



# MMWR™

## Morbidity and Mortality Weekly Report

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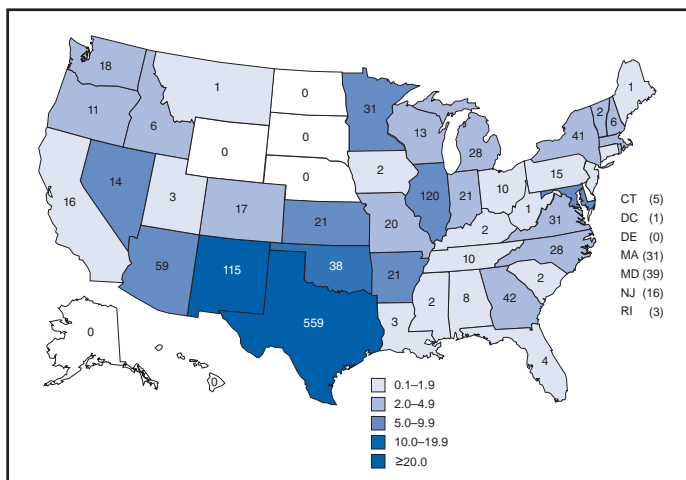
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### Outbreak of *Salmonella* Serotype Saintpaul Infections Associated with Multiple Raw Produce Items — United States, 2008

On May 22, 2008, the New Mexico Department of Health (NMDOH) notified CDC about four persons infected with *Salmonella* Saintpaul strains that were indistinguishable from each other by pulsed-field gel electrophoresis (PFGE) and 15 other persons with *Salmonella* infections whose isolates had not yet been characterized. In the following weeks, cases continued to be reported, and the outbreak expanded to include 43 states, the District of Columbia (Figure 1), and Canada. This report is an interim summary of results from seven epidemiologic studies, traceback investigations, and environmental investigations related to the outbreak. Further data collection and analyses are ongoing. As of August 25, 2008, a total of 1,442 persons had been reported infected with the outbreak strain. At least 286 persons have been hospitalized,

and the infection might have contributed to two deaths. The outbreak began late in April 2008, and most persons became ill in May or June. The outbreak appears to be over; however, CDC and state health departments are continuing to conduct surveillance for cases of infection with the outbreak strain. Preliminary epidemiologic and microbiologic results to date support the conclusion that jalapeño peppers were a major vehicle by which the pathogen was transmitted and serrano peppers also were a vehicle; tomatoes possibly were a vehicle, particularly early in the outbreak. Contamination of produce items might have occurred on the farm or during processing or distribution; the mechanism of contamination has not been determined. These findings indicate that additional measures are needed to enhance food safety and reduce illnesses from produce that is consumed raw.

**FIGURE 1. Number\* and incidence rate† of laboratory-confirmed cases of *Salmonella* Saintpaul (outbreak strain), by state — United States, 2008§**



\* N = 1,442.  
† Per 1 million population.  
§ As of August 25, 2008.

### Epidemiologic Studies

A case was defined as laboratory-confirmed infection with *Salmonella* Saintpaul with *Xba*I pattern JN6X01.0048, the outbreak strain. Of the 1,442 cases reported, public health agencies have reported illness onset information for 1,414 patients. Illnesses began during April 16–August 11; most persons became ill in May or June (Figure 2). Complete

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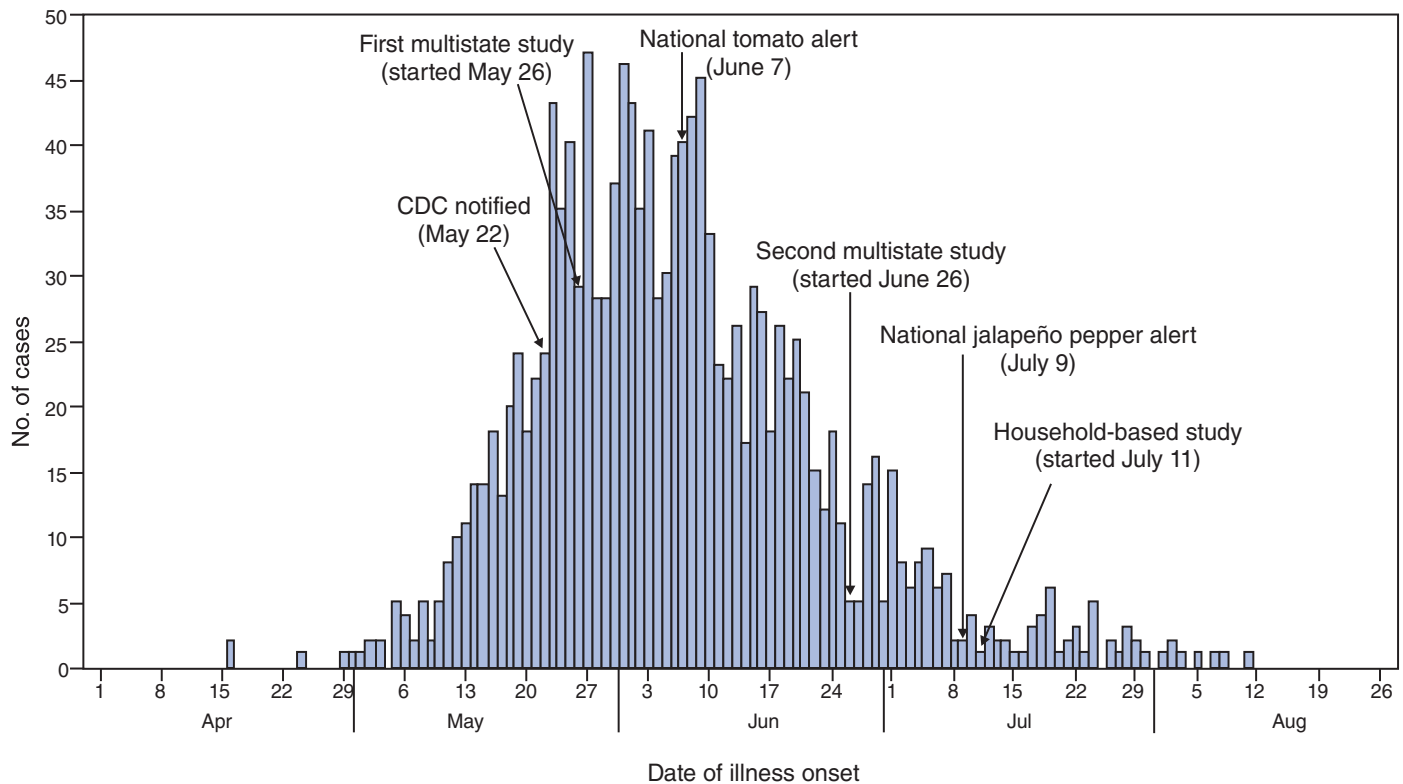
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demographic information is available for 565 ill persons. Of these, 52% were male; 79% were white, 8% were American Indian/Alaska Native, 3% were black, 2% were Asian/Pacific Islander, and 7% reported other or multiple races. Hispanic ethnicity was reported for 22%. Patient ages ranged from <1 to 99 years (median age: 33 years), and the highest incidence was among persons aged 20–29 years. Cases were distributed among 43 states, the District of Columbia, and Canada, with particularly high incidence rates in New Mexico and Texas (Figure 1).

Soon after the first cases were detected in mid-May 2008, additional cases were identified in Texas and the Navajo Nation through PulseNet (the national molecular subtyping network for foodborne disease surveillance). Nineteen ill persons were initially interviewed in detail to generate hypotheses about the source of their illnesses. To identify the source, NMDOH, the Texas Department of State Health Services (TXDSHS), Navajo Nation, the Indian Health Service (IHS), and CDC conducted a multistate case-control study of laboratory-confirmed infections. For this case-control study, a case was defined as diarrheal illness (three or more loose stools in a 24-hour period) that began on or after May 1 in a person infected with the outbreak strain. Controls were well persons in the community matched by age and location using reverse telephone directories and by face-to-face interviews. The matched analysis included 51 case-patients and 106 controls. Using a questionnaire based on hypotheses generated by the preliminary interviews, study participants were asked about foods consumed during the week preceding their illness. On univariate analysis, illness was significantly associated with eating raw tomatoes (matched odds ratio [mOR] = 6.7) and had a borderline association with eating tortillas (mOR = 2.8) in the week preceding illness onset (Table). Illness remained significantly associated with eating raw tomatoes (mOR = 5.6) after adjusting for consumption of tortillas (Table). Illness was not significantly associated with eating salsa (mOR = 1.7), guacamole (mOR = 1.6), or any other food item (Table).

In June, increasing numbers of cases were reported from a growing number of states. State and local health departments identified clusters of illness in restaurants by interviewing ill persons whose isolates had the outbreak PFGE pattern and asking about exposures to suspect foods and about any recent meals at restaurants. Beginning on June 20, TXDSHS and CDC investigated a cluster of 47 ill persons associated with a Mexican-style restaurant in Texas. For this case-control study, a case was defined as diarrheal illness (three or more loose stools in a 24-hour period) in a person who ate at the restaurant in the week before illness began; culture confirmation was not required. Controls were well meal companions. The analysis included 47 case-patients and 36 controls. On multiple logistic regression, illness was significantly associated only

**FIGURE 2. Number of laboratory-confirmed cases (n = 1,414) of *Salmonella* Saintpaul (outbreak strain), by date of illness onset — United States, 2008\***



\* Includes cases with onset information received as of August 25, 2008. Some illness onset dates (n = 366) were estimated by subtracting 3 days from the specimen date. Illness that began during July 29–August 25 might not yet be reported.

with eating salsa (adjusted odds ratio [aOR] = 62.3) (Table). The salsa ingredients included raw tomatoes and raw jalapeño peppers.

Beginning on June 24, TXDSHS and CDC investigated another cluster of 33 ill persons, this one associated with a local Mexican-style restaurant chain in Texas. For this case-control study, a case was defined as diarrheal illness (three or more loose stools in a 24-hour period) in a person who ate at either of two restaurants in the chain during the week before illness began; culture confirmation was not required. Controls were well meal companions and restaurant patrons identified by credit card receipts. The analysis included 33 case-patients and 62 controls. Illness was significantly associated only with eating salsa (aOR = 7.5) (Table). The salsa ingredients included commercially canned tomatoes and raw jalapeño peppers, but not raw tomatoes. These results indicated that jalapeño peppers were a likely source of illness.

Beginning on June 26, to further investigate possible food vehicles, CDC and state and local health departments in 29 states conducted a second multistate case-control study of laboratory-confirmed infections identified through PulseNet.

A case was defined as diarrheal illness (three or more loose stools in a 24-hour period) that began on or after June 1 in a person infected with the outbreak strain. Controls were well persons in the community matched by age and location using reverse telephone directories. The matched analysis included 141 cases and 281 controls. After adjusting for sex, Hispanic ethnicity, and additional age variation, illness was significantly associated with eating at a Mexican-style restaurant in the week preceding illness onset (mOR = 4.6) (Table). Illness also was significantly associated with eating pico de gallo (mOR = 4.0), corn tortillas (mOR = 2.3), and freshly prepared salsa (mOR = 2.1) (Table). Illness was not significantly associated with any other individual food items or ingredients.

Beginning on June 30, the Minnesota Department of Health investigated a cluster of 19 persons with *Salmonella* Saintpaul infection associated with a natural food restaurant. For this case-control study, a case was defined as diarrheal illness (three or more loose stools in a 24-hour period) in a person infected with the outbreak strain who ate at the restaurant in the week before illness began. Controls were well meal companions and

**TABLE. Number and percentage of exposures to *Salmonella* Saintpaul among case patients and controls in seven case-control studies, by implicated food item/exposure — United States, 2008**

Study (start date) and food item/exposure	Cases		Controls		Odds ratio	(95% CI*)
	No.	(%)	No.	(%)		
<b>First multistate study (May 26)</b>						
Raw tomatoes	42/48	(88)	67/104	(64)	6.7 <sup>†§</sup>	(1.9–36.0)
	42/48	(88)	67/104	(64)	5.6 <sup>§¶</sup>	(1.6–30.3)
Tortillas	39/47	(83)	69/104	(66)	2.8 <sup>†§</sup>	(1.0–10.0)
Salsa	27/48	(56)	47/104	(45)	1.7 <sup>†§</sup>	(0.8–3.8)
Guacamole	16/50	(32)	26/103	(25)	1.6 <sup>†§</sup>	(0.7–3.5)
<b>First Texas restaurant (June 20)</b>						
Salsa	41/43	(95)	8/29	(28)	62.3 <sup>**</sup>	(12.4–632.1)
<b>Texas restaurant chain (June 24)</b>						
Salsa	32/32	(100)	49/58	(85)	7.5 <sup>**</sup>	(1.1–undefined)
<b>Second multistate study (June 26)</b>						
Eating at a Mexican-style restaurant	68/138	(49)	64/278	(23)	4.6 <sup>††§</sup>	(2.1–undefined)
Pico de gallo	35/127	(28)	26/257	(10)	4.0 <sup>††§</sup>	(1.5–17.8)
Corn tortilla	51/126	(40)	67/251	(27)	2.3 <sup>††§</sup>	(1.2–5.0)
Salsa	60/130	(46)	73/245	(30)	2.1 <sup>††§</sup>	(1.1–3.9)
<b>Minnesota restaurant (June 30)</b>						
Jalapeño pepper	17/19	(89)	8/73	(11)	62.0 <sup>**</sup>	(12.0–321.0)
<b>North Carolina restaurant (July 17)</b>						
Guacamole	4/4	(100)	42/113	(37)	8.7 <sup>**</sup>	(1.1–undefined)
<b>Household-based study (July 11)</b>						
Jalapeño pepper	26/41	(63)	42/107	(40)	2.9 <sup>†§</sup>	(1.2–7.6)
Serrano pepper	9/41	(22)	9/107	(8)	3.0 <sup>†§</sup>	(0.9–9.6)

\* Confidence interval.

† Univariate analysis.

§ Matched analysis.

¶ Adjusted for consumption of tortillas in the week before illness onset.

\*\* Multivariate analysis.

†† Adjusted for sex, Hispanic ethnicity, and additional age variation.

restaurant patrons identified by credit card receipts. The analysis included 19 case-patients and 73 controls. On univariate analysis, illness was significantly associated with eating any of several items including salsa, guacamole, red bell peppers, cilantro, and jalapeño peppers. Both types of peppers had been diced before they arrived at the restaurant. On multivariate analysis, illness was only significantly associated with eating raw, jalapeño peppers (OR = 62.0) (Table). This study provided more evidence that consumption of raw jalapeño peppers was a major risk factor for illness.

Beginning on July 7, the North Carolina Division of Public Health, the Mecklenburg County Health Department, and CDC investigated a cluster of 13 ill persons associated with a local Mexican-style restaurant. For the case-control study, a case was defined as diarrheal illness (three or more loose stools in a 24-hour period) in a person infected with the outbreak strain who ate at the restaurant in the week before illness began. Controls were well restaurant patrons identified by credit card receipts. The analysis included four case-patients and 113 controls. On multivariate analysis, illness was significantly associated only with eating guacamole (aOR = 8.7) (Table). The guacamole ingredients included avocado, raw Roma

tomatoes, raw red onions, raw serrano peppers, cilantro, salt, and lime juice, but not jalapeño peppers. This study demonstrated that not all of the outbreak illnesses could be linked to eating jalapeño peppers.

During May 22–August 7, state and local health departments in 14 states and the District of Columbia reported a total of 33 restaurant-associated clusters of illness. The median number of laboratory-confirmed cases for all clusters was four; 26 (79%) of the 33 clusters had eight or fewer laboratory-confirmed cases. Raw jalapeño peppers were not served in four of the restaurants, serrano peppers were not served in 19 restaurants, and raw tomatoes of various types were served in all restaurants. Of the four restaurants without raw jalapeño peppers, two had serrano peppers.

