inpatient visits were not included in the analysis, nor were additional costs such as lost wages, school absence, or caretakers' time.

With the substantial costs imposed by AOE in health-care expenditures and clinicians' time, prevention of AOE could yield considerable savings. Few studies exist on AOE prevention, and controlled trials of potential prevention measures are needed. Current clinical recommendations are intended to reduce factors known to increase risk for AOE, such as prolonged water exposure and trauma to the skin of the ear canal (*1,2,4,5,9*). Prevention messages emphasize exclusion of water from the ear canal, drying ears thoroughly after water exposure, and avoiding insertion of solid objects into the ear canal (Box). Clinicians also might consider recommending the use of alcohol-based ear solutions after water exposure for persons with recurring episodes of AOE. Given that AOE's seasonality coincides with the traditional summer swim season (Memorial Day through Labor Day), prevention messages should be directed at swimmers. To optimize their effectiveness, these messages should be stressed before and during the summer swim season and target swimmers in the South,

[§§] In the Marketscan database used for average cost estimation, approximately 1.5% of patients had both an ED and ambulatory-care visit for AOE, and some repeat visits by the same person might have been accounted for by a new infection episode rather than a return visit for the same infection.

BOX. Preventing acute otitis externa (AOE) (swimmer's ear)*

Keep your ears as dry as possible.
- Use a bathing cap, ear plugs, or custom-fitted swim molds when swimming to keep water out of your ears.

Dry your ears thoroughly after swimming or showering.
- Use a towel to dry your ears well.
- Tilt your head to hold each ear facing down to allow water to escape the ear canal.
- Pull your earlobe in different directions while your ear is faced down to help water drain out.
- If you still have water in your ears, consider using a hair dryer to move air within the ear canal.
  - Be sure the hair dryer is on the **lowest** heat and speed/fan setting.
  - Hold the hair dryer several inches from your ear.

Do not put objects in your ear canal (including cotton-tip swabs, pencils, paperclips, or fingers).

Do not try to remove ear wax. Ear wax helps protect your ear canal from infection.
- If you think your ear canal is blocked by ear wax, consult your health-care provider rather than trying to remove it yourself.

Consult your health-care provider about using commercial, alcohol-based ear drops or a 1:1 mixture of rubbing alcohol and white vinegar after swimming.
- Persons with ear tubes, damaged ear drums, outer ear infection, or ear drainage (pus or liquid coming from the ear) should not use drops.

Consult your health-care provider if your ears are itchy, flaky, swollen, or painful, or if you have drainage from your ears.

Ask your pool or hot tub operator if disinfectant and pH levels are checked at least twice per day.
- Hot tubs and pools with proper disinfectant and pH levels are less likely to spread germs.
- Use pool test strips to check the pool or hot tub yourself for adequate disinfectant and pH levels.

* Conclusive published evidence of the effectiveness of any intervention for the prevention of AOE is lacking. The prevention recommendations in this box are the consensus of three experts consulted by CDC staff: Michael T. Brady, MD, representing the American Academy of Pediatrics and Evelyn A. Kluka, MD, and Ken Kazahaya, MD, both representing the American Academy of Otolaryngology – Head and Neck Surgery. Additional information is available at http://www.cdc.gov/healthywater/swimming/rwi/illnesses/swimmers-ear.html.

Northeast, and Midwest, particularly those aged 5–14 years, and their caregivers. Additionally, pool operators can help prevent transmission of *Pseudomonas* and other common causes of infectious AOE in treated recreational water venues (e.g., pools, interactive fountains, and water parks) by maintaining proper chlorine and pH levels (*10*).

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Reasons for Not Seeking Eye Care Among Adults Aged ≥40 Years with Moderate-to-Severe Visual Impairment — 21 States, 2006–2009

In 2000, an estimated 3.4 million U.S. residents aged ≥40 years were blind or visually impaired (*1*). Vision problems place a substantial burden on individuals, caregivers, health-care payers, and the U.S. economy, with the total cost estimated at $51.4 billion annually (*2*). Although regular comprehensive eye examinations are essential for timely treatment of eye disease to maintain vision health, a previous study has shown that substantial percentages of persons do not seek eye care, despite having visual impairment (*3*). To ascertain why adults aged ≥40 years with moderate-to-severe visual impairment did not seek eye care in the preceding year, CDC analyzed data for 21 states from 2006–2009 Behavioral Risk Factor Surveillance System (BRFSS) surveys. This report summarizes the results of that analysis, which found that eye-care cost or lack of insurance (39.8%) and perception of no need (34.6%) were the most common reasons given for not seeking eye care. Among those aged 40–64 years, cost or lack of health insurance was the most common reason (42.8%); among those aged ≥65 years, the most common reason was no need (43.8%). Identifying the reasons for unmet eye-care needs might enable development of targeted interventions to improve vision health among those with moderate-to-severe visual impairment.

BRFSS is an annual, state-based, random-digit–dialed telephone survey of the noninstitutionalized U.S. civilian population aged ≥18 years that provides sociodemographic and other information on health behaviors, chronic illness, and access to health care. For this report, CDC analyzed data from the BRFSS Vision Impairment and Access to Eye Care Module, which was implemented for at least 1 year during 2006–2009 by 21 states.* Median response rates among states for BRFSS during that period ranged from 48.2% to 52.5%; median cooperation rates ranged from 73.3% to 75.0%.†

The study sample consisted of 11,503 adults aged ≥40 years with self-reported moderate-to-severe visual impairment who had not visited an eye-care professional in the previous year; the sample constituted 6.96% of those interviewed (6.93% weighted). Prevalences for the 21 states overall and for each individual state were calculated from aggregate data collected during the 4-year study period, regardless of whether a state had 1, 2, 3, or 4 years of data. Data were analyzed using statistical software to account for the complex sampling design. Estimates were weighted to account for individual selection probabilities, nonresponse, and poststratification. Chi-square testing was used to determine statistically significant differences ($p<0.05$).

Self-reported visual impairment was defined using two questions: "How much difficulty, if any, do you have in recognizing a friend across the street?" and "How much difficulty, if any, do you have reading print in a newspaper, magazine, recipe, menu, or numbers on the telephone?" Those who answered "moderate difficulty," "extreme difficulty," or "unable to do because of eyesight" to either of these questions were classified as having moderate-to-severe visual impairment. Respondents also were asked if they had been told by an eye doctor or other health-care professional that they had cataract, glaucoma, age-related macular degeneration, or diabetic retinopathy. Those responding affirmatively were classified as having "any age-related eye disease."

Respondents were asked when was the last time they had their eyes examined by any doctor or eye-care provider. Those reporting >1 year also were asked the main reason for not visiting an eye-care professional in the past 12 months. The seven possible responses were classified into the following four categories: 1) "cost or lack of insurance"; 2) "have not thought of it" or "no reason to go (no problem)"; 3) "do not have/know an eye doctor," "too far/no transportation," or "could not get an appointment"; and 4) "other."

Overall, the most common reason given for not seeking eye care among those with moderate-to-severe visual impairment was cost or lack of insurance (39.8%), followed by no need (34.6%), other (21.1%), and no eye doctor, no transportation, or could not get an appointment (4.5%) (Table 1). The percentage of those reporting cost or lack of insurance as the main reason was greater among adults aged 40–64 years than adults aged ≥65 years (42.8% versus 23.3%, $p<0.001$). However, the percentage of those reporting no need to go as the main reason was greater among adults aged ≥65 years than those aged 40–64 years (43.8% versus 32.9%, $p<0.001$). A greater percentage of men than women reported no need to go (41.7% versus 28.7%, $p=0.005$), and a greater percentage of those with no age-related eye disease reported no need to go than those with any age-related eye disease (36.9% versus 28.2%, $p=0.001$) (Table 1).

* Alabama, Arizona, Colorado, Connecticut, Florida, Georgia, Indiana, Iowa, Kansas, Maryland, Massachusetts, Missouri, Nebraska, New Mexico, New York, North Carolina, Ohio, Tennessee, Texas, West Virginia, and Wyoming.

† The response rate is the percentage of persons who completed interviews among all eligible persons, including those who were not successfully contacted. The cooperation rate is the percentage of persons who completed interviews among all eligible persons who were contacted.

TABLE 1. Prevalence of reasons for not seeking eye care among adults aged ≥40 years with moderate-to-severe visual impairment,* by selected characteristics — Behavioral Risk Factor Surveillance System, 21 states, 2006–2009

Characteristic	Cost/Insurance		No need†		No eye doctor/travel/ appointment§		Other	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Overall	**39.8**	**(38.0–41.5)**	**34.6**	**(32.9–36.3)**	**4.5**	**(3.9–5.2)**	**21.1**	**(19.8–22.5)**
Age group (yrs)								
40–64	42.8	(40.8–44.8)	32.9	(31.1–34.8)	4.0	(3.4–4.8)	20.3	(18.8–21.8)
≥65	23.3	(20.2–26.7)	43.8	(40.2–47.5)	7.3	(5.8–9.2)	25.6	(22.3–29.3)
Sex								
Men	33.4	(30.6–36.3)	41.7	(38.9–44.6)	3.5	(2.8–4.5)	21.4	(19.2–23.7)
Women	45.1	(43.0–47.2)	28.7	(26.9–30.5)	5.3	(4.5–6.3)	20.9	(19.2–22.7)
Race/Ethnicity								
White, non-Hispanic	37.7	(35.7–39.8)	36.8	(34.8–38.8)	3.9	(3.4–4.6)	21.6	(20.0–23.3)
Black, non-Hispanic	41.0	(36.7–45.5)	32.4	(28.2–37.0)	6.2	(4.5–8.4)	20.4	(17.1–24.2)
Hispanic	51.1	(45.3–56.8)	23.6	(19.3–28.6)	7.2	(4.6–1.9)	18.1	(14.2–22.9)
Other	41.0	(32.0–50.6)	32.3	(22.9–43.3)	3.5	(2.0–6.0)	23.3	(16.6–31.5)
Education								
Less than high school diploma	54.1	(49.8–58.4)	24.3	(20.5–28.4)	5.7	(4.1–7.7)	15.9	(13.2–19.1)
High school diploma	41.5	(38.5–44.5)	35.0	(32.3–37.7)	3.8	(3.0–4.7)	19.7	(17.7–21.9)
More than high school diploma	32.7	(30.3–35.2)	38.4	(35.9–41.0)	4.6	(3.7–5.7)	24.2	(22.1–26.6)
Income								
<$35,000	55.9	(53.4–58.4)	24.1	(22.2–26.2)	4.3	(3.5–5.2)	15.7	(14.1–17.5)
≥$35,000	22.3	(20.3–24.4)	45.8	(43.2–48.5)	4.6	(3.7–5.7)	27.3	(25.0–29.8)
Health insurance coverage								
Yes	30.2	(28.4–32.0)	39.9	(38.1–41.8)	5.1	(4.4–5.9)	24.7	(23.1–26.4)
No	70.9	(67.0–74.5)	17.3	(14.2–20.8)	2.6	(1.6–4.3)	9.2	(7.3–11.6)
Eye-care insurance coverage								
Yes	19.6	(17.7–21.7)	44.8	(42.2–47.4)	6.2	(5.2–7.4)	29.4	(27.1–31.7)
No	55.2	(52.8–57.6)	26.9	(24.9–29.1)	3.2	(2.5–4.1)	14.7	(13.1–16.3)
Any age-related eye disease¶								
Yes	39.8	(36.2–43.5)	28.2	(25.2–31.3)	6.7	(5.2–8.5)	25.4	(22.1–29.0)
No	39.4	(37.4–41.5)	36.9	(34.9–38.8)	4.0	(3.4–4.7)	19.7	(18.3–21.2)

Abbreviation: CI = confidence interval.

* Based on responses to the following two questions: "How much difficulty, if any, do you have in recognizing a friend across the street?" and "How much difficulty, if any, do you have reading print in newspapers, magazines, recipes, menus, or numbers on the telephone?" Those who answered "moderate difficulty," "extreme difficulty," or "unable to do because of eyesight" to either of the questions were classified as having moderate-to-severe visual impairment.

† Includes the following responses: "no reason to go (no problem)" or "have not thought of it."

§ Includes the following responses: "do not have/know an eye doctor," "too far, no transportation," or "could not get appointments."

¶ Respondents were asked whether they "had been told by an eye doctor or other health-care professional" that they had cataract, glaucoma, age-related macular degeneration, or diabetic retinopathy.

Among states, the percentage giving cost or lack of insurance as the main reason for not seeking eye care ranged from 21.6% (Massachusetts) to 60.4% (Tennessee) among those aged 40–64 years and from 8.9% (Massachusetts) to 48.0% (Tennessee) among those aged ≥65 years. The percentage reporting no need ranged from 25.4% (Florida) to 41.9% (Arizona) among those aged 40–64 years and from 29.7% (West Virginia) to 61.0% (Massachusetts) among those aged ≥65 years (Table 2).

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Editorial Note

The data in this report support previous findings suggesting that lack of health insurance coverage is a major reason why persons with at least some self-reported visual impairment do not seek eye care (*4*). The data further indicate that the main reasons for not seeking eye care differ by age, sex, the presence of eye disease, and state of residence among persons with moderate-to-severe visual impairment. The large proportion of persons aged ≥65 years reporting no need as their main reason for not seeking care is of concern because this population has the highest prevalence of visual impairment (*4*). A possible reason for this is that older adults might regard impairment as a normal part of aging (*5*).

A previous study also has shown that persons often are not aware of eye health and the need for routine eye examinations because of lack of attention to eye care from primary-care

TABLE 2. Prevalence of reasons for not seeking eye care among adults aged ≥40 years with moderate-to-severe visual impairment,* by state and age group — Behavioral Risk Factor Surveillance System, 21 states, 2006–2009

	40–64 yrs								≥65 yrs							
	Cost/Insurance		No need†		No eye doctor/ travel/ appointment§		Other		Cost/Insurance		No need		No eye doctor/ travel/ appointment		Other	
State	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Alabama	47.1	(42.4–51.9)	31.9	(27.7–36.5)	4.4	(3.1–6.3)	16.5	(13.4–20.2)	20.4	(14.7–27.6)	44.6	(35.7–53.9)	10.1	(5.8–17.1)	24.9	(18.7–32.4)
Arizona	34.0	(23.4–46.4)	41.9	(30.2–54.7)	3.0	(1.2–7.6)	21.0	(12.8–32.5)	10.0	(4.0–23.2)	49.5	(30.7–68.5)	13.3	(5.9–27.0)	27.2	(11.8–50.9)
Colorado	40.0	(34.0–46.3)	38.2	(32.4–44.4)	2.4	(1.2–4.8)	19.4	(15.1–24.6)	16.6	(9.5–27.4)	42.4	(29.9–55.9)	4.5	(1.4–13.9)	36.5	(25.0–49.7)
Connecticut	27.7	(22.4–33.7)	33.3	(27.3–39.9)	4.9	(2.9–8.2)	34.1	(27.9–40.8)	13.5	(7.6–22.9)	49.1	(37.9–60.3)	10.2	(5.6–18.0)	27.2	(18.1–38.7)
Florida	49.8	(42.4–57.3)	25.4	(19.5–32.5)	4.3	(2.1–8.5)	20.5	(15.4–26.7)	25.4	(11.9–46.4)	34.1	(21.0–50.1)	10.2	(3.6–25.6)	30.3	(17.5–47.1)
Georgia	43.9	(39.4–48.5)	31.1	(27.1–35.3)	3.2	(2.0–5.1)	21.9	(18.2–26.0)	25.8	(18.5–34.7)	44.7	(35.8–53.8)	8.2	(4.3–15.2)	21.3	(15.1–29.2)
Indiana	51.0	(45.9–56.1)	30.5	(25.9–35.4)	2.9	(1.6–5.2)	15.6	(12.3–19.7)	32.4	(24.7–41.3)	46.6	(37.5–56.0)	3.7	(1.5–8.9)	17.2	(11.1–25.7)
Iowa	39.1	(33.2–45.3)	38.3	(32.3–44.6)	2.7	(1.3–5.4)	19.9	(15.2–25.6)	22.8	(15.2–32.8)	52.9	(42.1–63.4)	7.4	(3.3–15.7)	16.9	(10.6–26.0)
Kansas	42.0	(36.4–47.8)	39.2	(33.5–45.1)	3.8	(2.2–6.5)	15.1	(11.2–20.0)	20.6	(13.7–29.8)	43.8	(33.5–54.6)	11.6	(6.6–19.5)	24.1	(15.3–35.8)
Maryland	28.6	(20.6–38.3)	36.6	(27.3–47.1)	5.5	(2.2–13.3)	29.2	(21.3–38.6)	13.8	(5.3–31.5)	51.9	(30.7–72.4)	9.4	(2.8–27.3)	25.0	(9.7–50.9)
Massachusetts	21.6	(13.8–32.1)	40.2	(29.8–51.6)	9.3	(4.8–17.2)	28.9	(19.9–40.1)	8.9	(3.1–22.9)	61.0	(41.6–77.4)	4.9	(0.8–24.3)	25.2	(12.0–45.4)
Missouri	40.0	(33.2–47.3)	40.0	(32.9–47.6)	2.1	(1.0–4.4)	17.8	(13.0–24.0)	19.3	(10.5–32.7)	53.2	(40.3–65.8)	7.7	(3.2–17.7)	19.8	(11.3–32.2)
Nebraska	41.7	(33.7–50.3)	38.9	(31.1–47.4)	2.4	(1.1–5.0)	17.0	(12.3–23.0)	17.8	(10.6–28.4)	40.5	(30.6–51.2)	4.3	(1.6–11.0)	37.4	(27.2–48.8)
New Mexico	50.6	(44.1–57.0)	38.7	(32.7–45.1)	7.0	(4.5–10.7)	3.7	(2.0–6.8)	26.2	(17.0–38.0)	57.9	(46.1–68.8)	11.2	(6.0–19.9)	4.8	(1.6–13.2)
New York	31.5	(27.2–36.3)	36.4	(31.8–41.3)	5.0	(3.3–7.5)	27.0	(22.9–31.5)	20.8	(14.0–29.8)	42.3	(33.6–51.6)	8.2	(4.1–15.7)	28.7	(21.2–37.5)
North Carolina	48.4	(43.2–53.6)	28.8	(24.6–33.4)	3.4	(1.9–5.9)	19.5	(15.6–24.1)	28.8	(21.5–37.5)	46.0	(37.3–55.0)	5.7	(2.5–12.5)	19.4	(13.4–27.3)
Ohio	42.6	(38.2–47.1)	28.5	(24.7–32.7)	3.2	(2.1–5.1)	25.6	(21.7–30.0)	26.5	(18.2–36.8)	46.2	(37.3–55.4)	6.4	(3.5–11.3)	20.9	(15.4–27.7)
Tennessee	60.4	(51.7–68.5)	27.7	(20.7–35.9)	2.8	(1.1–6.6)	9.2	(5.2–15.9)	35.9	(21.4–53.6)	33.9	(19.4–52.1)	6.0	(1.5–21.2)	24.2	(12.4–42.1)
Texas	51.1	(42.4–59.7)	30.9	(23.4–39.5)	4.3	(2.3–7.7)	13.8	(8.9–20.7)	25.4	(13.9–41.8)	34.1	(20.0–51.6)	5.6	(2.4–12.2)	34.9	(20.2–53.3)
West Virginia	59.0	(50.2–67.2)	27.5	(20.2–36.1)	4.8	(2.1–10.4)	8.8	(5.3–14.3)	48.0	(31.5–65.0)	29.7	(17.3–46.0)	1.0	(0.1–6.8)	21.3	(10.9–37.5)
Wyoming	34.2	(28.6–40.4)	41.1	(35.2–47.3)	3.0	(1.7–5.5)	21.6	(17.1–27.0)	23.1	(15.3–33.2)	52.4	(41.7–62.9)	2.2	(0.7–6.9)	22.4	(14.5–32.9)
Total	**42.8**	**(40.8–44.8)**	**32.9**	**(31.1–34.8)**	**4**	**(3.4–4.8)**	**20.3**	**(18.8–21.8)**	**23.3**	**(20.2–26.7)**	**43.8**	**(40.2–47.5)**	**7.3**	**(5.8–9.2)**	**25.6**	**(22.3–29.3)**

Abbreviation: CI = confidence interval.

