

Weekly

May 29, 2009 / Vol. 58 / No. 20

# Human Exposures to a Rabid Bat – Montana, 2008

On September 29, 2008, the Ravalli County Public Health Department (RCPHD) notified the Montana Department of Public Health and Human Services (MDPHHS) of a largescale human exposure to a dead bat at an elementary school. On October 1, the bat was confirmed to be rabid, and on October 4, MDPHHS requested assistance from CDC in evaluating persons for rabies exposure. Of 107 persons assessed, only one person (1%) was recommended for rabies postexposure prophylaxis (PEP) in accordance with guidance from the Advisory Committee on Immunization Practices (ACIP); however, 74 persons (68%) ultimately pursued rabies PEP. This report describes the incident and public health response, and highlights the importance of unified risk communication. After a potential large-scale exposure to rabies virus, guidance from clinicians should be consistent with ACIP recommendations to ensure appropriate use of rabies PEP (1).

# **Incident Description**

On September 28, a parent of two students at a Ravalli County elementary school found a dead bat carried into the house by the family cat. The bat carcass was placed in a jar and stored overnight. On September 29, one parent accompanied the children to school with the bat, and before leaving school premises, removed the carcass from the jar and presented it to eight different classrooms (one kindergarten, four 5th-grade, and three 4th-grade classrooms). Students and teachers in at least five classrooms touched the bat, along with a few other staff members of the school.

Later that morning, the school nurse notified RCPHD after learning of the presentation. RCPHD subsequently advised the parent to submit the bat for rabies diagnosis. That afternoon, the parent took the bat carcass to an off-campus soccer practice attended by students from the school. Some of these children touched the bat. On September 30, the bat was shipped to the Montana Veterinary Diagnostic Laboratory (MVDL). On October 1, MVDL detected the presence of rabies viral antigen in the animal's brain via direct fluorescent antibody testing. On October 16, CDC identified the implicated virus variant as one associated with the silver-haired bat (*Lasionycteris noctivagans*).

On September 30, while awaiting the results of the laboratory testing, school officials sent letters home with students enrolled in the five classrooms (kindergarten and 5th grade) where the teacher observed students touching the bat. The letter described concern for potential exposure to the rabies virus. School officials did not send letters home to students enrolled in the three 4th-grade classrooms because teachers did not observe any of these students touching the bat. On the evening of October 1, school officials telephoned households of students in the kindergarten and 5th-grade classes with news of the positive laboratory findings; voice-mail messages were left if no one answered. The cat that had discovered the bat received a rabies booster shot after a veterinarian confirmed its current rabies vaccination status. The cat was observed in the owner's home for 45 days and was reported to be healthy at the time of this report.

# **Public Health Response**

On October 3, RCPHD held a public meeting in the school. A panel composed of representatives from RCPHD and MDPHHS and two local clinicians (a physician and a veterinarian) provided information and answered questions about rabies, PEP, and vaccine safety. They announced that public health recommendations for PEP would be based on

### INSIDE

- 561 Apparent Disappearance of the Black-White Infant Mortality Gap — Dane County, Wisconsin, 1990–2007
- 565 Notices to Readers

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

**Suggested Citation:** Centers for Disease Control and Prevention. [Article title]. MMWR 2009;58:[inclusive page numbers].

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

Richard E. Besser, MD (Acting) Director Tanja Popovic, MD, PhD *Chief Science Officer* James W. Stephens, PhD Associate Director for Science Steven L. Solomon, MD Director, Coordinating Center for Health Information and Service Jay M. Bernhardt, PhD, MPH Director, National Center for Health Marketing Katherine L. Daniel, PhD Deputy Director, National Center for Health Marketing

#### **Editorial and Production Staff**

Frederic E. Shaw, MD, JD Editor, MMWR Series Christine G. Casey, MD Deputy Editor, MMWR Series Robert A. Gunn, MD, MPH Associate Editor, MMWR Series Teresa F. Rutledge Managing Editor, MMWR Series Douglas W. Weatherwax Lead Technical Writer-Editor Donald G. Meadows, MA Jude C. Rutledge Writers-Editors Martha F. Boyd Lead Visual Information Specialist Malbea A. LaPete Stephen R. Spriggs Visual Information Specialists Kim L. Bright, MBA Quang M. Doan, MBA Phyllis H. King Information Technology Specialists

#### **Editorial Board**

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

individual risk assessments and that the school would host a vaccination clinic the following week where PEP would be administered. At the meeting, parents raised concerns that students in the three 4th-grade classrooms might also have touched the bat. School officials strongly encouraged that all students, staff, and soccer players suspected of touching the bat be evaluated for PEP. Announcements regarding the starting date and location of the vaccination clinic were made in the local press and on signs posted at the school.

On October 4, MDPHHS requested that CDC assist MDPHHS and RCPHD in evaluating and providing prevaccination counseling to potentially exposed persons. The vaccination clinic was scheduled to start on October 7 and continue on subsequent days for all doses of vaccine in the 5-dose rabies PEP series.

# Exposure Risk and Recommendation for PEP

On October 7, a total of 107 students (accompanied by parents or guardians) and faculty were individually interviewed at the school by representatives of RCPHD, MDPHHS, and CDC. All were identified as requiring evaluation for rabies exposure, either because they reported touching the bat at the school or soccer practice or had been recorded as present in a classroom where touching had been observed by a teacher. Of the 107 interviews, 91 were conducted in person and 16 by telephone. For these 107 interviews, 97 (91%) of respondents were students of the school, and the remaining 10 (9%) were faculty or staff members. Median age was 10 years (range: 5–61 years), and 58 (54%) of respondents were male. Most minors evaluated reported touching the bat while at school.

Based on ACIP guidance, respondents were considered to have been possibly exposed to the rabies virus if they reported a bite or nonbite exposure. A bite exposure was defined as skin penetration from the bat's teeth. A nonbite exposure was defined as skin contact with the bat's mouth (i.e., where infectious saliva might have been present) where 1) open wounds were present or 2) the presence of skin breaks could not be excluded, or 3) the respondent reported subsequent hand contact with conjunctiva or other mucous membranes. Touching the bat in the absence of these conditions was not considered an exposure. History of handwashing or hand sanitizer use immediately after touching the bat also was elicited.

PEP was recommended for one student, who reported possibly being pricked by the bat's teeth after probing its oral cavity with her fingers. The remaining 106 persons either reported touching nonmouth areas (89 [84%]), reported no contact at all (15 [14%]), or declined to be interviewed (two [2%]) and were not recommended for PEP. Of 11 respondents who reported possibly rubbing their eyes after touching the bat, none reported touching the bat's mouth, and 10 reported immediate hand sanitizer use or handwashing. Because this indirect contact does not meet ACIP criteria for rabies virus exposure, none of these respondents were recommended for PEP.

Risk assessment was communicated orally to the respondents and/or their parent or guardian, together with an explanation for why PEP was or was not recommended. Persons were counseled on possible adverse events associated with rabies vaccine, including mild local reactions and pain at the injection site and very rare but serious reports of Guillain-Barré syndrome or acute disseminated encephalomyelitis (1).

## Administration of PEP

After counseling, respondents pursued or declined PEP, a regimen normally composed of 1 dose of human rabies immune globulin (HRIG) infiltrated in the wound (when applicable) or administered intramuscularly on day 0 (day of initiation) and five injections of rabies vaccine administered intramuscularly on days 0, 3, 7, 14, and 28 (in previously unvaccinated persons). Seventy-four (69%) of the 107 respondents, including the one person with the possible bite exposure, pursued rabies PEP, at a total HRIG and vaccine cost exceeding \$75,000. The school's insurance policy covered this expense, and RCPHD assumed the cost of unused PEP (\$29,000) procured in advance of the vaccination clinic. At the time of this report, no serious adverse events had been reported to RCPHD in connection to the administered PEP, and no cases of human rabies had been reported in association with the incident.

### **Decision to Pursue PEP**

A written survey was administered to vaccinees to elucidate sources of information used in their decision to pursue PEP. Adult vaccinees and parents/guardians of minor vaccinees returning to the clinic for their second dose of vaccine (on day 3) were asked to indicate the information sources considered.\* Of the 73 persons who attended the day-3 vaccination clinic (one person made arrangements to receive vaccine at an alternate clinic location), 59 (81%) returned the questionnaire. These respondents most frequently rated a physician as the most important source of information used to guide decisionmaking (18 [31%] of 59), followed by family or friends (13 [22%]), the Internet (12 [20%]), and the health department or CDC (nine [15%] (Figure). Anecdotal reports indicated that many of the vaccinees had consulted their primary-care physician for risk assessment and reported to the vaccination clinic with the expectation of receiving PEP.

**Reported by:** J Griffin, C Calderwood, MD, Ravalli County Health Dept; S Helgerson, MD, K Johnson, DVM, PhD, B Barnard, MPH, Montana Dept of Public Health and Human Svcs. C Rupprecht, VMD, PhD, Div of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases; E Kennedy, DVM, K Robertson, DVM, EIS officers, CDC.

**Editorial Note:** The rarity of human rabies in the United States is attributed to effective animal control and canine vaccination programs (1), in addition to widely accessible biologics used for rabies PEP in humans. However, the persistence of disease in wildlife reflects its public health relevance. During 2003–2007, an average of 6,927 animal cases were identified annually in the United States and Puerto Rico, with wildlife bearing approximately 90% of the disease burden (2–6). Although rabid bats constitute less than 25% of these cases, nearly all indigenous human rabies cases reported in the United States have been linked to bats in recent decades (1). Prevention of human rabies in the United States largely hinges on an educated public and professional sector that is aware of bat-associated rabies risks.

Large-scale human contact with rabid animals requires mobilization of substantial resources and involvement of public health officials, as demonstrated by this incident, a similar occurrence in New Hampshire during 1994 (7), and a multistate incident in 2007 (8). These incidents typically generate high public anxiety, which can lead to unnecessary rabies PEP. This report differs from accounts of previous large-scale human rabies exposures because it describes the compliance with ACIP recommendations by persons who were evaluated and counseled by public health officials.

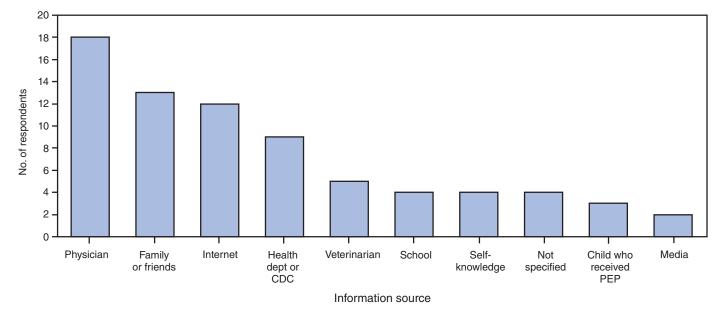
During 2007–2009, the human rabies vaccine supply was limited because of temporary suspension of production by one manufacturer. To acquire rabies vaccine during that time, clinicians were required to first consult with state or local public health officials. MDPHHS requested CDC assistance because of the anticipated challenges posed by assessing and counseling so many persons in this incident, especially during a time of limited vaccine supply.