During July 11–25, NMDOH, the Arizona Department of Health Services, Navajo Nation, IHS, and CDC conducted a household-based case-control study among non-restaurant-associated cases in New Mexico, Arizona, and the Navajo Nation. A case-household was defined as a household with a case (defined as diarrheal illness [three or more loose stools in a 24-hour period] beginning on or after June 1 in a person infected with the outbreak strain). Control-households were

enrolled systematically from the same community and had no members who reported diarrheal illness on or after June 1. The matched analysis included 41 case-households and 107 control-households and compared the presence of specific foods in the household regardless of whether the respondent remembered eating them. On univariate analysis, illness in the household was significantly associated with having a raw jalapeño pepper in the household (mOR = 2.9), and illness had a borderline association with having a raw serrano pepper in the household (mOR = 3.0) during the week preceding illness onset (Table). Illness was not significantly associated with the presence of any other food item in the household. A concurrent case-control study that evaluated individual-level exposures asked the case-patient in each case-household and respondents in control-households about recent food exposures. This study did not identify an association between illness in the case-patients and eating raw jalapeño or serrano peppers. These results suggested that at the time these illnesses were occurring, jalapeño peppers and perhaps serrano peppers were likely vehicles for illness among persons not associated with a restaurant cluster, although persons might not have specifically recalled consuming the peppers.

## Environmental and Traceback Investigations

The Food and Drug Administration (FDA) traced back the processing and distribution pathway for tomatoes associated with several ill persons. These tracebacks did not converge onto a single packer, distributor, or growing area of tomatoes. Tomatoes linked to ill persons and tomatoes randomly collected from the distribution chain in several states were cultured; none of these cultures yielded *Salmonella*.

FDA traced the source of the jalapeño peppers associated with illness in the two previously described Texas restaurant-associated clusters to distributors in Texas that received jalapeño peppers from Mexico. On July 21, FDA reported isolation of the outbreak strain from a jalapeño pepper sample obtained from one of these distributors. The pepper likely was grown on a farm in Tamaulipas, Mexico (farm A); this farm also grew serrano peppers and Roma tomatoes. FDA did not isolate the outbreak strain from environmental samples from farm A, but did isolate the outbreak strain from a sample of serrano peppers and a sample of water from a holding pond used for irrigation from another farm (farm B) in Tamaulipas. Farm B also grew jalapeño peppers, but not tomatoes. Farms A and B provided produce to a common packing facility in Mexico that exports to the United States. In addition, on July 29, the Colorado Department of Public Health and Environment (CDPHE) reported isolation of the outbreak strain from a

jalapeño pepper collected from the household of a person in Colorado who had developed illness with the outbreak strain. CDPHE traced this pepper from the grocery store where it had been purchased to another distributor in Texas, which reportedly received jalapeño peppers from farms in Mexico; however, the specific farms have not been identified.

## Control Measures

Since June 3, CDC, FDA, and public health partners have issued multiple public advisories recommending that consumers avoid eating certain produce items. A limited advisory recommending that consumers in New Mexico and Texas avoid eating certain types of tomatoes was issued on June 3, and the advisory was expanded nationwide on June 7 (Figure 2). After associations were identified between illness and eating jalapeño and serrano peppers, CDC and FDA issued successive advisories recommending that consumers avoid eating jalapeño and serrano peppers grown in Mexico; the first nationwide jalapeño pepper advisory was issued on July 9 (Figure 2). The tomato advisory was lifted on July 17; the jalapeño and serrano pepper advisories remain in effect.

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**Editorial Note:** Contaminated produce eaten raw is an increasingly recognized vehicle for transmission of *Salmonella* and other pathogens (1). Each year, approximately 36,000 laboratory-confirmed cases of *Salmonella* infection are reported in the United States through national serotype-based surveillance (2). *Salmonella* Saintpaul is an uncommon serotype, causing, on average, 1.6% of all reported laboratory-confirmed *Salmonella* infections each year. In 2007, only 40 human isolates of the outbreak strain were submitted to PulseNet. This report describes the largest foodborne disease outbreak identified in the United States in the past decade, based on the number of culture-confirmed cases. Because many persons with *Salmonella* illness do not seek care or have a stool specimen tested, many more illnesses likely have occurred than those reported (3).

In this outbreak, epidemiologic studies revealed associations between illness and more than one raw produce item. Although most multistate enteric disease outbreaks have been linked to a

single food vehicle, an outbreak attributed to both parsley and cilantro grown on one farm has been reported (4). The initial case-control study identified an association between illness and eating raw tomatoes. Subsequent studies identified an association between illness and eating raw jalapeño peppers, an item commonly eaten with tomatoes in Mexican-style cuisine. Epidemiologic data also suggested an association with raw serrano peppers. These associations triggered product alerts and led to product tracing and microbiologic studies, which indicated that jalapeño and serrano peppers grown, harvested, or packed in Mexico were contaminated with the outbreak strain. The epidemiologic and microbiologic results support the conclusion that jalapeño peppers were a major vehicle by which the pathogen was transmitted, and that serrano peppers also were a vehicle. Consumption of peppers was not implicated in either of the two multistate case-control studies. However, produce items such as peppers that are typically consumed in small quantities as ingredients of other dishes might not be remembered and can be difficult to implicate (5). Neither raw jalapeño nor serrano peppers have been identified previously as a vehicle for a foodborne disease outbreak in the United States. Little is known about the survival and growth characteristics of *Salmonella* on these peppers, although rapid growth in jalapeño pepper extract has been reported (6).

Tomatoes possibly were a vehicle for infection, particularly early in the outbreak. In the initial case-control study, illness was significantly associated with consumption of raw tomatoes and not with foods containing peppers, such as salsa or guacamole. Consumption of jalapeño or serrano peppers was not assessed in this initial study because in hypothesis-generating interviews conducted with 19 case-patients, only five (26%) reported eating peppers other than red or green bell peppers in the week before illness began. In addition, a survey of 75 case-patients in Texas whose illnesses began before June 7, using a questionnaire that asked specifically about pepper consumption, found a relatively low proportion who reported eating raw jalapeño (39%) or raw serrano (8%) peppers in the week before illness began, whereas reported raw tomato consumption was high (85%). Finding the outbreak strain on two types of peppers from two farms supports the possibility of contamination of other produce items, including tomatoes, during growing, processing, or distribution.

Local, state, tribal, and federal response capacity often is strained during large and complex outbreaks, and structure and capabilities vary among jurisdictions. This can cause delays in

identifying cases and in conducting investigations. In this outbreak investigation, the median time from illness onset to submission of the PFGE pattern of patients' *Salmonella* isolates to PulseNet was 17 days; 90% were submitted within 27 days. Faster transfer of bacterial strains to public health laboratories and faster subtyping in those laboratories would result in more timely investigation of cases of infection. Epidemiologic investigations can benefit from faster methods for interviewing ill and well persons, improved interview formats, and rapidly adaptable electronic data gathering and transmission platforms. Improvements in the ability to trace contaminated produce quickly and accurately also would improve the speed of investigations, the speed and specificity of recalls, and the determination of the ultimate causes of contamination. For several years, CDC has been improving the efficiency of epidemiologic investigations through OutbreakNet, the network of public health officials that investigates outbreaks of enteric illnesses nationwide, and through participation in the Council to Improve Foodborne Outbreak Response,\* a multidisciplinary working group.

In addition, FDA has been enhancing the safety of produce by collaborating with state officials, academia, and industry on multiyear initiatives to increase the safety of leafy greens and tomatoes. FDA and its partners are working to improve guidance and policies intended to minimize outbreaks and to improve produce-safety research and education.

\*Information available at <http://www.cifor.us>.

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## Competitive Foods and Beverages Available for Purchase in Secondary Schools — Selected Sites, United States, 2006

Schools are in a unique position to help improve youth dietary behaviors and prevent and reduce obesity. In most schools, foods and beverages are made available to students through the U.S. Department of Agriculture (USDA) school meal programs and the sale of competitive foods, which are any foods and beverages sold at a school separately from the USDA school meal programs. Foods and beverages sold through the USDA school meal programs must meet federal nutrition requirements (1). Competitive foods are not subject to any federal nutrition standards unless they are sold inside the food service area during mealtimes (2). A 2007 Institute of Medicine (IOM) report concluded that schools should limit the availability of less nutritious competitive foods or include more nutritious foods and beverages if they make competitive foods available (3). To identify the types of competitive foods and beverages available for purchase from vending machines or at school stores, canteens, or snack bars, CDC analyzed data from the 2006 School Health Profiles for public secondary schools\* in 36 states and 12 large urban school districts.† CDC also compared 2004 and 2006 data among 24 states and nine large urban school districts. This report summarizes the results of these analyses, which indicated that, from 2004 to 2006, the median percentage of secondary schools across states allowing students to purchase chocolate candy and salty snacks that are not low in fat decreased; however, in 2006, secondary schools still offered less nutritious foods and beverages that compete with school meals. School and public health officials should work together with families to provide foods and beverages at school that follow the IOM recommendations (3).

School Health Profiles surveys have been conducted biennially since 1994 to assess school health programs (4). States and large urban school districts participate in the surveys, selecting either all public secondary schools within their jurisdictions or systematic, equal-probability representative samples

of schools.§ At each school, the principal and lead health education teacher are sent questionnaires to be self-administered and returned to the state or local agency conducting the survey. Only principals (or their designees) are asked questions about competitive foods available for purchase by students in their schools.¶ Participation in School Health Profiles is confidential and voluntary. Follow-up telephone calls and written reminders were used to encourage participation. Data from each questionnaire were cleaned and edited by CDC. Those surveys that used a representative sample of schools, had appropriate documentation, and achieved a response rate of 70% or higher were included in the analysis. Data from these surveys were weighted to reflect the likelihood of schools being selected and to adjust for differing patterns of nonresponse.

In 2006, 36 states and 13 large urban school districts met the criteria for inclusion in the analysis, and all but one large urban school district granted CDC permission to publish their results. Among states, the number of principals who participated ranged from 68 to 661 (median: 262), and response rates ranged from 70% to 91% (median: 78%); among school districts, the number of principals ranged from 31 to 234 (median: 56), and response rates ranged from 71% to 98% (median: 81%). Comparisons between 2004 and 2006 results include only the 24 states and nine large urban school districts with weighted data available for both years. Data from 2004 were recalculated so that the denominator included all schools in each jurisdiction rather than including only schools allowing students to purchase foods or beverages from vending machines or at the school store, canteen, or snack bar, as was done in a previous report (5). The Wilcoxon rank-sum test was used to test for these differences across states and cities. Differences in distributions were considered statistically significant at  $p < 0.05$ .

The percentage of all secondary schools in which students could purchase snack foods or beverages from vending machines or at the school store, canteen, or snack bar ranged

\* Middle, junior high, and senior high schools with one or more of grades 6–12.

† States: Alabama, Alaska, Arizona, Arkansas, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Maine, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, and West Virginia. School districts: Charlotte-Mecklenburg County, North Carolina; Chicago, Illinois; Dallas, Texas; District of Columbia; Hillsborough County, Florida; Los Angeles, California; Memphis, Tennessee; Miami-Dade County, Florida; Orange County, Florida; Philadelphia, Pennsylvania; San Diego, California; and San Francisco, California.

§ In the 2006 surveys, statewide samples were representative of all public secondary schools in the state with two exceptions: no schools from the New York City Department of Education were included in the New York state sample, and no schools from the Chicago Public Schools were included in the Illinois sample.

¶ Principals were asked the following questions: 1) “Can students purchase snack foods or beverages from one or more vending machines at the school or at a school store, canteen, or snack bar?” 2) “Can students purchase each snack food or beverage (chocolate candy; other kinds of candy; salty snacks that are not low in fat; soda pop or fruit drinks that are not 100% juice; sports drinks; 2% or whole milk; salty snacks that are low in fat; fruits or vegetables; low-fat cookies, crackers, cakes, pastries, or other low-fat baked goods; 100% fruit juice or vegetable juice; bottled water; or 1% or skim milk) from vending machines or at the school store, canteen, or snack bar?” and 3) “Can students purchase candy; snacks that are not low in fat; soda pop, sports drinks, or fruit drinks that are not 100% juice; or 2% or whole milk during the following times (before classes begin in the morning, during any school hours when meals are not being served, and during school lunch periods)?”

**TABLE. Percentage of all public secondary schools\* allowing students to purchase foods and beverages from vending machines or at the school store, canteen, or snack bar, and percentage of all public secondary schools offering selected types of foods and beverages, by location — School Health Profiles, selected U.S. sites, 2006**

Location	Schools allowing students to purchase foods or beverages (%)	Less nutritious foods and beverages						More nutritious foods and beverages					
		Chocolate candy (%)	Other kinds of candy (%)	Salty snacks not low in fat† (%)	Soda pop or fruit drinks§ (%)	Sports drinks (%)	2% or whole milk (plain or flavored) (%)	Fruits or vegetables (%)	Low-fat baked goods¶ (%)	Salty snacks low in fat** (%)	100% fruit juice or vegetable juice (%)	Bottled water (%)	1% or skim milk (%)
<b>State</b>													
Alabama	86.7	32.3	37.4	45.4	69.7	81.9	32.3	17.5	71.6	76.7	71.5	84.4	33.3
Alaska	62.7	41.2	42.3	44.0	50.4	53.3	15.9	14.7	36.2	42.7	50.6	55.6	10.7
Arizona	68.6	32.8	36.2	40.0	43.1	58.8	27.1	24.9	39.7	50.2	44.7	64.4	26.3
Arkansas	70.7	23.5	26.3	26.2	64.2	58.5	33.5	14.6	30.8	35.1	48.7	66.6	27.6
Connecticut	71.8	21.2	25.8	41.2	39.5	57.3	49.5	39.4	47.7	58.5	57.8	69.1	50.1
Delaware	79.0	34.3	37.2	44.7	45.4	67.6	40.8	23.9	47.6	56.6	62.1	74.5	40.2
Florida	72.3	28.9	32.9	38.1	57.4	66.0	44.4	29.6	42.5	49.5	55.4	70.2	43.7
Georgia	87.1	53.9	56.9	59.4	73.3	82.6	40.3	15.2	49.7	58.1	65.3	85.9	36.9
Hawaii	61.9	12.6	14.2	11.0	39.5	30.5	17.3	6.6	9.8	12.5	41.0	60.3	16.3
Idaho	93.4	65.5	67.4	63.7	82.5	90.2	44.8	28.6	57.6	71.2	77.0	90.8	36.0
Illinois††	77.2	43.2	46.5	52.2	63.7	67.5	50.2	34.0	49.2	57.8	62.0	73.7	40.4
Iowa	87.9	46.6	54.4	48.3	74.9	81.3	45.3	28.2	49.3	57.6	72.5	85.9	44.1
Kansas	85.7	62.2	63.0	60.4	79.1	78.9	32.5	19.5	56.9	66.2	62.0	80.0	26.2
Maine	77.6	8.4	11.2	23.0	25.3	59.5	42.4	32.2	46.1	53.2	68.6	74.9	47.5
Massachusetts	77.5	18.2	23.8	38.7	37.4	59.1	50.9	34.9	53.9	62.4	64.7	75.2	52.1
Michigan	87.6	58.6	64.2	68.2	67.7	78.9	55.2	43.4	56.2	70.8	68.9	84.4	48.7
Mississippi	87.9	71.0	72.0	75.0	78.2	78.5	34.0	18.2	53.2	72.1	54.3	83.3	27.1
Missouri	87.1	50.8	54.9	60.9	74.2	76.2	50.2	23.6	52.4	62.4	65.5	81.9	45.6
Montana	87.3	52.2	55.2	49.9	71.3	85.3	23.9	25.1	41.9	52.1	69.6	83.1	22.0
Nebraska	86.0	44.9	46.1	46.4	78.3	81.3	37.8	17.1	45.4	52.2	62.6	78.8	35.6
New Hampshire	90.5	22.2	24.5	44.6	43.4	73.1	60.2	43.7	65.6	73.2	78.6	89.7	60.1
New York§§	93.3	34.5	44.8	61.7	62.5	81.5	60.9	46.8	65.2	79.2	77.0	89.6	59.8
North Carolina	84.3	35.0	40.3	50.0	56.0	72.2	40.1	30.6	55.7	62.0	63.8	79.9	41.2
North Dakota	78.4	45.7	44.1	38.2	69.1	73.4	23.3	14.5	33.7	43.2	64.0	75.9	21.7
Oregon	78.6	49.9	55.1	55.6	62.0	70.9	35.9	30.3	51.2	63.4	64.4	76.3	35.4
Pennsylvania	76.9	39.0	43.0	46.9	50.7	62.3	48.8	32.8	53.8	61.8	65.2	74.8	47.6
Rhode Island	89.5	26.4	28.8	49.8	44.0	71.0	67.9	46.8	55.8	68.7	77.7	84.6	66.2
South Carolina	94.0	56.4	66.0	69.9	76.0	86.6	49.2	25.9	66.7	75.9	66.9	90.2	42.7
South Dakota	80.5	28.3	29.7	27.5	66.6	77.1	35.4	19.0	36.7	39.9	66.1	79.7	33.2
Tennessee	88.0	58.4	61.9	62.5	73.3	81.9	45.6	22.0	57.1	67.4	63.1	85.1	35.7
Texas	81.0	46.9	39.9	47.9	56.3	70.9	49.6	41.2	59.6	68.5	67.2	77.6	44.9
Utah	93.0	82.9	82.6	75.9	86.0	87.9	58.6	36.8	73.4	82.9	74.4	89.7	45.8
Vermont	75.5	13.4	15.7	36.5	39.3	56.3	54.4	38.4	43.8	55.9	64.6	71.2	55.1
Virginia	80.2	47.2	51.5	60.0	62.4	67.0	47.2	25.2	58.1	69.1	62.9	77.6	40.6
Washington	88.2	39.4	46.5	39.6	57.8	75.1	41.1	33.9	57.9	62.9	73.7	85.1	36.0
West Virginia	82.3	10.1	18.2	28.3	37.3	48.6	32.9	7.6	62.3	67.8	67.0	79.3	33.1
<b>Median</b>	<b>83.3</b>	<b>40.3</b>	<b>43.6</b>	<b>47.4</b>	<b>62.5</b>	<b>72.7</b>	<b>43.4</b>	<b>27.1</b>	<b>52.8</b>	<b>62.2</b>	<b>65.0</b>	<b>79.5</b>	<b>40.3</b>
<b>Range</b>	<b>61.9–</b>	<b>8.4–</b>	<b>11.2–</b>	<b>11.0–</b>	<b>25.3–</b>	<b>30.5–</b>	<b>15.9–</b>	<b>6.6–</b>	<b>9.8–</b>	<b>12.5–</b>	<b>41.0–</b>	<b>55.6–</b>	<b>10.7–</b>
	<b>94.0</b>	<b>82.9</b>	<b>82.6</b>	<b>75.9</b>	<b>86.0</b>	<b>90.2</b>	<b>67.9</b>	<b>46.8</b>	<b>73.4</b>	<b>82.9</b>	<b>78.6</b>	<b>90.8</b>	<b>66.2</b>