* Based on responses to the following two questions: "How much difficulty, if any, do you have in recognizing a friend across the street?" and "How much difficulty, if any, do you have reading print in newspapers, magazines, recipes, menus, or numbers on the telephone?" Those who answered "moderate difficulty," "extreme difficulty," or "unable to do because of eyesight" to either of the questions were classified as having moderate-to-severe visual impairment.

† Includes the following responses: "no reason to go (no problem)" or "have not thought of it."

§ Includes the following responses: "do not have/know an eye doctor," "too far, no transportation," or "could not get appointments."

providers (*6*). Recommendations from primary-care providers can influence patients to receive eye-care services; persons who had visual screening during routine physical examinations had better eye health because of reminders to visit eye specialists (*6,7*). Public health interventions aimed at heightening awareness among both adults aged ≥65 years and health-care providers might increase utilization rates among persons with age-related eye diseases or chronic diseases that affect vision such as diabetes.

In this study, men and women reported different main reasons for not seeking care. Men were more likely than women to report no need to seek eye care, and women were more likely than men to report cost or lack of insurance as their main reason. This finding corresponds with results from a previous study showing that women had less financial access to care than men (*8*). Reasons for not seeking eye care also differed by eye disease status. Not surprisingly, persons with eye disease were less likely to report no need as the main reason for not seeking care. Instead, cost or lack of insurance was the most common reason for those with eye diseases. Previous research has found that populations without insurance that are at high risk for eye diseases are least likely to seek preventive eye care at the recommended frequency (*9*).

Differences also were observed among states. Among the 21 states, the percentage of respondents reporting cost or lack of insurance as the main reason for not seeking eye care was lowest for both adults aged 40–64 years and ≥65 years in Massachusetts, the state with the smallest proportion of residents with no health insurance (*10*). Surveys such as BRFSS that provide state-level data can help policy makers identify potential areas of unmet health-care needs.

The findings in this report are subject to at least three limitations. First, BRFSS data are self-reported, and their accuracy might have been affected by recall, social desirability, and other biases. Second, perceived visual impairment might not be highly correlated with clinically diagnosed impairment using visual acuity measurements. Finally, only 21 states administered the vision module during the study period, so the results might not be representative of the entire U.S. population.

Reducing visual impairment and improving quality of life among persons with impairment should be public health priorities. By determining reasons why persons with moderate-to-severe visual impairment do not seek eye care, this report can help shape policy, develop targeted interventions, and disseminate effective public health messages.

What is already known on this topic?

Studies have shown that substantial percentages of persons do not seek eye care, despite having visual impairment.

What is added by this report?

The main reasons for not seeking eye care were found to be cost/lack of insurance or a perception of no need. The prevalence of these reasons differed by age, sex, the presence of eye disease, and state of residence; among those aged 40–64 years, cost or lack of health insurance was the most common reason, whereas persons aged ≥65 years reported no need to seek eye care, and women were more likely than men to report cost or lack of insurance as their main reason for not seeking care.

What are the implications for public health practice?

Understanding why eye-care needs go unmet might provide policy makers with information that will enable them to target those populations at greatest risk and help reduce visual impairment. Surveys that provide state-level data can help policy makers identify potential areas of unmet health-care needs.

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Arthritis as a Potential Barrier to Physical Activity Among Adults with Obesity — United States, 2007 and 2009

Adults with obesity are less likely than adults without obesity to follow physical activity recommendations, despite the known benefits of physical activity for weight loss and weight maintenance (*1,2*). Arthritis is a common comorbidity of adults with obesity (*3*), and arthritis-related joint pain and functional limitation might contribute substantially to low rates of physical activity among adults with obesity. CDC analyzed combined 2007 and 2009 Behavioral Risk Factor Surveillance System (BRFSS) data for adults aged ≥18 years to estimate overall and state-specific prevalence of 1) self-reported doctor-diagnosed arthritis among adults with self-reported obesity, and 2) prevalence of self-reported physical inactivity among adults with obesity by arthritis status. This report describes the results of that analysis, which indicted that, overall, arthritis affected 35.6% of adults with obesity. After adjusting for age, sex, race/ethnicity, and education level, adults with obesity and arthritis were 44% more likely to be physically inactive compared with persons with obesity but without arthritis. Among states, the median prevalence of arthritis among adults with obesity was 35.6%. In every state/area except Guam, the prevalence of physical inactivity among adults with obesity was at least 5 percentage points higher (range: 5.4–15.9 percentage points) among persons with arthritis than those without arthritis. Arthritis might be a special barrier to increasing physical activity among many adults with obesity. Safe and effective self-management education and physical activity programs for adults with arthritis exist to address this barrier, are offered in many communities, and can help adults with obesity and arthritis become more physically active.

BRFSS is a state-based, random-digit–dialed telephone survey of the noninstitutionalized U.S. civilian population aged ≥18 years. Data were collected from the 50 states, the District of Columbia (DC), Puerto Rico, Guam, and the U.S. Virgin Islands.* Response rates were calculated using Council of American Survey and Research Organizations (CASRO) guidelines; for 2007 and 2009, respectively, the numbers of respondents were 430,912 and 432,607, median response rates were 50.6% and 52.5%, and median cooperation rates were 72.1% and 75.0%.† Body mass index (BMI) was calculated from self-reported height and weight; obesity was defined as a BMI ≥30 kg/m^2. For consistency with previous analyses (*4*), participants reporting weight ≥500 pounds or height ≥7 feet or <3 feet were excluded. Doctor-diagnosed arthritis was defined based on a "yes" response to the question "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?" Physical activity level was determined from six questions on the frequency and duration of participation in nonoccupational activities of moderate and vigorous intensity. Persons reporting no participation in these activities were classified as physically inactive.

Yearly sampling weights divided by 2 were applied to generate average annual point estimates representative of each state/area. Taylor series linearization method was used to account for the complex sample design and generate 95% confidence intervals (CIs). Chi-square tests were used to determine statistically significant differences ($p<0.05$) in characteristics by disease status. Logistic regression was used to assess the association between self-reported doctor-diagnosed arthritis and physical inactivity among persons with obesity. Unadjusted state-level prevalence estimates are reported to provide state and local health departments and other partners with data that can be used to help guide future state-level planning, partnership building, and advocacy efforts.

Analysis of the combined 2007 and 2009 data indicated that overall, 9.3% of respondents had both obesity and arthritis, 16.9% had obesity only, and 17.3% had arthritis only (Table 1); arthritis prevalence among adults with obesity was 35.6%. Women were significantly more likely to have both arthritis and obesity or arthritis only. Older age was associated with a significantly higher prevalence of both arthritis and obesity. Compared with other racial/ethnic groups, non-Hispanic blacks had a significantly higher prevalence of both arthritis and obesity, non-Hispanic blacks and Hispanics had a significantly higher prevalence of obesity only, and non-Hispanic whites had a significantly higher prevalence of arthritis only. Higher education level was associated with a lower prevalence of both obesity and arthritis, obesity only, and arthritis only.

Prevalence of physical inactivity was highest among those with both arthritis and obesity (22.7%) compared with arthritis only (16.1%), obesity only (13.5%), and neither condition (9.4%) (Figure). In logistic regression models adjusting for age, sex, race/ethnicity, and education level, adults with both obesity and arthritis were 44% more likely to be physically inactive than adults without arthritis (odds ratio = 1.44; CI = 1.37–1.52).

* BRFSS survey data are available at http://www.cdc.gov/brfss/technical_infodata/surveydata.htm.

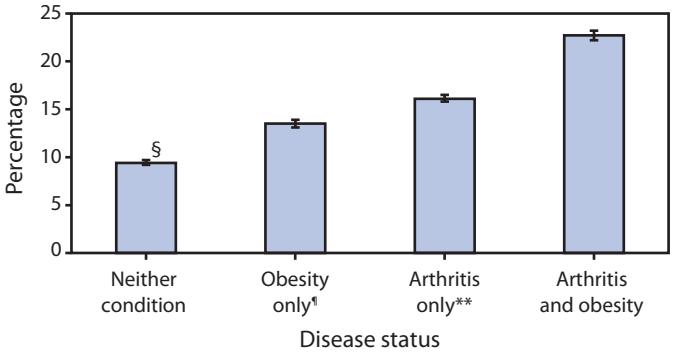
† The response rate is the percentage of persons who completed interviews among all eligible persons, including those who were not successfully contacted. The cooperation rate is the percentage of persons who completed interviews among all eligible persons who were contacted.

TABLE 1. Weighted percentage of adults aged ≥18 years who reported both obesity* and arthritis,† obesity only, arthritis only, or neither condition, by selected characteristics — Behavioral Risk Factor Surveillance System, combined 50 States and District of Columbia, 2007 and 2009

Characteristic	Unweighted no.	Both obesity and arthritis		Obesity only		Arthritis only		Neither condition	
		%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Total	**789,460§**	**9.3**	**(9.2–9.4)**	**16.9**	**(16.7–17.1)**	**17.3**	**(17.1–17.4)**	**56.5**	**(56.2–56.7)**
Sex									
Men	305,395	8.1	(7.9–8.2)	18.9	(18.6–19.2)	14.5	(14.3–14.7)	58.6	(58.2–58.9)
Women	484,065	10.6	(10.4–10.7)	14.9	(14.7–15.2)	20.0	(19.8–20.2)	54.4	(54.2–54.7)
Age group (yrs)									
18–44	221,360	4.0	(3.8–4.1)	20.5	(20.2–20.9)	6.7	(6.5–6.9)	68.8	(68.4–69.2)
45–64	329,296	14.3	(14.1–14.5)	16.4	(16.1–16.6)	21.3	(21.0–21.6)	48.1	(47.7–48.4)
≥65	238,804	15.2	(14.9–15.5)	7.4	(7.2–7.7)	40.2	(39.8–40.5)	37.2	(36.8–37.6)
Race/Ethnicity									
White, non-Hispanic	635,049	9.7	(9.6–9.8)	15.2	(15.0–15.4)	19.6	(19.4–19.8)	55.5	(55.3–55.7)
Black, non-Hispanic	59,045	12.5	(12.0–12.9)	24.0	(23.3–24.8)	13.3	(12.8–13.8)	50.2	(49.3–51.0)
Hispanic	45,744	6.3	(5.9–6.8)	23.3	(22.4–24.1)	9.0	(8.5–9.5)	61.4	(60.4–62.3)
Other	42,606	6.4	(6.1–6.8)	12.4	(11.7–13.1)	14.2	(13.5–14.9)	67.0	(66.0–68.0)
Education level (yrs)									
≤11	73,746	11.9	(11.5–12.4)	19.2	(18.5–20.0)	18.1	(17.5–18.6)	50.8	(49.9–51.7)
12	237,667	11.1	(10.8–11.3)	18.2	(17.8–18.6)	18.8	(18.5–19.1)	51.9	(51.5–52.4)
≥13	478,046	8.1	(8.0–8.2)	15.9	(15.7–16.1)	16.4	(16.2–16.6)	59.6	(59.3–59.8)

Abbreviation: CI = confidence interval.
* Obesity was calculated from self-reported height and weight and defined as a body mass index ≥30 kg/m^2.
† Doctor-diagnosed arthritis was defined based on a "yes" response to the question, "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"
§ Number of persons who provided a response for obesity and arthritis questions. Some categories might not add to total because of missing information on some demographic characteristics.

FIGURE. Weighted prevalence of physical inactivity among adults aged ≥18 years,* by disease status — Behavioral Risk Factor Surveillance System, United States,† 2007 and 2009



* Includes all respondents reporting no activity when asked six questions about frequency and duration of participation in nonoccupational activities of moderate and vigorous intensity (i.e., lifestyle activities). All other respondents were classified as active. Questions available at http://www.cdc.gov/brfss/questionnaires/pdf-ques/2007brfss.pdf and http://www.cdc.gov/brfss/questionnaires/pdf-ques/2009brfss.pdf.
† Includes all 50 states and District of Columbia.
§ 95% confidence interval.
¶ Obesity was calculated from self-reported height and weight and defined as a body mass index ≥30 kg/m^2.
** Doctor-diagnosed arthritis was defined based on a "yes" response to the question, "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"

In state-specific analyses of adults with obesity, arthritis was common (median: 35.6%; range: 28.7% in California and Hawaii to 44.1% in West Virginia) (Table 2). Among adults with obesity, physical inactivity for those with arthritis in the 50 states and DC was higher (median: 21.2%; range: 14.3% in Wisconsin to 38.8% in Tennessee) than for those without arthritis (median: 12.4%; range: 7.5% in Utah to 29.9% in Tennessee); furthermore, prevalence of physical inactivity was at least 5 percentage points higher in every state.

Reported by

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Editorial Note

Arthritis and obesity are common chronic conditions affecting an estimated 50 million (*3*) and 72 million (*4*) U.S. adults, respectively. The findings in this report indicate that these conditions co-occur commonly (one in three adults with obesity also has arthritis) and might hinder the management of both conditions by limiting physical activity. Among adults with both obesity and arthritis, the adjusted likelihood of physical

TABLE 2. Weighted prevalence of arthritis* and prevalence of physical inactivity† stratified by arthritis status among adults with obesity§ aged ≥18 years, by state/area — Behavioral Risk Factor Surveillance System, United States,¶ 2007 and 2009 combined

State/Area	No. of respondents	Arthritis prevalence among adults with obesity			Physical inactivity prevalence among adults with obesity			
					Without arthritis		With arthritis	
		Weighted no. (in 1,000s)**	%	(95% CI)	%	(95% CI)	%	(95% CI)
Alabama	14,039	422	41.4	(39.2–43.6)	18.2	(15.6–21.1)	30.1	(27.3–33.1)
Alaska	4,984	44	35.6	(32.0–39.3)	10.0	(7.3–13.5)	19.0	(14.6–24.4)
Arizona	10,208	322	29.2	(26.1–32.6)	11.8	(9.0–15.2)	20.3	(16.5–24.7)
Arkansas	9,742	223	37.5	(35.0–40.0)	11.1	(9.0–13.6)	23.4	(20.6–26.4)
California	23,083	1,677	28.7	(26.9–30.6)	12.8	(11.0–14.9)	18.2	(15.5–21.3)
Colorado	23,864	208	33.3	(31.5–35.0)	8.6	(7.2–10.2)	17.4	(15.3–19.6)
Connecticut	14,019	187	35.5	(33.2–37.9)	11.8	(9.8–14.0)	18.9	(16.0–22.1)
Delaware	8,352	65	38.8	(36.1–41.7)	12.7	(10.3–15.6)	22.3	(18.8–26.3)
District of Columbia	7,861	31	35.0	(32.1–38.0)	12.4	(9.9–15.3)	26.0	(21.9–30.5)
Florida	51,604	1,063	32.7	(30.9–34.5)	14.9	(12.9–17.0)	27.5	(24.9–30.2)
Georgia	13,599	630	34.4	(32.2–36.6)	13.7	(11.3–16.5)	22.2	(19.5–25.1)
Hawaii	13,286	61	28.7	(26.5–31.1)	11.5	(9.6–13.7)	20.4	(17.1–24.2)
Idaho	10,705	86	33.7	(31.4–36.0)	8.6	(6.9–10.7)	18.4	(15.8–21.4)
Illinois	11,081	840	35.0	(32.9–37.2)	12.0	(10.0–14.3)	19.1	(16.5–21.9)
Indiana	15,279	501	39.8	(37.8–41.8)	14.0	(11.9–16.3)	22.9	(20.4–25.6)
Iowa	11,452	200	34.4	(32.4–36.4)	11.2	(9.5–13.2)	18.8	(16.5–21.3)
Kansas	27,407	186	33.9	(32.5–35.4)	12.4	(11.1–13.8)	22.7	(20.9–24.5)
Kentucky	16,560	381	43.1	(40.8–45.5)	19.4	(16.9–22.2)	32.0	(29.1–35.1)
Louisiana	15,566	334	34.5	(32.7–36.3)	19.5	(17.4–21.9)	33.9	(31.3–36.7)
Maine	14, 912	98	38.7	(36.8–40.7)	9.8	(8.3–11.5)	20.0	(17.9–22.4)
Maryland	17,420	384	37.3	(35.3–39.2)	14.1	(12.0–16.5)	22.0	(19.6–24.5)
Massachusetts	38,238	353	36.1	(34.5–37.8)	13.3	(11.8–14.9)	22.1	(20.2–24.1)
Michigan	16,760	881	42.4	(40.6–44.2)	10.4	(8.8–12.1)	21.3	(19.4–23.4)
Minnesota	10,385	288	29.6	(27.5–31.8)	10.5	(8.8–12.4)	16.6	(14.3–19.3)
Mississippi	19,012	259	37.6	(36.0–39.3)	16.0	(14.3–17.8)	31.9	(29.7–34.2)
Missouri	10,320	489	40.1	(37.5–42.7)	11.5	(9.3–14.2)	21.2	(18.4–24.2)
Montana	13,613	59	37.5	(35.2–39.8)	9.4	(7.5–11.6)	15.9	(13.7–18.3)
Nebraska	26,932	124	36.6	(34.5–38.8)	12.2	(10.1–14.6)	20.5	(17.8–23.4)
Nevada	7,965	151	33.2	(29.8–36.7)	13.1	(10.3–16.7)	20.1	(15.7–25.3)
New Hampshire	11,979	86	35.1	(32.9–37.4)	9.2	(7.5–11.1)	20.7	(18.1–23.6)
New Jersey	19,626	499	35.4	(33.4–37.5)	15.8	(13.8–18.1)	27.8	(24.9–31.0)
New Mexico	15,443	116	33.7	(31.7–35.9)	11.9	(9.7–14.4)	18.4	(16.0–21.1)
New York	13,452	1291	38.4	(36.3–40.6)	14.0	(11.7–16.7)	20.9	(18.5–23.5)
North Carolina	28,054	670	36.5	(34.8–38.3)	13.0	(11.4–14.8)	23.2	(21.2–25.4)
North Dakota	9,518	43	33.7	(31.4–36.0)	11.0	(9.1–13.3)	18.0	(15.1–21.2)
Ohio	21,003	965	41.3	(39.5–43.1)	11.8	(10.1–13.8)	23.1	(21.2–25.1)
Oklahoma	15,309	296	38.4	(36.6–40.2)	12.8	(11.2–14.6)	24.7	(22.5–27.0)
Oregon	9,248	235	35.5	(33.0–38.0)	10.9	(8.6–13.6)	17.8	(15.2–20.7)
Pennsylvania	22,409	1088	43.3	(41.3–45.3)	13.3	(11.3–15.6)	19.7	(17.5–22.0)
Rhode Island	10,795	69	38.4	(35.9–40.9)	12.7	(10.6–15.2)	24.7	(21.8–27.8)
South Carolina	20,255	356	39.2	(31.7–41.2)	14.3	(12.4–16.3)	24.3	(21.8–26.9)
South Dakota	13,699	51	32.9	(30.8–35.0)	12.5	(10.5–14.8)	22.7	(20.1–25.6)
Tennessee	10,611	500	36.6	(34.0–39.2)	29.9	(26.5–33.7)	38.8	(34.8–42.9)
Texas	28,856	1357	30.3	(28.7–31.9)	13.7	(12.1–15.6)	22.9	(20.8–25.2)
Utah	15,240	130	32.8	(30.8–34.8)	7.5	(6.0–9.3)	16.8	(14.3–19.6)
Vermont	13,600	39	37.8	(35.8–39.9)	9.4	(7.6–11.5)	18.9	(16.7–21.4)
Virginia	11,387	479	35.6	(33.0–38.3)	13.6	(10.0–18.4	24.0	(20.8–27.5)
Washington	46,175	422	35.1	(33.9–36.3)	10.3	(9.3–11.4)	17.3	(16.0–18.7)
West Virginia	9,262	184	44.1	(42.0–46.3)	22.5	(20.0–25.3)	36.8	(33.8–39.8)
Wisconsin	11,988	390	36.2	(33.7–38.8)	7.9	(6.3–9.8)	14.3	(12.0–17.0)
Wyoming	12,218	32	35.2	(33.0–37.4)	10.8	(9.1–12.8)	17.2	(15.0–19.7)
Median††			*35.6*		*12.4*		*21.2*	
Puerto Rico	8,174	185	25.7	(23.6–27.8)	45.2	(41.8–48.6)	56.3	(52.0–60.5)
U.S. Virgin Islands	5,047	4	22.3	(19.8–25.1)	20.0	(17.0–23.4)	30.2	(24.3–36.9)
Guam	1,923	4	17.0	(13.3–21.5)	15.4	(11.4–20.6)	18.6	(11.0–29.7)