Approximately one third of rabies large-scale exposures occur in school settings (9), which also are ideal sites for educational outreach to promote safe animal practices. Such outreach should include messages that warn against contact with wildlife (both dead and alive) and instructions on what to do if an animal is found on school or home premises. School policies that prohibit bats and other common rabies reservoirs in classrooms are recommended to lessen exposure risks.<sup>†</sup> All animals suspected of being infected with the rabies virus should

<sup>\*</sup>Respondents were asked, "What sources of information helped you decide whether or not your child (or yourself) should be vaccinated?" and "What source of information influenced your decision the most?"

<sup>&</sup>lt;sup>†</sup> Based on National Association of State Public Health Veterinarians, Inc. recommendations endorsed by CDC, the Council of State and Territorial Epidemiologists, and the American Veterinary Medical Association. Additional information available at http://www.cdc.gov/mmwr/preview/mmwrhtml/ rr5605a1.htm.

FIGURE. Information sources rated most important by survey respondents (N = 59)\* who pursued rabies postexposure prophylaxis (PEP) for themselves or their children despite lack of exposure to rabies virus as defined by Advisory Committee on Immunization Practices (ACIP)<sup>†</sup> — Montana, 2008



\* Respondents were asked, "What sources of information helped you decide whether or not your child (or yourself) should be vaccinated?" and "What source of information influenced your decision the most?" Twelve respondents indicated more than one source as being most important. The survey was administered to 73 vaccinees who reported to the vaccination clinic to receive the second dose of the series; 59 respondents returned the survey.
<sup>†</sup> According to ACIP, PEP is indicated for persons who report a bite from a rabid animal or report a nonbite exposure (e.g., introduction of rabies virus from saliva or other potentially infectious material, such as neural tissue, into fresh, open cuts in skin or onto mucous membranes). Of 107 persons evaluated, only one person reported a nonbite exposure and was recommended for PEP. All other persons reported indirect contact or activities (e.g., petting or handling an animal, which does not constitute exposure; therefore, PEP was not recommended. A total of 74 persons pursued PEP (one person received the second dose of vaccine at an alternate clinic location).

be handled carefully and brought promptly to public health officials for testing.

Risk communication is an integral component of a public health response after potential large-scale exposures (10), including those involving potential exposure to the rabies virus. Many of the persons who pursued PEP in this incident appear to have acted upon advice from community physicians in preference to information provided by public health officials. Clinicians can play an important role in ensuring that only persons with exposure that meet ACIP criteria receive PEP. Coordination among the medical and public health officials involved in a response to a potential large-scale rabies exposure is critical to ensuring the delivery of a unified message to the public regarding the appropriateness of PEP. Timely dissemination of ACIP exposure criteria to local clinicians via the Health Alert Network (HAN) or other communication tools might help ensure that exposed persons receive advice consistent with recommended public health practice.

#### **Acknowledgments**

This report is based, in part, on contributions by Stevensville School District, S Dickerson, N Park, S Hamilton, D Parmenter, K Squires, K McKillip, Ravalli County Public Health Dept; M Emett, S McClintick, Aspen Hospice; E Mosher, Montana Dept of Public Health and Human Svcs; K Prokop, B Layton, DVM, Montana Veterinary Diagnostic Laboratory; and A Tumpey, MS, P Yager, L Orciari, MS, J Blanton, MPH, Div of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases, CDC.

#### References

- CDC. Human rabies prevention—United States, 2008. Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2008;57:1–26, 28.
- Blanton JD, Palmer D, Christian KA, Rupprecht CE. Rabies surveillance in the United States during 2007. J Am Vet Med Assoc 2008;233:884–97.
- 3. Blanton JD, Hanlon CA, Rupprecht CE. Rabies surveillance in the United States during 2006. J Am Vet Med Assoc 2007;231:540–56.
- Blanton JD, Krebs JW, Hanlon CA, Rupprecht CE. Rabies surveillance in the United States during 2005. J Am Vet Med Assoc 2006;229:1897–911.
- Krebs JW, Mandel EJ, Swerdlow DL, Rupprecht CE. Rabies surveillance in the United States during 2004. J Am Vet Med Assoc 2005;227:1912–25.
- 6. Krebs JW, Mandel EJ, Swerdlow DL, Rupprecht CE. Rabies surveillance in the United States during 2003. J Am Vet Med Assoc 2004;225:1837–49.
- 7. CDC. Mass treatment of humans exposed to rabies—New Hampshire, 1994. MMWR 1995;44:484–6.

- CDC. Public health response to a rabid kitten—four states, 2007. MMWR 2008;56:1337–40.
- 9. Rotz LD, Hensley JA, Rupprecht CE, Childs JE. Large-scale human exposures to rabid or presumed rabid animals in the United States: 22 cases (1990–1996). J Am Vet Med Assoc 1998;212:1198–200.
- Tinker TL, Zook E, Chapel TJ. Key challenges and concepts in health risk communication: perspectives of agency practitioners. J Public Health Manag Pract 2001;7:67–75.

# Apparent Disappearance of the Black-White Infant Mortality Gap – Dane County, Wisconsin, 1990–2007

Despite substantial reductions in U.S. infant mortality during the past several decades, black-white disparities in infant mortality persist (1). Among 40 states with sufficient numbers of black infant deaths to generate reliable rates for the years 2002–2004, Wisconsin had the highest black infant mortality rate (IMR) at 17.6 deaths per 1,000 live births, approximately three times the state rate for whites (2). However, in contrast to trends in Wisconsin and the other 39 states, the black IMR in Dane County, Wisconsin, has declined substantially, achieving parity with whites and meeting Healthy People 2010 objective 16-1 for reducing fetal and infant deaths (3). The county rate declined 67%, from 19.4 per 1,000 live births for the period 1990-2001 to 6.4 for the period 2002-2007. To gain understanding of this development, Public Health Madison Dane County (PHMDC) analyzed approximately 100,000 birth and death records from 1990 through 2007 for birthweight, gestational age, prenatal care, and other infant mortality risk factors. The main contributors to the decrease in black infant mortality were a large decrease in the extremely premature ( $\leq$ 28 weeks gestation) birth rate and a decrease in the mortality rate for newborns weighing <1,500 g. Because the observed trend in black infant mortality is based on small reductions in the absolute number of deaths (approximately three infants per year), conclusions based on these results should be considered preliminary, and additional studies are needed to confirm the reduction in rates over time. PHMDC is planning continued surveillance and other studies to determine whether the reduction in mortality is stable.

The population of Dane County, including the city of Madison, had grown to more than 472,000 in 2007, with blacks comprising 4.8% of the total. The black population and number of black births per year in the county have approximately doubled since 1990. Black women giving birth in Dane County are predominately poor (\$28,103 median household income versus \$50,927 for whites), and rely on

subsidized health care (62% on Medicaid versus 13% for whites) (Wisconsin Department of Administration [WDA], 2000 U.S. Census, and Wisconsin Department of Health Services [WDHS], unpublished data, 2009). The proportions of black women giving birth who are unmarried (77% versus 19% for whites), and lacking higher education (71% have a high school diploma or less versus 21% for whites) have been stable since 1990 (4).

Wisconsin birth, infant death, and fetal death records (certificates) contain more than 100 data elements that affect birth outcomes, including infant and fetal characteristics, maternal demographics and behaviors, medical conditions diagnosed before and during pregnancy, and complications of labor and delivery. Using 97,590 birth, infant death, and fetal death records compiled by WDHS, mean non-Hispanic black and non-Hispanic white IMRs were calculated for 1990-2001 and 2002–2007. For each period, percentages and mortality rates were calculated, by race, for prematurity (defined as <37 weeks gestation), extreme prematurity (defined as <28 weeks gestation), low birthweight (defined as <2,500 g), very low birthweight (defined as <1,500 g), and other risk factors. Locally weighted polynomial regression was used to display the data graphically. Race of infant was assigned according to race of mother. Fetal death was defined according to the standard form\* used in all Wisconsin hospitals throughout the study period as any delivery of 20 weeks or more gestation or if a fetus weighs 350 g or more when death is indicated by the fact that the fetus shows no evidence of life.

During 1990–2007, 79,439 white births, 405 white infant deaths (14–38 per year), 6,410 black births, and 90 black infant deaths (1–10 per year) occurred in Dane County (Table 1). During the 1990s, black-white infant mortality disparity in Dane County was relatively constant and similar to the rest of the state (a black-white ratio of approximately 3:1). In 2002, Dane County black IMRs began to decline, achieving parity with whites during 2004–2007, even though Dane County white IMRs also had improved (Figure).

Analysis of risk factors indentified in birth records showed declines in smoking and teenage pregnancy (especially among persons aged 15–17 years) and an increase in high school graduation for blacks, although significant racial disparities persist (Table 2). The percentage of black women receiving adequate, adequate plus, and intermediate prenatal care (measured by expected number and timing of clinical visits using the Adequacy of Prenatal Care Utilization Index [the Kotelchuck Index]) increased from 81.6% to 85.3%. Improvement in quality of care received is suggested by an increase in maternal

<sup>\*</sup> WDHS, Division of Public Health, Report of Fetal Death, standard form DPH 5042.

					1990–2001					2	2002–2007			-
Characteristic	Race	No.	Annual mean	%	(95% CI*)	Average rate	(95% CI)	No.	Annual mean	%	(95% CI)	Average rate	(95% CI)	% change <sup>†</sup>
Births§	White	52,575	4,381	84.8	(84.5-85.0)	_	_	26,864	4,477	75.6	(75.1–76.0)	_	_	2.2
	Black	3,756	313	6.1	(5.9-6.2)	_	_	2,654	442	7.5	(7.2–7.7)	_	_	41.2
	All	62,037	5,170	100.0	—	_	_	35,547	5,925	100.0	—	—	—	14.6
Fertility <sup>¶</sup>	White	4,381	_	_	_	45.5	(44.2-46.8)	4,477	_	_	_	46.4	(45.1–47.7)	2.0
	Black	313	_	_	_	82.5	(74.1–91.6)	442	_	_	_	82.7	(75.6–90.4)	0.3
	All	5,170	—	—	—	49.5	(48.2–50.8)	5,925	—	—	—	54.5	(53.1–55.8)	10.1
Infant deaths**	White	303	25.3	_	_	5.8	(5.1–6.4)	102	17	_	_	3.8	(3.1–4.6)	-34.0
	Black	73	6.1	_	_	19.4	(15.5–24.4)	17	2.8	_	_	6.4	(4.0–10.2)	-67.0
	All	406	33.8	—	_	6.5	(5.9–7.2)	150	25	—	_	4.2	(3.6–4.9)	-35.5
Fetal deaths <sup>††</sup>	White	258	21.5	_	_	4.9	(4.3–5.5)	132	22	_	_	4.9	(4.1–5.8)	0.2
	Black	47	3.9	_	_	12.4	(9.3-16.4)	28	4.7	_	_	10.4	(7.2–15.0)	-15.5
	All	339	28.3	_	_	5.4	(4.9–6.0)	188	31.3	_	_	5.3	(4.6–6.1)	-3.1

TABLE 1. Birth outcomes, by race — Dane County, Wisconsin, 1990–2007

\* Confidence interval.