from 61.9% to 94.0% (median: 83.3%) across the 36 states and from 31.5% to 88.6% (median: 79.2%) across the 13 large urban school districts (Table). The types of less nutritious foods available for purchase from vending machines or at the school store, canteen, or snack bar varied. For example, chocolate candy was available for purchase in 8.4% to 82.9% (median: 40.3%) of all secondary schools across states and in 4.0% to 59.1% (median: 24.1%) of all secondary schools across large urban school districts, whereas sports drinks were available in 30.5% to 90.2% (median: 72.7%) of schools across states and in 18.0% to 84.3% (median: 71.6%) of schools across large urban school districts.

Students also could purchase more nutritious foods and beverages from vending machines or at the school store, canteen, or snack bar (Table). Fruits or vegetables were available for purchase in 6.6% to 46.8% (median: 27.1%) of all secondary schools across states and in 10.3% to 58.8% (median: 35.7%) of all secondary schools across large urban school districts. Bottled water was available for purchase in 55.6% to 90.8% (median: 79.5%) of schools across states and in 29.0% to 86.6% (median: 75.2%) of schools across large urban school districts.

The percentage of all secondary schools that allowed students to purchase candy; snacks not low in fat; soda pop, sports



**TABLE. (Continued) Percentage of all public secondary schools\* allowing students to purchase foods and beverages from vending machines or at the school store, canteen, or snack bar, and percentage of all public secondary schools offering selected types of foods and beverages, by location — School Health Profiles, selected U.S. sites, 2006**

Location	Schools allowing students to purchase foods or beverages (%)	Less nutritious foods and beverages						More nutritious foods and beverages					
		Chocolate candy (%)	Other kinds of candy (%)	Salty snacks not low in fat† (%)	Soda pop or fruit drinks§ (%)	Sports drinks (%)	2% or whole milk (plain or flavored) (%)	Fruits or vegetables (%)	Low-fat baked goods¶ (%)	Salty snacks low in fat** (%)	100% fruit juice or vegetable juice (%)	Bottled water (%)	1% or skim milk (%)
<b>School district</b>													
Charlotte-Mecklenburg County	85.7	47.6	57.3	81.0	66.1	73.3	48.0	41.0	69.2	81.0	71.7	81.0	50.4
Chicago	31.5	4.0	5.7	4.4	9.8	18.0	16.1	10.3	13.4	14.2	25.0	29.0	14.7
Dallas	76.9	59.1	56.9	65.6	71.4	69.8	35.0	19.7	45.8	56.7	43.9	72.1	21.8
District of Columbia	64.0	18.3	22.3	18.3	37.1	35.1	16.1	14.2	22.3	25.5	42.7	55.8	24.3
Hillsborough County	88.6	27.1	32.3	51.1	69.4	84.3	53.4	38.7	46.6	65.1	66.9	86.5	53.6
Los Angeles	88.0	8.2	16.0	15.5	9.6	76.5	55.3	43.6	66.5	67.8	75.9	86.6	56.7
Memphis	77.7	53.3	56.8	52.5	67.5	67.0	30.2	17.9	32.0	42.7	61.6	56.6	25.1
Miami-Dade County	86.1	52.2	59.3	63.4	71.9	80.1	57.8	39.3	62.5	72.0	62.7	80.3	60.1
Orange County	80.7	21.1	24.3	33.3	47.4	74.3	49.9	32.6	51.9	55.7	53.2	78.2	44.2
Philadelphia	61.4	9.9	12.6	24.3	12.9	25.8	28.5	23.1	40.4	42.7	53.5	54.7	29.2
San Diego	84.5	43.8	43.8	67.0	57.3	78.6	64.6	58.8	56.6	72.4	67.1	78.6	46.1
San Francisco	62.3	5.9	12.3	6.5	15.1	28.1	30.2	39.6	45.7	46.1	52.2	61.2	36.7
<b>Median</b>	<b>79.2</b>	<b>24.1</b>	<b>28.3</b>	<b>42.2</b>	<b>52.4</b>	<b>71.6</b>	<b>41.5</b>	<b>35.7</b>	<b>46.2</b>	<b>56.2</b>	<b>57.6</b>	<b>75.2</b>	<b>40.5</b>
<b>Range</b>	<b>31.5–88.6</b>	<b>4.0–59.1</b>	<b>5.7–59.3</b>	<b>4.4–81.0</b>	<b>9.6–71.9</b>	<b>18.0–84.3</b>	<b>16.1–64.6</b>	<b>10.3–58.8</b>	<b>13.4–69.2</b>	<b>14.2–81.0</b>	<b>25.0–75.9</b>	<b>29.0–86.6</b>	<b>14.7–60.1</b>

\* Middle, junior high, and senior high schools with one or more of grades 6–12.

† Such as regular potato chips.

§ Fruit drinks that are not 100% juice.

¶ Cookies, crackers, cakes, pastries, or other low-fat baked goods.

\*\* Such as pretzels, baked chips, or other low-fat chips.

†† Survey did not include schools from Chicago Public Schools.

§§ Survey did not include schools from the New York City Department of Education.

drinks, or fruit drinks that are not 100% juice; or 2% or whole milk during school lunch periods ranged from 3.9% to 81.3% (median: 34.9%) across states and from 15.7% to 72.3% (median: 36.9%) across large urban school districts. From 20.2% to 72.5% (median: 35.0%) of schools across states and from 7.2% to 58.0% (median: 27.6%) of schools across large urban school districts allowed students to purchase these items before classes began in the morning and from 11.9% to 56.6% (median: 29.3%) of schools across states and in 2.9% to 39.1% (median: 12.0%) of schools across large urban school districts allowed students to purchase these items during any school hours when meals were not being served.

A comparison of the availability of competitive foods and beverages in schools revealed few changes between 2004 and 2006. Across states, decreases were observed in the median percentage of schools that allowed students to purchase chocolate candy (from 52.3% to 43.1% [ $p=0.03$ ]) and salty snacks that are not low in fat (from 63.5% to 47.4% [ $p=0.001$ ]) from vending machines or at the school store, canteen, or snack bar. Across states, no significant changes were detected in the median percentage of schools that allowed students to purchase other kinds of candy, soda pop or fruit drinks that are

not 100% juice, sports drinks, fruits or vegetables, low-fat baked goods, low-fat salty snacks, or bottled water from vending machines or at the school store, canteen, or snack bar. Across states, the median percentage of schools that allowed students to purchase candy; snacks that are not low in fat; soda pop, sports drinks, or fruit drinks that are not 100% juice; or 2% or whole milk during school lunch periods decreased from 52.9% to 36.6% ( $p=0.03$ ). However, no change was observed in the median percentage of schools that allowed students to purchase candy; snacks that are not low in fat; soda pop, sports drinks, or fruit drinks that are not 100% juice; or 2% or whole milk before school or during any school hours when meals are not being served. Across districts, no significant changes were detected in any of the variables tested.

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**Editorial Note:** The findings in this report indicate that, in 2006, in all 36 states and all but one of 12 large urban school districts, 62%–94% of schools allowed students to purchase snack foods or beverages from vending machines at the school

or at the school store, canteen, or snack bar. In 28 states and five districts, fruits and vegetables were the least common items available, and in 34 states and 11 districts, bottled water was the most common item available. These results are consistent with previous reports from state and district (5) and national surveys (6).

During 2004–2006, the availability during school lunch periods of some less nutritious competitive foods and beverages at schools decreased across states, but availability did not decrease before school or during any school hours when meals are not being served. Competitive food policies are viewed increasingly as an important strategy to address rising rates of childhood obesity. Congress passed legislation in 2004 requiring all school districts to develop a Wellness Policy starting in the 2006–07 school year that includes nutrition guidelines for competitive foods (7). By February 2007, 27 states, 19 of which are included in this report, had adopted competitive food and beverage policies through legislative bills, executive orders, rules, and regulations more restrictive than current USDA federal regulations (3).

The findings in this report are subject to at least three limitations. First, these data apply only to public secondary schools and, therefore, do not reflect practices at private schools or elementary schools. Second, these data were self-reported by principals or their designees and were not verified by other sources. Finally, these data were collected during spring and fall 2006 and do not reflect any state, district, or school policies enacted, modified, or discontinued since then.

To help improve dietary behavior and reduce obesity among youths, schools should encourage and support greater daily consumption of fruits, vegetables, whole grains, and nonfat or low-fat dairy products by providing better access to these foods and beverages (3). Science-based strategies are available to help states, districts, and schools improve their school nutrition environment. For example, the *School Health Index* helps schools identify the strengths and weaknesses of their health-promotion policies and programs and develop an action plan to ensure that students have access to appealing and nutritious foods and beverages outside the school meals program (8). In addition, *Making It Happen! School Nutrition Success Stories* describes the innovative strategies schools and school districts throughout the United States have used to improve the nutritional quality of foods and beverages sold outside of federal meal programs (9). These strategies include establishing nutrition standards for competitive foods, influencing food and beverage contracts, making more healthful foods and beverages available, adopting marketing techniques to promote healthful choices, limiting student access to competitive foods, and using fundraising activities and rewards that support student health.

### Acknowledgments

The findings in this report are based on data collected by state and local School Health Profiles coordinators.

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## Alcohol-Attributable Deaths and Years of Potential Life Lost Among American Indians and Alaska Natives — United States, 2001–2005

Excessive alcohol consumption is a leading preventable cause of death in the United States (1) and has substantial public health impact on American Indian and Alaska Native (AI/AN) populations (2). To estimate the average annual number of alcohol-attributable deaths (AADs) and years of potential life lost (YPLLs) among AI/ANs in the United States, CDC analyzed 2001–2005 data (the most recent data available), using death certificate data and CDC Alcohol-Related Disease Impact (ARDI) software.\* This report summarizes the results of that analysis, which indicated that AADs accounted for 11.7% of all AI/AN deaths, that the age-adjusted AAD rate for AI/ANs

\* Available at <http://apps.nccd.cdc.gov/ardi>.

was approximately twice that of the U.S. general population, and that AI/ANs lose 6.4 more years of potential life per AAD compared with persons in the U.S. general population (36.3 versus 29.9 years). These findings underscore the importance of implementing effective population-based interventions to prevent excessive alcohol consumption and to reduce alcohol-attributable morbidity and mortality among AI/ANs.

ARDI estimates AADs and YPLLs resulting from excessive alcohol consumption by using multiple data sources and methods.<sup>†</sup> AADs are generated by multiplying the number of sex- and cause-specific deaths (e.g., liver cancer) by the sex- and cause-specific alcohol-attributable fraction (AAF) (i.e., the proportion of deaths attributable to excessive alcohol consumption). For deaths that are, by definition, 100% attributable to excessive alcohol consumption (e.g., alcoholic liver disease), the total number of AADs equals the total number of deaths. For deaths that are <100% attributable to alcohol, ARDI uses either direct or indirect AAF estimates to generate the total number of AADs. Direct AAF estimates typically come from studies that have assessed the proportion of persons dying from a particular condition (e.g., injuries) at or above a specified blood alcohol concentration (e.g., 0.10 g/dL) or from follow-up studies that have assessed alcohol use of the decedents, based on medical record review and interviews with next-of-kin. Indirect AAF estimates are calculated from pooled risk estimates obtained from meta-analyses of mostly chronic conditions, examining the relationship between various alcohol-related health outcomes (e.g., liver cancer) and the population-based prevalence of alcohol use at consumption levels (i.e., low, medium, or high).

For this analysis, death certificate data for 2001–2005 were used to determine the average annual number of deaths from alcohol-related causes for all AI/ANs in the United States and for the U.S. population as a whole. Population-specific, direct AAF estimates for motor vehicle traffic crashes were obtained from the Fatality Analysis and Reporting System<sup>§</sup> by averaging 2001–2005 data for AI/ANs and the U.S. population. Population-based prevalence estimates of alcohol consumption were obtained by averaging 2001–2005 data from the Behavioral Risk Factor Surveillance System<sup>¶</sup> and were used to calculate all indirect AAFs. AADs were analyzed by cause and stratified by sex and by age, using standard 5-year age groupings. YPLLs were generated by multiplying the age- and sex-specific AADs by the corresponding life expectancies. Death and life expectancy data were obtained from the National Vital Statistics System.\*\* Death records missing data

on decedent age or sex were excluded from this analysis. Bridged-race population estimates from the U.S. Census were used to calculate death rates. Death rates were directly age adjusted to the standard 2000 U.S. population using the age groups 0–19, 20–34, 35–49, 50–64, and ≥65 years.

During 2001–2005, an average of 1,514 AADs occurred annually among AI/ANs, accounting for 11.7% of all deaths in this population (Table). Overall, 771 (50.9%) of average annual AADs resulted from acute causes, and 743 (49.1%) from chronic causes. The leading acute cause of death was motor-vehicle traffic crashes (417 AADs), and the leading chronic cause was alcoholic liver disease (381). The crude AAD rate among AI/ANs was 49.1 per 100,000 population (25.0 for acute causes and 24.1 for chronic causes). Of all YPLLs, 60.3% resulted from acute conditions, and 39.7% resulted from chronic conditions. The leading acute cause of YPLLs was motor-vehicle traffic crashes (34.4% of YPLLs), and the leading chronic cause was alcoholic liver disease (21.2%).

Overall, 68.3% of AAD decedents among AI/ANs were men, and more AADs occurred among men than women in all age groups (Figure 1); 65.9% of AADs were among persons aged <50 years, and 6.9% were among persons aged <20 years. Of the YPLLs, 68.3% were among those aged 20–49 years.

By Indian Health Service statistical region, the greatest number of AADs occurred in the Northern Plains (497 AADs), South West (315), and Pacific Coast (230) regions, and the fewest AADs occurred in Alaska (86) (Figure 2). Age-adjusted AAD rates were highest in the Northern Plains (95.2; 95% confidence interval [CI] = 86.5–103.9), Alaska (92.6; CI = 72.4–112.8), and the South West (80.2; CI = 70.8–89.6), and were approximately four to five times higher than the rate in the East (19.2; CI = 15.8–22.6).

Age-adjusted AAD rates and the relative contributions of AADs to total deaths and total YPLLs were substantially higher for AI/ANs compared with the U.S. general population. The age-adjusted AAD rate per 100,000 for AI/ANs was 55.0 (CI = 52.1–57.9) versus 26.9 (CI = 26.7–27.1) for the U.S. general population. Furthermore, AADs accounted for 11.7% of total deaths among AI/AN versus 3.3% for the U.S. general population, and alcohol-attributable YPLLs accounted for 17.3% of total YPLLs for AI/ANs and 6.3% of total YPLLs for the U.S. general population. The average number of YPLLs per AAD also was higher for AI/ANs compared with the U.S. general population (36.3 years versus 29.9 years, respectively).