Abbreviation: CI = confidence interval.

* Obesity was calculated from self-reported height and weight and defined as a body mass index ≥30 kg/m^2.

† Physical activity level was determined from six questions that asked about frequency and duration of participation in nonoccupational activities of moderate and vigorous intensity; persons reporting no participation in such activities were classified as inactive (engaged in no nonoccupational physical activity); all others were classified as active.

§ Doctor-diagnosed arthritis was defined based on a "yes" response to the question, "Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"

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

** Weighted annual average number of adults with obesity who also have arthritis.

†† Does not include Puerto Rico, U.S. Virgin Islands, or Guam.

What is already known on this topic?

Physical activity is a recommended intervention for adults with obesity, but arthritis might be a common comorbidity that limits physical activity.

What is added by this report?

Arthritis is common among U.S. adults with obesity (35.6%). Adults with obesity and arthritis were 44% more likely to be physically inactive compared with adults with obesity but without arthritis. In every state, physical inactivity prevalence was at least 5 percentage points higher (range: 5.4–15.9 percentage points) among adults with obesity and arthritis compared with adults with obesity only.

What are the implications for public health practice?

Addressing specific barriers to physical activity that arthritis presents for adults with obesity might help a substantial proportion of adults with both conditions to reduce activity limitations and improve health. Local, community-based, arthritis-appropriate interventions, including evidence-based physical activity and self-management education programs, can specifically address these barriers.

inactivity was 44% higher compared with that of adults with obesity but without arthritis; all state-specific estimates were consistent with these results. These findings suggest that among many persons with obesity, arthritis might be an additional barrier to physical activity.

In addition to obesity, arthritis also has been implicated as a potential barrier to physical activity among persons with heart disease (*5*) and diabetes (*6*), conditions often occurring in the same persons. Adults with obesity, and those with heart disease and diabetes, like those without these conditions, face the usual barriers to physical activity, such as lack of motivation and time, competing responsibilities, and difficulty finding an enjoyable activity (*7*). Persons with arthritis have special barriers to physical activity, including concerns about aggravating arthritis pain and causing further joint damage, and lack of knowledge about which types and amounts of physical activity will not exacerbate their arthritis (*7*). Health-care providers recommending physical activity for weight loss and weight maintenance should ask their patients about arthritis and related symptoms (e.g., pain and functional limitations) and consider appropriate exercise regimens for those with arthritis and obesity. Low-impact activities such as walking, swimming, and biking generally are safe and appropriate for adults with both obesity and arthritis and can have a role in weight loss and joint pain reduction. In a randomized trial of older adults with osteoarthritis, those with a combined diet and exercise intervention lost more weight than controls (an average of 5.7% of body mass compared with an average of 1.2% in controls) and had less pain and improved physical function (*8*). Evidence-based physical activity programs, such as EnhanceFitness, the Arthritis Foundation Exercise Program, and the Arthritis Foundation Walk With Ease programs are offered in many communities.[§] These programs have proven to be safe and effective for persons with arthritis and specifically address arthritis-specific barriers to being physically active. In addition, self-management education programs such as The Arthritis Foundation Self-Help Program and the Chronic Disease Self-Management Program can help adults manage symptoms, communicate with their health-care provider, and safely increase physical activity. The CDC Arthritis Program funds 12 state programs to increase the availability of these evidence-based interventions.[¶] Wider implementation of these programs in service delivery systems in community and health-care settings would likely have a meaningful public health impact.

The findings in this report are subject to at least five limitations. First, arthritis, obesity, and physical activity level are self-reported in BRFSS and are not validated by direct measurement. Particularly, height and weight might be overreported or underreported (*9*); the exact magnitude of this bias is unknown. Second, occupational physical activity was not assessed. Therefore, some adults might have been classified as inactive, despite engaging in moderate-to-vigorous activity at work. Third, BRFSS excludes persons without landline telephones, persons in the military, and those residing in institutions. Estimates are weighted, which partially corrects for underrepresentation attributed to noncoverage of households without a landline telephone. These weights also correct for nonresponse. Fourth, these data are cross-sectional, so causality cannot be inferred directly. Finally, the unadjusted state-level prevalence estimates should not be used for state to state comparisons because they do not account for demographic characteristics (e.g., age) that might vary across states.

These are the first state-level estimates demonstrating the co-occurrence of arthritis and obesity and its association with physical inactivity. Reducing the impact of the obesity epidemic is a high priority for public health in general and for CDC, where addressing nutrition, physical activity, and obesity is one of six "winnable battles."[**] Addressing the special barriers that arthritis presents to physical activity, a primary behavioral intervention for adults with obesity, might help a substantial proportion of adults with both conditions to reduce activity limitations and improve health.

[§] Additional information about CDC-recommended physical activity and self-management education programs is available at http://www.cdc.gov/arthritis/interventions.htm.

[¶] Additional information available at http://www.cdc.gov/arthritis/state_programs.htm.

[**] Additional information available at http://www.cdc.gov/winnablebattles.

Health-care providers, by determining whether arthritis contributes to physical inactivity among their patients with obesity, can tailor their advice and recommendations, including referral to local arthritis-appropriate interventions that specifically address these barriers through proven physical activity and self-management education programs (*10*). In addition, greater integration of state and community environmental and policy efforts to address obesity and arthritis might reduce the burden of both conditions.

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Ten Great Public Health Achievements — United States, 2001–2010

During the 20th century, life expectancy at birth among U.S. residents increased by 62%, from 47.3 years in 1900 to 76.8 in 2000, and unprecedented improvements in population health status were observed at every stage of life (*1*). In 1999, *MMWR* published a series of reports highlighting 10 public health achievements that contributed to those improvements. This report assesses advances in public health during the first 10 years of the 21st century. Public health scientists at CDC were asked to nominate noteworthy public health achievements that occurred in the United States during 2001–2010. From those nominations, 10 achievements, not ranked in any order, have been summarized in this report.

Vaccine-Preventable Diseases

The past decade has seen substantial declines in cases, hospitalizations, deaths, and health-care costs associated with vaccine-preventable diseases. New vaccines (i.e., rotavirus, quadrivalent meningococcal conjugate, herpes zoster, pneumococcal conjugate, and human papillomavirus vaccines, as well as tetanus, diphtheria, and acellular pertussis vaccine for adults and adolescents) were introduced, bringing to 17 the number of diseases targeted by U.S. immunization policy. A recent economic analysis indicated that vaccination of each U.S. birth cohort with the current childhood immunization schedule prevents approximately 42,000 deaths and 20 million cases of disease, with net savings of nearly $14 billion in direct costs and $69 billion in total societal costs (*2*).

The impact of two vaccines has been particularly striking. Following the introduction of pneumococcal conjugate vaccine, an estimated 211,000 serious pneumococcal infections and 13,000 deaths were prevented during 2000–2008 (*3*). Routine rotavirus vaccination, implemented in 2006, now prevents an estimated 40,000–60,000 rotavirus hospitalizations each year (*4*). Advances also were made in the use of older vaccines, with reported cases of hepatitis A, hepatitis B, and varicella at record lows by the end of the decade. Age-specific mortality (i.e., deaths per million population) from varicella for persons age <20 years, declined by 97% from 0.65 in the prevaccine period (1990–1994) to 0.02 during 2005–2007 (*5*). Average age-adjusted mortality (deaths per million population) from hepatitis A also declined significantly, from 0.38 in the prevaccine period (1990–1995) to 0.26 during 2000–2004 (*6*).

Prevention and Control of Infectious Diseases

Improvements in state and local public health infrastructure along with innovative and targeted prevention efforts yielded significant progress in controlling infectious diseases. Examples include a 30% reduction from 2001 to 2010 in reported U.S. tuberculosis cases and a 58% decline from 2001 to 2009 in central line–associated blood stream infections (*7,8*). Major advances in laboratory techniques and technology and investments in disease surveillance have improved the capacity to identify contaminated foods rapidly and accurately and prevent further spread (*9–12*). Multiple efforts to extend HIV testing, including recommendations for expanded screening of persons aged 13–64 years, increased the number of persons diagnosed with HIV/AIDS and reduced the proportion with late diagnoses, enabling earlier access to life-saving treatment and care and giving infectious persons the information necessary to protect their partners (*13*). In 2002, information from CDC predictive models and reports of suspected West Nile virus transmission through blood transfusion spurred a national investigation, leading to the rapid development and implementation of new blood donor screening (*14*). To date, such screening has interdicted 3,000 potentially infected U.S. donations, removing them from the blood supply. Finally, in 2004, after more than 60 years of effort, canine rabies was eliminated in the United States, providing a model for controlling emerging zoonoses (*15,16*).

Tobacco Control

Since publication of the first Surgeon General's Report on tobacco in 1964, implementation of evidence-based policies and interventions by federal, state, and local public health authorities has reduced tobacco use significantly (*17*). By 2009, 20.6% of adults and 19.5% of youths were current smokers, compared with 23.5% of adults and 34.8% of youths 10 years earlier. However, progress in reducing smoking rates among youths and adults appears to have stalled in recent years. After a substantial decline from 1997 (36.4%) to 2003 (21.9%), smoking rates among high school students remained relatively unchanged from 2003 (21.9%) to 2009 (19.5%) (*18*). Similarly, adult smoking prevalence declined steadily from 1965 (42.4%) through the 1980s, but the rate of decline began to slow in the 1990s, and the prevalence remained relatively unchanged from 2004 (20.9%) to 2009 (20.6%) (*19*). Despite the progress that has been made, smoking still results in an economic burden, including medical costs and lost productivity, of approximately $193 billion per year (*20*).

Although no state had a comprehensive smoke-free law (i.e., prohibit smoking in worksites, restaurants, and bars) in 2000, that number increased to 25 states and the District of Columbia (DC) by 2010, with 16 states enacting comprehensive smoke-free laws following the release of the 2006 Surgeon

General's Report (*21*). After 99 individual state cigarette excise tax increases, at an average increase of 55.5 cents per pack, the average state excise tax increased from 41.96 cents per pack in 2000 to $1.44 per pack in 2010 (*22*). In 2009, the largest federal cigarette excise tax increase went into effect, bringing the combined federal and average state excise tax for cigarettes to $2.21 per pack, an increase from $0.76 in 2000. In 2009, the Food and Drug Administration (FDA) gained the authority to regulate tobacco products (*23*). By 2010, FDA had banned flavored cigarettes, established restrictions on youth access, and proposed larger, more effective graphic warning labels that are expected to lead to a significant increase in quit attempts (*24*).

Maternal and Infant Health

The past decade has seen significant reductions in the number of infants born with neural tube defects (NTDs) and expansion of screening of newborns for metabolic and other heritable disorders. Mandatory folic acid fortification of cereal grain products labeled as enriched in the United States beginning in 1998 contributed to a 36% reduction in NTDs from 1996 to 2006 and prevented an estimated 10,000 NTD-affected pregnancies in the past decade, resulting in a savings of $4.7 billion in direct costs (*25–27*).

Improvements in technology and endorsement of a uniform newborn-screening panel of diseases have led to earlier life-saving treatment and intervention for at least 3,400 additional newborns each year with selected genetic and endocrine disorders (*28,29*). In 2003, all but four states were screening for only six of these disorders. By April 2011, all states reported screening for at least 26 disorders on an expanded and standardized uniform panel (*29*). Newborn screening for hearing loss increased from 46.5% in 1999 to 96.9% in 2008 (*30*). The percentage of infants not passing their hearing screening who were then diagnosed by an audiologist before age 3 months as either normal or having permanent hearing loss increased from 51.8% in 1999 to 68.1 in 2008 (*30*).

Motor Vehicle Safety

Motor vehicle crashes are among the top 10 causes of death for U.S. residents of all ages and the leading cause of death for persons aged 5–34 years (*30*). In terms of years of potential life lost before age 65, motor vehicle crashes ranked third in 2007, behind only cancer and heart disease, and account for an estimated $99 billion in medical and lost work costs annually (*31,32*). Crash-related deaths and injuries largely are preventable. From 2000 to 2009, while the number of vehicle miles traveled on the nation's roads increased by 8.5%, the death rate related to motor vehicle travel declined from 14.9 per 100,000 population to 11.0, and the injury rate declined from 1,130 to 722; among children, the number of pedestrian deaths declined by 49%, from 475 to 244, and the number of bicyclist deaths declined by 58%, from 178 to 74 (*33,34*).

These successes largely resulted from safer vehicles, safer roadways, and safer road use. Behavior was improved by protective policies, including effective seat belt and child safety seat legislation; 49 states and the DC have enacted seat belt laws for adults, and all 50 states and DC have enacted legislation that protects children riding in vehicles (*35*). Graduated drivers licensing policies for teen drivers have helped reduce the number of teen crash deaths (*36*).

Cardiovascular Disease Prevention

Heart disease and stroke have been the first and third leading causes of death in the United States since 1921 and 1938, respectively (*37,38*). Preliminary data from 2009 indicate that stroke is now the fourth leading cause of death in the United States (*39*). During the past decade, the age-adjusted coronary heart disease and stroke death rates declined from 195 to 126 per 100,000 population and from 61.6 to 42.2 per 100,000 population, respectively, continuing a trend that started in the 1900s for stroke and in the 1960s for coronary heart disease (*40*). Factors contributing to these reductions include declines in the prevalence of cardiovascular risk factors such as uncontrolled hypertension, elevated cholesterol, and smoking, and improvements in treatments, medications, and quality of care (*41–44*)

Occupational Safety

Significant progress was made in improving working conditions and reducing the risk for workplace-associated injuries. For example, patient lifting has been a substantial cause of low back injuries among the 1.8 million U.S. health-care workers in nursing care and residential facilities. In the late 1990s, an evaluation of a best practices patient-handling program that included the use of mechanical patient-lifting equipment demonstrated reductions of 66% in the rates of workers' compensation injury claims and lost workdays and documented that the investment in lifting equipment can be recovered in less than 3 years (*45*). Following widespread dissemination and adoption of these best practices by the nursing home industry, Bureau of Labor Statistics data showed a 35% decline in low back injuries in residential and nursing care employees between 2003 and 2009.

The annual cost of farm-associated injuries among youth has been estimated at $1 billion annually (*46*). A comprehensive childhood agricultural injury prevention initiative was established to address this problem. Among its interventions was the development by the National Children's Center for Rural Agricultural Health and Safety of guidelines for parents

to match chores with their child's development and physical capabilities. Follow-up data have demonstrated a 56% decline in youth farm injury rates from 1998 to 2009 (National Institute for Occupational Safety and Health, unpublished data, 2011).

In the mid-1990s, crab fishing in the Bering Sea was associated with a rate of 770 deaths per 100,000 full-time fishers (*47*). Most fatalities occurred when vessels overturned because of heavy loads. In 1999, the U.S. Coast Guard implemented Dockside Stability and Safety Checks to correct stability hazards. Since then, one vessel has been lost and the fatality rate among crab fishermen has declined to 260 deaths per 100,000 full-time fishers (*47*).

Cancer Prevention

Evidence-based screening recommendations have been established to reduce mortality from colorectal cancer and female breast and cervical cancer (*48*). Several interventions inspired by these recommendations have improved cancer screening rates. Through the collaborative efforts of federal, state, and local health agencies, professional clinician societies, not-for-profit organizations, and patient advocates, standards were developed that have significantly improved cancer screening test quality and use (*49,50*). The National Breast and Cervical Cancer Early Detection Program has reduced disparities by providing breast and cervical cancer screening services for uninsured women (*49*). The program's success has resulted from similar collaborative relationships. From 1998 to 2007, colorectal cancer death rates decreased from 25.6 per 100,000 population to 20.0 (2.8% per year) for men and from 18.0 per 100,000 to 14.2 (2.7% per year) for women (*51*). During this same period, smaller declines were noted for breast and cervical cancer death rates (2.2% per year and 2.4%, respectively) (*52*).