<sup>†</sup> Computed from the average rates, except for births, for which annual means are used.

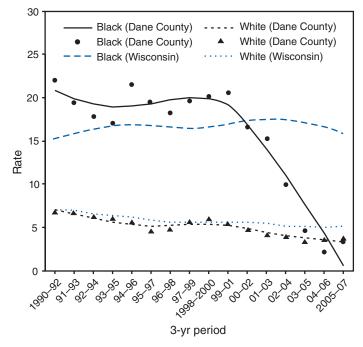
<sup>§</sup> Births during the given period; percentage based on all births in the given period.

<sup>1</sup> General fertility; number = average annual count of births; rate = number of births per 1,000 among females aged 15–44 years in the population, estimated by the Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy.

\*\* For the given period; rate = number of infant deaths per 1,000 live births.

<sup>††</sup> For the given period; rate = number of fetal deaths per 1,000 live births and fetal deaths.

FIGURE. Infant mortality rates per 1,000 live births, by race — Wisconsin and Dane County, 3-year moving averages,\* 1990–2007



\* Fitted lines and scatter points.

medical conditions recorded on the birth record from 48.9% to 59.4%, and a decrease in birth record reported obstetrical complications from 50.2% to 42.5%, coupled with substantial reductions in infant mortality for black women with reported medical conditions or obstetrical complications (Table 2).

The decrease in infant deaths per 1,000 live births for babies born to black mothers with previous child deaths (from 84.2 IMR [eight of 95] for 1990–2001 to zero IMR [none of 47] for 2002–2007) and to those with previous premature births (from 54.3 IMR for 1990–2001 to 8.1 IMR for 2002–2007) underscores major improvement in birth outcomes among highest-risk pregnancies.

The change in infant mortality risk factors for blacks that most affected the IMR over time was a decline in the percentage of extremely premature births, from 2.8% to 1.1%. The mean IMR of 391 per 1,000 for black infants <1,500 g for 1990–2001 dropped to 154 per 1,000 for 2002–2007, a decline in birthweight-specific mortality of 61%. For all races, during the 18 years studied, 70% of infant deaths occurred during the neonatal period ( $\leq$ 28 days of life).

**Reported by:** T Schlenker, MD, M Ndiaye, MD, Public Health Madison and Dane County, Wisconsin.

**Editorial Note:** IMRs reflect the health of infants, their mothers, their families, and the communities into which they are born and are universally recognized as key indicators of the health of populations. The United States ranks poorly among industrialized nations in this regard, largely because of excessive infant mortality among blacks (*3*). Many have suggested that the black-white infant mortality gap in the United States will not decrease without reducing the high rates of extreme prematurity and very low birthweight births among blacks (*3*, *5*, *6*). In recent years, despite improved gestational age-specific survival, the U.S. black-white infant mortality gap has widened (*7*, *8*). In contrast, in Dane County, Wisconsin, decreases in the

#### TABLE 2. Infant mortality risk factors, by race — Dane County, Wisconsin, 1990–2007\*

		-			1990-20	01	-			2002	2–2007			
	_		Preva- lence		Total		(070) 00		Preva- lence	(0-70) ON	Total		(0.70) 0.11	. %
Risk factor	Race	No.	(%)	(95% CI†)	deaths	IMR§	(95% CI)	No.	(%)	(95% CI)	deaths	IMR	(95% CI)	change <sup>¶</sup>
Birthweight (g)														
<u>≥</u> 2,500	White	49,644	94.7	(94.5–94.9)	112	2.3	(1.9–2.7)	25,236	94.3	(94.0–94.5)	28	1.1	(0.7–1.6)	-0.4
	Black	3,223	86.7	(85.6–87.7)	18	5.6	(3.3–8.8)	2,308	87.6	(86.2–88.8)	6	2.6	(0.9–5.6)	1.0
	All	58,179	94.1	(93.9–94.3)	139	2.4	(2.0–2.8)	33,148	93.7	(93.5–94.0)	48	1.5	(1.1–1.9)	-0.4
1,500 to <2,500	White	2,793	5.3	(5.1–5.5)	178	63.7	(54.9–73.4)	1,535	5.7	(5.5–6.0)	63	41.0	(31.7–52.2)	7.5
	Black	495	13.3	(12.2–14.4)	51	103.0	(77.7–133.2)	328	12.4	(11.2–13.8)	10	30.5	(14.7–55.3)	-6.5
	All	3,288	5.9	(5.7–6.1)	250	68.7	(60.7–77.4)	2,222	6.3	(6.0–6.5)	88	39.6	(31.9–48.6)	6.6
<1,500	White	499	1.0	(0.9–1.0)	132	264.5	(226.3–305.6)	222	0.8	(0.7–0.9)	47	211.7	(159.9–271.4)	-12.6
	Black	115	3.1	(2.6–3.7)	45	391.3	(301.6-486.7)	52	2.0	(1.5–2.6)	8	153.9	(68.8–280.8)	-36.3
<b>•</b> • • •	All	674	1.1	(1.0–1.2)	195	288.5	(254.5–324.2)	321	0.9	(0.8–1.0)	65	202.5	(159.9–250.7)	-16.5
Gestational														
age (wks)	W/bito	10 177	016	(014 010)	116	0.4	(2,0, 2,0)	04 000	00.4	(00 1 00 9)	26	15	(10.20)	10
<u>≥</u> 37	White Black	48,177 3,064	91.6 81.6	(91.4–91.9) (80.3–82.8)	116 12	2.4 3.9	(2.0–2.9) (2.0–6.8)	24,298 2,246	90.4 84.6	(90.1–90.8) (83.2–85.9)	36 4	1.5 1.8	(1.0–2.0) (0.5–4.5)	-1.3 3.7
	All	56,379	90.9	(80.3-82.8)	139	2.5	(2.0-0.8)	31,964	90.0	(89.7–90.3)	4 54	1.0	(1.3–2.2)	-1.0
29–36			90.9 8.4	,			. ,		90.0 9.6	,			· /	
23-30	White Black	4,397 691	8.4 18.4	(8.1–8.6) (17.2–19.7)	175 58	39.8 83.9	(34.2–46.0) (64.3–107.2)	2,569 409	9.6 15.4	(9.2–9.9) (14.0–16.8)	62 13	24.1 31.8	(18.5–30.8) (17.0–53.7)	14.4 -16.3
				, ,			. ,			,		25.9	· · · ·	
-00**	All	5,640	9.1	(8.9–9.3)	253	44.8	(39.6–50.6) (307.8–412.4)	3,552	10.0	(9.7–10.3)	92		(20.9–31.6) (228.6–385.5)	9.9
<u>&lt;</u> 28**	White	340	0.7	(0.6–0.7)	122	358.8	( /	142	0.5	(0.4-0.6)	43	302.8	(	-18.5
	Black	105	2.8	(2.3–3.4)	41	390.5	(296.7–490.6)	29	1.1	(0.7–1.6)	7	241.4	(103.0-435.4)	-61.1
	All	489	0.8	(0.7–0.9)	178	364.0	(322.6–407.6)	215	0.6	(0.5–0.7)	60	279.1	(220.2–344.1)	-24.1
Inadequate prenatal care <sup>††</sup>	White	1,802	3.4	(3.3–3.6)	18	10.0	(5.9–15.7)	822	3.1	(2.9–3.3)	7	8.5	(3.4–17.5)	-10.2
prenatal cale	Black	679	3.4 18.4	(3.3–3.0) (17.2–19.7)	6	8.8	(3.2–19.1)	381	14.7	(13.4–16.1)	0	0.0	(0.00–9.7)	-20.0
	All	3,277	5.3	(17.2–19.7)	28	8.5	(5.7–12.3)	1,850	5.3	(13.4–10.1) (5.0–5.5)	9	4.9	(2.2–9.2)	-20.0
Mother aged	All	5,277	5.5	(5.1-5.5)	20	0.5	(5.7-12.3)	1,000	5.5	(5.0-5.5)	9	4.9	(2.2-9.2)	-0.9
<20 yrs	White	2,146	4.1	(3.9–4.2)	12	5.6	(2.9-9.7)	859	3.2	(3.0-3.4)	5	5.8	(1.9–13.5)	-21.6
20 10	Black	952	25.4	(24.0–26.8)	19	20.0	(12.1–31.0)	542	20.4	(18.9–22.0)	6	11.1	(4.1–23.9)	-19.5
	All	3,721	6.0	(5.8, 6.2)	39	10.5	(7.4–14.3)	1,981	5.6	(5.3–5.8)	15	7.6	(4.2–12.4)	-6.8
Unmarried	White	8,374	15.9	(15.6–16.2)	77	9.2	(7.3–11.5)	5,087	18.9	(18.5–19.4)	27	5.3	(3.5–7.7)	18.8
omnannou	Black	2,825	75.2	(73.8–76.6)	60	21.2	(16.2–27.3)	2,039	76.8	(75.1–78.4)	13	6.4	(3.4–10.9)	2.1
	All	12,482	20.1	(19.8–20.4)	152	12.2	(10.3–14.2)	9,053	25.5	(25.0–25.9)	55	6.1	(4.6–7.9)	26.6
Smoked during	7.01	12,102	20.1	(10.0 20.1)	102	12.2	(10.0 11.2)	0,000	20.0	(20.0 20.0)	00	0.1	(1.0 1.0)	20.0
pregnancy	White	7,059	13.4	(13.1–13.7)	68	9.6	(7.5–12.2)	2499	9.4	(9.0-9.7)	13	5.2	(2.8-8.9)	-30.4
p	Black	1,093	29.1	(27.7–30.6)	35	32.0	(22.4–44.3)	588	22.5	(20.9–24.1)	5	8.5	(2.8–19.7)	-22.7
	All	8,396	13.5	(13.3–13.8)	112	13.3	(11.0–16.0)	3,280	9.3	(9.0–9.6)	19	5.8	(3.5–9.0)	-31.4
Previous				. ,			. ,			. ,			. ,	
pregnancy														
termination§§	White	506	1.0	(0.9–1.0)	11	21.7	(10.9–38.6)	218	0.8	(0.7–0.9)	1	4.6	(0.1–25.3)	-15.6
	Black	98	2.6	(2.1–3.2)	10	102.0	(50.0–179.7)	72	2.7	(2.1–3.4)	1	13.9	(0.3–75.0)	3.8
	All	656	1.1	(1.0–1.1)	23	35.1	(22.3–52.1)	359	1.0	(0.9–1.1)	3	8.4	(1.7–24.2)	-4.7
Previous	14/1-12	000	47	(10, 10)	0.4	00.0	(171 00 0)	501	0.1	(10,00)	0	0.0	(0,4,40,0)	015
preterm birth	White	902	1.7	(1.6–1.8)	24	26.6	(17.1–39.3)	561	2.1	(1.9,-2.3)	2	3.6	(0.4–12.8)	21.5
	Black	221	5.9	(5.1–6.7)	12	54.3	(28.3–92.9)	123	4.6	(3.9–5.5)	1	8.1	(0.2-44.5)	-21.3
Description of the	All	1,233	2.0	(1.9–2.1)	39	31.6	(22.5–42.9)	799	2.3	(2.1–2.4)	4	5.0	(1.4–12.8)	13.1
Previous child death <sup>111</sup>	\\/bite	E01	10	(0, 0, 1, 1)	17	20 E	(19.1–51.7)	171	0.6		7	40.0	(16 6 90 5)	-35.4
ucatii	White Black	521 95	1.0 2.5	(0.9–1.1) (2.0–3.1)	17 8	32.6	,	171 47	0.6	(0.5-0.7)	7 0	40.9	(16.6-82.5)	-35.4 -30.0
		95 711	2.5 1.2	. ,	8 29	84.2 40.7	(37.0–159.2)	47 294	1.8 0.8	(1.3 - 2.3)	7	0.0 23.7	(0.0-75.5)	
Medical	All	/ 11	1.2	(1.1–1.2)	29	40.7	(27.4–58.0)	294	0.0	(0.7–0.9)	/	23.1	(9.6–48.3)	-27.8
condition***	White	15,351	29.2	(28.8–29.6)	151	9.8	(8.3–11.5)	13,134	48.9	(48.3–49.5)	51	3.9	(2.9–5.1)	67.4
Solution	Black	1,835	48.9	(47.2–50.5)	52	28.3	(21.2–37.0)	1,576	48.9 59.4	(40.3-49.3)	11	7.0	(3.5,12.4)	21.5
	All	18,848	30.4	(30.0–30.8)	221	11.7	(10.2–13.4)	17,308	48.7	(48.2–49.2)	78	4.5	(3.6–5.6)	60.4
Obstetrical	7.01	10,040	00.7	(00.0)		11.7	(10.2 10.4)	1,000	10.1	(10.2 40.2)	10	7.5	(0.0 0.0)	00.4
complication <sup>†††</sup>	White	24,624	46.8	(46.4–47.3)	183	7.4	(6.4-8.6)	11,478	42.7	(42.1–43.3)	57	5.0	(3.8–6.4)	-8.8
	Black	1,887	50.2	(48.6–51.8)	45	23.9	(17.4–31.8)	1,129	42.5	(40.6–44.4)	12	10.6	(5.5–18.5)	-15.4
	All	29,347	47.3	(46.9–47.7)	248	8.5	(7.4–9.6)	15,042	42.4	(41.8–42.9)	88	5.8	(4.7–7.2)	-10.5