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<sup>†</sup> Available at <http://apps.nccd.cdc.gov/ardi/aboutardimethods.htm#aafs>.

<sup>§</sup> Available at <http://www-fars.nhtsa.dot.gov/main/index.aspx>.

<sup>¶</sup> Available at <http://www.cdc.gov/brfss/index.htm>.

\*\* Available at <http://www.cdc.gov/nchs/nvss.htm>.

**TABLE. Average annual number of alcohol-attributable deaths (AADs) and years of potential life lost (YPLLs) among American Indians/Alaska Natives (AI/ANs), by leading alcohol-related causes of death — CDC Alcohol-Related Disease Impact (ARDI) software, United States, 2001–2005**

Alcohol-related cause of death	No. of deaths from alcohol-related causes*	No. of AADs	% of total AADs	ADD crude rate†	YPLLs	% of total YPLLs
<b>Total</b>	<b>5,553</b>	<b>1,514</b>	<b>(100)</b>	<b>49.1</b>	<b>54,571§</b>	<b>(100)</b>
<b>Acute cause</b>						
Motor-vehicle traffic crashes	789	417	(27.5)	13.5	18,789	(34.4)
Homicide	212	100	(6.6)	3.2	4,419	(8.1)
Suicide	342	79	(5.2)	2.6	3,461	(6.3)
Other poisonings¶	204	59	(3.9)	1.9	2,307	(4.2)
Fall injuries	105	33	(2.2)	1.1	750	(1.4)
Hypothermia	45	19	(1.3)	0.6	621	(1.1)
Alcohol poisoning	16	16	(1.1)	0.5	596	(1.1)
Drowning	57	16	(1.1)	0.5	685	(1.3)
Fire injuries	45	15	(1.0)	0.5	500	(0.9)
Other road vehicle crashes	30	5	(0.3)	0.2	215	(0.4)
Other	76	12	(0.8)	0.4	591	(1.1)
<b>Acute subtotal</b>	<b>1,921</b>	<b>771</b>	<b>(50.9)</b>	<b>25.0</b>	<b>32,933</b>	<b>(60.3)</b>
<b>Chronic cause</b>						
Alcoholic liver disease	381	381	(25.2)	12.4	11,545	(21.2)
Alcohol dependence syndrome	103	103	(6.8)	3.3	3,190	(5.8)
Liver cirrhosis, unspecified	234	94	(6.2)	3.0	2,404	(4.4)
Alcohol abuse	63	63	(4.2)	2.0	2,012	(3.7)
Alcoholic psychosis	37	37	(2.4)	1.2	1,042	(1.9)
Stroke, hemorrhagic	177	13	(0.9)	0.4	268	(0.5)
Alcohol cardiomyopathy	10	10	(0.7)	0.3	275	(0.5)
Liver cancer	111	8	(0.5)	0.3	154	(0.3)
Hypertension	195	7	(0.5)	0.2	133	(0.2)
Ischemic heart disease	1,803	5	(0.3)	0.2	85	(0.2)
Other	518	21	(1.4)	0.7	531	(1.0)
<b>Chronic subtotal</b>	<b>3,632</b>	<b>743</b>	<b>(49.1)</b>	<b>24.1</b>	<b>21,638</b>	<b>(39.7)</b>

\* An additional 7,314 deaths were reported for AI/ANs from causes not designated by ARDI as alcohol related, and 49 other deaths from alcohol-related causes were not included because of missing data (i.e., age or sex of decedent).

† Per 100,000 population.

§ Numbers might not total because of rounding.

¶ Includes drug overdoses.

*Prevention and Health Promotion; P Snedrud, Office of Minority Health and Health Disparities; P Chavez, PhD, EIS Officer, CDC.*

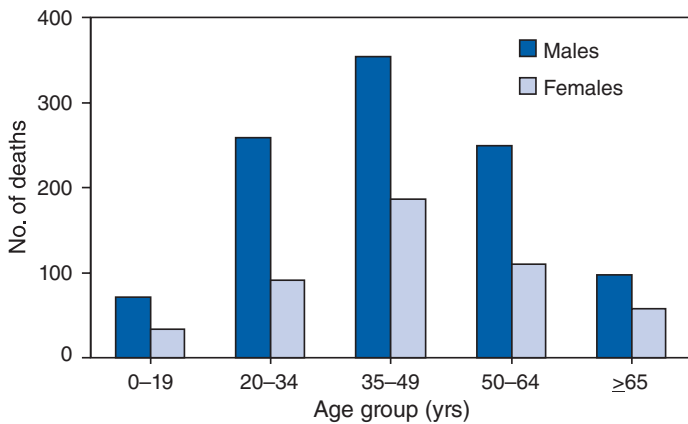
**Editorial Note:** This is the first national report of AADs and YPLLs among AI/ANs; the results demonstrate that excessive alcohol consumption is a leading cause of preventable death and years of lost life in this population. During 2001–2005, AI/ANs were more than twice as likely to die from alcohol-related causes, compared with the U.S. general population; 11.7% of AI/AN deaths were attributed to alcohol. These findings are consistent with those of previous studies (4,5) and might help account for the high rates of injury-related death (e.g., motor-vehicle traffic crashes) that have been observed in this population. The finding that AAD rates vary by region demonstrates that alcohol does not impact all AI/AN communities to the same extent. AI/ANs in specific regions (e.g., Northern Plains) have lower life expectancies; this is likely attributable, in part, to deaths from alcohol-attributable conditions (6).

To further address alcohol-attributable mortality among AI/ANs will require concerted action by multiple organizations and groups, including AI/AN communities, towns on

nonreservation lands within and surrounding AI/AN communities, and national, state, and local health agencies. Bans on the sale and possession of alcoholic beverages on certain Indian reservations have been shown to reduce consumption and related harms (5), although the efficacy of such policies is influenced by access to alcohol in surrounding communities (7). Culturally appropriate clinical interventions for reducing excessive drinking (e.g., screening and counseling for excessive alcohol consumption and treatment for alcohol dependence) should be widely implemented among AI/ANs (7). In addition, tribal court systems, which deal with large numbers of alcohol-related crimes, should be better integrated with the health-care system and substance-abuse treatment programs.

The findings in this report are subject to at least four limitations. First, some AI/ANs might have been misclassified by race on death certificates, which would underestimate the total number of AI/AN deaths (8). In a 1996 Indian Health Service study, racial misclassification on death certificates of American Indians ranged from 1.2% in Arizona to 28.0% in

**FIGURE 1. Average annual number of alcohol-attributable deaths among American Indians/Alaska Natives, by sex and age group — CDC Alcohol-Related Disease Impact software, United States, 2001–2005**



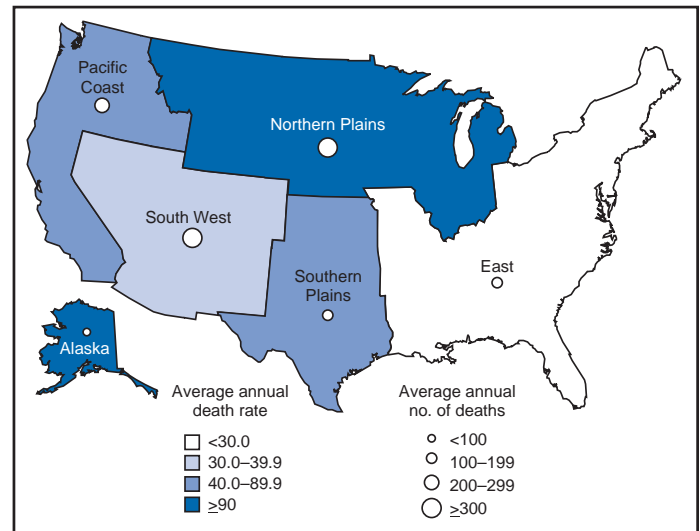
Oklahoma and 30.4% in California (8). Second, this study did not use race-specific AAFs for most conditions, which might result in AAD underestimates for certain conditions (e.g., homicide and suicide) for which the AAFs are thought to be higher among AI/ANs (4). Third, ARDI does not estimate AADs for several conditions (e.g., tuberculosis, pneumonia, hepatitis C, and colon cancer) for which alcohol is believed to be an important risk factor but for which suitable pooled risk estimates are not available. Finally, bridged-race census estimates used in this report are based on multiple race categories; use of denominators based on other race categorization methods (e.g., 2000 U.S. Census data or tribal census data) would result in higher rates than reported.

Indian Health Service has initiated an alcohol screening and brief counseling intervention program to help reduce excessive alcohol consumption and related harms among AI/ANs in trauma settings. In addition, effective population-based interventions should be implemented to reduce excessive alcohol consumption in AI/AN populations. These include reducing alcohol availability by limiting outlet density, enforcing 21 years as the minimum legal drinking age (9), increasing alcohol excise taxes, and enforcing laws prohibiting sales to underage or already intoxicated persons, particularly in communities bordering reservations (10). Future efforts should explore regional differences in AADs and evaluate other intervention strategies for reducing alcohol-attributable mortality among AI/AN populations.

#### Acknowledgments

This report is based, in part, on data contributed by T Lindsey, National Center for Statistics and Analysis, National Highway Traffic Safety Admin, US Dept of Transportation; M Zack, Div of Adult and Community Health, National Center for Chronic Disease and

**FIGURE 2. Average annual number of alcohol-attributable deaths and alcohol-attributable death rates,\* among American Indians/Alaska Natives, by Indian Health Service statistical region† — CDC Alcohol-Related Disease Impact software, United States, 2001–2005**



\* Age adjusted per 100,000 population.

† The statistical regions were formed by consolidating the 12 service areas of the Indian Health Service (e.g., the Northern Plains region includes the Aberdeen, Bemidji, and Billings service areas) to create geographic areas for analysis that do not cross state or county lines to allow for use with U.S. Census denominators and state data.

Public Health Promotion; and C Rothwell and D Hoyert, National Center for Health Statistics, CDC.

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## Progress Toward Poliomyelitis Eradication — Nigeria, January 2007–August 12, 2008

Nigeria is one of only four countries that have never interrupted poliovirus transmission (the others are Afghanistan, India, and Pakistan). A resurgence in wild poliovirus (WPV) transmission occurred in Nigeria during 2003–2004 after a loss of public confidence in oral poliovirus vaccine (OPV) and suspension of supplementary immunization activities (SIAs)\* in several northern states (1). Subsequently, WPV spread within Nigeria and ultimately into 20 previously polio-free countries during 2003–2006 (2–4). Even after national SIAs resumed, limited acceptance and ongoing operational problems resulted in low polio vaccination coverage and continued WPV transmission. Beginning in 2006, health authorities in Nigeria introduced new initiatives to control the spread of WPV, including a focus on interrupting type 1 WPV (WPV1) transmission and use of monovalent type 1 OPV (mOPV1) for most of the SIAs to increase vaccine effectiveness.† Nigeria also instituted changes in SIA implementation to increase community acceptance of vaccination (5). Subsequently, 285 polio cases were reported in Nigeria in 2007, the lowest number since sensitive surveillance has been in place (2). As of August 12, 2008, confirmed polio cases reported in Nigeria totaled 556 (including 511 WPV1 cases), compared with 176 cases (53 WPV1) reported during the same period in 2007. This report updates (5) overall progress toward polio eradication in Nigeria during 2007–2008. Given the increase in WPV transmission thus far in 2008, urgent measures are needed to reach all children during SIAs to bring WPV under control in Nigeria.

### Immunization Activities

Through a program of enhanced health-worker training and supervision and community outreach begun in 2006, Nigeria was able to improve routine vaccination coverage (5). National reported routine vaccination coverage for 3 doses of trivalent OPV (tOPV) among infants increased from 32% (range by state: 10%–57%) in 2005 to an average of 62% in 2007 (range by state: 30% to >100%§), with the lower range of coverage

reported from some northern states. In addition to lower average coverage, the highest proportion of local government areas (LGAs) with reported coverage <30% was in selected northern states. Substantial problems remain in providing primary health care and immunization services in these states.

The Nigerian government first used mOPV1 in March 2006 (Figure 1), following a national tOPV SIA in February 2006. In May 2006, the government introduced a modified strategy of SIA implementation, called immunization plus days (IPDs), during which OPV and other health interventions (e.g., other vaccines, anthelmintics, and insecticide-treated bednets) were delivered at fixed sites, combined with providing OPV through house-to-house delivery (5). Subsequent SIAs in 2006 were implemented as subnational IPDs in states with confirmed WPV transmission; three subnational IPDs were held using mOPV1 and one using tOPV. In January 2007, a national IPD used tOPV in northern states and mOPV1 in the south (Table). Of six subnational IPDs in affected areas during 2007, two used tOPV alone, three primarily used mOPV1 alone, and one used mOPV3 alone. In addition, five smaller mop-up SIAs using the best-matched vaccine were conducted in response to recent local WPV circulation.

In 2008, as of August 12, two national IPDs (one using mOPV1, the other mOPV3) and three subnational IPDs had been conducted (primarily using mOPV1) (Table). During late 2007 and early 2008, state funding delays and logistical problems resulted in limited availability of other vaccines and health interventions in IPDs in some areas. One innovation introduced in May 2008 was to implement subnational SIAs using a staggered approach, beginning in states at highest risk and followed by campaigns in other states about a week later, to better supervise campaign preparation and implementation. An additional mOPV1 SIA was planned for late August in the northern states. Measles campaigns planned for northern states in November and for southern states in December also will include mOPV1 administered to target children at fixed sites. During December, several northern states with high incidence of polio also plan to conduct additional SIAs with mOPV1.

Vaccination histories of children aged 6–59 months with nonpolio acute flaccid paralysis (AFP) are used to estimate OPV coverage of the overall target population. Because of lower routine vaccination coverage in areas with high polio incidence, and despite repeated SIAs, the proportion of zero-dose children (those whose parents reported that they had never been vaccinated with OPV) remained substantially higher in polio-affected areas (18%) in Nigeria than in polio-free areas (2%) in 2007 (2). In seven high-incidence¶ northern states

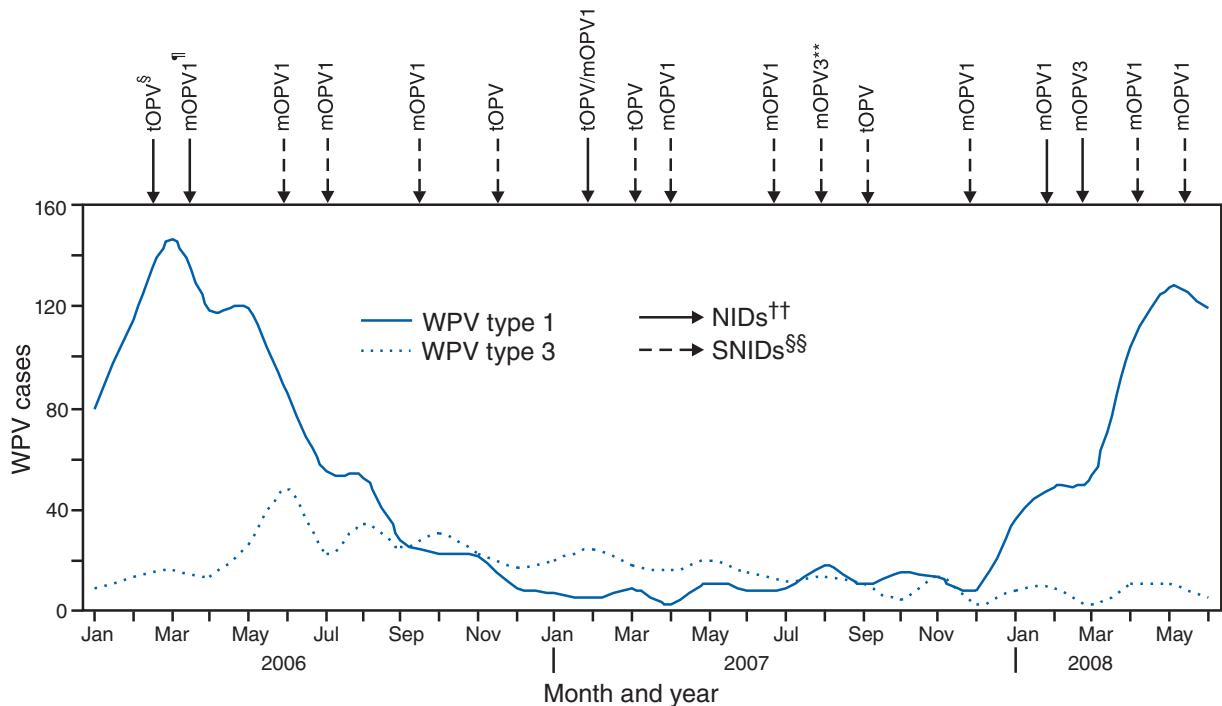
\* Mass campaigns conducted during a short period (days to weeks) during which a dose of OPV is administered to all children aged <5 years, regardless of previous vaccination history. Campaigns can be conducted nationally or in portions of the country.