Childhood Lead Poisoning Prevention

In 2000, childhood lead poisoning remained a major environmental public health problem in the United States, affecting children from all geographic areas and social and economic levels. Black children and those living in poverty and in old, poorly maintained housing were disproportionately affected. In 1990, five states had comprehensive lead poisoning prevention laws; by 2010, 23 states had such laws. Enforcement of these statutes as well as federal laws that reduce hazards in the housing with the greatest risks has significantly reduced the prevalence of lead poisoning. Findings of the National Health and Nutrition Examination Surveys from 1976–1980 to 2003–2008 reveal a steep decline, from 88.2% to 0.9%, in the percentage of children aged 1–5 years with blood lead levels ≥10 μg/dL. The risks for elevated blood lead levels based on socioeconomic status and race also were reduced significantly. The economic benefit of lowering lead levels among children by preventing lead exposure is estimated at $213 billion per year (*53*).

Public Health Preparedness and Response

After the international and domestic terrorist actions of 2001 highlighted gaps in the nation's public health preparedness, tremendous improvements have been made. In the first half of the decade, efforts were focused primarily on expanding the capacity of the public health system to respond (e.g., purchasing supplies and equipment). In the second half of the decade, the focus shifted to improving the laboratory, epidemiology, surveillance, and response capabilities of the public health system. For example, from 2006 to 2010, the percentage of Laboratory Response Network labs that passed proficiency testing for bioterrorism threat agents increased from 87% to 95%. The percentage of state public health laboratories correctly subtyping *Escherichia coli* O157:H7 and submitting the results into a national reporting system increased from 46% to 69%, and the percentage of state public health agencies prepared to use Strategic National Stockpile material increased from 70% to 98% (*54*). During the 2009 H1N1 influenza pandemic, these improvements in the ability to develop and implement a coordinated public health response in an emergency facilitated the rapid detection and characterization of the outbreak, deployment of laboratory tests, distribution of personal protective equipment from the Strategic National Stockpile, development of a candidate vaccine virus, and widespread administration of the resulting vaccine. These public health interventions prevented an estimated 5–10 million cases, 30,000 hospitalizations, and 1,500 deaths (CDC, unpublished data, 2011).

Existing systems also have been adapted to respond to public health threats. During the 2009 H1N1 influenza pandemic, the Vaccines for Children program was adapted to enable provider ordering and distribution of the pandemic vaccine. Similarly, President's Emergency Plan for AIDS Relief clinics were used to rapidly deliver treatment following the 2010 cholera outbreak in Haiti.

Conclusion

From 1999 to 2009, the age-adjusted death rate in the United States declined from 881.9 per 100,000 population to 741.0, a record low and a continuation of a steady downward trend that began during the last century. Advances in public health contributed significantly to this decline; seven of the 10 achievements described in this report targeted one or more of the 15 leading causes of death. Related *Healthy People 2010* data are available at http://www.cdc.gov/mmwr/preview/

mmwrhtml/mm6019a5_addinfo.htm. The examples in this report also illustrate the effective application of core public health tools. Some, such as the establishment of surveillance systems, dissemination of guidelines, implementation of research findings, or development of effective public health programs, are classic tools by which public health has addressed the burden of disease for decades.

Although not new, the judicious use of the legal system, by encouraging healthy behavior through taxation or by shaping it altogether through regulatory action, has become an increasingly important tool in modern public health practice and played a major role in many of the achievements described in this report (*55*). The creative use of the whole spectrum of available options, as demonstrated here, has enabled public health practitioners to respond effectively. Public health practice will continue to evolve to meet the new and complex challenges that lie ahead.

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Emergency Department Visits After Use of a Drug Sold as "Bath Salts" — Michigan, November 13, 2010–March 31, 2011

On May 18, this report was posted as an MMWR *Early Release on the* MMWR *website (http://www.cdc.gov/mmwr).*

On February 1, 2011, in response to multiple news reports, the Michigan Department of Community Health (MDCH) contacted the Children's Hospital of Michigan Poison Control Center (PCC) regarding any reports of illness in the state caused by the use of recreational designer drugs sold as "bath salts." Unlike traditional cosmetic bath salts, which are packaged and sold for adding to bath water for soaking and cleaning, the drugs sold as "bath salts" have no legitimate use for bathing and are intended for substance abuse. These products can contain stimulant compounds such as 3,4-methylenedioxypyrovalerone (MDPV) or 4-methylmethcathinone (mephedrone). The PCC told MDCH that, earlier in the day, the PCC had learned that numerous persons had visited the local emergency department (ED) in Marquette County with cardiovascular and neurologic signs of acute intoxication. This report summarizes the subsequent investigation, which identified 35 persons who had ingested, inhaled, or injected "bath salts" and visited a Michigan ED during November 13, 2010–March 31, 2011. Among the 35 patients, the most common signs and symptoms of toxicity were agitation (23 patients [66%]), tachycardia (22 [63%]), and delusions/hallucinations (14 [40%]). Seventeen patients were hospitalized, and one was dead upon arrival at the ED. The coordinated efforts of public health agencies, health-care providers, poison control centers, and law enforcement agencies enabled rapid identification of this emerging health problem. Mitigation of the problem required the execution of an emergency public health order to remove the toxic "bath salts" from the marketplace. Lessons from the Michigan experience could have relevance to other areas of the United States experiencing similar problems.

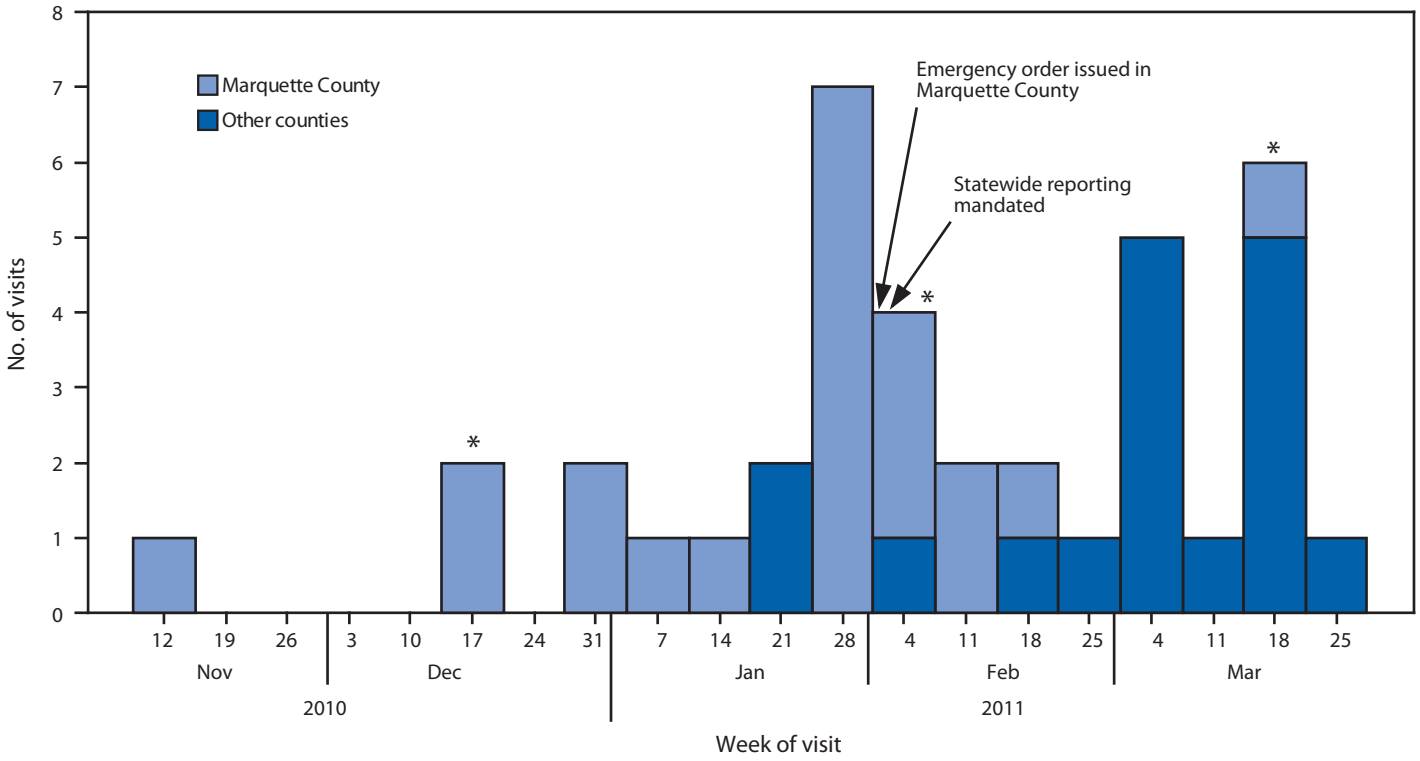
From November 2010 to January 2011, the Marquette County ED treated seven patients who arrived at the ED with hypertension, tachycardia, tremors, motor automatisms, mydriasis, delusions, and paranoia. Some patients were violent, placing increased demand on ED staff members. Responding to the cluster also placed additional demands on local law enforcement and foster care, because many patients had young children who needed care while their parents were incapacitated. The patients reported using "bath salts" purchased at a local store for about $20 a package and labeled "not intended for human consumption." By February 3, a total of 13 cases in Marquette County and one death had been reported to the PCC. Efforts by the local ED, law enforcement, and prosecuting attorney's office led to the execution of an emergency public health order on February 4 by the Marquette County Health Department. The proprietor of the store was ordered to immediately remove from sale and turn over to government authorities any and all products known as White Rush, Cloud Nine, Ivory Wave, Ocean Snow, Charge Plus, White Lightning, Scarface, Hurricane Charlie, Red Dove, White Dove, and Sextasy. The Michigan Department of State Police laboratory tested the White Rush seized from the store and detected the presence of MDPV.

Concurrently, the PCC became aware of two cases elsewhere in the state. On February 5, MDCH used its chemical poisoning regulations to mandate statewide reporting by hospitals of cases of possible "bath salts" intoxication so that cases could be identified and characterized. Health-care providers were notified via the Michigan Health Alert Network about new cases and the potential for severe physical and psychological effects of "bath salts" abuse, and were provided a standardized reporting form. The PCC was designated as an agent of the state so it could receive case reports directly, allowing for mandatory reporting 24 hours a day, 7 days a week. As part of the investigation, patient information for Marquette County cases occurring before mandatory reporting was abstracted from medical charts by a MDCH staff member. A case was defined in a person who visited a Michigan ED during November 13, 2010–March 31, 2011, after self-reported or suspected use of "bath salts" (traditional cosmetic bath salts were excluded), with cardiovascular, neurologic, or psychological signs or symptoms consistent with acute intoxication.

Overall, the investigation identified 35 patients in Michigan, including three who visited the ED twice for "bath salt" abuse (Figure). The patients were aged 20–55 years (median: 28 years) (Table). Nineteen (54%) were men, and 16 (46%) were women. Twenty-four persons (69%) had a self-reported history of drug abuse, with 11 (31%) reporting polysubstance abuse and 12 (34%) intravenous drug abuse. Sixteen persons (46%) had a history of mental illness (e.g., bipolar disorder, schizophrenia, or depression) in their medical records, and six had suicidal thoughts or suspected attempts that might have been related to "bath salts" abuse. Twenty-seven cases (77%) occurred in Michigan's Upper Peninsula region, with 18 cases (51%) occurring in Marquette County. Ten (12%) of Michigan's 83 counties reported cases.

Clinical findings were consistent with intoxication with stimulants. Of the 35 patients, 32 (91%) had neurologic, 27 (77%) had cardiovascular, and 17 (49%) had psychological symptoms. Seventeen patients were hospitalized, 15 were

FIGURE. Number of patient visits to emergency departments (N = 38) after exposure to drugs sold as "bath salts," by county and week of visit — Michigan, November 13, 2010–March 31, 2011



* Second emergency department visit by patient.

treated and released from the ED, two left the ED against medical advice, and one was dead on arrival at the ED. Twenty-two of the patients (63%) had injected the drug, nine (26%) had snorted it, and four (11%) had ingested it. For five patients (14%), including the patient who died, the exposure route was unknown, and five patients had more than one exposure route (Table). No relationship was found between the exposure route and severity of illness. Of the 17 patients with known drug test results, 16 (94%) tested positive for other drugs (e.g., marijuana, opiates, benzodiazepines, cocaine, or amphetamines). Toxicology results for the person who died revealed a high level of MDPV, along with marijuana and prescription drugs. Autopsy results revealed MDPV toxicity to be the primary factor contributing to death. The manner of death was ruled accidental, consistent with an attempt to get high.

Of the 17 hospitalized persons, nine were admitted to the intensive care unit (ICU), five were admitted to a general floor, and three were admitted directly to a psychiatric unit. Four persons who were first hospitalized in the ICU or a general floor later were transferred to a psychiatric unit. Treatment generally included a benzodiazepine such as lorazepam to control signs of toxicity; low or moderate doses usually were sufficient. Antipsychotics were used as secondary agents when benzodiazepine sedation was ineffective.

Of three patients who revisited the ED, one had rhabdomyolysis, chest pain, and dizziness but left against medical advice. Two months later, the patient was admitted to the ICU, moved to a psychiatric floor for 12 days, and then transferred to a different hospital for liver failure. The second patient was admitted to the hospital, discharged, and revisited the ED the same day of discharge after again using "bath salts." The third patient was treated in the ED twice, with the visits 1 month apart.

The investigation by MDCH and the PCC is continuing. As of May 16, 2011, a total of 71 emergency department visits by 65 patients who had used "bath salts" had been reported in Michigan since November 13, 2010.

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TABLE. Demographic and clinical characteristics for 35 patients evaluated in emergency departments (EDs) after exposure to drugs sold as "bath salts" — Michigan, November 13, 2010–March 31, 2011

Characteristic	No.	(%)
Sex		
Women	16	(46)
Men	19	(54)
Age group (yrs)		
20–29	22	(63)
30–39	5	(14)
40–49	6	(17)
≥50	2	(6)
Exposure route*		
Injected	22	(63)
Snorted	9	(26)
Ingested	4	(11)
Unknown	5	(14)
Additional drug use†		
Marijuana	10	(29)
Opiates	8	(23)
Benzodiazepines	5	(14)
Cocaine	4	(11)
Amphetamines	2	(6)
Signs and symptoms		
Agitation	23	(66)
Tachycardia	22	(63)
Delusions/hallucinations	14	(40)
Seizure/tremor	10	(29)
Hypertension	8	(23)
Drowsiness	8	(23)
Paranoia	7	(20)
Mydriasis	7	(20)
Disposition§		
Treated in ED and released	15	(43)
Admitted	17	(49)
Dead upon arrival	1	(3)
Left against medical advice	2	(6)

* Five patients reported two exposure routes.
† Seventeen patients had known drug test results.
§ Most severe disposition was chosen for three patients who revisited the ED.

Editorial Note

Through March 22, 2011, poison control centers representing 45 states and the District of Columbia had reported receiving telephone calls related to "bath salts" in 2011 (*1*). By April 6, centers had already received five times more "bath salts" calls in 2011 than in 2010 (*2*). Although "bath salt" abuse has been documented nationwide, this report is the first to summarize the epidemiology of a number of ED cases. Of note in this investigation, nearly half the patients had a history of serious mental illness (e.g., bipolar disorder, schizophrenia, or depression) in their medical records, and 16 of 17 patients with known drug test results tested positive for drugs other than those in the "bath salts."

Drug overdose, including from designer drugs, continues to grow as a public health concern. Multistate investigations have been conducted as a result of exposure to nonpharmaceutical fentanyl (*3*), levamisole-contaminated cocaine (*4*), and opiates (*5,6*). Classes of designer drugs like "bath salts" are intended to have pharmacologic effects similar to controlled substances but to be chemically distinct from them, thus avoiding legal control. "Bath salts" for recreational use are sold at "head shops" and on the Internet with names such as Zoom and White Rush. These products also have been labeled as "plant food" and "pond water cleaner" and sold in ways to circumvent detection or enforcement. Some products are labeled as "novelty collector's items," despite additional, pharmaceutical-like labels that indicate dosage. Before "bath salts," synthetic marijuana (e.g., K2 or Spice) was sold legally in convenience stores and gas stations as "incense."

Designer drugs present an enforcement dilemma. Although MDPV and other chemical constituents of "bath salts" are not listed on state and federal controlled substances schedules, they could be included because of their structural similarity to scheduled chemicals under the analogue provisions of those laws. However, inclusion is problematic because the structure of MDPV is similar to that of medications used to treat conditions such as depression and anaphylaxis. Furthermore, laws also require that scheduled substances be intended for consumption. "Bath salts" typically are labeled "not for human consumption," and thus fail to meet all attributes of a scheduled substance. Therefore, Michigan and other states have pursued legislation to add these chemicals to the state's Schedule I list of controlled substances.

Michigan's investigation involved collaborators from public health, law enforcement, and health care. An emergency order issued by the Marquette County Health Department was effective at stemming "bath salts" abuse locally, and statewide mandated reporting helped detect cases in other counties. These methods might be useful to other jurisdictions where emergent problems need to be addressed quickly. Poison control centers and emergency departments can act as sentinels

What is already known on this topic?

Designer drugs sold as "bath salts" are available at "head shops," convenience stores, gas stations, and on the Internet for recreational drug use.

What is added by this report?

This report is the first public health investigation of emergency department (ED) cases resulting from the use of "bath salts." A total of 35 patients were identified at Michigan EDs during November 13, 2010–March 31, 2011; 17 patients were hospitalized, and one died.

What are the implications for public health practice?

Coordination between public health departments, poison control centers, health-care providers, and law enforcement is important for timely detection that will prevent further drug-related morbidity and mortality.

for discovering new drugs of abuse. Drug treatment programs also might be effective as warning networks. The PCC was designated as an agent of the state to receive mandated reports supporting joint reporting and provision of medical toxicologic consultation. Planning among collaborating agencies is critical to implementing appropriate strategies to reduce drug-related morbidity and mortality.

Acknowledgments

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Notes from the Field

Update on Human *Salmonella* Typhimurium Infections Associated with Aquatic Frogs — United States, 2009–2011

CDC is collaborating with state and local public health departments in an ongoing investigation of human *Salmonella* Typhimurium infections associated with African dwarf frogs (ADFs) (*1*). ADFs are aquatic frogs of the genus *Hymenochirus* commonly kept in home aquariums as pets. From April 1, 2009 to May 10, 2011, a total of 224 human infections with a unique strain of *S.* Typhimurium were reported from 42 states. The isolates are indistinguishable by pulsed-field gel electrophoresis and multiple-locus variable-number tandem repeat analysis. This outbreak likely includes considerably more than the 224 laboratory-confirmed cases reported to CDC; only an estimated 3% of *Salmonella* infections are laboratory confirmed and reported to surveillance systems (*2*). Surveillance for additional cases continues through PulseNet, the national molecular subtyping network for foodborne disease surveillance.