\* From the birth record file, Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy.

Confidence interval. t

§ Infant mortality rate = number of infant deaths per 1,000 live births.

<sup>1</sup> Prevalence change percentage = (2002–2006 prevalence minus 1992–2001 prevalence) × 100 / 1992–2001 prevalence.

\*\* Includes all live-born infants <28 weeks gestation. Does not include fetal deaths.

<sup>++</sup> Defined by the Adequacy of Prenatal Care Utilization Index (Kotelchuck Index) as care started after the fourth month or number of visits less than 50% of American College of Obstetrics and Gynecology recommendation.

Si Includes termination by spontaneous or induced abortion.
Death of child aged ≤18 years by any cause.
Coded in the birth record file as any medical history of the pregnancy checklist, such as gestational diabetes, anemia, or eclampsia.
Coded in the birth record file as abnormal events during the labor or delivery (e.g., bleeding or premature rupture of membrane).

rates of extreme prematurity and very low birthweights and increases in birthweight and gestational age-specific survival appear to have eliminated the black-white infant mortality gap. Thus, during 2002–2007, 34 black infants who might have died, survived, and 45 who might have been born extremely premature, at high risk for life-long disabilities, were instead born at or closer to term.

The apparent disappearance of the black-white infant mortality gap in Dane County is likely attributed to the convergence of the two related but independent trends: greater survival of high-risk infants and fewer high-risk infants being born. The main factors for these trends were a large decline in the extremely premature (<28 weeks gestation) birth rate and a decline in the mortality rate for babies born weighing <1,500 g. Although extremely premature babies constitute a very small percentage of total live births, their IMR is approximately 100 times that of term infants, and they account for approximately half of all infant deaths (population-attributable fraction [PAF] for all races = 51%, PAF for blacks = 70%) (9). Extremely premature births account for the larger part of the black-white infant mortality gap in Dane County and nationally (2,9,10). The local trend toward fewer extremely premature births among blacks appears to have begun in the mid-1990s, followed by marked improvements in survival of extremely premature and low-birthweight infants born at local hospitals.

No significant changes in local health-care systems, infrastructure, or practice that correspond to these improvements have been identified. Nearly all (98%) of Dane County births occur at two local hospitals, both of which have full obstetrical services and level-three neonatal intensive-care units (WDA, 2000 U.S. Census, and WDHS hospital discharge data, personal communication, February 2009). No other hospitals in the county offer obstetrical services and delivery. During the study period, no changes in routine or high-risk obstetrical or neonatal referral patterns were recognized.

Factors that might contribute to improved birth outcomes are broader health insurance coverage, advances in prenatal and postnatal care, and targeted public health programs such as Perinatal Care Coordination services and the federal Women, Infants, and Children health-care and nutrition program. These targeted programs are available statewide, suggesting that differences in health-care access and quality specific to Dane County, and community quality-of-life elements, including improved neighborhood safety, organizational support and advocacy for black women and families, social inclusion, and improved economic status, might be important variables for further study. Conclusions based on these data should be considered preliminary because closer examination of demographics trends in Dane County are needed to understand the small changes in annual number of black infant deaths. The declining black infant mortality in Dane County has continued since 2002 and coincides with a growing black population of stable fertility. The steadily declining rate of extremely premature births, which began in the mid-1990s, represents larger annual numbers than infant deaths, and thereby might provide additional insight into these trends.

The findings in this report are subject to at least four limitations. First, delivery room misclassification of infant death as fetal death might occur, thereby artificially reducing the rate of infant deaths. However, systematic misclassification appears unlikely because both fetal death and infant death declined during the study period. Second, vital records do not provide information on important contextual risk factors for infant mortality (e.g., paternal involvement and quality of prenatal care). Also, vital records have poor validity for reporting medical risk factors and complications of pregnancy, and often lack details on cause of death. Third, key health-care variables such as neonatal intensive-care unit admissions and health insurance coverage were not examined. Finally, improved or expanded birth record coding, if it occurred, might be mistaken for improvement in quality of care.

These findings should be interpreted with caution and studied further to determine if the apparent reduction in deaths is an artifact or can be attributed to yet unidentified factors, such as changes in medical care or population characteristics. PHMDC, in collaboration with state and local health departments and the University of Wisconsin, has initiated an in-depth, follow-up investigation to include interviews with mothers, hospital chart reviews, and community resource assessments. Detailed vital records analyses are planned comparing Dane County to other population centers in Wisconsin where excessive infant mortality persists. The collaborative investigation will document and compare pre-, peri-, and postnatal care; individual characteristics of pregnant women; and the social and physical environments in which those women live. These pending analyses could reveal key factors contributing to fewer black extremely premature births and associated improved survival of extremely premature and low-birthweight infants in Dane County. Public health officials who conduct similar evaluations of IMRs in their local jurisdictions should be alert for similar infant mortality patterns during this period. Reports from such studies could provide supporting information to aid in understanding these preliminary findings and direct future research.

### References

- 1. CDC. Infant mortality and low birth weight among black and white infants—United States, 1980–2000. MMWR 2002;51:589–92.
- 2. Mathews TJ, MacDorman MF. Infant mortality statistics from the 2004 period linked birth/infant death data set. Natl Vital Stat Rep 2007;55(14).
- 3. US Department of Health and Human Services. Reduce fetal and infant deaths. Objective 16-1. Healthy People 2010 (conference ed, in 2 vols). Washington, DC: US Department of Health and Human Services; 2000. Available at http://www.healthypeople.gov/document/ html/volume2/16mich.htm.
- Wisconsin Department of Health Services. Birth record file, 1990–2007 [Database]. Madison, WI: Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy; 2009.
- Carmichael SL, Iyasu S. Changes in the black-white infant mortality gap from 1983 to 1991 in the United States. Am J Prev Med 1998;15:220–7.
- Callaghan WM, MacDorman MF, Rasmussen SA, Qin C, Lackritz EM. The contribution of preterm birth to infant mortality rates in the United States. Pediatrics 2008;118:1566–73.
- 7. Alexander GR, Wingate MS, Bader D, Kogan MD. The increasing racial disparity in infant mortality rates: composition and contributors to recent US trends. Am J Obstet Gynecol 2008;198:51.e1–9.
- Allen MC, Alexander GR, Tompkins ME, Hulsey TC. Racial differences in temporal changes in newborn viability and survival by gestational age. Paediatr Perinatal Epidemiol 2000;14:152–8.
- 9. Rockhill B, Newman B, Weinberg C. Use and misuse of population attributable fractions. Am J Public Health 1998;88:15–9.
- Schempf AH, Branum AM, Lukacs SL, Schoendorf KC. The contribution of preterm birth to the black-white infant mortality gap, 1990 and 2000. Am J Public Health 2007;97:1255–60.

# Notice to Readers

# Healthy Vision Month – May 2009

May is Healthy Vision Month, a national observance devoted to promoting the 10 vision objectives (28-1 through 28-10) in *Healthy People 2010* that are used to gauge the burden of visual impairment and level of eye care in the United States (1). This year's theme for Healthy Vision Month is Your Eyes

Are the Windows to Your Health, with the focus on reducing the prevalence of uncorrected refractive errors, one of the most common and correctable vision problems in the United States, and having eyes examined regularly.

At CDC, the Vision Health Initiative seeks to prevent vision loss, promote eye health, and coordinate prevention, disease management, and rehabilitation efforts. Additional information is available at http://www.cdc.gov/diabetes/projects/ vision.htm.

### Reference

1. US Department of Health and Human Services. Vision and hearing. Healthy People 2010 midcourse review. Washington, DC: US Department of Health and Human Services; 2006. Available at http://www.healthypeople.gov/document/pdf/tracking/od28.pdf.