† WPV1 is more likely to cause paralytic disease and have a wider geographic spread than WPV3; monovalent poliovirus vaccines are more effective against a given WPV type than trivalent OPV (tOPV).

§ Proportions exceeding 100% can occur in administrative data as a result of errors in recording vaccination numbers and errors in estimating target population numbers; administrative data therefore are not as reliable as data collected from actual coverage surveys.

¶ Incidence rate of confirmed polio cases per 100,000 children aged <5 years was  $\geq 5.0$  in 2006 and in 2008 (annualized).

**FIGURE 1. Number of confirmed poliomyelitis cases, by wild poliovirus (WPV) type and month of onset, type of supplementary immunization activity (SIA),\* and type of vaccine administered — Nigeria, January 2006–June 2008†**



\* Mass campaign conducted during a short period (days to weeks) during which a dose of oral poliovirus vaccine (OPV) is administered to all children aged <5 years, regardless of previous vaccination history. Campaigns can be conducted nationally or in portions of the country.

† Data available as of August 12, 2008. June laboratory investigations are 98% complete; however, cases for July and August are not shown because laboratory investigations are not completed.

§ Trivalent OPV.

¶ Monovalent type 1 OPV.

\*\* Monovalent type 3 OPV.

†† National immunization days are nationwide SIAs. Except for February and March 2006 NIDs, all other NIDs were immunization plus days (IPDs), in which OPV and other interventions are delivered using fixed-site and OPV house-to-house delivery.

§§ Subnational immunization days are SIAs in a smaller portion of the country. All SNIDs were IPDs, in which OPV and other interventions are delivered using fixed-site and OPV house-to-house delivery.

(Bauchi, Jigawa, Kano, Kaduna, Katsina, Yobe, and Zamfara), the proportion of zero-dose children decreased from 45% by quarter in early 2006 to 30% in early 2007, but the proportion had not fallen below 25% as of August 12, 2008.

### Acute Flaccid Paralysis (AFP) Surveillance

The polio eradication initiative relies on surveillance of AFP to identify cases of poliomyelitis; AFP surveillance is monitored according to World Health Organization (WHO) operational targets for case detection and adequate stool specimen collection.\*\* In 2007, the national nonpolio AFP detec-

tion rate decreased to 5.9 cases per 100,000 population aged <15 years compared with 7.9 cases per 100,000 children in 2006. In 2007, all 37 states and 85% of the 774 LGAs achieved nonpolio AFP rates that met the target of >2 cases per 100,000, similar to the performance in 2006. In 2007, adequate stool specimens were collected for 91.6% of AFP cases nationally, an increase from 86.4% in 2006. In 2007, all 37 states and 85% of LGAs reached the target of >80% of AFP cases with adequate stool specimens, compared with 84% of states and 75% of LGAs in 2006. The proportion of LGAs that reached the target levels for both surveillance indicators increased from 64% in 2006 to 84% in 2007. Large gaps in the genetic relatedness of WPV isolates measured by genomic sequence analysis continue to indicate problems with surveillance sensitivity, possibly the result of decreased AFP case detection, limitations in specimen collection, or lapses in specimen transportation conditions.

\*\* AFP cases in all children aged <15 years and suspected polio in persons of any age are reported and investigated, with laboratory testing, as possible poliomyelitis. The current WHO operational targets for countries at high risk for polio transmission are a nonpolio AFP rate of at least two cases per 100,000 population aged <15 years at each subnational level and adequate stool specimen collection for >80% of AFP cases (i.e., two specimens collected at least 24 hours apart, both within 14 days of paralysis onset, and shipped on ice or frozen ice packs to a WHO-accredited laboratory and arriving at the laboratory in good condition).

**TABLE. Supplementary immunization activity (SIA),\* by month and by oral poliovirus vaccine (OPV) preparation — Nigeria, January 2007–December 2008†**

Month	SIA extent	OPV preparation		
		mOPV1‡	mOPV3¶	tOPV**
<b>2007</b>				
January	NID††	x (South)		x (North)
Early March	SNID§§			x
End March	SNID	x		
June	SNID	x¶¶		
July	SNID		x	
September	SNID			x
November	SNID	x		
<b>2008</b>				
January	NID	x		
February	NID		x	
April	SNID	x***		
May	SNID	x***		
July	SNID	x		
August	SNID	x		
November	SNID	x		
December	SNID	x		

\* Mass campaigns conducted during a short period (days to weeks) during which a dose of OPV is administered to all children aged <5 years, regardless of previous vaccination history. Campaigns can be conducted nationally or in portions of the country.

† Includes scheduled activity for late August, November, and December 2008.

‡ Monovalent type 1 OPV.

¶ Monovalent type 3 OPV.

\*\* Trivalent OPV.

†† National immunization days.

§§ Subnational immunization days.

¶¶ One southern state used only tOPV during this round.

\*\*\* One southern state used only mOPV3 during this round.

## WPV Incidence

Of the 841 WPV cases reported during 2007–2008, a total of 622 (74%) occurred in children aged <3 years; 543 (65%) of cases were in children who were reported to have received <3 doses of OPV, and 224 cases (27%) were in children who were reported to have received no OPV doses.

Of the 285 WPV polio cases with onset in 2007 (116 WPV1 and 169 WPV3), a total of 60 (21%) were reported from Kano state (11 WPV1 and 49 WPV3), and 114 (40%) (44 WPV1 and 70 WPV3) were reported from six other high-incidence states. Of the 556 polio cases (511 WPV1 and 45 WPV3) with onset in 2008, as of August 12, 194 (35%) (190 WPV1 and 4 WPV3) were from Kano state, and 248 (45%) (227 WPV1 and 21 WPV3) were from the other six high-incidence states. In 2006, 18 (49%) of Nigeria's 37 states were affected; that increased to 23 (62%) affected states in 2007 and 23 affected states thus far in 2008. In 2007, the first WPV3 cases since 2004 were reported from southern Nigeria and in 2008, the first WPV1 cases since 2005 were reported from this area. Although the decrease in WPV1 inci-

dence during 2007 was most pronounced in the seven northern states that had the highest incidence of poliomyelitis in 2006 (5), a resurgence in the disease, beginning in the second half of 2007 in these same states and in additional northern states, led to the increased case numbers in 2008. The number of WPV1-affected LGAs in 2008 to date is 180, an increase from 40 reported during the same period in 2007 (Figure 2). The total number of WPV1-affected LGAs during all of 2007 was 78. The number of WPV3-affected LGAs in 2008 to date is 37, a decrease from 77 reported during the same period in 2007. The total number of WPV3-affected LGAs during 2007 was 108.

WPV1 and WPV3 isolated from persons with polio cases in Chad and eastern Niger during 2007–2008 were closely related to viruses found in nearby Nigerian states. Circulation of WPV3 has been ongoing in Chad, after WPV introduction from Nigeria in 2007. Isolated cases of WPV3 and WPV1 occurred in Niger in 2007 and of WPV1 in 2008. In some instances, local WPV1 transmission occurred after introduction from Nigeria during this period (2). In 2008, as of August 12, individual cases of WPV1 of Nigerian origin have been reported in Benin and western Niger, close to Niger's borders with Mali and Burkina Faso, and more recently in Burkina Faso itself (6).

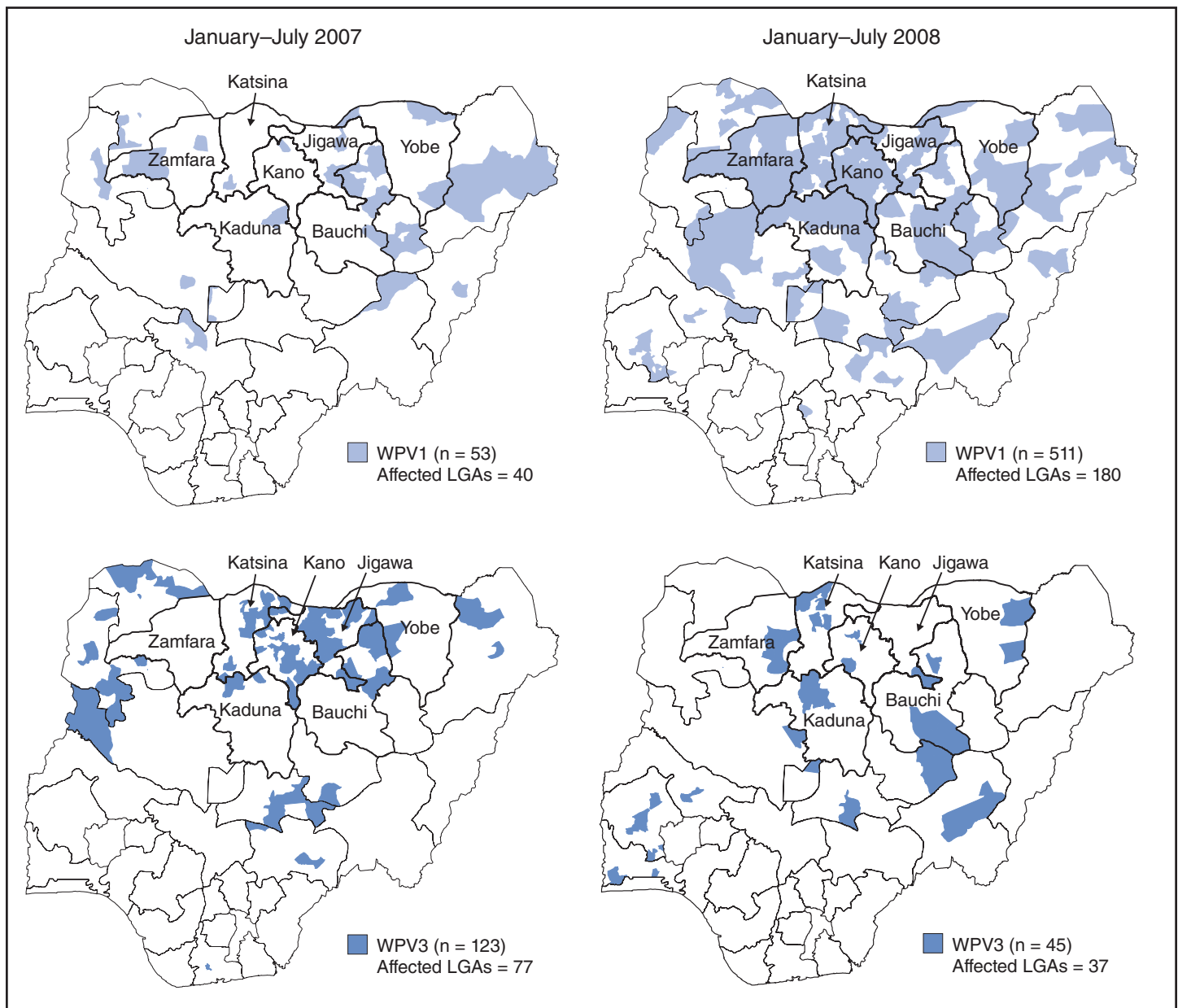
**Reported by:** National Primary Health Care Development Agency and Federal Ministry of Health; Country Office of the World Health Organization, Abuja; Poliovirus Laboratory, Univ of Ibadan, Ibadan; Poliovirus Laboratory, Univ of Maidugari Teaching Hospital, Maidugari, Nigeria. African Regional Polio Reference Laboratory, National Institute for Communicable Diseases, Johannesburg, South Africa. Vaccine Preventable Diseases, World Health Organization Regional Office for Africa, Brazzaville, Congo. Immunization, Vaccines, and Biologicals Dept, World Health Organization, Geneva, Switzerland. Div of Viral Diseases and Global Immunization Div, National Center for Immunization and Respiratory Diseases, CDC.

**Editorial Note:** After the introduction of mOPV1 and IPDs in early 2006, some progress was made in Nigeria toward the goal to interrupt WPV1 transmission (2). Community acceptance of OPV in response to the IPDs seemed to improve: the proportion of zero-dose children in high-incidence states decreased, and the number of WPV1 cases and affected districts at the end of 2006 and during 2007 decreased substantially (2,5). However, improvements have not been sufficient to prevent renewed WPV1 transmission in high-incidence northern states because of high birth rates, continued low routine immunization coverage, and less than optimal OPV coverage during SIAs.

Nigeria accounts for 88% of the 575 WPV1 cases reported globally during January 1–August 12, 2008. More WPV1 cases have been reported to date during 2008 than all WPV cases in the entire previous year, and both WPV1 and WPV3



**FIGURE 2. Local government areas (LGAs) with confirmed cases of wild poliovirus type 1 (WPV1) and type 3 (WPV3) — Nigeria, January–July 2007 and January–July 2008\***



\* Data available as of August 14, 2007, and August 12, 2008; rates of WPV1 and WPV3 infection have been highest in seven northern states: Bauchi, Jigawa, Kano, Kaduna, Katsina, Yobe, and Zamfara. Laboratory investigations for some July data are incomplete, and August data are not shown because laboratory investigations are incomplete.

have reemerged in some southern states. In addition, type 2 vaccine-derived poliovirus emerged in 2005–2006 and continues to circulate in northern Nigeria, causing a total of 103 vaccine-derived polio cases during January 1, 2007–August 12, 2008,<sup>††</sup> in addition to the 841 confirmed WPV

cases, and despite multiple tOPV SIAs (7). Such circulation reflects the historically long-standing, weak status of routine immunization services in these states. Recent WPV1 cases in Benin, western Niger, and Burkina Faso have again raised the threat of increased international transmission of WPV1 from Nigeria during 2008 (3,6).

In May 2008, the World Health Assembly reviewed reported progress in the Global Polio Eradication Initiative and noted

<sup>††</sup> World Health Organization; available at [http://www.polioeradication.org/content/general/cvdpv\\_count.pdf](http://www.polioeradication.org/content/general/cvdpv_count.pdf).

the upsurge in cases in Nigeria and the substantial achievements in interrupting the transmission of WPV1 in India (2). The World Health Assembly took the unusual step of urging the Nigerian government to take immediate steps to reduce the risk for international spread of poliovirus through intensified eradication activities that ensure all children are vaccinated (2,8). Subsequently, the Minister of Health of Nigeria established a steering committee to improve governance in implementation of activities in Nigeria and cross-border SIA efforts. The Nigerian government also established a task force, headed by the Director of Public Health in the Ministry of Health, which will ensure that the directives of the steering committee are implemented. Because up to 30% of the target population in high-incidence states remains unvaccinated, further substantial improvements are needed in community acceptance and SIA operational implementation. Enhanced involvement of traditional and religious community leaders will be essential to increase both SIA and routine vaccination coverage and political accountability for implementation.

Among the four countries that have never interrupted poliovirus transmission, substantial progress has been made in India towards interruption of WPV1 and controlling WPV3 (2). West of India, in Afghanistan and Pakistan, interrupting WPV1 and WPV3 transmission in the areas with threats to security remains difficult (2,9). The Nigerian government and its immunization partners<sup>§§</sup> have reaffirmed their commit-

ment to interrupting WPV transmission as soon as possible through new innovations, and to building sustainable means of enhancing child health in Nigeria. Although improvement of routine immunization services in primary health care is a goal of all partners, much more urgent efforts to reach all children during SIAs are necessary to control the recent upsurge in cases and to interrupt WPV1, and subsequently WPV3, transmission in Nigeria.