The median age of patients in this outbreak was 5 years (range: <1–67 years), and 70% (156 of 223) were aged <10 years. Approximately 52% (111 of 215) were female. No deaths have been reported, but 30% (37 of 123) of patients were hospitalized. Sixty-five percent (56 of 86) of patients interviewed reported contact with frogs in the week before illness; 82% (45 of 55) reported that this contact took place in the home. Of those who could recall the type of frog, 85% (29 of 34) identified ADFs. Median time from acquiring a frog to illness onset was 15 days (range: 7–240 days).

Samples collected during 2009–2011 from aquariums housing ADFs in six homes of patients yielded the *S.* Typhimurium outbreak strain. Traceback investigations conducted during 2009–2011 from 21 patient homes and two ADF distributors identified a breeder in California as the common source of ADFs. This breeder sells ADFs to distributors, not directly to pet stores or to the public. Environmental samples collected at the breeding facility in January 2010, April 2010, and March 2011 yielded the outbreak strain. Based on these epidemiologic, traceback, and laboratory findings, the breeder voluntarily suspended distribution of ADFs on April 19, 2011. Public health officials are working with the breeder to implement control measures.

Distribution of ADFs currently is unregulated by federal or state agencies. To prevent infection, the public needs to be aware of the risk of *Salmonella* infections associated with keeping amphibians, including frogs, as pets. Education of consumers, health-care professionals, and the pet industry is needed. Persons at high-risk for *Salmonella* infections, especially children <5 years, pregnant women, and immunocompromised persons, should avoid contact with frogs, water used by the frogs, and their habitats. Additional information is available at http://www.cdc.gov/salmonella/water-frogs-0411.

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Announcements

Click It or Ticket Campaign — May 23–June 5, 2011

In 2009, motor vehicle crashes resulted in approximately 23,000 deaths to passenger vehicle occupants (excluding motorcyclists), and 2.6 million occupants were treated for injuries in emergency departments in the United States (*1,2*). Although seat belt use in the United States is now estimated at 85%, millions of persons continue to travel unrestrained (*3*). Using a seat belt is one of the most effective means of preventing serious injury or death in the event of a crash. Seat belts saved an estimated 12,713 lives in 2009, but almost 4,000 additional lives could have been saved if every occupant had been buckled up (*4*).

Click It or Ticket, a national campaign coordinated annually by the National Highway Traffic Safety Administration (NHTSA) to increase the proper use of seat belts, takes place May 23–June 5, 2011. Law enforcement agencies across the nation will participate by conducting intensive, high-visibility enforcement of seat belt laws. Campaign activities will focus on young adult men (aged 18–34 years) and on nighttime travel. Additional information regarding Click It or Ticket activities is available from NHTSA at http://www.nhtsa.gov. Additional information on preventing motor vehicle crash injuries is available from CDC at http://www.cdc.gov/motorvehiclesafety.

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ATSDR Health Survey of Pre-1986 Personnel at Camp Lejeune

During June–December 2011, the Agency for Toxic Substances and Disease Registry will conduct a health survey of persons who resided or worked at Marine Corps Base Camp Lejeune in North Carolina before 1986 and might have been exposed to contaminated drinking water. The purpose of the survey is to learn more about participants' health. Health surveys also will be mailed to a comparison group of former active duty marines, sailors, and civilian employees, sampled from those who lived or worked at Marine Corps Base Camp Pendleton in California.

Eligible participants who were formerly at Camp Lejeune include 1) former active duty marines and sailors who were stationed at Camp Lejeune any time during June 1975–December 1985, 2) civilian employees who worked at Camp Lejeune any time during December 1972–December 1985, 3) families who took part in the 1999–2002 ATSDR telephone survey of childhood cancers and birth defects, and 4) persons who registered with the Camp Lejeune notification registry.

Participants will receive a paper copy of the health survey and instructions for completing and mailing. A web-based version of the survey also will be available for those who prefer to answer online. Health-care providers are asked to share information regarding the Camp Lejeune survey with their patients who lived or worked at the base before to 1986 and to encourage those receiving a health survey for either Camp Lejeune or Camp Pendleton to fill it out and return it or complete it online. Additional information is available at http://www.atsdr.cdc.gov/sites/lejeune.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 14, 2011 (19th week)*

Disease	Current week	Cum 2011	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2010	2009	2008	2007	2006	
Anthrax	—	—	—	—	1	—	1	1	
Arboviral diseases§,¶:									
California serogroup virus disease	—	—	0	75	55	62	55	67	
Eastern equine encephalitis virus disease	—	—	—	10	4	4	4	8	
Powassan virus disease	—	—	0	8	6	2	7	1	
St. Louis encephalitis virus disease	—	—	0	10	12	13	9	10	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	1	14	1	NN	NN	NN	NN	NN	NY (1)
Botulism, total	1	23	2	112	118	145	144	165	
foodborne	—	3	0	7	10	17	32	20	
infant	1	16	1	80	83	109	85	97	CA (1)
other (wound and unspecified)	—	4	1	25	25	19	27	48	
Brucellosis	3	16	3	117	115	80	131	121	PA (1), CA (2)
Chancroid	—	9	1	30	28	25	23	33	
Cholera	—	17	0	12	10	5	7	9	
Cyclosporiasis§	—	37	2	180	141	139	93	137	
Diphtheria	—	—	—	—	—	—	—	—	
Haemophilus influenzae,** invasive disease (age <5 yrs):									
serotype b	—	1	0	23	35	30	22	29	
nonserotype b	2	40	4	198	236	244	199	175	OH (1), NM (1)
unknown serotype	2	99	4	221	178	163	180	179	NE (1), FL (1)
Hansen disease§	3	19	1	71	103	80	101	66	FL (2), CA (1)
Hantavirus pulmonary syndrome§	—	6	1	19	20	18	32	40	
Hemolytic uremic syndrome, postdiarrheal§	—	25	4	256	242	330	292	288	
Influenza-associated pediatric mortality§,††	3	101	2	61	358	90	77	43	CO (1), NC (1), OK (1)
Listeriosis	4	143	11	816	851	759	808	884	PA (1), FL (2), WA (1)
Measles§§	19	80	3	61	71	140	43	55	PA (2), MN (17)
Meningococcal disease, invasive¶¶:									
A, C, Y, and W-135	—	68	6	276	301	330	325	318	
serogroup B	—	45	3	133	174	188	167	193	
other serogroup	—	4	1	11	23	38	35	32	
unknown serogroup	5	192	11	412	482	616	550	651	NE (2), FL (1), WA (2)
Novel influenza A virus infections***	—	1	0	4	43,774	2	4	NN	
Plague	—	—	0	2	8	3	7	17	
Poliomyelitis, paralytic	—	—	—	—	1	—	—	—	
Polio virus Infection, nonparalytic§	—	—	—	—	—	—	—	NN	
Psittacosis§	—	1	0	4	9	8	12	21	
Q fever, total§	—	22	3	132	113	120	171	169	
acute	—	12	2	108	93	106	—	—	
chronic	—	10	0	24	20	14	—	—	
Rabies, human	—	—	—	2	4	2	1	3	
Rubella†††	—	1	0	7	3	16	12	11	
Rubella, congenital syndrome	—	—	—	—	2	—	—	1	
SARS-CoV§	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	—	49	4	179	161	157	132	125	
Syphilis, congenital (age <1 yr)§§§	—	49	6	333	423	431	430	349	
Tetanus	—	2	0	10	18	19	28	41	
Toxic-shock syndrome (staphylococcal)§	2	33	1	82	74	71	92	101	CA (2)
Trichinellosis	—	6	0	7	13	39	5	15	
Tularemia	1	10	2	125	93	123	137	95	MO (1)
Typhoid fever	4	117	7	466	397	449	434	353	OH (1), OK (1), WA (1), CA (1)
Vancomycin-intermediate *Staphylococcus aureus*§	1	20	1	91	78	63	37	6	NY (1)
Vancomycin-resistant *Staphylococcus aureus*§	—	—	—	2	1	—	2	1	
Vibriosis (noncholera *Vibrio* species infections)§	7	98	7	823	789	588	549	NN	OH (1), GA (1), FL (4), TN (1)
Viral hemorrhagic fever¶¶¶	—	—	—	1	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 14, 2011 (19th week)*

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

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

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

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

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

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

†† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 3, 2010, 105 influenza-associated pediatric deaths occurring during the 2010-11 influenza season have been reported.

§§ The nineteen measles cases reported for the current week were indigenous.

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

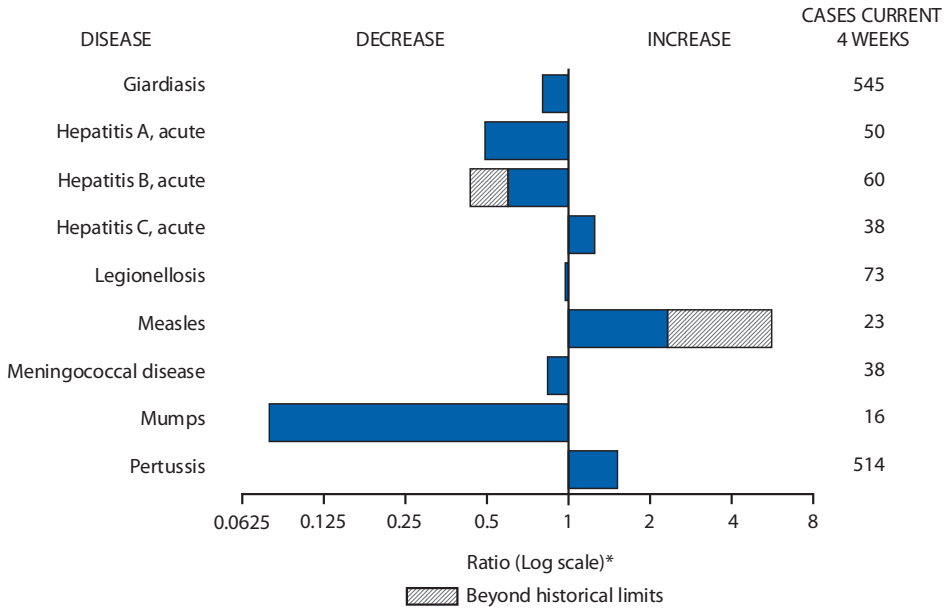
*** CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC.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

††† No rubella cases were reported for the current week.

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

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

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 14, 2011, with historical data