#### Notice to Readers

# Webcast: Immunization Update 2009

CDC will present a satellite broadcast and webcast, Immunization Update 2009, on July 30, 2009. The 2.5-hour broadcast will occur live during 9:00 a.m.–11:30 a.m. (EDT) and will be rebroadcast that day during 12:00 noon–2:30 p.m.

Anticipated topics include the novel influenza A (H1N1) virus, seasonal influenza, rotavirus, vaccine safety, and vaccine supply. "Alternative" vaccination schedules and other emerging vaccine issues also will be discussed. Both broadcasts will feature a live question-and-answer session in which participants can interact with course instructors via toll-free telephone lines. Additional information about the program is available at http:// www2a.cdc.gov/phtn/immupdate2009/default.asp.

No registration is necessary to access the webcast. Continuing education credit for this activity is pending. The program will become available as a self-study DVD and Internet-based program in October 2009. TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 23, 2009 (20th week)\*

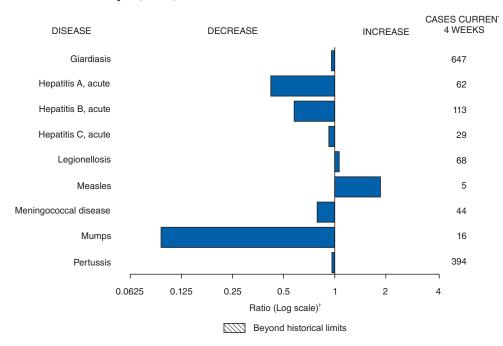
	Current	Cum	5-year weekly			ases re evious	eported years		States reporting cases
Disease	week	2009	average <sup>†</sup>	2008	2007	2006	2005	2004	during current week (No.)
Anthrax	_	_	_	_	1	1	_	_	
Botulism:									
foodborne	_	6	0	17	32	20	19	16	
infant	_	20	2	108	85	97	85	87	
other (wound and unspecified)	_	11	0	19	27	48	31	30	
Brucellosis		34	3	77	131	121	120	114	
Chancroid	_	16	0	26	23	33	17	30	
Cholera	_	2	0	3	7	9	8	6	
Cyclosporiasis§	_	30	17	139	93	137	543	160	
Diphtheria	_	_	_	_	_	_	_	_	
omestic arboviral diseases <sup>§</sup> , <sup>¶</sup> :									
California serogroup	_	_	0	62	55	67	80	112	
eastern equine	_	_	_	4	4	8	21	6	
Powassan	_	_	0	2	7	1	1	1	
St. Louis	_	_	Ō	13	9	10	13	12	
western equine	_	_	_	_	_	_	_	_	
hrlichiosis/Anaplasmosis <sup>§</sup> ,**:									
Ehrlichia chaffeensis	5	64	8	1,098	828	578	506	338	MO (2), MD (1), NC (1), TN (1)
Ehrlichia ewingii	_		_	1,000	020				
Anaplasma phagocytophilum	1	27	8	739	834	646	786	537	OH (1)
undetermined	5	16	4	158	337	231	112	59	IN (4), MO (1)
laemophilus influenzae. <sup>††</sup>	5	10	т	100	507	201	2	55	
nvasive disease (age <5 yrs):									
serotype b	_	11	0	28	22	29	9	19	
nonserotype b	4	79	3	237	199	175	135	135	NC (2), FL (1), AZ (1)
unknown serotype	3	76	4	166	180	179	217	177	OH (2), FL (1)
lansen disease <sup>§</sup>	2	21	2	80	101	66	87	105	CA (1), HI (1)
antavirus pulmonary syndrome§		1	1	18	32	40	26	24	Sec. (1), 111 (1)
emolytic uremic syndrome, postdiarrheal <sup>§</sup>	4	45	4	289	292	288	221	200	OH (1), MO (1), MD (1), VA (1)
enolytic diemic syndrome, postdiarmeal	9	303	15	868	845	766	652	720	NY (2), PA (2), IA (5)
IV infection, pediatric (age <13 years)§§		303	3	000	045	/00	380	436	
ifluenza-associated pediatric mortality <sup>§</sup> , <sup>¶¶</sup>	1	63	2	88	77	43	45	430	OH (1)
steriosis	2	167	10	760	808	884	896	753	NY (1), FL (1)
leasles***	5	21	2	141	43	55	66	37	PA (1), FL (4)
leningococcal disease, invasive <sup>†††</sup> :	5	21	2	141	40	55	00	07	1 A (1), 1 E (4)
A, C, Y, and W-135	5	121	6	341	325	318	297	_	NC (4), TX (1)
serogroup B	_	54	3	186	167	193	156	_	110 (4), 17 (1)
other serogroup	1	9	1	34	35	32	27	_	NC (1)
unknown serogroup	6	212	13	602	550	651	765	_	NY (1), MO (1), MD (1), TX (1), CA (2)
	3	130	80	449		6,584	314		
lumps lovel influenza A virus infections <sup>§§§</sup>	3	7927	80	449	800	0,584 N	314 N	258 N	NY (1), NC (1), FL (1)
	_	1921	0	2	4	17	8	3	
lague	_	_		_		17	8		
oliomyelitis, paralytic olio virus infection, nonparalytic <sup>§</sup>					_	N		N	
	_	6					N 16		
sittacosis <sup>§</sup>	-	6	0	120	12	21	16	12	
) fever total <sup>§</sup> , <sup>¶¶¶</sup> :	1	23	3	120	171	169	136	70	MO (1)
acute	1	20	1	108	_	_	_	—	MO (1)
chronic	_	3	0	12					
abies, human	_			1	1	3	2	7	
	_	1	0	17	12	11	11	10	
Rubella, congenital syndrome	_	1	_	_	_	1	1	_	
ARS-CoV <sup>§</sup> , <sup>††††</sup>	_	_	_	_	_	_	_	_	
mallpox <sup>§</sup>	_				100	105	100	100	
treptococcal toxic-shock syndrome§	2	65	3	158	132	125	129	132	CT (1), OH (1)
yphilis, congenital (age <1 yr)	—	56	7	416	430	349	329	353	
etanus	—	4	1	19	28	41	27	34	
oxic-shock syndrome (staphylococcal)§	_	31	1	73	92	101	90	95	
richinellosis		9	0	38	5	15	16	5	
ularemia	1	9	3	122	137	95	154	134	OH (1)
yphoid fever	4	119	6	444	434	353	324	322	MD (2), GA (1), HI (1)
ancomycin-intermediate Staphylococcus aureus	2	23	0	62	37	6	2	_	MO (1), FL (1)
ancomycin-resistant Staphylococcus aureus§	_	_	0	_	2	1	3	1	
'ibriosis (noncholera Vibrio species infections)§	9	72	3	490	549	Ν	Ν	N	GA (1), FL (6), WA (1), CA (1)
ellow fever									

See Table I footnotes on next page.

# TABLE I. (*Continued*) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 23, 2009 (20th week)\*

- -: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.
- \* Incidence data for reporting year 2008 and 2009 are provisional, whereas data for 2004, 2005, 2006, and 2007 are finalized.
- <sup>†</sup> Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. 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 starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm.
- <sup>1</sup> Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
- \*\* The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to E. chaffeensis); Ehrlichiosis, human granulocytic (analogous to Anaplasma phagocytophilum), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of E. ewingii).
- <sup>++</sup> Data for H. influenzae (all ages, all serotypes) are available in Table II.
- <sup>§§</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.
- III Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Sixty-two influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.
- \*\*\* Of the five measles cases reported for the current week, three were indigenous, and two were imported.
- ttt Data for meningococcal disease (all serogroups) are available in Table II.
- SSS These cases were obtained from state and territorial health departments in response to novel Influenza A (H1N1) infections and include cases in addition to those reported to the National Notifiable Diseases Surveillance System (NNDSS). Because of the volume of cases and the method by which they are being collected, a 5-year weekly average for this disease is not calculated.
- In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
- \*\*\*\* No rubella cases were reported for the current week.
- the transmission 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 May 23, 2009, with historical data



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

Notifiable Disease Data Team and 122 Cities Mortality Data TeamPatsy A. HallDeborah A. AdamsRosaline DharaWillie J. AndersonMichael S. WodajoLenee BlantonPearl C. Sharp