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### Erratum: Vol. 57, No. 33

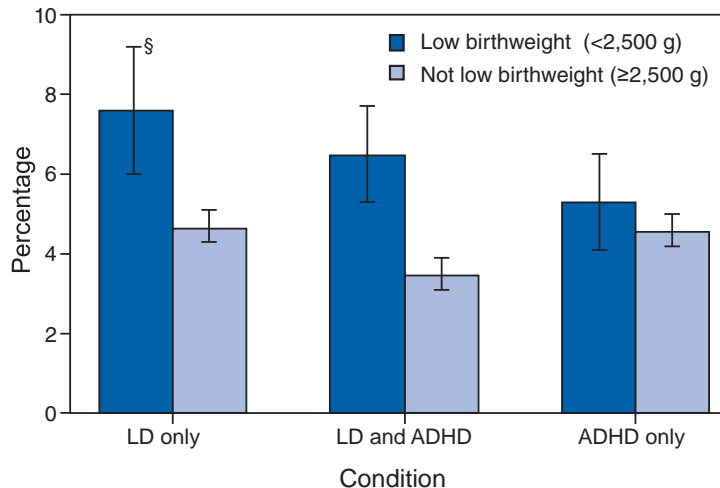
In the QuickStats, “Preterm-Related Infant Mortality Rates, by Race/Ethnicity of Mother — United States, 2000 and 2005,” the fourth footnote should read, “Includes all Hispanic subpopulations, including those not shown separately. A reliable rate could not be computed separately for Cuban women because of small numbers of preterm-related infant deaths in that subpopulation.”

<sup>§§</sup> National Primary Health Care Development Agency, Nigeria Federal Ministry of Health, Association of Local Governments of Nigeria, Nigerian state governments, World Health Organization, Rotary International, CDC, United Nations Children's Fund (UNICEF), European Union, the Bill and Melinda Gates Foundation, the Global Alliance for Vaccines and Immunization, The Vaccine Fund, and bilateral development agencies of Canada, Norway, Japan, the United Kingdom, and the United States (U.S. Agency for International Development [USAID]).

## QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

### Percentage of Children Aged 6–17 Years with Learning Disability (LD) and Attention Deficit Hyperactivity Disorder (ADHD), by Birthweight\* — National Health Interview Survey, United States, 2004–2006†



\* Results are based on responses to the following questions: "What was (sample child)'s birth weight?" "Has a doctor or health professional ever told you that (sample child) had attention deficit hyperactivity disorder (ADHD) or attention deficit disorder (ADD)?" and "Has a representative from a school or a health professional ever told you that (sample child) had a learning disability?"

† Estimates are based on household interviews of a sample of the civilian, noninstitutionalized U.S. population and are derived from the National Health Interview Survey sample child component. Data were combined from 3 years of surveys to increase reliability of estimates.

§ 95% confidence interval.

During 2004–2006, the prevalence of diagnosed LD, both with and without ADHD, was greater among children with low birthweight than among children without low birthweight. Approximately 8% of children with low birthweight had ever been diagnosed with LD without ADHD compared with approximately 5% of children without low birthweight. The prevalence of diagnosed ADHD without LD was not associated with a child's birthweight.

**SOURCES:** National Health Interview Survey, 2004–2006. Available at <http://www.cdc.gov/nchs/nhis.htm>. Pastor PN, Reuben CA. Diagnosed attention deficit hyperactivity disorder and learning disability: United States, 2004–2006. National Center for Health Statistics. Vital Health Stat 2008; 10(237). Available at [http://www.cdc.gov/nchs/data/series/sr\\_10/sr10\\_237.pdf](http://www.cdc.gov/nchs/data/series/sr_10/sr10_237.pdf).

**TABLE 1. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending August 23, 2008 (34th week)\***

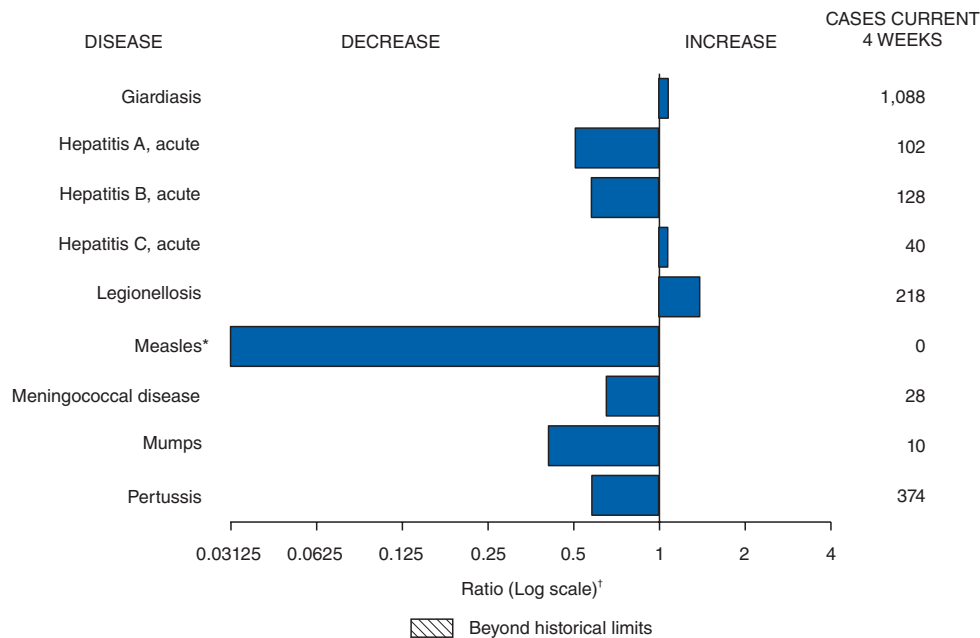
Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2007	2006	2005	2004	2003	
Anthrax	—	—	0	1	1	—	—	—	
Botulism:									
foodborne	—	6	1	32	20	19	16	20	
infant	—	57	2	85	97	85	87	76	
other (wound & unspecified)	2	11	1	27	48	31	30	33	CA (2)
Brucellosis	2	49	2	131	121	120	114	104	CA (2)
Chancroid	1	24	0	23	33	17	30	54	TX (1)
Cholera	—	—	0	7	9	8	6	2	
Cyclosporiasis§	1	96	3	92	137	543	160	75	FL (1)
Diphtheria	—	—	—	—	—	—	—	1	
Domestic arboviral diseases§,¶:									
California serogroup	—	13	6	55	67	80	112	108	
eastern equine	—	1	1	4	8	21	6	14	
Powassan	—	—	0	7	1	1	1	—	
St. Louis	—	5	2	9	10	13	12	41	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,¶,¶:									
<i>Ehrlichia chaffeensis</i>	35	437	16	828	578	506	338	321	ME (1), MN (8), MD (5), NC (6), FL (1), TN (4), OK (10)
<i>Ehrlichia ewingii</i>	—	5	—	—	—	—	—	—	
<i>Anaplasma phagocytophilum</i>	13	172	17	834	646	786	537	362	MN (13)
undetermined	3	45	4	337	231	112	59	44	TN (3)
<i>Haemophilus influenzae</i> , ††									
invasive disease (age <5 yrs):									
serotype b	—	17	0	22	29	9	19	32	
nonserotype b	—	108	2	199	175	135	135	117	
unknown serotype	1	138	3	180	179	217	177	227	NC (1)
Hansen disease§	1	42	1	101	66	87	105	95	CA (1)
Hantavirus pulmonary syndrome§	—	9	0	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal§	4	103	8	292	288	221	200	178	NE (1), NC (2), OK (1)
Hepatitis C viral, acute	16	526	15	849	766	652	720	1,102	ME (1), MI (4), NC (3), TN (1), OK (1), ID (1), WA (1), OR (1), CA (3)
HIV infection, pediatric (age <13 years)§§	—	—	2	—	—	380	436	504	
Influenza-associated pediatric mortality§,¶¶	1	88	0	77	43	45	—	N	UT (1)
Listeriosis	6	364	22	808	884	896	753	696	NY (1), PA (1), IN (1), NC (1), FL (1), CA (1)
Measles***	—	125	1	43	55	66	37	56	
Meningococcal disease, invasive†††:									
A, C, Y, & W-135	2	190	4	325	318	297	—	—	WA (2)
serogroup B	—	110	2	167	193	156	—	—	
other serogroup	1	24	0	35	32	27	—	—	OK (1)
unknown serogroup	6	431	9	550	651	765	—	—	OK (1), CA (5)
Mumps	4	270	12	800	6,584	314	258	231	NY (3), ID (1)
Novel influenza A virus infections	—	—	0	1	N	N	N	N	
Plague	—	1	0	7	17	8	3	1	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Polio virus infection, nonparalytic§	—	—	—	—	N	N	N	N	
Psittacosis§	1	7	0	12	21	16	12	12	PA (1)
Qfever§,§§§ total:	3	72	3	171	169	136	70	71	
acute	3	66	—	—	—	—	—	—	TX (3)
chronic	—	6	—	—	—	—	—	—	
Rabies, human	—	—	—	1	3	2	7	2	
Rubella¶¶¶	—	10	0	12	11	11	10	7	
Rubella, congenital syndrome	—	—	—	—	1	1	—	1	
SARS-CoV§,****	—	—	—	—	—	—	—	8	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	1	100	1	132	125	129	132	161	NV (1)
Syphilis, congenital (age <1 yr)	—	123	7	430	349	329	353	413	
Tetanus	—	7	1	28	41	27	34	20	
Toxic-shock syndrome (staphylococcal)§	3	43	2	92	101	90	95	133	TN (1), CA (2)
Trichinellosis	—	5	0	5	15	16	5	6	
Tularemia	1	63	4	137	95	154	134	129	MD (1)
Typhoid fever	4	228	11	434	353	324	322	356	PA (1), OK (1), CA (2)
Vancomycin-intermediate <i>Staphylococcus aureus</i> §	—	6	0	28	6	2	—	N	
Vancomycin-resistant <i>Staphylococcus aureus</i> §	—	—	—	2	1	3	1	N	
Vibriosis (noncholera <i>Vibrio</i> species infections)§	23	216	11	447	N	N	N	N	OH (1), VA (1), GA (2), FL (3), CO (1), AZ (3), WA (3), CA (9)
Yellow fever	—	—	—	—	—	—	—	—	

See footnotes on next page.

**TABLE 1. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending August 23, 2008 (34th week)\***

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.  
 \* Incidence data for reporting years 2007 and 2008 are provisional, whereas data for 2003, 2004, 2005, and 2006 are finalized.  
 † Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at <http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf>.  
 § Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>.  
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.  
 \*\* The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).  
 †† Data for *H. influenzae* (all ages, all serotypes) are available in Table II.  
 §§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.  
 ¶¶ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Eighty six cases occurring during the 2007-08 influenza season have been reported.  
 \*\*\* No measles cases were reported for the current week.  
 ††† Data for meningococcal disease (all serogroups) are available in Table II.  
 §§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.  
 ¶¶¶ No rubella cases were reported for the current week.  
 \*\*\*\* Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals August 23, 2008, with historical data**



\* No measles cases were reported for the current 4-week period yielding a ratio for week 34 of zero (0)  
 † 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. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\*

Reporting area	Hepatitis (viral, acute), by type†										Legionellosis				
	A				B				Legionellosis						
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
	Med	Max				Med	Max				Med	Max			
<b>United States</b>	30	52	171	1,617	1,841	37	72	259	2,146	2,773	43	55	122	1,594	1,467
<b>New England</b>	—	2	7	67	81	—	1	7	40	78	1	3	11	76	92
Connecticut	—	0	3	18	10	—	0	7	15	27	—	1	5	23	23
Maine§	—	0	1	4	2	—	0	2	9	3	1	0	2	5	3
Massachusetts	—	1	5	27	43	—	0	3	8	32	—	0	3	11	27
New Hampshire	—	0	2	6	10	—	0	1	4	4	—	0	3	16	4
Rhode Island§	—	0	2	10	9	—	0	2	3	11	—	0	5	16	29
Vermont§	—	0	1	2	7	—	0	1	1	1	—	0	1	5	6
<b>Mid. Atlantic</b>	5	6	18	180	296	5	10	18	294	350	12	15	48	505	457
New Jersey	—	1	6	37	84	—	3	7	92	101	—	1	13	37	59
New York (Upstate)	1	1	6	39	49	1	2	7	44	52	6	4	19	170	114
New York City	1	2	7	61	104	—	2	6	55	77	—	2	10	51	103
Pennsylvania	3	1	6	43	59	4	3	7	103	120	6	6	31	247	181
<b>E.N. Central</b>	2	6	16	206	219	2	7	18	229	303	6	12	35	372	324
Illinois	—	2	10	62	86	—	1	6	50	95	—	1	16	23	68
Indiana	1	0	4	13	8	—	0	8	23	29	1	1	7	32	32
Michigan	—	2	7	82	55	—	2	6	76	77	—	3	15	102	97
Ohio	1	1	4	28	45	2	2	7	74	85	5	5	18	186	112
Wisconsin	—	0	3	21	25	—	0	1	6	17	—	1	7	29	15
<b>W.N. Central</b>	—	5	29	198	117	—	2	9	63	82	1	2	8	71	69
Iowa	—	1	7	88	32	—	0	2	8	16	—	0	2	8	9
Kansas	—	0	3	10	5	—	0	2	5	7	—	0	1	1	6
Minnesota	—	0	23	26	49	—	0	5	5	14	1	0	4	9	15
Missouri	—	1	3	33	16	—	1	4	39	30	—	1	5	36	30
Nebraska§	—	1	5	39	10	—	0	1	5	10	—	0	4	16	6
North Dakota	—	0	2	—	—	—	0	1	1	—	—	0	2	—	—
South Dakota	—	0	1	2	5	—	0	1	—	5	—	0	1	1	3
<b>S. Atlantic</b>	10	7	15	220	313	8	16	60	500	672	12	8	28	245	247
Delaware	—	0	1	6	3	—	0	3	7	13	1	0	2	7	6
District of Columbia	U	0	0	U	U	U	0	0	U	U	—	0	1	9	9
Florida	3	3	8	94	92	6	6	12	212	225	1	3	10	94	90
Georgia	2	1	4	29	50	2	2	8	80	97	—	0	3	16	25
Maryland§	1	0	3	9	52	—	0	6	11	75	10	1	9	54	45
North Carolina	3	0	9	46	37	—	0	17	52	89	—	0	7	14	29
South Carolina§	—	0	2	7	13	—	1	6	40	44	—	0	2	7	11
Virginia§	1	1	5	26	61	—	2	16	67	96	—	1	6	33	27
West Virginia	—	0	2	3	5	—	1	30	31	33	—	0	3	11	5
<b>E.S. Central</b>	1	1	9	52	70	2	7	13	219	239	1	2	10	80	64
Alabama§	—	0	4	8	15	—	2	5	59	84	—	0	2	10	7
Kentucky	—	0	3	19	13	1	2	5	62	45	1	1	4	40	32
Mississippi	—	0	2	4	7	—	0	3	21	23	—	0	1	1	—
Tennessee§	1	1	6	21	35	1	2	8	77	87	—	1	5	29	25
<b>W.S. Central</b>	1	6	55	162	139	6	16	131	432	574	3	1	23	46	74
Arkansas§	—	0	1	5	8	—	1	4	27	53	—	0	2	7	6
Louisiana	—	0	3	9	22	—	2	4	52	71	—	0	1	6	4
Oklahoma	—	0	7	7	3	3	2	37	70	28	—	0	3	3	4
Texas§	1	5	53	141	106	3	9	107	283	422	3	1	18	30	60
<b>Mountain</b>	3	4	9	142	162	—	3	11	128	146	1	2	5	49	64
Arizona	1	2	8	75	111	—	1	4	39	64	—	1	5	14	20
Colorado	2	0	3	27	20	—	0	3	20	22	—	0	2	3	15
Idaho§	—	0	3	16	3	—	0	2	5	8	—	0	1	3	4
Montana§	—	0	1	—	7	—	0	1	—	—	—	0	1	3	3
Nevada§	—	0	2	5	9	—	1	3	30	33	1	0	2	8	6
New Mexico§	—	0	3	14	6	—	0	2	8	10	—	0	1	4	8
Utah	—	0	2	2	4	—	0	5	23	5	—	0	3	14	5
Wyoming§	—	0	1	3	2	—	0	1	3	4	—	0	0	—	3
<b>Pacific</b>	8	11	51	390	444	14	9	30	241	329	6	4	18	150	76
Alaska	—	0	1	2	3	—	0	2	7	4	—	0	1	1	—
California	7	9	42	320	385	11	6	19	166	242	6	3	14	119	58
Hawaii	—	0	1	7	5	—	0	2	4	10	—	0	1	4	1
Oregon§	—	1	3	23	20	—	1	3	30	40	—	0	2	11	6
Washington	1	1	7	38	31	3	1	9	34	33	—	0	3	15	11
American Samoa	—	0	0	—	—	—	0	0	—	14	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	—	2	—	0	0	—	—
Puerto Rico	—	0	4	13	52	—	1	5	26	50	—	0	1	1	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 notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

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

† Data for acute hepatitis C, viral are available in Table I.