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

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	*Chlamydia trachomatis* infection					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	13,912	25,520	31,198	449,544	466,472	92	0	570	5,203	NN	60	122	370	1,355	2,085
New England	275	813	2,044	14,711	13,801	—	0	1	1	NN	—	6	19	71	188
Connecticut	191	166	1,558	2,620	3,152	N	0	0	N	NN	—	0	14	14	77
Maine†	—	55	100	1,092	921	N	0	0	N	NN	—	0	7	2	19
Massachusetts	—	406	860	7,795	7,341	N	0	0	N	NN	—	3	9	32	43
New Hampshire	3	53	112	1,029	675	—	0	1	1	NN	—	1	3	9	26
Rhode Island†	51	69	154	1,620	1,280	—	0	0	—	NN	—	0	2	1	7
Vermont†	30	26	84	555	432	N	0	0	N	NN	—	1	5	13	16
Mid. Atlantic	1,990	3,317	5,082	59,172	61,714	—	0	0	—	NN	11	14	38	208	218
New Jersey	251	501	684	7,684	9,655	N	0	0	N	NN	—	1	4	9	7
New York (Upstate)	756	707	2,098	12,998	11,622	N	0	0	N	NN	8	3	13	47	46
New York City	246	1,168	2,612	19,841	23,165	N	0	0	N	NN	—	2	6	21	20
Pennsylvania	737	954	1,183	18,649	17,272	N	0	0	N	NN	3	8	26	131	145
E.N. Central	1,108	3,977	7,039	64,979	73,655	—	0	3	15	NN	18	29	130	319	531
Illinois	—	1,136	1,320	12,201	21,835	N	0	0	N	NN	—	2	21	3	76
Indiana	253	444	3,376	10,486	5,588	N	0	0	N	NN	—	3	10	34	79
Michigan	526	939	1,400	17,491	19,068	—	0	3	8	NN	—	5	18	69	106
Ohio	167	1,000	1,136	17,009	18,914	—	0	3	7	NN	16	7	24	120	120
Wisconsin	162	452	551	7,792	8,250	N	0	0	N	NN	2	10	65	93	150
W.N. Central	350	1,412	1,592	24,524	26,796	—	0	0	—	NN	5	16	99	102	319
Iowa	21	203	240	3,691	4,052	N	0	0	N	NN	—	4	25	15	71
Kansas	—	190	287	3,317	3,626	N	0	0	N	NN	—	2	6	14	27
Minnesota	—	290	354	4,204	5,736	—	0	0	—	NN	—	3	22	—	106
Missouri	306	521	771	9,984	9,528	—	0	0	—	NN	1	3	29	35	47
Nebraska†	—	95	218	1,769	1,906	N	0	0	N	NN	4	3	26	31	35
North Dakota	—	41	91	332	799	N	0	0	N	NN	—	0	9	—	3
South Dakota	23	63	93	1,227	1,149	N	0	0	N	NN	—	1	6	7	30
S. Atlantic	3,705	5,017	6,195	93,319	93,741	—	0	1	1	NN	4	18	52	257	318
Delaware	122	83	220	1,672	1,589	—	0	0	—	NN	—	0	1	2	1
District of Columbia	63	106	180	1,803	1,938	—	0	0	—	NN	—	0	1	3	2
Florida	758	1,462	1,706	26,920	27,070	N	0	0	N	NN	2	6	19	75	128
Georgia	432	828	2,416	13,566	17,110	N	0	0	N	NN	2	5	11	84	103
Maryland†	399	496	1,125	7,831	8,149	—	0	1	1	NN	—	1	3	14	11
North Carolina	734	756	1,436	16,434	16,128	N	0	0	N	NN	—	0	16	23	24
South Carolina†	443	517	946	10,282	9,318	N	0	0	N	NN	—	2	8	31	17
Virginia†	684	658	970	13,255	11,067	N	0	0	N	NN	—	2	9	18	27
West Virginia	70	76	124	1,556	1,372	N	0	0	N	NN	—	0	5	7	5
E.S. Central	1,421	1,828	3,314	33,779	32,027	—	0	0	—	NN	1	4	19	47	68
Alabama†	192	554	1,552	9,985	8,661	N	0	0	N	NN	—	1	13	7	24
Kentucky	483	268	2,352	5,498	5,608	N	0	0	N	NN	—	1	6	16	23
Mississippi	422	394	780	7,585	8,181	N	0	0	N	NN	—	0	2	8	4
Tennessee†	324	588	795	10,711	9,577	N	0	0	N	NN	1	1	5	16	17
W.S. Central	2,291	3,307	4,723	57,923	65,779	—	0	1	1	NN	—	8	32	49	99
Arkansas†	328	304	440	5,987	5,686	N	0	0	N	NN	—	0	3	5	13
Louisiana	200	455	1,052	2,279	10,791	—	0	1	1	NN	—	1	6	10	14
Oklahoma	251	234	1,371	4,299	4,766	N	0	0	N	NN	—	1	8	—	14
Texas†	1,512	2,365	3,107	45,358	44,536	N	0	0	N	NN	—	4	24	34	58
Mountain	936	1,567	2,154	25,554	30,297	60	0	425	3,856	NN	18	10	30	145	173
Arizona	121	484	657	3,278	9,858	57	0	420	3,796	NN	1	1	3	10	13
Colorado	469	410	850	9,619	6,938	N	0	0	N	NN	10	2	6	45	47
Idaho†	—	66	199	1,019	1,359	N	0	0	N	NN	2	2	7	28	31
Montana†	—	64	83	1,192	1,132	N	0	0	N	NN	5	1	4	18	19
Nevada†	187	194	380	3,938	3,714	3	0	4	32	NN	—	0	7	2	5
New Mexico†	159	195	1,183	3,751	4,029	—	0	4	22	NN	—	2	12	27	29
Utah	—	128	175	2,110	2,489	—	0	2	3	NN	—	1	5	9	21
Wyoming†	—	39	90	647	778	—	0	2	3	NN	—	0	3	6	8
Pacific	1,836	3,814	6,572	75,583	68,662	32	0	145	1,329	NN	3	12	27	157	171
Alaska	—	116	157	2,033	2,282	N	0	0	N	NN	—	0	3	4	2
California	1,257	2,918	5,763	55,981	51,567	32	0	145	1,329	NN	2	7	19	90	97
Hawaii	—	108	158	1,633	2,323	N	0	0	N	NN	—	0	0	—	1
Oregon	258	229	496	4,998	4,541	N	0	0	N	NN	—	4	13	60	49
Washington	321	414	891	10,938	7,949	N	0	0	N	NN	1	1	9	3	22
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	NN	N	0	0	N	NN
C.N.M.I.	—	—	—	—	—	—	—	—	—	NN	—	—	—	—	—
Guam	—	10	44	189	78	—	0	0	—	NN	—	0	0	—	—
Puerto Rico	—	104	251	1,933	2,284	N	0	0	N	NN	N	0	0	N	NN
U.S. Virgin Islands	—	14	29	220	191	—	0	0	—	NN	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever†					Dengue Hemorrhagic Fever§				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max		
United States	—	6	52	21	99	—	0	2	—	2
New England	—	0	3	—	3	—	0	0	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine¶	—	0	2	—	3	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	1	—	—	—	0	0	—	—
Vermont¶	—	0	1	—	—	—	0	0	—	—
Mid. Atlantic	—	2	25	7	38	—	0	1	—	2
New Jersey	—	0	5	—	3	—	0	0	—	—
New York (Upstate)	—	0	5	—	5	—	0	1	—	1
New York City	—	1	17	—	24	—	0	1	—	1
Pennsylvania	—	0	3	7	6	—	0	0	—	—
E.N. Central	—	1	7	3	12	—	0	1	—	—
Illinois	—	0	3	1	4	—	0	0	—	—
Indiana	—	0	2	1	2	—	0	0	—	—
Michigan	—	0	2	—	1	—	0	0	—	—
Ohio	—	0	2	—	5	—	0	0	—	—
Wisconsin	—	0	2	1	—	—	0	1	—	—
W.N. Central	—	0	6	—	8	—	0	1	—	—
Iowa	—	0	1	—	—	—	0	0	—	—
Kansas	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	1	—	7	—	0	0	—	—
Missouri	—	0	0	—	—	—	0	0	—	—
Nebraska¶	—	0	6	—	—	—	0	0	—	—
North Dakota	—	0	0	—	1	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	1	—	—
S. Atlantic	—	2	19	6	26	—	0	1	—	—
Delaware	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	2	14	5	23	—	0	1	—	—
Georgia	—	0	2	—	1	—	0	0	—	—
Maryland¶	—	0	0	—	—	—	0	0	—	—
North Carolina	—	0	2	1	—	—	0	0	—	—
South Carolina¶	—	0	3	—	—	—	0	0	—	—
Virginia¶	—	0	3	—	2	—	0	0	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—
E.S. Central	—	0	2	—	—	—	0	0	—	—
Alabama¶	—	0	2	—	—	—	0	0	—	—
Kentucky	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee¶	—	0	1	—	—	—	0	0	—	—
W.S. Central	—	0	1	—	—	—	0	1	—	—
Arkansas¶	—	0	0	—	—	—	0	1	—	—
Louisiana	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	1	—	—	—	0	0	—	—
Texas¶	—	0	1	—	—	—	0	0	—	—
Mountain	—	0	2	1	3	—	0	0	—	—
Arizona	—	0	2	1	1	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—
Idaho¶	—	0	1	—	—	—	0	0	—	—
Montana¶	—	0	1	—	—	—	0	0	—	—
Nevada¶	—	0	1	—	1	—	0	0	—	—
New Mexico¶	—	0	0	—	1	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—
Wyoming¶	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	7	4	9	—	0	0	—	—
Alaska	—	0	0	—	1	—	0	0	—	—
California	—	0	5	1	5	—	0	0	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	2	3	3	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	104	550	191	1,911	—	2	20	1	49
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	Ehrlichia chaffeensis					*Anaplasma phagocytophilum*					Undetermined				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	6	6	109	37	91	3	22	145	16	145	1	1	17	10	11
New England	—	0	2	—	2	—	1	9	1	16	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	6	—	5	—	0	0	—	—
Maine§	—	0	1	—	2	—	0	2	1	4	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	1	—	—	—	0	2	—	3	—	0	1	—	—
Rhode Island§	—	0	1	—	—	—	0	6	—	4	—	0	0	—	—
Vermont§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	—	1	8	4	20	1	5	17	4	13	—	0	2	1	1
New Jersey	—	0	6	—	15	—	1	7	—	11	—	0	1	—	—
New York (Upstate)	—	0	7	2	4	1	3	14	4	2	—	0	2	1	1
New York City	—	0	2	2	—	—	0	3	—	—	—	0	0	—	—
Pennsylvania	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
E.N. Central	—	0	4	2	9	—	5	45	1	54	—	1	6	3	6
Illinois	—	0	2	1	4	—	0	2	—	—	—	0	2	1	—
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	3	1	5
Michigan	—	0	1	—	—	—	0	0	—	—	—	0	1	1	—
Ohio	—	0	3	1	—	—	0	1	—	—	—	0	0	—	—
Wisconsin	—	0	2	—	5	—	5	45	1	54	—	0	3	—	1
W.N. Central	5	1	13	9	11	—	4	77	1	55	1	0	15	3	—
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	2	1	—	—	0	1	—	—	—	0	0	—	—
Minnesota	—	0	12	—	—	—	4	75	1	55	—	0	15	—	—
Missouri	5	0	13	8	11	—	0	2	—	—	1	0	3	3	—
Nebraska§	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	1	3	18	19	39	1	1	7	7	6	—	0	1	—	—
Delaware	—	0	3	2	3	—	0	1	—	1	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	1	0	2	4	2	1	0	1	1	—	—	0	0	—	—
Georgia	—	0	2	1	8	—	0	1	1	—	—	0	1	—	—
Maryland§	—	0	3	2	4	—	0	2	—	3	—	0	1	—	—
North Carolina	—	1	13	6	18	—	0	4	5	1	—	0	0	—	—
South Carolina§	—	0	2	—	—	—	0	1	—	—	—	0	0	—	—
Virginia§	—	1	8	4	4	—	0	2	—	1	—	0	1	—	—
West Virginia	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
E.S. Central	—	0	11	3	7	1	0	2	2	1	—	0	2	1	2
Alabama§	—	0	3	—	1	—	0	2	1	—	—	0	0	—	—
Kentucky	—	0	2	1	—	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	1	—	—
Tennessee§	—	0	7	2	6	1	0	2	1	1	—	0	1	1	2
W.S. Central	—	0	87	—	2	—	0	9	—	—	—	0	1	—	—
Arkansas§	—	0	5	—	—	—	0	2	—	—	—	0	0	—	—
Louisiana	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	82	—	—	—	0	7	—	—	—	0	0	—	—
Texas§	—	0	1	—	1	—	0	1	—	—	—	0	1	—	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	2	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	2	—
Colorado	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Idaho§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Nevada§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	—	1	—	0	0	—	—	—	0	0	—	2
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
California	—	0	1	—	1	—	0	0	—	—	—	0	0	—	2
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
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† Cumulative total *E. ewingii* cases reported for year 2010 = 10, and 1 case reported for 2011.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	147	343	542	4,449	6,432	3,188	5,933	7,456	98,900	106,395	36	59	144	1,137	1,235
New England	4	25	55	294	538	70	100	206	1,693	1,819	—	3	9	59	74
Connecticut	—	4	12	—	106	68	38	150	680	860	—	0	6	—	12
Maine§	2	3	11	36	63	—	2	7	57	76	—	0	2	9	3
Massachusetts	—	14	25	176	225	—	49	80	778	717	—	2	6	37	43
New Hampshire	—	2	10	22	63	2	3	7	45	57	—	0	2	8	7
Rhode Island§	—	1	7	7	22	—	6	15	120	98	—	0	2	3	7
Vermont§	2	3	10	53	59	—	0	17	13	11	—	0	3	2	2
Mid. Atlantic	37	63	106	873	1,081	391	718	1,124	12,540	12,245	7	11	35	223	235
New Jersey	—	7	22	45	155	73	116	172	1,977	2,002	—	2	7	34	39
New York (Upstate)	20	22	72	316	363	112	110	271	1,965	1,812	5	3	18	60	61
New York City	7	17	30	269	304	49	236	497	4,119	4,292	1	2	5	41	43
Pennsylvania	10	15	27	243	259	157	264	366	4,479	4,139	1	4	11	88	92
E.N. Central	8	53	94	727	1,123	274	1,082	2,091	16,988	19,582	5	11	19	203	187
Illinois	—	10	32	121	259	—	301	369	3,046	5,269	—	3	9	55	58
Indiana	—	5	11	78	135	41	118	1,018	2,768	1,554	—	1	7	28	41
Michigan	1	11	25	161	241	139	250	489	4,401	5,222	1	1	4	28	15
Ohio	7	17	29	267	303	56	320	383	5,208	5,844	4	2	6	64	50
Wisconsin	—	9	35	100	185	38	97	152	1,565	1,693	—	2	5	28	23
W.N. Central	10	32	73	300	657	88	291	364	4,961	5,094	3	4	9	40	85
Iowa	4	5	12	73	92	4	35	57	659	631	—	0	0	—	1
Kansas	1	3	10	27	77	—	39	62	605	715	—	0	2	4	10
Minnesota	—	11	33	—	248	—	38	62	542	797	—	1	5	—	32
Missouri	3	8	26	118	121	83	143	181	2,566	2,357	1	1	5	19	32
Nebraska§	2	4	9	61	73	—	22	49	357	413	2	0	3	16	5
North Dakota	—	0	6	—	8	—	3	11	32	62	—	0	2	1	5
South Dakota	—	2	5	21	38	1	10	20	200	119	—	0	0	—	—
S. Atlantic	34	71	127	933	1,245	995	1,449	1,879	24,494	27,244	11	15	28	294	300
Delaware	—	0	5	7	10	16	17	48	348	369	—	0	1	1	3
District of Columbia	—	1	5	9	16	30	38	70	666	703	—	0	1	—	—
Florida	16	36	75	404	642	187	383	486	6,737	7,188	7	4	12	112	82
Georgia	10	14	51	318	258	155	277	891	3,985	5,558	—	3	7	58	69
Maryland§	4	4	11	70	121	81	134	246	1,989	2,281	2	1	5	23	20
North Carolina	N	0	0	N	N	221	267	596	5,533	5,072	2	2	9	35	39
South Carolina§	1	2	9	35	38	167	153	257	2,885	2,770	—	1	5	24	42
Virginia§	3	8	32	76	147	123	121	189	2,029	3,121	—	1	8	41	37
West Virginia	—	0	8	14	13	15	14	26	322	182	—	0	9	—	8
E.S. Central	3	4	11	50	98	400	495	1,007	8,888	8,516	3	3	10	72	74
Alabama§	3	4	11	48	55	60	161	404	2,990	2,531	—	1	4	24	8
Kentucky	N	0	0	N	N	133	72	712	1,433	1,391	—	1	4	12	13
Mississippi	N	0	0	N	N	129	115	216	1,979	2,226	—	0	2	5	6
Tennessee§	—	0	3	2	43	78	144	194	2,486	2,368	3	1	4	31	47
W.S. Central	1	5	14	64	126	549	871	1,664	14,514	17,588	2	3	26	58	59
Arkansas§	1	2	9	34	36	116	98	138	1,797	1,638	—	0	3	13	9
Louisiana	—	2	8	30	52	88	119	509	656	3,025	—	0	4	22	15
Oklahoma	—	0	5	—	38	54	80	332	1,234	1,348	2	1	19	22	31
Texas§	N	0	0	N	N	291	598	867	10,827	11,577	—	0	4	1	4
Mountain	13	30	58	368	599	105	183	229	2,888	3,369	5	5	12	118	152
Arizona	—	3	8	42	52	29	57	83	606	1,162	—	2	6	53	60
Colorado	9	12	27	172	256	35	49	93	825	959	2	1	5	24	38
Idaho§	1	4	9	45	81	—	2	14	42	37	2	0	2	6	7
Montana§	3	1	6	15	47	—	1	5	27	46	—	0	1	2	1
Nevada§	—	2	11	26	20	29	33	103	754	661	—	0	2	8	5
New Mexico§	—	2	6	17	29	12	27	98	550	364	1	1	4	19	20
Utah	—	5	13	40	94	—	4	10	66	128	—	0	3	6	16
Wyoming§	—	0	5	11	20	—	1	4	18	12	—	0	1	—	5
Pacific	37	51	129	840	965	316	657	808	11,934	10,938	—	3	10	70	69
Alaska	—	2	6	21	34	—	21	34	347	542	—	0	2	9	12
California	23	33	68	569	590	266	520	695	9,519	8,825	—	0	6	12	13
Hawaii	—	1	4	12	22	—	14	26	212	241	—	0	2	10	11
Oregon	3	8	20	147	183	9	22	41	442	383	—	1	6	38	29
Washington	11	9	57	91	136	41	61	115	1,414	947	—	0	2	1	4
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	1	—	0	5	6	5	—	0	0	—	—
Puerto Rico	—	0	8	8	29	—	6	12	129	99	—	0	0	—	1
U.S. Virgin Islands	—	0	0	—	—	—	3	7	44	34	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	19	28	74	392	578	18	60	163	774	1,114	12	17	36	311	285
New England	—	1	6	12	49	—	0	3	16	28	—	1	4	17	23
Connecticut	—	0	4	5	11	—	0	3	3	8	—	0	4	11	11
Maine†	—	0	1	1	3	—	0	2	4	8	—	0	2	3	1
Massachusetts	—	0	5	3	30	—	0	3	8	7	—	0	1	1	11
New Hampshire	—	0	1	—	—	—	0	1	1	4	N	0	0	N	N
Rhode Island†	—	0	1	1	5	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	1	2	—	—	0	1	—	1	—	0	1	2	—
Mid. Atlantic	4	4	12	63	90	2	5	11	85	117	2	1	6	25	36
New Jersey	—	1	4	6	27	—	1	5	17	31	—	0	4	—	7
New York (Upstate)	3	1	4	17	18	2	1	9	17	17	1	1	4	15	15
New York City	—	1	6	22	26	—	1	4	21	36	—	0	1	—	1
Pennsylvania	1	1	3	18	19	—	1	3	30	33	1	0	2	10	13
E.N. Central	3	4	9	64	77	—	8	23	103	183	2	2	8	74	33
Illinois	—	1	3	10	24	—	2	7	23	41	—	0	1	1	—
Indiana	—	0	3	8	9	—	1	6	12	27	—	1	4	28	12
Michigan	1	1	5	23	24	—	2	5	33	51	2	1	6	42	16
Ohio	2	1	5	21	12	—	1	16	25	43	—	0	1	2	3
Wisconsin	—	0	2	2	8	—	1	3	10	21	—	0	1	1	2
W.N. Central	—	1	25	15	21	3	2	16	47	45	1	0	6	3	6
Iowa	—	0	3	1	4	—	0	1	4	9	—	0	0	—	—
Kansas	—	0	2	3	7	—	0	2	5	2	—	0	1	—	—
Minnesota	—	0	22	2	1	1	0	15	2	2	—	0	6	—	3
Missouri	—	0	1	4	7	2	1	3	29	24	—	0	1	—	2
Nebraska†	—	0	4	3	2	—	0	3	6	8	—	0	1	2	1
North Dakota	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	2	—	—	0	1	1	—	1	0	0	1	—
S. Atlantic	5	6	14	82	125	7	16	33	224	320	4	4	8	65	65
Delaware	—	0	1	1	5	—	0	2	—	14	U	0	0	U	U
District of Columbia	—	0	0	—	1	—	0	0	—	3	—	0	0	—	2
Florida	2	2	7	33	41	3	4	11	75	112	1	1	5	20	18
Georgia	3	1	4	22	14	3	2	8	37	65	1	0	3	11	8
Maryland†	—	0	2	8	11	—	1	4	20	28	—	0	3	11	9
North Carolina	—	0	4	7	23	1	2	16	54	27	2	1	4	18	16
South Carolina†	—	0	1	3	16	—	1	4	12	18	—	0	1	—	—
Virginia†	—	1	6	8	13	—	2	7	26	29	—	0	2	5	6
West Virginia	—	0	5	—	1	—	0	18	—	24	—	0	5	—	6
E.S. Central	—	0	6	7	17	1	8	14	141	107	1	3	8	50	50
Alabama†	—	0	2	—	4	—	1	4	33	23	—	0	1	3	1
Kentucky	—	0	6	2	9	—	3	8	43	35	—	2	6	23	35
Mississippi	—	0	1	2	1	—	1	3	10	10	U	0	0	U	U
Tennessee†	—	0	2	3	3	1	3	8	55	39	1	1	5	24	14
W.S. Central	2	2	15	26	49	2	9	63	82	162	2	2	11	36	23
Arkansas†	—	0	1	—	—	—	1	4	14	21	—	0	0	—	—
Louisiana	—	0	1	1	5	—	1	4	18	20	—	0	2	4	2
Oklahoma	—	0	4	1	—	—	2	14	16	21	1	1	10	19	9
Texas†	2	2	11	24	44	2	4	45	34	100	1	0	3	13	12
Mountain	5	2	8	27	64	1	2	7	28	47	—	1	4	15	24
Arizona	—	0	4	5	31	—	0	3	8	11	U	0	0	U	U
Colorado	1	0	2	8	14	1	0	5	3	13	—	0	3	1	7
Idaho†	1	0	2	4	3	—	0	1	2	3	—	0	2	6	6
Montana†	—	0	1	2	4	—	0	0	—	—	—	0	1	1	—
Nevada†	3	0	2	4	6	—	1	3	12	12	—	0	2	5	1
New Mexico†	—	0	1	3	3	—	0	2	2	2	—	0	1	2	7
Utah	—	0	2	—	3	—	0	1	1	6	—	0	2	—	3
Wyoming†	—	0	3	1	—	—	0	1	—	—	—	0	0	—	—
Pacific	—	6	15	96	86	2	5	25	48	105	—	1	9	26	25
Alaska	—	0	1	1	—	—	0	1	2	1	U	0	0	U	U
California	—	5	15	82	68	—	3	22	22	74	—	0	4	13	10
Hawaii	—	0	2	4	4	—	0	1	3	3	U	0	0	U	U
Oregon	—	0	1	2	8	1	1	3	14	17	—	0	3	7	8
Washington	—	0	2	7	6	1	1	4	7	10	—	0	5	6	7
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	5	8	10	—	1	8	28	18	—	0	7	10	19
Puerto Rico	—	0	2	2	7	—	0	2	1	10	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	24	61	126	568	752	125	430	1,935	2,590	6,143	15	30	114	323	433
New England	—	4	16	26	43	3	107	503	258	1,986	—	1	20	13	27
Connecticut	—	0	6	—	9	—	34	213	—	804	—	0	20	—	—
Maine†	—	0	3	3	2	3	11	62	60	106	—	0	1	1	2
Massachusetts	—	2	10	17	23	—	24	223	94	673	—	0	4	9	20
New Hampshire	—	0	5	2	3	—	16	69	81	344	—	0	2	1	1
Rhode Island†	—	0	4	1	5	—	1	40	4	23	—	0	4	—	3
Vermont†	—	0	2	3	1	—	4	28	19	36	—	0	1	2	1
Mid. Atlantic	4	16	53	124	171	101	199	769	1,528	2,669	1	9	22	75	129
New Jersey	—	2	18	1	29	—	45	234	372	828	—	1	6	8	25
New York (Upstate)	2	5	19	56	45	23	36	159	245	352	—	1	6	11	23
New York City	—	2	17	23	37	—	9	31	2	174	1	5	13	44	60
Pennsylvania	2	5	19	44	60	78	91	386	909	1,315	—	1	3	12	21
E.N. Central	5	11	44	109	159	1	33	373	186	402	1	3	9	37	39
Illinois	—	2	15	12	22	—	1	18	4	11	—	1	6	12	19
Indiana	2	1	6	13	33	—	0	7	3	17	—	0	2	2	4
Michigan	—	2	20	23	27	—	1	14	4	4	—	0	4	7	4
Ohio	3	4	15	61	57	—	0	9	6	6	1	1	5	15	11
Wisconsin	—	0	5	—	20	1	29	345	169	364	—	0	2	1	1
W.N. Central	1	2	9	13	26	—	13	188	3	181	—	1	45	3	21
Iowa	—	0	2	2	2	—	0	10	1	10	—	0	2	—	6
Kansas	—	0	2	2	3	—	0	1	1	4	—	0	2	2	3
Minnesota	—	0	8	—	9	—	12	181	—	164	—	0	45	—	3
Missouri	1	0	4	8	5	—	0	1	—	—	—	0	3	—	3
Nebraska†	—	0	2	—	2	—	0	2	1	3	—	0	1	1	6
North Dakota	—	0	1	—	2	—	0	9	—	—	—	0	1	—	—
South Dakota	—	0	2	1	3	—	0	1	—	—	—	0	2	—	—
S. Atlantic	7	10	27	110	146	20	59	178	539	800	8	7	41	106	129
Delaware	—	0	3	2	5	7	10	33	155	202	—	0	1	2	2
District of Columbia	—	0	4	—	6	—	1	5	6	7	—	0	2	5	5
Florida	3	3	9	52	55	—	1	8	17	19	3	2	7	31	43
Georgia	—	1	4	3	22	—	0	2	1	3	2	1	7	20	20
Maryland†	3	2	6	19	29	8	19	104	202	374	2	1	21	21	21
North Carolina	1	1	7	17	12	—	1	9	13	29	—	0	13	9	18
South Carolina†	—	0	2	4	2	—	0	3	3	13	—	0	1	—	1
Virginia†	—	1	9	13	13	5	17	82	142	140	1	1	5	18	19
West Virginia	—	0	3	—	2	—	0	29	—	13	—	0	1	—	—
E.S. Central	2	2	10	28	30	—	0	4	8	13	—	0	3	7	6