(20th week)*			Chlamydi	a <sup>†</sup>			Cocc	idiodomy	cosis			Crvr	otosporidi	osis	
		Prev	<u> </u>	u			Prev		00313			Prev		0313	
	Current	52 w	eeks	Cum	Cum	Current	52 w	eeks	Cum	Cum	Current	52 w	veek	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States New England Connecticut Maine <sup>§</sup> Massachusetts New Hampshire Rhode Island <sup>§</sup> Vermont <sup>§</sup>	8,356 841 176 575 1 62 27	22,723 745 229 48 326 33 53 21	25,699 1,655 1,306 72 950 63 244 53	404,893 15,218 4,461 949 7,550 430 1,368 460	449,083 13,602 3,535 984 6,669 805 1,181 428	75             	131 0 0 0 0 0 0 0	333 0 0 0 0 0 0 0	2,757 N N N 	2,558 1 N N 1 	46 — — — — — —	109 5 0 1 2 1 0	481 23 9 6 13 4 3 7	1,545 89 9 35 16 2 18	1,542 133 41 7 38 25 3 19
Mid. Atlantic New Jersey New York (Upstate) New York City Pennsylvania	1,791 469 1,001 321	2,852 381 584 1,111 792	6,734 769 4,563 3,130 1,072	57,514 6,310 11,636 24,010 15,558	420 57,455 8,911 9,982 22,265 16,297	N N N N N N	0 0 0 0 0	0 0 0 0 0	N N N N	N N N	5 2 3	1 13 0 4 1 5	35 4 17 8 15	192 1 51 27 113	192 15 52 37 88
<b>E.N. Central</b> Illinois Indiana Michigan Ohio Wisconsin	709 — 464 58 187	3,403 1,058 398 827 783 376	4,382 1,356 713 1,264 1,300 494	56,252 14,519 8,447 17,166 9,506 6,614	75,951 22,642 8,506 18,398 17,873 8,532	N N   N	0 0 0 0 0	3 0 3 2 0	13 N 5 8 N	20 N 15 5 N	9  1 5 3	26 2 3 5 7 8	125 13 17 13 59 46	341 18 52 71 115 85	353 35 43 75 81 119
W.N. Central lowa Kansas Minnesota Missouri Nebraska <sup>§</sup> North Dakota South Dakota	240 126  86 28  	1,317 191 187 266 494 97 25 56	1,547 257 401 316 576 254 60 85	24,458 3,601 3,831 4,207 9,821 1,723 156 1,119	25,649 3,359 3,466 5,690 9,421 1,919 727 1,067	N N     N N N N	0 0 0 0 0 0 0	1 0 0 1 0 0 0	1 N 1 N N N	N       N N N N N N	6 1 3 2 	16 4 3 2 0 1	68 30 14 13 8 10 9	218 47 23 49 43 25 1 30	234 50 19 58 52 37  18
S. Atlantic Delaware District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup> West Virginia	1,298 96 524 4 	4,544 68 124 1,386 744 443 801 534 616 68	5,730 180 229 1,906 1,909 772 1,814 887 903 101	68,210 1,878 2,447 28,425 7,168 7,621 	85,870 1,415 2,702 28,234 14,909 8,894 6,807 10,161 11,441 1,307	                   	0 0 0 0 0 0 0 0 0 0	1 0 0 1 0 0 0 0	4 1 N N 3 N N N	2                               	16 4 2 1 7 1 1	21 0 8 6 1 1 1 1	49 1 2 35 13 5 16 6 4 3	314 — 98 127 12 43 16 13 5	278 6 124 86 9 13 19 9
E.S. Central Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	1,238 	1,694 475 243 440 560	2,166 580 380 841 796	34,043 8,569 4,110 9,600 11,764	31,324 9,811 4,066 6,811 10,636		0 0 0 0	0 0 0 0 0	N N N N	N N N N	 	3 1 1 0 1	9 6 4 2 5	49 12 14 4 19	44 18 8 3 15
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	307 161 133  13	2,873 278 434 199 1,964	3,987 417 1,114 1,753 2,511	53,974 5,767 7,273 2,225 38,709	57,099 5,487 7,599 5,201 38,812	N N N	0 0 0 0	1 0 1 0 0	N N N	2 N 2 N N	2  2	8 1 1 2 3	272 10 5 16 258	55 10 6 25 14	69 13 13 15 28
Mountain Arizona Colorado Idaho <sup>§</sup> Montana <sup>§</sup> Nevada <sup>§</sup> New Mexico <sup>§</sup> Utah Wyoming <sup>§</sup>	444 50 147 29 14 171  33	1,381 455 323 69 59 175 159 87 33	2,145 627 1,108 314 89 365 540 251 97	23,836 6,405 6,474 1,386 1,185 3,950 2,452 1,125 859	28,418 9,463 6,908 1,392 1,204 3,884 2,708 2,304 555	44 44 N N 	91 90 0 0 1 0 0 0	211 209 0 0 3 2 1 1	1,925 1,893 N N 25 2 5 	1,745 1,697 N N 24 16 8 	2 1 1 — —	8 1 1 1 0 2 0 0	38 10 12 5 4 23 6 2	108 11 30 15 13 6 24 1 8	120 12 24 23 14 5 25 10 7
Pacific Alaska California Hawaii Oregon <sup>§</sup> Washington	1,488 43 1,148 26  271	3,665 89 2,873 115 187 403	4,605 199 3,583 247 631 557	71,388 1,763 56,304 2,176 3,576 7,569	73,715 1,842 57,104 2,237 4,088 8,444	31 N 31 N N N	37 0 37 0 0 0	172 0 172 0 0 0	814 N 814 N N N	788 N 788 N N N	6 4 	9 0 6 0 1 2	31 1 14 1 29 10	179 2 100 1 56 20	119 1 74 1 21 22
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	 167 	0 4 135 9	8 24 269 40	2,960 106	62 57 2,649 268	N  N	0 0 0 0	0 0 0 0	N  N	N  	N  N	0 0 0 0	0 0 0 0	N  N	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 year 2008 and 2009 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly. † Chlamydia refers to genital infections caused by *Chlamydia trachomatis*. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

			Giardiasi	s				Gonorrhe	a		нае		s <i>influenz</i> s, all sero		ve
			vious					vious					/ious		
Reporting area	Current week	Med	eeks Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008
United States	162	315	640	5,378	5,713	1,977	5,985	7,164	94,101	126,057	43	49	126	1,037	1,233
New England	1	28 5	64 14	398	483	94	98	301	1,859	1,853	_	3 0	18	72	62
Connecticut Maine <sup>§</sup>	1	5 4	14	76 73	117 43	38	53 2	275 9	849 56	758 34	_	0	12 2	24 10	6 6
Massachusetts	_	11 3	27 10	150	208	52	38	112 6	771 40	875	—	1 0	5	32	38
New Hampshire Rhode Island§	_	1	8	33 18	38 31	4	2 6	16	120	48 127	_	0	2 7	2 2	5 1
Vermont§	—	3	15	48	46	_	1	4	23	11	_	0	1	2	6
Mid. Atlantic New Jersey	33	61 8	116 21	1,008 85	1,128 188	334	607 83	1,138 144	11,103 1,267	12,397 2,086	4	10 1	25 7	201 14	224 37
New York (Upstate)	20	23	81	408	356	82	116	664	2,120	2,305	_	3	20	52	58
New York City Pennsylvania	3 10	15 16	30 46	279 236	328 256	201 51	210 193	577 267	4,310 3,406	3,754 4,252	4	2 4	5 10	41 94	41 88
E.N. Central	23	45	89	749	866	224	1,154	1,627	17,169	27,216	6	6	27	114	189
Illinois	—	10	32	101	230	_	367	499	4,196	7,605	_	2	9	31	62
Indiana Michigan	N 1	0 12	11 22	N 209	N 192	151	154 293	256 493	2,764 5,613	3,455 6,952	_	1 1	22 3	21 12	37 12
Ohio	19	16	31	298	302	12	254	482	2,846	6,672	6	1	6	43	62
Wisconsin	3 17	8	20	141	142	61	103	149 393	1,750	2,532	-	0	2	7 71	16
W.N. Central lowa	10	26 6	143 18	521 92	589 98	44	305 30	53	5,209 565	6,429 587	1	3 0	15 0	_	92 2
Kansas Minnesota	1	3 0	11 106	48 137	38 191	14	40 50	83 78	870 670	859 1,267	_	0 0	2 10	9 15	10 18
Missouri	6	8	22	169	163	21	144	184	2,454	3,040	1	1	4	33	43
Nebraska <sup>§</sup> North Dakota	_	3 0	10 16	47 3	68 6	9	27 1	50 7	499 6	533 46	_	0 0	2 4	11 3	13 6
South Dakota	_	2	11	25	25	_	8	20	145	97	_	Ö	0		_
S. Atlantic	52	65	108	1,294	934	446	1,531	2,142	18,970	29,998	26	12	23	312	310
Delaware District of Columbia	_	1	3 5	11	16 21	15	16 52	35 89	313 1,000	458 930	_	0	2 2	3	3 2
Florida	39	31	57	678	415	201	419	592	8,140	9,530	7	4	9	115	79
Georgia Maryland <sup>§</sup>	9 1	13 6	63 10	330 84	213 87	1	263 121	876 212	2,355 1,990	5,464 2,329	1	2 1	9 6	68 40	69 52
North Carolina	N	0	0	N	N		302	647	0.540	3,547	17	1	6	37	30
South Carolina§ Virginia§	2 1	2 8	8 31	37 138	45 107	229	167 163	316 321	2,543 2,420	3,765 3,669	_	1 1	5 5	22 12	27 39
West Virginia	—	1	5	16	30	—	12	26	209	306	—	0	3	15	9
E.S. Central Alabama <sup>§</sup>	5	8 4	22 12	111 52	149 79	372	544 165	771 216	9,781 2,464	11,279 3,878	1	3 0	6 3	61 17	72 8
Kentucky	N	0	0	N	Ň	67	86	153	1,221	1,561	_	0	2	7	6
Mississippi Tennessee§	N 5	0 4	0 13	N 59	N 70	152 153	143 159	253 301	2,923 3,173	2,557 3,283	1	0 2	1 5	37	11 47
W.S. Central	3	8	22	108	98	132	946	1,307	15,480	19,630	2	2	22	51	60
Arkansas§	ĩ	2	8	42	42	79	86	167	1,706	1,710	_	0	2	8	5
Louisiana Oklahoma	2	2 3	10 18	37 29	33 23	47	158 70	421 437	2,197 1.139	3,564 1,903	2	0 1	1 20	8 35	5 45
Texas§	Ν	0	0	N	Ν	6	592	725	10,438	12,453	—	0	1	—	5
Mountain Arizona	6	27 3	62 10	377 62	448 41	41 11	200 57	370 82	3,189 731	4,716 1,414	2 2	5 1	11 7	108 42	155 65
Colorado	6	9	27	125	171	6	62	292	1,242	1,408		1	5	29	27
Idaho <sup>§</sup> Montana <sup>§</sup>	_	3 2	14 9	36 36	48 24	1	3 2	13 6	38 34	63 44	_	0 0	2 1	2 1	6 1
Nevada§	_	2	8	27	38	23	34	86	724	998	_	0	2	9	8
New Mexico§ Utah	_	1 7	8 18	28 47	34 79	_	23 6	52 15	332 62	514 237	_	1 0	3 2	14 11	24 24
Wyoming§	—	1	4	16	13	—	2	8	26	38	—	Õ	2	—	_
Pacific	22	54	127	812	1,018	290	580	756	11,341	12,539	1	2	11	47	69
Alaska California	15	2 34	10 59	23 571	28 711	9 253	13 484	24 658	284 9,580	198 10,296	1	0 0	2 3	4 7	8 27
Hawaii Orogon <sup>§</sup>	_	0 7	4 60	4 116	14 172	3	13 23	20 48	244 389	219 502	—	0 1	2 10	13 20	7 25
Oregon <sup>§</sup> Washington	7	7	60 74	98	93	25	23 51	48 81	389 844	1,324	_	0	10	20	25
American Samoa	_	0	0	_	_	_	0	1	_	2	_	0	0	_	_
C.N.M.I. Guam	_		0	_	_	_	2	15	_	 19	_	0	0	_	_
Puerto Rico	_	3	15	25	54	9	4	16	85	107	_	0	1	_	_
U.S. Virgin Islands	—	0	0	_	_	_	2	6	23	47	Ν	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: Med \* Incidence data for reporting year 2008 and 2009 are provisional. † Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