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



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\*

Reporting area	Lyme Disease					Malaria					Meningococcal disease, invasive† All serotypes				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	350	364	1,375	13,117	18,668	15	21	136	562	796	9	19	53	755	754
<b>New England</b>	1	57	174	1,521	6,066	—	1	35	31	39	—	0	3	18	35
Connecticut	—	0	59	—	2,567	—	0	27	10	1	—	0	1	1	6
Maine§	—	2	67	199	151	—	0	1	—	6	—	0	1	4	5
Massachusetts	—	15	69	486	2,494	—	0	2	14	23	—	0	3	13	17
New Hampshire	—	9	87	685	731	—	0	1	3	7	—	0	0	—	3
Rhode Island§	—	0	77	—	24	—	0	8	—	—	—	0	1	—	1
Vermont§	1	2	26	151	99	—	0	1	4	2	—	0	1	—	3
<b>Mid. Atlantic</b>	241	170	882	8,929	7,400	—	5	18	126	221	—	2	6	87	91
New Jersey	1	37	147	1,631	2,375	—	0	7	—	42	—	0	2	10	12
New York (Upstate)	183	61	453	3,068	1,842	—	1	8	18	37	—	0	3	24	26
New York City	—	1	17	16	296	—	3	9	84	119	—	0	2	20	19
Pennsylvania	57	56	443	4,214	2,887	—	1	4	24	23	—	1	5	33	34
<b>E.N. Central</b>	1	8	48	293	1,759	—	2	7	82	94	—	3	10	129	113
Illinois	—	0	5	31	132	—	1	6	35	44	—	1	4	37	47
Indiana	—	0	7	15	33	—	0	2	5	7	—	0	4	21	17
Michigan	—	0	10	48	39	—	0	2	11	11	—	0	3	22	17
Ohio	—	0	4	24	21	—	0	3	21	18	—	1	4	32	25
Wisconsin	1	5	36	175	1,534	—	0	3	10	14	—	0	4	17	7
<b>W.N. Central</b>	52	3	740	545	304	—	1	9	39	24	—	2	8	70	45
Iowa	—	1	4	24	102	—	0	1	2	2	—	0	3	13	10
Kansas	—	0	1	1	8	—	0	1	4	2	—	0	1	2	3
Minnesota	52	0	731	495	178	—	0	8	19	11	—	0	7	19	12
Missouri	—	0	3	15	8	—	0	4	7	4	—	0	3	23	13
Nebraska§	—	0	2	7	5	—	0	2	7	4	—	0	2	10	2
North Dakota	—	0	9	1	3	—	0	2	—	—	—	0	1	1	2
South Dakota	—	0	1	2	—	—	0	0	—	1	—	0	1	2	3
<b>S. Atlantic</b>	46	54	172	1,555	2,969	7	4	13	128	180	—	3	9	108	121
Delaware	6	12	37	551	518	—	0	1	1	4	—	0	1	1	1
District of Columbia	8	2	8	108	86	—	0	1	1	2	—	0	0	—	—
Florida	2	1	9	48	13	4	1	4	34	40	—	1	3	40	45
Georgia	—	0	2	14	8	2	0	3	32	33	—	0	3	14	16
Maryland§	8	20	136	375	1,707	1	0	4	10	43	—	0	3	5	18
North Carolina	7	0	8	14	31	—	0	7	18	17	—	0	4	11	14
South Carolina§	1	0	4	15	16	—	0	1	7	5	—	0	3	18	11
Virginia§	14	12	68	403	542	—	1	7	25	35	—	0	2	16	14
West Virginia	—	0	9	27	48	—	0	0	—	1	—	0	1	3	2
<b>E.S. Central</b>	—	1	5	29	37	1	0	3	12	24	—	1	6	37	38
Alabama§	—	0	3	9	10	—	0	1	3	4	—	0	2	5	7
Kentucky	—	0	1	2	3	—	0	1	3	6	—	0	2	7	7
Mississippi	—	0	1	1	—	—	0	1	1	1	—	0	2	9	10
Tennessee§	—	0	3	17	24	1	0	2	5	13	—	0	3	16	14
<b>W.S. Central</b>	3	1	11	58	48	—	1	64	29	62	2	2	13	74	78
Arkansas§	1	0	1	2	—	—	0	1	—	—	—	0	2	7	8
Louisiana	—	0	1	1	2	—	0	1	2	14	—	0	3	18	23
Oklahoma	—	0	1	—	—	—	0	4	2	5	2	0	5	12	14
Texas§	2	1	10	55	46	—	1	60	25	43	—	1	7	37	33
<b>Mountain</b>	—	0	4	28	31	—	1	5	16	42	—	1	4	39	51
Arizona	—	0	1	2	2	—	0	1	6	8	—	0	2	6	11
Colorado	—	0	1	4	—	—	0	2	3	16	—	0	1	9	19
Idaho§	—	0	2	7	7	—	0	1	—	2	—	0	2	3	4
Montana§	—	0	2	4	2	—	0	0	—	3	—	0	1	4	1
Nevada§	—	0	2	5	9	—	0	3	4	2	—	0	2	6	4
New Mexico§	—	0	2	4	5	—	0	1	1	2	—	0	1	6	2
Utah	—	0	1	—	3	—	0	1	2	9	—	0	2	3	8
Wyoming§	—	0	1	2	3	—	0	0	—	—	—	0	1	2	2
<b>Pacific</b>	6	4	9	159	54	7	3	10	99	110	7	4	17	193	182
Alaska	—	0	2	5	5	—	0	2	3	2	—	0	2	4	1
California	3	3	7	123	44	4	2	8	72	77	5	3	17	136	133
Hawaii	N	0	0	N	N	—	0	1	2	2	—	0	2	4	6
Oregon§	3	0	5	26	4	—	0	2	4	12	—	1	3	26	25
Washington	—	0	7	5	1	3	0	3	18	17	2	0	5	23	17
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	1	1	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	3	—	0	1	2	6
U.S. Virgin Islands	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—

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

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

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

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

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

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\***

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	74	145	849	4,628	6,354	65	83	187	2,540	4,028	89	29	195	1,203	1,320
<b>New England</b>	—	19	49	382	985	9	7	20	229	365	—	0	1	2	7
Connecticut	—	0	4	—	60	7	3	17	125	155	—	0	0	—	—
Maine†	—	0	5	18	53	1	1	5	32	56	N	0	0	N	N
Massachusetts	—	14	33	315	785	N	0	0	N	N	—	0	1	1	7
New Hampshire	—	0	4	22	52	1	1	3	25	35	—	0	1	1	—
Rhode Island†	—	0	25	19	8	N	0	0	N	N	—	0	0	—	—
Vermont†	—	0	6	8	27	—	2	6	47	119	—	0	0	—	—
<b>Mid. Atlantic</b>	22	20	43	552	824	13	19	32	685	674	3	1	5	45	55
New Jersey	—	0	9	4	146	—	0	0	—	—	—	0	2	2	20
New York (Upstate)	13	6	24	253	402	13	9	20	324	342	1	0	3	15	6
New York City	—	2	7	45	83	—	0	2	11	32	—	0	2	14	20
Pennsylvania	9	8	23	250	193	—	10	23	350	300	2	0	2	14	9
<b>E.N. Central</b>	13	19	190	810	1,113	6	5	53	133	266	1	1	8	60	40
Illinois	—	3	8	94	119	—	1	10	49	76	—	0	7	39	25
Indiana	2	0	12	31	43	—	0	1	4	8	1	0	1	4	5
Michigan	3	4	16	130	199	1	1	32	47	135	—	0	1	3	3
Ohio	8	6	176	506	481	5	1	11	33	47	—	0	4	14	6
Wisconsin	—	2	9	49	271	N	0	0	N	N	—	0	0	—	1
<b>W.N. Central</b>	4	12	142	416	445	1	4	12	106	197	1	4	31	283	260
Iowa	—	1	5	35	117	—	0	3	14	22	—	0	2	1	13
Kansas	—	1	5	29	75	—	0	7	—	89	—	0	2	—	9
Minnesota	—	1	131	144	103	1	0	7	35	20	—	0	4	—	1
Missouri	—	3	18	141	58	—	0	8	33	32	—	3	31	265	224
Nebraska†	4	1	12	57	31	—	0	0	—	—	1	0	4	14	9
North Dakota	—	0	5	1	7	—	0	8	17	18	—	0	0	—	—
South Dakota	—	0	2	9	54	—	0	2	7	16	—	0	1	3	4
<b>S. Atlantic</b>	2	14	50	445	642	30	32	94	1,071	1,495	36	9	109	392	598
Delaware	—	0	2	7	7	—	0	0	—	—	—	0	3	21	12
District of Columbia	—	0	1	3	8	—	0	0	—	—	—	0	2	7	2
Florida	1	3	17	154	158	—	0	77	88	128	—	0	4	12	7
Georgia	—	1	4	32	29	16	7	15	228	190	2	0	8	36	51
Maryland†	1	1	6	24	77	—	0	17	52	276	3	1	6	28	40
North Carolina	—	0	38	79	213	13	9	16	319	332	30	0	96	189	371
South Carolina†	—	2	22	69	56	—	0	0	—	46	1	0	4	21	41
Virginia†	—	2	8	73	82	—	11	27	321	477	—	1	10	75	72
West Virginia	—	0	12	4	12	1	1	11	63	46	—	0	3	3	2
<b>E.S. Central</b>	1	7	25	177	315	1	2	7	79	109	6	4	21	181	198
Alabama†	—	1	6	24	59	—	0	0	—	—	—	1	10	45	64
Kentucky	1	1	8	50	15	1	0	4	29	15	—	0	1	1	4
Mississippi	—	2	22	61	177	—	0	1	2	—	—	0	3	4	12
Tennessee†	—	1	4	42	64	—	1	6	48	94	6	2	17	131	118
<b>W.S. Central</b>	2	19	198	667	718	3	4	40	75	706	40	2	153	215	131
Arkansas†	—	1	11	40	139	—	1	6	43	23	14	0	15	44	56
Louisiana	—	0	4	32	14	—	0	2	—	4	—	0	1	3	4
Oklahoma	2	0	26	30	4	3	0	32	31	45	26	0	132	142	45
Texas†	—	15	179	565	561	—	0	34	1	634	—	1	8	26	26
<b>Mountain</b>	5	18	37	539	748	—	1	8	44	54	1	0	3	21	28
Arizona	—	3	10	130	165	N	0	0	N	N	—	0	2	8	6
Colorado	5	4	13	102	203	—	0	0	—	—	—	0	2	1	1
Idaho†	—	0	4	20	35	—	0	4	—	4	—	0	1	1	4
Montana†	—	1	11	66	34	—	0	2	6	14	—	0	1	3	1
Nevada†	—	0	7	22	33	—	0	2	3	9	1	0	0	1	—
New Mexico†	—	1	5	29	56	—	0	3	21	8	—	0	1	2	4
Utah	—	6	27	161	203	—	0	2	3	9	—	0	0	—	—
Wyoming†	—	0	2	9	19	—	0	4	11	10	—	0	2	5	12
<b>Pacific</b>	25	21	303	640	564	2	4	12	118	162	1	0	1	4	3
Alaska	7	1	29	95	40	—	0	4	12	37	N	0	0	N	N
California	—	8	129	233	308	1	3	12	100	118	—	0	1	1	1
Hawaii	—	0	2	6	17	—	0	0	—	—	N	0	0	N	N
Oregon†	6	3	14	110	63	1	0	1	6	7	1	0	1	3	2
Washington	12	5	169	196	136	—	0	0	—	—	N	0	0	N	N
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	0	—	—	2	1	5	43	37	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

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

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

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

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\*

Reporting area	Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC)†					Shigellosis				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	678	870	2,110	25,508	27,539	111	86	247	2,848	2,845	316	418	1,227	11,872	10,507
<b>New England</b>	3	22	344	1,106	1,707	2	3	42	135	216	1	3	24	115	186
Connecticut	—	0	315	315	431	—	0	39	39	71	—	0	23	23	44
Maine§	2	2	14	100	78	2	0	4	11	23	—	0	6	18	13
Massachusetts	—	14	44	494	963	—	2	7	46	94	—	2	7	61	115
New Hampshire	—	3	7	76	118	—	0	5	20	14	—	0	1	1	5
Rhode Island§	1	1	13	62	62	—	0	3	7	6	1	0	9	9	7
Vermont§	—	1	7	59	55	—	0	3	12	8	—	0	1	3	2
<b>Mid. Atlantic</b>	66	93	212	3,044	3,816	18	8	192	474	316	19	31	87	1,441	485
New Jersey	1	15	48	414	830	—	1	5	16	76	—	6	35	429	106
New York (Upstate)	32	25	73	829	894	13	3	188	333	111	13	7	35	428	88
New York City	2	23	48	760	852	—	1	5	34	34	—	9	35	476	158
Pennsylvania	31	31	83	1,041	1,240	5	2	9	91	95	6	2	65	108	133
<b>E.N. Central</b>	71	89	172	2,886	4,015	11	12	38	423	399	80	74	146	2,446	1,706
Illinois	—	22	62	658	1,433	—	1	11	39	76	—	20	37	519	375
Indiana	27	8	53	387	424	1	1	12	41	46	11	11	83	486	64
Michigan	2	17	39	567	636	1	2	15	97	60	—	2	7	62	52
Ohio	37	25	65	853	868	8	2	17	120	94	66	21	104	904	767
Wisconsin	5	15	35	421	654	1	4	16	126	123	3	14	50	475	448
<b>W.N. Central</b>	8	50	137	1,697	1,776	7	13	55	507	448	4	19	39	569	1,347
Iowa	3	8	15	262	318	1	2	16	126	103	—	3	11	92	60
Kansas	—	6	32	254	255	—	0	3	23	35	—	0	3	14	18
Minnesota	—	13	73	484	448	—	2	22	119	144	2	4	25	192	164
Missouri	—	14	29	422	465	—	3	12	107	81	—	7	33	157	974
Nebraska§	5	5	13	157	154	6	2	28	101	55	2	0	3	4	15
North Dakota	—	0	35	28	23	—	0	20	2	6	—	0	15	34	3
South Dakota	—	2	11	90	113	—	1	5	29	24	—	1	9	76	113
<b>S. Atlantic</b>	221	263	442	6,401	6,637	26	13	35	471	425	59	69	149	2,035	3,052
Delaware	1	3	9	96	100	—	0	1	8	12	—	0	2	8	7
District of Columbia	—	1	4	39	35	—	0	1	8	—	—	0	3	12	14
Florida	100	109	181	2,861	2,521	2	2	18	116	91	15	21	75	602	1,653
Georgia	51	37	86	1,182	1,080	6	1	7	60	59	15	26	47	755	1,058
Maryland§	11	11	44	368	544	4	1	9	58	54	1	1	6	38	70
North Carolina	49	19	228	680	899	12	1	14	59	84	27	1	12	98	49
South Carolina§	2	21	52	555	605	—	0	4	26	8	1	9	32	406	79
Virginia§	7	19	49	520	736	2	3	10	115	107	—	4	14	106	115
West Virginia	—	4	25	100	117	—	0	3	21	10	—	0	61	10	7
<b>E.S. Central</b>	56	63	144	1,867	1,937	4	6	21	170	179	6	47	178	1,273	1,128
Alabama	12	16	50	498	544	—	1	17	43	54	1	11	43	293	401
Kentucky	8	10	21	285	346	1	1	12	51	55	—	7	35	205	253
Mississippi	17	18	57	615	523	—	0	2	5	5	—	12	112	261	348
Tennessee§	19	16	34	469	524	3	2	12	71	65	5	14	32	514	126
<b>W.S. Central</b>	48	120	894	3,307	2,502	3	4	25	121	171	61	62	748	2,532	1,225
Arkansas§	20	13	50	450	394	—	1	4	27	27	4	5	27	352	61
Louisiana	2	17	44	481	521	—	0	1	2	8	—	9	21	375	346
Oklahoma	26	14	72	457	283	3	0	14	22	14	2	3	32	80	71
Texas§	—	63	794	1,919	1,304	—	3	11	70	122	55	47	702	1,725	747
<b>Mountain</b>	52	59	109	1,997	1,666	13	9	24	297	384	19	18	40	551	544
Arizona	24	20	42	640	565	4	1	8	48	72	17	9	30	278	291
Colorado	20	11	43	486	366	3	2	8	92	108	1	2	6	65	76
Idaho§	5	3	14	115	85	6	2	8	62	88	—	0	1	8	9
Montana§	—	2	10	66	64	—	0	3	22	—	—	0	1	4	16
Nevada§	3	5	14	151	174	—	0	3	16	18	1	3	13	134	31
New Mexico§	—	7	31	345	183	—	1	6	28	29	—	1	6	43	75
Utah	—	4	17	171	177	—	1	7	25	57	—	1	5	16	17
Wyoming§	—	1	5	23	52	—	0	2	4	12	—	0	2	3	29
<b>Pacific</b>	153	108	399	3,203	3,483	27	9	35	250	307	67	30	72	910	834
Alaska	1	1	4	36	63	—	0	1	6	2	—	0	0	—	8
California	107	76	286	2,314	2,610	9	5	22	128	170	60	27	61	789	643
Hawaii	2	5	15	169	179	—	0	5	10	24	—	1	3	26	62
Oregon§	1	6	18	270	220	1	1	11	30	48	1	1	6	42	49
Washington	42	12	103	414	411	17	2	13	76	63	6	2	20	53	72
American Samoa	—	0	1	2	—	—	0	0	—	—	—	0	1	1	4
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	8	11	—	0	0	—	—	—	0	3	14	10
Puerto Rico	5	10	44	249	570	—	0	1	2	—	—	0	3	11	20
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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