Alabama†	1	0	2	6	3	—	0	2	4	—	—	0	1	2	1
Kentucky	—	0	4	5	8	—	0	1	—	1	—	0	1	3	2
Mississippi	—	0	3	3	2	—	0	0	—	—	—	0	2	1	—
Tennessee†	1	1	6	14	17	—	0	4	4	12	—	0	2	1	3
W.S. Central	—	3	13	20	27	—	1	29	11	26	—	1	18	15	24
Arkansas†	—	0	2	—	3	—	0	0	—	—	—	0	1	1	1
Louisiana	—	0	3	6	1	—	0	1	—	—	—	0	1	—	1
Oklahoma	—	0	3	1	—	—	0	0	—	—	—	0	1	2	2
Texas†	—	2	11	13	23	—	1	29	11	26	—	1	17	12	20
Mountain	2	2	10	27	53	—	0	3	3	3	1	1	4	16	19
Arizona	—	1	7	9	15	—	0	1	2	—	—	0	3	5	7
Colorado	1	0	2	3	13	—	0	1	—	—	1	0	3	5	6
Idaho†	—	0	1	1	—	—	0	2	—	1	—	0	1	1	—
Montana†	—	0	1	—	1	—	0	1	—	—	—	0	1	—	1
Nevada†	1	0	2	7	10	—	0	1	—	—	—	0	2	3	2
New Mexico†	—	0	2	2	2	—	0	2	1	1	—	0	1	2	—
Utah	—	0	2	4	10	—	0	1	—	1	—	0	0	—	3
Wyoming†	—	0	2	1	2	—	0	0	—	—	—	0	0	—	—
Pacific	3	5	21	111	97	—	4	11	54	63	4	4	10	51	39
Alaska	—	0	2	—	—	—	0	1	—	1	—	0	2	2	2
California	3	4	15	99	88	—	2	9	36	36	4	2	10	38	26
Hawaii	—	0	1	1	—	N	0	0	N	N	—	0	1	1	1
Oregon	—	0	3	3	2	—	0	3	18	25	—	0	3	5	4
Washington	—	0	6	8	7	—	0	4	—	1	—	0	5	5	6
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	N	0	0	N	N	—	0	0	—	4
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Meningococcal disease, invasive† All serogroups					Mumps					Pertussis				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	5	15	53	309	345	3	12	217	127	1,488	69	550	2,901	4,567	4,623
New England	—	0	4	17	6	—	0	2	1	16	—	10	24	111	106
Connecticut	—	0	1	1	—	—	0	0	—	11	—	1	8	—	17
Maine§	—	0	1	3	1	—	0	1	—	1	—	1	8	44	5
Massachusetts	—	0	2	9	2	—	0	2	1	4	—	5	13	48	74
New Hampshire	—	0	1	1	—	—	0	2	—	—	—	0	3	15	3
Rhode Island§	—	0	1	—	—	—	0	0	—	—	—	0	7	3	4
Vermont§	—	0	3	3	3	—	0	0	—	—	—	0	4	1	3
Mid. Atlantic	—	1	5	27	34	—	4	209	14	1,301	7	39	123	422	239
New Jersey	—	0	1	—	10	—	1	11	8	266	—	2	10	11	48
New York (Upstate)	—	0	4	7	6	—	0	7	2	624	2	12	81	133	82
New York City	—	0	3	11	9	—	0	201	4	397	—	0	12	7	3
Pennsylvania	—	0	2	9	9	—	0	16	—	14	5	20	70	271	106
E.N. Central	—	2	6	39	60	—	1	7	32	30	14	117	198	1,138	1,134
Illinois	—	0	3	11	10	—	1	3	19	10	—	22	52	191	192
Indiana	—	0	2	6	15	—	0	1	—	2	—	11	26	74	155
Michigan	—	0	4	5	8	—	0	1	5	11	4	31	57	393	336
Ohio	—	0	2	12	16	—	0	5	8	6	10	34	80	365	384
Wisconsin	—	0	2	5	11	—	0	1	—	1	—	13	26	115	67
W.N. Central	2	1	4	23	20	1	0	7	15	52	12	37	485	245	369
Iowa	—	0	1	6	5	—	0	7	3	16	—	11	36	52	136
Kansas	—	0	2	2	1	—	0	1	3	3	—	2	9	28	56
Minnesota	—	0	2	—	2	1	0	4	1	3	—	0	453	—	6
Missouri	—	0	2	8	8	—	0	3	6	8	5	7	43	109	128
Nebraska§	2	0	1	5	4	—	0	1	1	21	—	4	13	34	26
North Dakota	—	0	1	1	—	—	0	1	1	—	7	0	30	20	—
South Dakota	—	0	1	1	—	—	0	1	—	1	—	0	2	2	17
S. Atlantic	1	2	7	55	67	1	0	4	10	31	5	38	106	467	455
Delaware	—	0	1	1	—	—	0	0	—	—	—	0	4	6	—
District of Columbia	—	0	1	—	—	—	0	1	—	2	—	0	2	2	3
Florida	1	1	5	24	35	—	0	2	2	6	3	6	28	103	78
Georgia	—	0	2	3	5	—	0	2	1	1	1	4	13	69	69
Maryland§	—	0	1	5	2	1	0	1	1	7	—	2	6	36	46
North Carolina	—	0	3	10	8	—	0	2	4	5	1	3	35	93	129
South Carolina§	—	0	1	4	5	—	0	1	—	3	—	6	25	52	75
Virginia§	—	0	2	8	11	—	0	2	2	5	—	7	41	106	48
West Virginia	—	0	1	—	1	—	0	0	—	2	—	0	41	—	7
E.S. Central	—	1	3	13	17	—	0	2	3	6	2	12	35	132	302
Alabama§	—	0	1	6	4	—	0	2	1	4	1	3	8	42	81
Kentucky	—	0	2	—	6	—	0	1	—	—	—	3	16	39	115
Mississippi	—	0	1	2	2	—	0	1	2	—	—	1	10	5	21
Tennessee§	—	0	2	5	5	—	0	1	—	2	1	3	11	46	85
W.S. Central	—	1	12	26	41	1	2	15	39	27	18	51	295	354	1,039
Arkansas§	—	0	1	6	5	—	0	1	—	1	2	2	18	18	55
Louisiana	—	0	1	5	11	—	0	2	—	2	—	1	3	10	13
Oklahoma	—	0	2	4	12	—	0	1	1	—	—	1	92	17	5
Texas§	—	1	10	11	13	1	2	14	38	24	16	42	187	309	966
Mountain	—	1	6	24	24	—	0	4	1	7	6	43	100	744	403
Arizona	—	0	2	7	7	—	0	1	—	2	—	12	29	273	157
Colorado	—	0	4	2	6	—	0	1	—	5	4	13	63	284	45
Idaho§	—	0	1	3	3	—	0	1	—	—	—	2	15	32	50
Montana§	—	0	2	3	1	—	0	0	—	—	—	2	16	51	7
Nevada§	—	0	1	3	4	—	0	1	—	—	2	0	7	10	3
New Mexico§	—	0	1	1	2	—	0	2	1	—	—	2	11	44	32
Utah	—	0	1	5	1	—	0	1	—	—	—	6	16	48	105
Wyoming§	—	0	1	—	—	—	0	1	—	—	—	0	2	2	4
Pacific	2	4	26	85	76	—	0	5	12	18	5	146	1,710	954	576
Alaska	—	0	1	1	—	—	0	1	1	1	—	0	6	14	11
California	—	2	17	59	49	—	0	4	6	13	—	128	1,569	749	403
Hawaii	—	0	1	3	1	—	0	1	2	1	—	1	6	14	21
Oregon	—	1	3	15	13	—	0	1	3	1	1	5	12	80	90
Washington	2	0	8	7	13	—	0	2	—	2	4	9	131	97	51
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	7	14	35	—	0	14	31	—
Puerto Rico	—	0	0	—	—	—	0	1	—	—	—	0	1	1	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Rabies, animal					Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	48	51	144	637	1,221	452	965	1,815	8,966	11,267	46	102	257	1,016	1,049
New England	4	4	18	32	103	1	30	144	420	979	—	2	13	29	93
Connecticut	—	0	14	—	54	—	0	122	122	491	—	0	12	12	60
Maine§	2	1	3	15	23	1	3	8	41	27	—	0	3	3	3
Massachusetts	—	0	0	—	—	—	19	52	204	351	—	1	9	5	20
New Hampshire	—	0	6	4	4	—	3	12	30	55	—	0	3	7	8
Rhode Island§	—	0	4	2	4	—	2	17	10	39	—	0	1	—	—
Vermont§	2	1	3	11	18	—	1	5	13	16	—	0	2	2	2
Mid. Atlantic	3	16	33	92	397	41	97	218	978	1,372	2	10	30	105	111
New Jersey	—	0	0	—	—	—	22	57	73	255	—	2	9	11	26
New York (Upstate)	3	8	19	92	160	21	26	63	278	318	2	4	12	37	34
New York City	—	0	4	—	115	2	22	53	250	327	—	1	6	16	10
Pennsylvania	—	6	17	—	122	18	29	81	377	472	—	3	13	41	41
E.N. Central	2	2	27	21	30	28	90	265	949	1,458	7	11	48	135	178
Illinois	—	1	11	5	14	—	32	124	280	475	—	2	9	11	37
Indiana	—	0	0	—	—	—	13	62	94	175	—	3	10	25	18
Michigan	—	1	5	7	11	4	14	49	162	236	—	2	7	35	53
Ohio	2	0	12	9	5	24	24	47	312	362	7	2	11	43	32
Wisconsin	—	0	0	—	—	—	12	57	101	210	—	2	16	21	38
W.N. Central	2	3	40	25	80	28	49	121	542	700	5	14	49	100	161
Iowa	—	0	3	—	6	3	9	34	125	98	—	2	16	22	24
Kansas	—	1	4	11	23	2	7	19	84	100	—	1	5	18	14
Minnesota	—	0	34	—	13	—	10	30	—	216	—	4	20	—	36
Missouri	—	0	6	—	14	19	15	43	237	187	4	4	28	42	65
Nebraska§	2	1	3	10	21	4	4	13	54	52	1	1	6	15	15
North Dakota	—	0	6	4	3	—	0	13	—	6	—	0	10	—	—
South Dakota	—	0	0	—	—	—	3	17	42	41	—	0	4	3	7
S. Atlantic	36	19	37	357	457	202	261	624	2,624	2,630	20	16	31	272	151
Delaware	—	0	0	—	—	—	3	11	32	28	—	0	2	3	1
District of Columbia	—	0	0	—	—	—	1	7	10	32	—	0	2	1	3
Florida	—	0	29	40	121	87	108	226	1,111	1,246	11	6	15	131	53
Georgia	—	0	0	—	—	16	43	142	446	370	—	2	7	26	20
Maryland§	9	6	14	101	137	13	19	54	207	240	1	2	8	29	18
North Carolina	—	0	0	—	—	63	26	241	376	295	5	2	10	35	11
South Carolina§	—	0	0	—	—	15	25	99	197	175	—	0	4	9	5
Virginia§	27	12	26	216	171	8	21	68	226	186	3	3	9	37	37
West Virginia	—	0	7	—	28	—	1	14	19	58	—	0	4	1	3
E.S. Central	—	3	7	45	72	13	57	176	553	568	1	5	22	56	48
Alabama§	—	1	7	29	33	—	20	52	153	172	—	1	4	12	11
Kentucky	—	0	4	3	2	—	11	32	99	108	—	1	6	7	7
Mississippi	—	0	0	—	—	2	18	66	111	120	—	0	12	4	5
Tennessee§	—	1	4	13	37	11	18	53	190	168	1	2	7	33	25
W.S. Central	1	1	30	44	14	34	139	506	903	1,122	—	7	143	62	51
Arkansas§	1	0	10	33	10	19	12	43	137	80	—	1	4	7	12
Louisiana	—	0	0	—	—	2	19	49	141	262	—	0	2	3	5
Oklahoma	—	0	30	11	4	10	12	95	116	103	—	1	48	9	1
Texas§	—	0	0	—	—	3	95	381	509	677	—	5	95	43	33
Mountain	—	1	7	8	17	19	51	113	635	791	4	11	33	114	128
Arizona	—	0	2	—	—	—	16	43	214	242	—	1	14	28	23
Colorado	—	0	0	—	—	14	10	24	156	184	—	3	21	14	43
Idaho§	—	0	2	—	1	1	3	9	50	43	3	2	7	21	12
Montana§	—	0	3	5	—	3	1	6	27	32	1	0	3	7	15
Nevada§	—	0	2	—	—	1	5	21	51	63	—	0	6	14	7
New Mexico§	—	0	2	3	4	—	5	19	53	86	—	1	6	11	12
Utah	—	0	3	—	—	—	5	17	65	124	—	2	8	17	13
Wyoming§	—	0	4	—	12	—	1	8	19	17	—	0	3	2	3
Pacific	—	1	14	13	51	86	119	288	1,362	1,647	7	12	46	143	128
Alaska	—	0	2	9	11	—	1	4	23	29	—	0	1	—	1
California	—	0	12	—	36	54	82	232	1,020	1,116	4	7	36	104	60
Hawaii	—	0	0	—	—	8	6	13	98	101	—	0	3	2	14
Oregon	—	0	2	4	4	4	8	20	106	228	1	2	11	19	10
Washington	—	0	14	—	—	20	16	42	115	173	2	3	20	18	43
Territories															
American Samoa	N	0	0	N	N	—	0	1	—	1	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	3	6	1	—	0	0	—	—
Puerto Rico	2	0	2	10	20	—	6	21	22	191	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Includes E. coli O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Shigellosis					Spotted Fever Rickettsiosis (including RMSF)†									
						Confirmed					Probable				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	136	273	739	2,863	4,663	—	2	10	19	22	4	30	237	123	166
New England	—	4	17	57	151	—	0	0	—	—	—	0	1	1	1
Connecticut	—	0	9	9	69	—	0	0	—	—	—	0	0	—	—
Maine§	—	0	3	5	3	—	0	0	—	—	—	0	1	—	1
Massachusetts	—	3	16	42	67	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	2	—	4	—	0	0	—	—	—	0	1	—	—
Rhode Island§	—	0	4	—	7	—	0	0	—	—	—	0	1	1	—
Vermont§	—	0	1	1	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	5	19	73	175	636	—	0	1	2	1	—	1	7	4	12
New Jersey	—	5	16	24	117	—	0	0	—	1	—	0	5	—	9
New York (Upstate)	3	3	15	40	59	—	0	1	—	—	—	0	3	1	2
New York City	1	5	14	77	117	—	0	0	—	—	—	0	2	2	1
Pennsylvania	1	6	55	34	343	—	0	1	2	—	—	0	3	1	—
E.N. Central	8	19	37	190	786	—	0	1	—	—	—	1	10	6	15
Illinois	—	7	20	55	552	—	0	1	—	—	—	0	5	3	6
Indiana§	—	1	5	24	21	—	0	1	—	—	—	0	5	—	6
Michigan	1	4	10	44	83	—	0	0	—	—	—	0	1	1	—
Ohio	7	5	18	67	91	—	0	0	—	—	—	0	2	2	2
Wisconsin	—	0	4	—	39	—	0	0	—	—	—	0	1	—	1
W.N. Central	10	18	81	131	1,024	—	0	2	2	1	1	4	17	23	34
Iowa	—	1	4	7	19	—	0	0	—	—	—	0	1	1	2
Kansas§	—	4	12	23	95	—	0	0	—	—	—	0	0	—	—
Minnesota	—	1	4	—	16	—	0	0	—	—	—	0	2	—	—
Missouri	10	10	65	97	880	—	0	2	2	1	1	4	17	22	31
Nebraska§	—	0	10	3	10	—	0	1	—	—	—	0	1	—	1
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	2	1	4	—	0	0	—	—	—	0	0	—	—
S. Atlantic	67	61	122	1,022	632	—	1	7	9	12	1	6	59	32	52
Delaware§	—	0	2	—	30	—	0	0	—	1	—	0	3	3	5
District of Columbia	—	0	3	6	15	—	0	1	1	—	—	0	0	—	—
Florida§	56	31	63	724	220	—	0	1	1	1	—	0	2	1	2
Georgia	3	15	26	140	226	—	0	6	3	8	—	0	0	—	—
Maryland§	—	2	8	29	39	—	0	1	1	—	—	0	5	3	6
North Carolina	6	3	36	76	43	—	0	3	1	2	—	2	47	12	29
South Carolina§	—	1	5	15	26	—	0	1	2	—	—	0	2	4	2
Virginia§	2	2	8	30	32	—	0	2	—	—	1	2	12	9	8
West Virginia	—	0	66	2	1	—	0	0	—	—	—	0	0	—	—
E.S. Central	1	14	40	160	229	—	0	3	—	5	1	5	30	35	41
Alabama§	1	5	15	59	32	—	0	1	—	—	—	1	9	9	6
Kentucky	—	2	28	25	92	—	0	2	—	4	—	0	0	—	—
Mississippi	—	1	5	36	12	—	0	0	—	—	—	0	4	—	2
Tennessee§	—	4	14	40	93	—	0	2	—	1	1	4	20	26	33
W.S. Central	28	55	501	554	696	—	0	7	—	1	1	2	227	4	10
Arkansas§	2	2	7	22	14	—	0	2	—	—	—	0	28	1	4
Louisiana	—	5	13	49	74	—	0	0	—	—	—	0	1	—	—
Oklahoma	—	3	160	34	110	—	0	4	—	—	1	0	194	2	2
Texas§	26	44	337	449	498	—	0	1	—	1	—	0	5	1	4
Mountain	6	17	32	252	196	—	0	5	6	—	—	0	7	18	1
Arizona	1	7	19	61	106	—	0	4	6	—	—	0	7	18	—
Colorado§	2	2	8	33	21	—	0	1	—	—	—	0	1	—	—
Idaho§	—	0	3	7	6	—	0	0	—	—	—	0	1	—	—
Montana§	3	0	15	86	4	—	0	1	—	—	—	0	1	—	—
Nevada§	—	0	6	6	11	—	0	0	—	—	—	0	0	—	—
New Mexico§	—	3	10	43	38	—	0	0	—	—	—	0	0	—	1
Utah	—	1	4	16	10	—	0	0	—	—	—	0	1	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
Pacific	11	23	63	322	313	—	0	2	—	2	—	0	1	—	—
Alaska	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
California	3	19	59	246	245	—	0	2	—	2	—	0	0	—	—
Hawaii	1	1	4	25	22	N	0	0	N	N	N	0	0	N	N
Oregon	—	1	4	24	22	—	0	0	—	—	—	0	1	—	—
Washington	7	1	22	26	24	—	0	1	—	—	—	0	0	—	—
Territories															
American Samoa	—	1	1	1	1	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	—	N	0	0	N	N	N	0	0	N	N
Puerto Rico	—	0	1	—	1	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.
† Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by Rickettsia rickettsii, is the most common and well-known spotted fever.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	*Streptococcus pneumoniae*,† invasive disease										Syphilis, primary and secondary				
	All ages					Age <5									
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	211	289	972	6,521	8,101	24	32	117	584	1,116	68	253	354	3,802	4,653
New England	4	11	79	162	395	—	1	9	12	61	1	9	19	133	163
Connecticut	—	0	49	—	184	—	0	7	—	21	—	1	8	18	33
Maine§	2	2	13	54	60	—	0	1	2	5	—	0	3	8	14
Massachusetts	—	0	5	14	44	—	0	3	6	31	—	5	14	81	100
New Hampshire	—	2	8	50	62	—	0	1	1	3	1	0	3	12	6
Rhode Island§	—	0	36	8	8	—	0	3	—	—	—	0	4	10	8
Vermont§	2	1	6	36	37	—	0	1	3	1	—	0	2	4	2
Mid. Atlantic	14	31	69	670	731	2	4	21	75	121	4	31	46	434	625
New Jersey	—	2	8	35	60	—	1	5	19	27	1	4	10	61	89
New York (Upstate)	2	2	10	38	80	2	1	9	21	59	2	3	20	67	33
New York City	6	13	36	307	344	—	0	12	9	8	—	15	29	189	361
Pennsylvania	6	12	24	290	247	—	1	5	26	27	1	7	16	117	142
E.N. Central	34	64	111	1,459	1,580	2	6	12	123	184	—	30	56	304	693
Illinois	—	2	6	39	52	—	2	6	39	46	—	14	23	52	350
Indiana	—	9	29	263	339	—	0	4	13	31	—	3	14	48	50
Michigan	4	13	29	313	343	—	1	4	20	44	—	4	10	69	109
Ohio	26	25	45	631	608	2	2	7	43	46	—	9	21	121	166
Wisconsin	4	9	24	213	238	—	0	3	8	17	—	1	3	14	18
W.N. Central	8	13	40	186	551	—	2	7	28	93	2	7	18	108	103
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	3	4	6
Kansas	4	2	6	45	73	—	0	2	3	10	—	0	3	5	8
Minnesota	—	5	24	—	318	—	1	5	—	47	—	3	10	44	23
Missouri	—	3	10	84	63	—	1	4	22	22	2	2	9	53	62
Nebraska§	4	2	9	57	62	—	0	1	3	8	—	0	2	2	4
North Dakota	—	0	13	—	23	—	0	1	—	—	—	0	0	—	—
South Dakota	—	0	2	—	12	—	0	2	—	6	—	0	1	—	—
S. Atlantic	38	70	173	1,533	2,164	7	7	25	133	289	22	63	166	1,042	1,060
Delaware	—	1	6	27	17	—	0	1	—	—	—	0	4	4	3
District of Columbia	1	1	4	26	44	—	0	2	3	6	2	3	8	69	50
Florida	20	25	68	734	803	3	3	13	65	102	2	23	44	384	384
Georgia	4	15	54	200	703	1	2	7	17	80	—	11	118	131	204
Maryland§	8	9	32	275	244	2	1	4	14	31	5	7	17	160	84
North Carolina	—	0	0	—	—	—	0	0	—	—	7	7	19	137	178
South Carolina§	5	8	25	252	269	1	1	3	15	30	4	3	10	74	46
Virginia§	—	1	4	19	30	—	1	4	19	30	2	4	16	83	108
West Virginia	—	0	14	—	54	—	0	6	—	10	—	0	2	—	3
E.S. Central	16	23	45	539	652	2	2	6	35	65	7	14	39	203	310
Alabama§	—	0	0	—	—	—	0	0	—	—	1	3	11	35	101
Kentucky	—	3	11	74	83	—	0	3	10	5	4	2	16	39	31
Mississippi	—	1	8	10	33	—	0	2	—	6	1	3	16	44	69
Tennessee§	16	19	36	455	536	2	1	4	25	54	1	5	11	85	109
W.S. Central	73	31	370	892	907	8	4	38	99	145	19	37	71	567	700
Arkansas§	3	3	27	120	86	—	0	3	10	11	2	3	10	65	96
Louisiana	—	2	11	97	54	—	0	2	8	17	2	8	36	100	135
Oklahoma	1	1	8	17	29	1	1	8	17	29	1	1	6	18	32
Texas§	69	25	333	658	738	7	3	27	64	88	14	23	33	384	437
Mountain	23	34	75	916	989	3	3	8	68	139	3	11	24	130	185
Arizona	5	12	43	419	471	2	1	5	28	60	—	4	9	9	74
Colorado	17	10	23	232	260	1	1	3	14	37	1	2	8	41	47
Idaho§	—	0	2	4	8	—	0	2	3	4	—	0	2	3	2
Montana§	—	0	2	7	8	—	0	1	1	—	—	0	2	1	—
Nevada§	—	2	8	56	37	—	0	1	3	4	2	3	9	50	30
New Mexico§	—	3	13	121	85	—	0	2	9	12	—	1	4	21	8
Utah	—	4	8	63	110	—	0	3	10	20	—	0	5	5	24
Wyoming§	1	0	15	14	10	—	0	1	—	2	—	0	0	—	—
Pacific	1	6	24	164	132	—	0	5	11	19	10	51	65	881	814
Alaska	—	2	11	60	61	—	0	2	5	16	—	0	1	—	2
California	1	4	23	103	71	—	0	5	6	3	6	42	57	709	697
Hawaii	—	0	3	1	—	—	0	0	—	—	—	0	5	5	14
Oregon	—	0	0	—	—	—	0	0	—	—	1	1	7	37	23
Washington	—	0	0	—	—	—	0	0	—	—	3	6	14	130	78
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	4	15	75	76
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 14, 2011, and May 15, 2010 (19th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	175	235	583	4,233	6,946	—	1	71	—	1	—	0	53	—	4
New England	1	18	46	245	435	—	0	3	—	—	—	0	2	—	—
Connecticut	—	3	15	—	120	—	0	2	—	—	—	0	2	—	—
Maine¶	—	4	16	88	98	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	5	17	103	115	—	0	2	—	—	—	0	1	—	—
New Hampshire	—	2	9	9	56	—	0	1	—	—	—	0	0	—	—
Rhode Island¶	—	0	4	6	11	—	0	0	—	—	—	0	0	—	—
Vermont¶	1	2	13	39	35	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	17	27	62	476	714	—	0	19	—	—	—	0	13	—	—
New Jersey	—	8	23	122	266	—	0	3	—	—	—	0	6	—	—
New York (Upstate)	N	0	0	N	N	—	0	9	—	—	—	0	7	—	—
New York City	—	0	0	—	1	—	0	7	—	—	—	0	4	—	—
Pennsylvania	17	18	41	354	447	—	0	3	—	—	—	0	3	—	—
E.N. Central	43	70	153	1,316	2,495	—	0	15	—	—	—	0	7	—	—
Illinois	5	17	41	328	639	—	0	10	—	—	—	0	4	—	—
Indiana¶	—	5	19	99	217	—	0	2	—	—	—	0	2	—	—
Michigan	10	23	43	413	764	—	0	6	—	—	—	0	1	—	—
Ohio	28	21	58	475	627	—	0	1	—	—	—	0	1	—	—
Wisconsin	—	5	22	1	248	—	0	0	—	—	—	0	1	—	—
W.N. Central	7	11	35	169	383	—	0	7	—	—	—	0	11	—	1
Iowa	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
Kansas¶	2	2	18	51	178	—	0	1	—	—	—	0	3	—	1
Minnesota	—	0	0	—	—	—	0	1	—	—	—	0	3	—	—
Missouri	—	7	24	90	172	—	0	1	—	—	—	0	0	—	—
Nebraska¶	N	0	0	N	N	—	0	3	—	—	—	0	7	—	—
North Dakota	5	0	10	16	23	—	0	2	—	—	—	0	2	—	—
South Dakota	—	1	7	12	10	—	0	2	—	—	—	0	3	—	—
S. Atlantic	28	32	99	593	935	—	0	6	—	—	—	0	4	—	3
Delaware¶	—	0	4	3	12	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	3	8	8	—	0	1	—	—	—	0	1	—	—
Florida¶	23	15	57	420	476	—	0	3	—	—	—	0	1	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	3	—	3
Maryland¶	N	0	0	N	N	—	0	3	—	—	—	0	2	—	—
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina¶	—	0	6	—	68	—	0	1	—	—	—	0	0	—	—
Virginia¶	5	9	29	162	183	—	0	1	—	—	—	0	1	—	—
West Virginia	—	4	23	—	188	—	0	0	—	—	—	0	0	—	—
E.S. Central	8	6	16	126	132	—	0	1	—	1	—	0	3	—	—
Alabama¶	8	5	16	118	131	—	0	1	—	—	—	0	1	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Mississippi	—	0	3	8	1	—	0	1	—	1	—	0	2	—	—
Tennessee¶	N	0	0	N	N	—	0	1	—	—	—	0	2	—	—
W.S. Central	65	40	258	894	1,261	—	0	16	—	—	—	0	3	—	—
Arkansas¶	—	3	17	82	102	—	0	3	—	—	—	0	1	—	—
Louisiana	—	1	4	13	34	—	0	3	—	—	—	0	1	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Texas¶	65	37	247	799	1,125	—	0	15	—	—	—	0	2	—	—
Mountain	6	15	50	334	548	—	0	18	—	—	—	0	15	—	—
Arizona	—	0	0	—	—	—	0	13	—	—	—	0	9	—	—
Colorado¶	4	6	31	118	194	—	0	5	—	—	—	0	11	—	—
Idaho¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
Montana¶	—	2	28	84	94	—	0	0	—	—	—	0	0	—	—
Nevada¶	N	0	0	N	N	—	0	0	—	—	—	0	1	—	—
New Mexico¶	2	1	8	18	52	—	0	6	—	—	—	0	2	—	—
Utah	—	4	26	107	198	—	0	1	—	—	—	0	1	—	—
Wyoming¶	—	0	3	7	10	—	0	1	—	—	—	0	1	—	—
Pacific	—	3	22	80	43	—	0	8	—	—	—	0	6	—	—
Alaska	—	1	5	24	15	—	0	0	—	—	—	0	0	—	—
California	—	0	19	36	13	—	0	8	—	—	—	0	6	—	—
Hawaii	—	1	4	20	15	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
Washington	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	4	16	8	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	6	30	50	182	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.
§ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/infdis.htm.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,* week ending May 14, 2011 (19th week)