### **MMWR**

(20th week)				Hepat	itis (viral,	acute), by	type†								
			Α					В				Le	gionellosi	s	
	Current		ious eeks	Cum	Cum	Current		vious veeks	Cum	Cum	Current		vious veeks	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States	15	40	89	638	1,045	33	72	193	1,191	1,426	16	51	152	523	679
New England Connecticut	_	2 0	8 4	31 9	53 10	_	1 0	4 3	11 4	31 12	_	2 0	18 5	14 6	36 7
Maine <sup>§</sup> Massachusetts	_	0 1	5 3	1 14	3 27	_	0 0	2 2	5 1	5 10	_	0 1	2 7	6	1 12
New Hampshire	_	Ó	2	3	4	—	0	2	1	1	—	0	5	_	4
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	0 0	2 1	3 1	8 1	_	0 0	1 1	_	2 1	_	0 0	14 1	1 1	8 4
Mid. Atlantic	_	5	13	64	124	1	7	17	101	188	2	15	60	131	155
New Jersey New York (Upstate)	_	1 1	5 4	5 17	28 29	1	1	5 11	8 25	56 26	2	2 5	14 24	6 53	17 42
New York City Pennsylvania	_	2 1	6 4	17 25	35 32	_	1 2	4 8	24 44	38 68	_	2 6	12 35	13 59	20 76
E.N. Central	2	5	11	75	159	2	9	20	156	172	5	8	41	97	151
Illinois Indiana	—	1 0	5 3	16 5	56 10	—	2	7	17 24	51 10	_	2 1	13 6	8 7	23 10
Michigan	_	1	5	27	61	1	2	8	49	63	_	2	16	18	43
Ohio Wisconsin	2	1 0	4 3	22 5	16 16	1	2 0	13 3	50 16	42 6	5	3 0	18 3	59 5	68 7
W.N. Central	_	2	16	45	133	1	2	16	70	26	1	2	8	17	31
lowa Kansas	_	0	6 1	6 4	61 9	_	0	3 3	10 4	8 3	_	0	2 1	7 1	7
Minnesota Missouri	_	0	12	11 15	10 15	1	0	11 5	11 35	1	1	0 1	4 7	6	3 10
Nebraska§	_	0	3 2	8	36	_	Ó	3	35	12 2	_	Ó	3	2	9
North Dakota South Dakota	_	0 0	2 1	1	2	_	0 0	1	1	_	_	0 0	3 1	1	1
S. Atlantic	6	7	15	158	135	11	20	31	397	375	6	9	22	131	136
Delaware District of Columbia	 U	0	1 0	1 U	2 U	 U	0	2 0	10 U	10 U	_	0	2 2	1	2 4
Florida	4	3	8	84	60	4	7	11	124	131	6	3	7	56	54
Georgia Maryland <sup>§</sup>	1	1 1	4 4	21 16	23 16	_	3 2	9 6	54 37	57 34	_	1 2	5 9	18 22	11 30
North Carolina South Carolina§	1	1 0	9 3	17 10	9 6	6 1	0	19 5	113 12	41 30	_	0	7 2	22 2	8 2
Virginia <sup>§</sup>	_	1	6	9	16		2	10	26	38	—	1	5	10	17
West Virginia E.S. Central	_	0 1	1 9	— 11	3 19	3	1 8	6 13	21 115	34 145	2	0 2	3 10	26	8 31
Alabama§	_	Ó	2	2	4	1	2	7	36	40	—	0	2	4	4
Kentucky Mississippi	_	0 0	3 2	1 5	8	_	2 1	7 3	31 5	42 14	_	1 0	4 1	11	16
Tennessee§	—	0	6	3	7	2	3	8	43	49	2	0	5	11	11
W.S. Central Arkansas <sup>§</sup>	_	4 0	43 1	65 4	96 3	6	11 1	96 5	172 13	292 17	_	2 0	21 2	20 1	18 1
Louisiana Oklahoma	_	0 0	2 6	2 1	6 3	3	1 2	4 16	16 43	36 29	_	0 0	2 6	1 1	2 1
Texas§	_	3	37	58	84	3	7	74	100	210	_	1	19	17	14
<b>Mountain</b> Arizona	_	3 2	31 28	53 29	79 28	_	3 1	10 5	46 23	65 25	_	2 0	8 3	30 15	31 8
Colorado	_	0	2	7	17	_	Ó	3	8	9	_	0	2	1	3
ldaho <sup>§</sup> Montana <sup>§</sup>	_	0 0	1	3	12	_	0 0	2 1	2	3	_	0 0	1 2	4	1 3
Nevada <sup>§</sup> New Mexico <sup>§</sup>	—	0 0	3 1	6 5	2 14	—	0	3 2	6 4	19 7	_	0 0	2 2	5	5 3
Utah	_	0	2	3	3	_	0	3	3	1	_	0	2	5	8
Wyoming§		0	0	100	3		0	1		1	_	0	0		
Pacific Alaska	7	8 0	25 1	136 3	247 2	9 1	6 0	36 1	123 3	132 4	_	4 0	9 1	57 2	90 1
California Hawaii	6	6 0	25 2	105 3	202 4	7	5 0	28 1	93 2	92 3	_	3 0	9 1	48 1	72 4
Oregon§	_	0	2	6	16	_	0	8	12	17	_	0	2	3	8
Washington American Samoa	1	1 0	4 0	19	23	1	1 0	8 0	13	16	N	0 0	3 0	3 N	5 N
C.N.M.I.	_	—	—	_	_	_	—	—	_	_		—	—		_
Guam Puerto Rico	_	0 0	0 2	7	13	_	0 0	0 5	2	19	_	0 0	0 0	_	_
U.S. Virgin Islands	_	0	0	_	_		0	0		_	_	0	0		_

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 23, 2009, and May 17, 2008 (20th week)\*

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

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

		L	yme disea	se				Malaria			we		cal diseas		/e <sup>1</sup>
			vious veeks				Prev	ious eeks					/ious /eeks		
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	119	530	1,858	2,770	3,911	12	23	46	310	308	12	18	47	396	563
New England	5	118	832	330	1,399	—	1	6	8	11	_	0	4	15	16
Connecticut Maine <sup>§</sup>	3	38 5	262 73	63	594 49	_	0 0	4 0	1	1	_	0 0	1	1 2	1 2
Massachusetts	_	34	400	117	478	_	0	4	6	8	_	0	3	9	12
New Hampshire Rhode Island <sup>§</sup>	1	13 0	145 75	104 7	161 100	_	0	1	_	1	_	0	1	1	1
Vermont§	1	4	75 41	39	100	_	0	1	1	_	_	0	1	1	_
Mid. Atlantic	96	229	1,400	1,512	1,458	1	5	17	70	75	1	2	5	41	59
New Jersey New York (Upstate)	 50	33 99	231 1,368	297 571	687 278	_	0 0	4 10	17	13 9	1	0 0	1 2	2 10	9 15
New York City	50	99 11	54	5/1	106	1	3	11	43	42	_	0	2	7	8
Pennsylvania	46	48	338	644	387	—	1	3	10	11	—	1	4	22	27
E.N. Central	_	9	147	84	134	—	2	7	33	49	_	3	8	63	93
Illinois Indiana	_	0 0	13 8	5	5 1	_	1 0	5 2	9 6	25 1	_	1 0	6 4	13 14	33 13
Michigan	—	1	10	7	_	_	0	2	6	7	_	0	3	11	14
Ohio Wisconsin	_	0 6	6 129	6 66	7 121	_	0	2 3	11 1	13 3	_	0 0	3 2	19 6	23 10
W.N. Central	_	7	336	38	78	1	1	10	16	20	1	1	9	32	53
Iowa	_	1	9	5	21	_	Ö	3	3	2	_	Ó	1	2	11
Kansas Minnesota	_	0 4	4 326	4 28	3 52	1	0	2 8	1 9	3 6	_	0	2 4	7 8	2 15
Missouri	_	4	320	20	52	_	0	2	3	5	1	0	2	10	15
Nebraska§	—	0	2	—	_	—	0	1	—	4	—	0	1	3	8
North Dakota South Dakota	_	0 0	10 1	1	1	_	0	0 0	_	_	_	0	3 1	2	1
S. Atlantic	13	70	225	710	766	6	6	16	119	78	6	3	9	73	71
Delaware	3	11	36	158	215	—	0	1	1	1	_	0	1	1	_
District of Columbia Florida	_	1	7 6	 12	10 11	2	0	2 7	33	17	_	0	0 4	28	27
Georgia	_	0	6	15	10	_	i	4	23	21	_	Ó	2	11	8
Maryland <sup>§</sup> North Carolina	8	29 1	165 6	353 16	400 2	2 1	1 0	8 7	32 17	25 2	1 5	0	3 3	3 14	6 3
South Carolina <sup>§</sup>	1	0	2	8	8	_	0	1	1	2		0	1	5	13
Virginia§	1	14	61	114	89	1	1	3	11	9	—	0	2	7	12
West Virginia	_	2	17	34	21	_	0	1	1	1	_	0	2	4	2
E.S. Central Alabama <sup>§</sup>	_	0 0	5 2	6 1	10 4	2 1	0 0	2 1	11 3	6 3	_	0 0	6 2	15 3	29 1
Kentucky	—	0	2	—	1	1	0	2	4	2	—	0	1	3	6
Mississippi Tennessee <sup>§</sup>	_	0 0	1 3	5	5	_	0	1 2	4	1	_	0	1 3	1 8	9 13
W.S. Central	_	2	21	8	27	_	1	10	8	14	2	2	11	35	61
Arkansas§	_	0	0	_	—	_	Ó	1	_	—	—	0	2	5	9
Louisiana Oklahoma	_	0 0	1	_	_	_	0 0	1 2	1	1	_	0 0	3 3	9 2	17 8
Texas <sup>§</sup>	_	2	21	8	27	_	ĩ	10	7	12	2	1	9	19	27
Mountain	_	1	13	11	6	_	0	3	3	10	_	1	4	33	30
Arizona Colorado	_	0 0	2 1	2 2	2 2	_	0	2	1	3 3	_	0	2 2	7 10	2 5
Idaho§	_	0	1	3	1	_	0	1	_	_	_	0	1	4	4
Montana <sup>§</sup> Nevada <sup>§</sup>	—	0 0	13 2	1 3	—	_	0 0	0 1	_	4	_	0 0	1 2	2 3	4 5
New Mexico <sup>§</sup>	_	0	2	_	1	_	0	1	_	-	_	0	1	3	4
Utah	—	0	1	_	—	—	0	1	1		—	0	1	1	4
Wyoming§	_	0	1			_	0	0			_	0	2	3	2
Pacific Alaska	5	3 0	13 2	71 1	33	_2	3 0	10 1	42 1	45 2	_2	4 0	14 2	89 2	151 2
California	3	2	6	60	24	2	2	8	32	34	2	2	8	53	119
Hawaii Oregon <sup>§</sup>	N	0 0	0 5	N 8	N 9	_	0	1 3	1 4	2 4	_	0 1	1 9	2 23	1 17
Washington	2	Ő	12	2	_	_	0	3	4	3	_	Ó	6	9	12
American Samoa	Ν	0	0	Ν	Ν	_	0	0	_	_	_	0	0	_	_
C.N.M.I. Guam	_	0		_	_	_	0	2	_	_	_	0		_	_
Puerto Rico	N	0	0	N	N	_	0	1	1	1	_	0	1	_	2
U.S. Virgin Islands	Ν	0	0	N	Ν	_	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 year 2008 and 2009 are provisional. † Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(20th week)*			Deutucoio					biec enin				eelar Mer	untain and	Hed form	
		Pro	Pertussis vious					ibies, anin ious	nai		H		untain spo /ious	tted tevel	
	Current		veeks	Cum	Cum	Current		eeks	Cum	Cum	Current		/eeks	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Мах	2009	2008
United States	128	234	1,690	4,129	2,895	40	71	119	1,164	1,412	9	39	150	304	165
New England Connecticut	_	18 0	35 4	170 6	356 26	10 5	8 3	21 17	114 49	127 59	_	0 0	2 0	3	1
Maine <sup>†</sup>	_	1	7	31	13	2	1	5	20	24	_	0	2	3	_
Massachusetts New Hampshire	_	12 1	30 5	105 19	278 9	3	0 1	0 7	13	14	_	0	1	_	1
Rhode Island <sup>†</sup>	_	0	6	3	25	_	Ó	3	8	9	_	0	2	_	_
Vermont <sup>†</sup>		0	2	6	5	_	1	6	24	21	_	0	0	_	_
Mid. Atlantic New Jersey	18	23 3	64 12	358 26	341 56	16	18 0	30 0	247	281	_	1 0	29 6	8	30 18
New York (Upstate) New York City	4	6 0	41 21	73 33	102 36	16	9 0	20 2	129	136 8	_	0 0	29 2	1 5	3 5
Pennsylvania	14	10	33	226	147	_	7	17	118	137	_	0	2	2	4
E.N. Central	24	37	238	825	603	3	2	28	20	25	1	2	15	10	10
Illinois Indiana	_	13 2	45 158	164 73	58 15	_	1 0	20 2	6	7 1	_	1 0	10 3	6	9
Michigan	1	8	21	188	71	1	1	9	12	12	_	0	1	1	_
Ohio Wisconsin	23	13 2	57 7	370 30	431 28	2 N	0 0	7 0	2 N	5 N	1	0 0	4 1	3	1
W.N. Central lowa	_4	31 4	872 21	824 43	228 33	_1	5 0	17 5	96 9	78 7	2	4 0	33 2	31	24 1
Kansas	—	2	12	74	26	_	1	6	37	34	—	0	0	_	_
Minnesota Missouri	4	1 14	808 51	155 466	46 97	1	0 1	11 8	18 16	16 5	2	0 4	0 32	30	22
Nebraska <sup>†</sup>	_	4	32	77	17	_	Ó	0	—	_	—	0	4	1	—
North Dakota South Dakota	_	0 0	24 10	2 7	9	_	0 0	9 4	3 13	8 8	_	0 0	1 1	_	1
S. Atlantic	20	25	71	558	268	3	27	66	504	717	5	16	72	183	53
Delaware District of Columbia	_	0 0	3 2	5	2 1	_	0 0	0 0	_	_	_	0 0	5 1	1	3 1
Florida	19	7	20	182	60	_	0	22	52	138	—	0	3	2	2
Georgia Maryland <sup>†</sup>	_	3 3	9 10	79 35	19 43	_	6 7	47 17	102 117	155 169	1	1 1	9 7	9 15	11 11
North Carolina South Carolina <sup>†</sup>	_	0 2	65 10	152 53	59 36	N	2 0	4	N	N	4	9 1	55 9	133 9	11 4
Virginia†	1	3	24	47	43	_	11	24	194	211	_	2	15	13	7
West Virginia		0	2	5	5	3	1	6	39	44	—	0	1	1	3
E.S. Central Alabama <sup>†</sup>	11 2	11 2	33 15	242 77	91 19	_2	3 0	7 0	58	64	_	4 1	23 8	47 8	25 10
Kentucky Mississippi	_2	4 1	15 5	91 17	13 38	_2	1 0	4	24	13 1	_	0 0	1 3	1	3
Tennessee <sup>†</sup>	7	2	14	57	21	_	2	6	34	50	_	3	19	38	12
W.S. Central	34	39	383	604	249	_	0	9	16	41	1	2	132	16	14
Arkansas† Louisiana	_	2 2	38 7	30 34	29 7	_	0 0	6 0	12	24	_	0 0	60 2	3	1 2
Oklahoma Texas†	2 32	0 34	40 303	11 529	4 209	_	0 0	9 1	4	16 1	1	0 1	71 6	3 10	4 7
Mountain	8	15	31	302	383	_	2	9	37	20	_	1	3	6	7
Arizona Colorado	7	2 3	10 12	51 103	105 59	Ν	0 0	0 0	Ν	N	—	0 0	2 1	1	3
Idaho†	1	1	5	33	19	_	0	2	_	_	_	0	1	_	_
Montana <sup>†</sup> Nevada <sup>†</sup>	_	0 0	4 3	9 6	58 14	_	0 0	4 5	11	1	_	0 0	1 2	3	1
New Mexico <sup>†</sup>	—	1	10	29	22	—	0	2	14	14	—	0	1	1	1
Utah Wyoming <sup>†</sup>	_	4 0	19 2	70 1	100 6	_	0 0	6 4	1 11	1 4	_	0 0	1 2	1	_2
Pacific	9	24	98	246	376	5	4	13	72	59		0	1		1
Alaska California	1	3 6	21 24	28 22	30 189	5	0 3	2 12	8 64	12 46	N	0	0	N	N
Hawaii	1	0	3	11	4	_	0	0	_	_	Ν	0	0	Ν	N
Oregon <sup>†</sup> Washington	7	3 5	37 76	81 104	54 99	_	0 0	2 0	_	1	_	0 0	1 0	_	1
American Samoa	_	0	0	_	_	Ν	0	0	Ν	Ν	Ν	0	0	Ν	Ν
C.N.M.I. Guam	_	0	0	_	_	_	0	0	_	_	N	0	0	N	N
Puerto Rico	—	0	1	1	—	_	1	5	15	26	Ν	0	0	Ν	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 year 2008 and 2009 are provisional. † Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