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

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\*

Reporting area	Streptococcal diseases, invasive, group A					Streptococcal pneumoniae, invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max		
<b>United States</b>	53	92	259	3,759	3,874	11	37	166	1,077	1,179
<b>New England</b>	—	6	31	270	299	—	1	14	48	93
Connecticut	—	0	26	84	90	—	0	11	—	12
Maine§	—	0	3	20	21	—	0	1	1	1
Massachusetts	—	3	8	125	148	—	1	5	37	62
New Hampshire	—	0	2	18	23	—	0	1	7	8
Rhode Island§	—	0	8	12	2	—	0	1	2	8
Vermont§	—	0	2	11	15	—	0	1	1	2
<b>Mid. Atlantic</b>	8	18	43	784	731	—	4	19	136	212
New Jersey	—	3	11	128	133	—	1	6	28	43
New York (Upstate)	1	6	17	258	223	—	2	14	68	75
New York City	—	3	10	137	180	—	1	12	40	94
Pennsylvania	7	5	16	261	195	N	0	0	N	N
<b>E.N. Central</b>	10	19	63	817	773	4	6	23	226	210
Illinois	—	5	16	199	237	—	1	6	46	51
Indiana	2	2	11	104	90	1	0	14	27	13
Michigan	1	3	10	125	160	—	1	5	52	57
Ohio	2	5	14	212	182	2	1	5	39	44
Wisconsin	5	2	42	177	104	1	1	9	62	45
<b>W.N. Central</b>	2	5	39	292	257	—	2	16	89	59
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	6	39	27	—	0	3	14	—
Minnesota	—	0	35	130	124	—	0	13	34	35
Missouri	—	2	10	67	66	—	1	2	26	15
Nebraska§	2	0	3	30	20	—	0	3	6	8
North Dakota	—	0	5	10	13	—	0	2	4	1
South Dakota	—	0	2	16	7	—	0	1	5	—
<b>S. Atlantic</b>	17	18	34	660	911	2	6	13	160	204
Delaware	—	0	2	6	8	—	0	0	—	—
District of Columbia	—	0	4	20	16	—	0	1	1	2
Florida	5	6	11	187	211	1	1	4	43	41
Georgia	3	4	14	159	178	—	1	5	47	46
Maryland§	—	0	6	16	157	1	0	4	4	48
North Carolina	6	2	10	104	127	N	0	0	N	N
South Carolina§	—	1	5	44	81	—	1	4	36	28
Virginia§	3	3	12	101	113	—	0	6	24	32
West Virginia	—	0	3	23	20	—	0	1	5	7
<b>E.S. Central</b>	1	4	9	125	161	—	2	11	66	65
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	—	1	3	28	32	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	16	5
Tennessee§	1	3	7	97	129	—	2	9	50	60
<b>W.S. Central</b>	9	8	85	320	230	4	5	66	172	162
Arkansas§	—	0	2	4	17	—	0	2	4	9
Louisiana	—	0	2	11	14	—	0	2	6	28
Oklahoma	3	2	19	81	54	—	1	7	49	35
Texas§	6	5	65	224	145	4	3	58	113	90
<b>Mountain</b>	3	10	22	388	414	1	5	12	168	162
Arizona	—	3	9	144	155	1	2	8	85	81
Colorado	3	2	8	108	105	—	1	4	46	31
Idaho§	—	0	2	11	11	—	0	1	3	2
Montana§	N	0	0	N	N	—	0	1	4	1
Nevada§	—	0	2	8	2	N	0	0	N	N
New Mexico§	—	2	7	71	69	—	0	3	14	27
Utah	—	1	5	40	67	—	0	3	15	20
Wyoming§	—	0	2	6	5	—	0	1	1	—
<b>Pacific</b>	3	3	10	103	98	—	0	2	12	12
Alaska	2	0	4	26	20	N	0	0	N	N
California	—	0	0	—	—	N	0	0	N	N
Hawaii	1	2	10	77	78	—	0	2	12	12
Oregon§	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	—	0	12	30	4	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	3	—	10	—	0	0	—	—
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N

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

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

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

† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDSS event code 11717).

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\*

Reporting area	<i>Streptococcus pneumoniae</i> , invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Age <5 years									
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	19	58	307	1,995	2,082	2	9	43	288	340	101	234	351	7,413	6,958
<b>New England</b>	—	1	49	35	99	—	0	8	5	12	4	6	14	202	163
Connecticut	—	0	44	—	55	—	0	7	—	4	2	0	6	20	22
Maine§	—	0	2	14	10	—	0	1	1	1	—	0	2	8	5
Massachusetts	—	0	0	—	2	—	0	0	—	2	2	4	11	148	91
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	2	11	21
Rhode Island§	—	0	3	9	18	—	0	1	2	3	—	0	5	13	22
Vermont§	—	0	2	12	14	—	0	1	2	2	—	0	5	2	2
<b>Mid. Atlantic</b>	3	3	13	181	120	—	0	2	17	22	23	32	46	1,109	1,027
New Jersey	—	0	0	—	—	—	0	0	—	—	3	4	10	139	134
New York (Upstate)	1	1	6	48	41	—	0	2	6	8	1	3	13	93	93
New York City	—	0	5	54	—	—	0	0	—	—	19	17	37	700	626
Pennsylvania	2	2	9	79	79	—	0	2	11	14	—	5	12	177	174
<b>E.N. Central</b>	3	14	64	532	538	—	2	14	75	78	7	18	32	612	568
Illinois	—	2	17	71	115	—	0	6	14	26	—	7	19	173	301
Indiana	—	3	39	159	116	—	0	11	18	16	2	2	6	84	31
Michigan	—	0	3	13	2	—	0	1	2	1	—	2	17	136	72
Ohio	3	8	17	289	305	—	1	4	41	35	5	5	13	186	120
Wisconsin	—	0	0	—	—	—	0	0	—	—	—	1	4	33	44
<b>W.N. Central</b>	—	3	115	122	142	—	0	9	8	26	2	8	15	244	224
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	12	12
Kansas	—	1	5	54	67	—	0	1	3	5	1	0	5	22	14
Minnesota	—	0	114	—	18	—	0	9	—	17	—	1	5	60	45
Missouri	—	1	8	65	44	—	0	1	2	—	—	5	10	142	143
Nebraska§	—	0	0	—	2	—	0	0	—	—	1	0	2	8	4
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	2	3	11	—	0	1	3	4	—	0	3	—	6
<b>S. Atlantic</b>	12	22	53	839	910	2	4	10	133	160	16	51	215	1,561	1,533
Delaware	—	0	1	3	8	—	0	0	—	2	—	0	4	10	8
District of Columbia	—	0	3	13	13	—	0	0	—	1	—	2	11	73	121
Florida	10	13	30	494	502	2	2	6	90	84	9	20	34	598	504
Georgia	2	8	22	257	331	—	1	5	37	65	1	10	175	276	272
Maryland§	—	0	0	—	1	—	0	0	—	—	6	6	14	212	201
North Carolina	N	0	0	N	N	N	0	0	N	N	—	5	18	169	218
South Carolina§	—	0	0	—	—	—	0	0	—	—	—	2	5	56	63
Virginia§	N	0	0	N	N	N	0	0	N	N	—	5	17	166	140
West Virginia	—	1	9	72	55	—	0	2	6	8	—	0	1	1	6
<b>E.S. Central</b>	1	6	15	201	166	—	1	4	33	23	3	20	31	676	557
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	15	272	239
Kentucky	—	1	6	56	19	—	0	2	9	2	1	1	7	56	37
Mississippi	—	0	5	1	36	—	0	0	—	—	2	3	15	100	72
Tennessee§	1	4	13	144	111	—	1	3	24	21	—	8	14	248	209
<b>W.S. Central</b>	—	2	7	60	62	—	0	2	12	7	29	42	61	1,368	1,139
Arkansas§	—	0	2	12	3	—	0	1	3	2	3	2	19	108	74
Louisiana	—	1	7	48	59	—	0	2	9	5	—	11	22	301	303
Oklahoma	N	0	0	N	N	N	0	0	N	N	1	1	5	51	42
Texas§	—	0	0	—	—	—	0	0	—	—	25	27	48	908	720
<b>Mountain</b>	—	1	7	24	42	—	0	2	4	9	1	11	29	299	295
Arizona	—	0	0	—	—	—	0	0	—	—	—	5	21	145	153
Colorado	—	0	0	—	—	—	0	0	—	—	1	2	7	73	30
Idaho§	N	0	0	N	N	N	0	0	N	N	—	0	1	2	1
Montana§	—	0	0	—	—	—	0	0	—	—	—	0	3	—	1
Nevada§	N	0	0	N	N	N	0	0	N	N	—	2	6	54	68
New Mexico§	—	0	1	1	—	—	0	0	—	—	—	1	3	23	28
Utah	—	1	7	22	28	—	0	2	4	8	—	0	2	—	11
Wyoming§	—	0	1	1	14	—	0	1	—	1	—	0	1	2	3
<b>Pacific</b>	—	0	1	1	3	—	0	1	1	3	16	42	70	1,342	1,452
Alaska	N	0	0	N	N	N	0	0	N	N	—	0	1	1	6
California	N	0	0	N	N	N	0	0	N	N	1	38	59	1,193	1,336
Hawaii	—	0	1	1	3	—	0	1	1	3	—	0	2	11	5
Oregon§	N	0	0	N	N	N	0	0	N	N	—	0	2	9	12
Washington	N	0	0	N	N	N	0	0	N	N	15	3	13	128	93
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	4
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	2	2	10	99	98
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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

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

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

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending August 23, 2008, and August 25, 2007 (34th Week)\***

Reporting area	West Nile virus disease†														
	Varicella (chickenpox)					Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
	Med	Max				Med	Max				Med	Max			
<b>United States</b>	108	655	1,660	18,382	27,291	—	1	143	113	654	—	3	271	180	1,617
<b>New England</b>	6	14	68	341	1,708	—	0	2	—	1	—	0	1	1	5
Connecticut	—	0	38	—	981	—	0	1	—	1	—	0	1	1	2
Maine¶	—	0	26	—	218	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	2	—	—	—	0	1	—	2
New Hampshire	2	6	18	153	241	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	0	—	—	—	0	1	—	1
Vermont¶	4	6	17	188	268	—	0	0	—	—	—	0	0	—	—
<b>Mid. Atlantic</b>	28	57	117	1,562	3,386	—	0	3	3	8	—	0	3	—	4
New Jersey	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
New York (Upstate)	N	0	0	N	N	—	0	0	—	3	—	0	1	—	—
New York City	N	0	0	N	N	—	0	3	2	4	—	0	3	—	1
Pennsylvania	28	57	117	1,562	3,386	—	0	1	1	1	—	0	1	—	3
<b>E.N. Central</b>	15	164	378	4,387	7,719	—	0	19	3	36	—	0	12	5	18
Illinois	—	13	124	660	690	—	0	14	—	18	—	0	8	4	8
Indiana	—	0	222	—	—	—	0	4	1	4	—	0	2	—	5
Michigan	5	62	154	1,893	2,907	—	0	5	1	9	—	0	1	—	—
Ohio	10	55	128	1,587	3,325	—	0	4	1	2	—	0	3	—	3
Wisconsin	—	7	32	247	797	—	0	2	—	3	—	0	2	1	2
<b>W.N. Central</b>	—	23	145	769	1,136	—	0	41	11	181	—	0	77	47	554
Iowa	N	0	0	N	N	—	0	2	2	9	—	0	2	1	9
Kansas	—	6	36	257	413	—	0	3	—	11	—	0	4	7	17
Minnesota	—	0	0	—	—	—	0	6	2	33	—	0	5	9	43
Missouri	—	11	47	444	659	—	0	8	1	29	—	0	3	2	7
Nebraska¶	N	0	0	N	N	—	0	5	1	15	—	0	16	1	95
North Dakota	—	0	140	48	—	—	0	11	2	43	—	0	33	16	253
South Dakota	—	0	5	20	64	—	0	7	3	41	—	0	16	11	130
<b>S. Atlantic</b>	8	92	166	3,028	3,576	—	0	12	1	17	—	0	6	—	16
Delaware	—	1	6	38	34	—	0	1	—	—	—	0	0	—	—
District of Columbia	—	0	3	18	24	—	0	0	—	—	—	0	0	—	—
Florida	3	29	87	1,168	827	—	0	0	—	3	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	8	—	7	—	0	5	—	8
Maryland¶	N	0	0	N	N	—	0	2	—	1	—	0	2	—	2
North Carolina	N	0	0	N	N	—	0	1	—	1	—	0	1	—	2
South Carolina¶	—	16	66	561	707	—	0	2	—	2	—	0	0	—	2
Virginia¶	—	21	80	747	1,191	—	0	1	—	3	—	0	0	—	2
West Virginia	5	15	66	496	793	—	0	1	1	—	—	0	0	—	—
<b>E.S. Central</b>	2	18	101	835	349	—	0	11	15	40	—	0	14	37	45
Alabama¶	2	18	101	825	347	—	0	2	1	10	—	0	1	2	2
Kentucky	N	0	0	N	N	—	0	1	—	1	—	0	0	—	—
Mississippi	—	0	2	10	2	—	0	7	10	27	—	0	12	31	41
Tennessee¶	N	0	0	N	N	—	0	1	4	2	—	0	2	4	2
<b>W.S. Central</b>	37	182	886	6,074	7,494	—	0	36	18	114	—	0	19	15	74
Arkansas¶	7	10	39	426	575	—	0	5	5	5	—	0	1	—	4
Louisiana	—	1	10	53	97	—	0	5	1	8	—	0	3	5	2
Oklahoma	N	0	0	N	N	—	0	11	2	30	—	0	7	4	25
Texas¶	30	166	852	5,595	6,822	—	0	19	10	71	—	0	11	6	43
<b>Mountain</b>	11	40	105	1,330	1,873	—	0	36	16	167	—	0	136	45	737
Arizona	—	0	0	—	—	—	0	8	8	17	—	0	10	—	9
Colorado	11	17	43	598	730	—	0	15	4	65	—	0	64	28	354
Idaho¶	N	0	0	N	N	—	0	3	1	5	—	0	10	7	93
Montana¶	—	5	27	213	291	—	0	8	—	30	—	0	30	1	97
Nevada¶	N	0	0	N	N	—	0	1	2	1	—	0	2	5	7
New Mexico¶	—	4	22	142	296	—	0	8	1	24	—	0	6	—	14
Utah	—	9	55	370	537	—	0	8	—	6	—	0	9	2	20
Wyoming¶	—	0	9	7	19	—	0	3	—	19	—	0	21	2	143
<b>Pacific</b>	1	1	7	56	50	—	0	23	46	90	—	0	20	30	164
Alaska	—	1	5	44	25	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	23	46	87	—	0	20	27	148
Hawaii	—	0	6	12	25	—	0	0	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	3	—	3	—	0	2	3	16
Washington	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	2	17	55	197	—	0	0	—	—	—	0	0	—	—
Puerto Rico	4	9	20	297	520	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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

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

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

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



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