Reporting area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
New England	516	363	104	29	8	12	48
Boston, MA	133	86	34	7	2	4	12
Bridgeport, CT	33	26	4	2	—	1	1
Cambridge, MA	9	8	—	1	—	—	2
Fall River, MA	18	13	4	1	—	—	1
Hartford, CT	50	33	13	2	1	1	4
Lowell, MA	19	14	1	4	—	—	2
Lynn, MA	8	5	2	1	—	—	—
New Bedford, MA	32	24	7	1	—	—	3
New Haven, CT	49	30	14	2	1	2	6
Providence, RI	60	45	10	4	1	—	7
Somerville, MA	2	2	—	—	—	—	—
Springfield, MA	26	20	1	1	1	3	6
Waterbury, CT	25	17	5	3	—	—	1
Worcester, MA	52	40	9	—	2	1	3
Mid. Atlantic	1,773	1,224	390	85	40	33	92
Albany, NY	54	42	10	—	1	1	6
Allentown, PA	20	18	2	—	—	—	3
Buffalo, NY	88	59	23	2	1	3	3
Camden, NJ	31	17	10	3	—	1	3
Elizabeth, NJ	17	12	5	—	—	—	1
Erie, PA	27	20	7	—	—	—	1
Jersey City, NJ	18	11	5	2	—	—	—
New York City, NY	912	621	207	42	24	17	40
Newark, NJ	35	24	8	1	2	—	3
Paterson, NJ	34	20	10	2	—	2	3
Philadelphia, PA	238	149	57	21	4	7	12
Pittsburgh, PA§	36	28	7	1	—	—	1
Reading, PA	33	27	5	—	1	—	1
Rochester, NY	70	58	6	3	3	—	4
Schenectady, NY	19	13	6	—	—	—	1
Scranton, PA	19	17	2	—	—	—	1
Syracuse, NY	69	54	10	3	—	2	4
Trenton, NJ	16	9	7	—	—	—	—
Utica, NY	20	10	1	5	4	—	1
Yonkers, NY	17	15	2	—	—	—	4
E.N. Central	1,931	1,298	449	103	45	36	138
Akron, OH	53	33	13	4	1	2	7
Canton, OH	35	26	7	—	2	—	5
Chicago, IL	256	173	62	17	4	—	21
Cincinnati, OH	76	40	22	4	7	3	5
Cleveland, OH	226	163	46	10	2	5	9
Columbus, OH	177	122	36	11	3	5	17
Dayton, OH	125	92	28	2	3	—	8
Detroit, MI	162	78	59	13	9	3	8
Evansville, IN	52	37	11	3	1	—	1
Fort Wayne, IN	72	48	20	3	1	—	7
Gary, IN	16	10	6	—	—	—	—
Grand Rapids, MI	56	47	7	1	—	1	5
Indianapolis, IN	182	118	42	10	2	10	8
Lansing, MI	48	32	10	1	5	—	8
Milwaukee, WI	88	57	20	8	1	2	3
Peoria, IL	50	38	7	4	—	1	8
Rockford, IL	61	45	11	3	—	2	5
South Bend, IN	53	34	13	3	2	1	4
Toledo, OH	91	67	15	6	2	1	8
Youngstown, OH	52	38	14	—	—	—	1
W.N. Central	592	413	132	22	8	17	40
Des Moines, IA	80	61	15	—	1	3	8
Duluth, MN	36	24	9	3	—	—	4
Kansas City, KS	27	16	8	1	—	2	—
Kansas City, MO	102	69	19	7	1	6	3
Lincoln, NE	41	33	7	—	1	—	3
Minneapolis, MN	55	33	16	1	3	2	4
Omaha, NE	124	85	30	7	1	1	10
St. Louis, MO	2	1	1	—	—	—	—
St. Paul, MN	60	44	11	3	—	2	6
Wichita, KS	65	47	16	—	1	1	2
S. Atlantic	1,298	813	350	89	23	22	109
Atlanta, GA	159	87	45	18	5	4	13
Baltimore, MD	174	104	46	13	6	5	22
Charlotte, NC	134	77	39	13	2	3	13
Jacksonville, FL	166	113	46	4	2	1	16
Miami, FL	100	75	20	5	—	—	7
Norfolk, VA	54	32	14	4	—	4	2
Richmond, VA	57	37	16	3	1	—	4
Savannah, GA	62	36	20	5	—	—	3
St. Petersburg, FL	57	40	12	3	2	—	4
Tampa, FL	188	126	48	10	2	2	16
Washington, D.C.	125	71	38	10	3	3	8
Wilmington, DE	22	15	6	1	—	—	1
E.S. Central	932	579	257	64	19	13	71
Birmingham, AL	165	104	45	11	3	2	16
Chattanooga, TN	96	70	15	6	2	3	5
Knoxville, TN	122	82	27	7	3	3	9
Lexington, KY	78	43	29	6	—	—	5
Memphis, TN	189	113	58	11	5	2	16
Mobile, AL	112	62	37	11	2	—	7
Montgomery, AL	38	21	15	2	—	—	3
Nashville, TN	132	84	31	10	4	3	10
W.S. Central	1,382	856	347	101	32	46	90
Austin, TX	99	68	18	6	3	4	4
Baton Rouge, LA	65	44	13	8	—	—	2
Corpus Christi, TX	73	47	15	9	1	1	5
Dallas, TX	188	111	41	13	10	13	6
El Paso, TX	118	79	29	8	1	1	15
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	302	166	94	19	6	17	19
Little Rock, AR	81	49	18	8	1	5	—
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	261	170	64	19	4	4	15
Shreveport, LA	57	32	17	4	3	1	8
Tulsa, OK	138	90	38	7	3	—	16
Mountain	1,037	730	211	58	22	14	50
Albuquerque, NM	99	76	17	2	2	2	9
Boise, ID	63	49	10	2	—	2	2
Colorado Springs, CO	91	72	16	2	1	—	1
Denver, CO	107	65	27	7	5	3	4
Las Vegas, NV	293	192	71	21	5	4	11
Ogden, UT	38	25	8	3	—	2	4
Phoenix, AZ	U	U	U	U	U	U	U
Pueblo, CO	37	26	5	3	3	—	3
Salt Lake City, UT	126	89	24	9	3	1	7
Tucson, AZ	183	136	33	9	3	—	9
Pacific	1,839	1,305	389	98	26	21	187
Berkeley, CA	12	7	4	1	—	—	1
Fresno, CA	129	84	33	8	—	4	13
Glendale, CA	33	28	3	2	—	—	6
Honolulu, HI	68	55	8	5	—	—	6
Long Beach, CA	76	49	23	2	2	—	13
Los Angeles, CA	251	164	52	20	12	3	20
Pasadena, CA	26	19	6	1	—	—	2
Portland, OR	135	93	34	5	1	2	10
Sacramento, CA	225	156	56	9	1	3	35
San Diego, CA	189	136	40	9	3	1	19
San Francisco, CA	124	88	28	5	1	2	12
San Jose, CA	198	152	30	11	4	1	21
Santa Cruz, CA	32	25	5	2	—	—	6
Seattle, WA	108	73	23	8	1	3	2
Spokane, WA	75	65	5	3	—	2	10
Tacoma, WA	158	111	39	7	1	—	11
Total¶	**11,300**	**7,581**	**2,629**	**649**	**223**	**214**	**825**

U: Unavailable. —: No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of >100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.

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