		s	almonello	sis		Shig	ja toxin-pi	oducing	E. coli (ST	EC)†		5	Shigellosis	;	
			vious					ious					vious		
Reporting area	Current week	Med	weeks Max	Cum 2009	Cum 2008	Current week	52 w Med	Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008
United States	357	978	2,271	10,852	11,430	37	83	219	912	1,054	188	443	1,248	5,203	5,832
New England Connecticut	1	32 0	164 138	570 138	898 491	_4	3 0	23 23	62 23	98 47	—	3 0	12 7	59 7	93 40
Maine§	1	2	8	38	52	3	0	3	8	3	_	0	6	2	2
Massachusetts New Hampshire	_	23 3	51 12	263 69	279 33	1	1 1	11 3	15 12	30 8	_	2 0	9 1	40 1	44 2
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	2 1	9 7	45 17	23 20	_	0 0	1 6	4	6 4	_	0 0	1 2	6 3	4 1
Mid. Atlantic	43	93	201	1,222	1,455	4	7	27	70	112	4	55	93	941	658
New Jersey New York (Upstate)	29	19 28	55 65	106 349	354 323	4	1 3	12 12	12 33	47 29	3	19 8	38 31	240 65	151 175
New York City Pennsylvania	 14	19 27	49 78	307 460	358 420	_	1	5 8	22 3	12 24	1	11 13	32 33	167 469	289 43
E.N. Central	27	97	194	1,325	1,421	6	12	75	138	137	22	82	128	1,043	1,094
Illinois Indiana	_	27 8	71 53	287 80	398 120	_	1 1	10 14	29 15	28 7	_	17 5	34 39	174 23	359 312
Michigan	3	18	38	307	273	2	3	43	34	21		5	24	99	32
Ohio Wisconsin	24	27 13	49 50	464 187	394 236	4	3 3	17 20	36 24	34 47	16 6	42 8	80 33	597 150	292 99
W.N. Central lowa	23 7	53 8	148 16	888 129	755 130	5	12 3	58 21	134 33	130 32	35 1	14 3	39 12	255 39	347 45
Kansas	1	7	29	97	76	2	1	7	11	9	3	2	8	74	4
Minnesota Missouri	6 9	13 13	69 48	214 181	207 203	3	2 2	21 11	32 36	19 47	3 28	3 3	25 26	25 108	86 121
Nebraska <sup>§</sup> North Dakota	_	5 0	41 30	166 9	88 13	_	2 0	30 28	20	11 1	_	0 0	3 9	7 1	21
South Dakota	_	4	22	92	38	_	0	4	2	11	_	0	2	1	70
S. Atlantic Delaware	118 2	262 2	459 9	2,840 20	2,798 47	10	14 0	49 2	207 5	196 5	28 2	49 0	98 4	767 21	1,242 3
District of Columbia Florida	76	0 97	4 174	1,187	27 1,287	5	0 2	1 10	60	3 55	 14	0 11	2 26	164	6 368
Georgia Maryland <sup>§</sup>	9 13	41 17	96 37	463 208	436 204	-	2	8 11	20 26	15 30	1	13 4	47 12	188 108	508 24
North Carolina	11	28	106	494	264	2	2	21	54	18	8	5	27	153	35
South Carolina§ Virginia§	4 3	19 20	57 88	203 213	238 218	1 1	1 3	3 27	8 27	14 40	_	5 4	31 59	57 71	222 57
West Virginia	_	3	10	52	77	_	0	3	7	16	_	0	3	5	19
E.S. Central Alabama <sup>§</sup>	26 3	60 16	140 49	617 179	684 201	1 1	5 1	12 3	54 10	81 28	29	27 5	61 18	355 64	780 177
Kentucky Mississippi	10	10 13	18 57	142 110	111 166	_	1 0	7 1	14 3	16 4	14	2 1	25 6	86 10	132 206
Tennessee§	13	14	62	186	206	—	2	6	27	33	15	15	48	195	265
W.S. Central Arkansas <sup>§</sup>	22 10	142 14	1,286 39	730 141	992 107	_	6 1	63 5	44 6	102 18	41 12	98 10	948 27	989 118	986 107
Louisiana Oklahoma	12	18 15	54 58	103 168	186 117	_	0 1	2 19	6	2 5	5	8 3	26 43	57 73	209 39
Texas§	—	95	1,201	318	582	_	5	55	32	77	24	65	888	741	631
Mountain Arizona	9 3	61 23	110 43	815 305	959 255	5 1	11 1	40 4	103 11	130 22	16 13	26 16	54 35	374 266	224 97
Colorado Idaho <sup>§</sup>	5 1	12 3	20 12	180 53	301 46	2 2	4 2	18 15	52 10	30 27	3	3 0	11 2	36 1	26 5
Montana <sup>§</sup> Nevada <sup>§</sup>	_	2	7	45	36		0	3	6	16 4	_	0	5	11	1
New Mexico§	_	4 7	14 32	81 66	78 117	_	0 1	3 4	13	17	_	3 2	13 12	28 29	70 16
Utah Wyoming§	_	6 1	19 5	68 17	96 30	_	1 0	9 2	6 1	10 4	_	1 0	3 1	3	6 3
Pacific	88	120	534	1,845	1,468	2	10	31	100	68	13	32	82	420	408
Alaska California	58	1 86	4 516	16 1,405	15 1,117	2	0 5	1 15	67	2 42	10	0 27	1 75	2 327	345
Hawaii Oregon <sup>§</sup>	_	5 7	15 61	88 130	68 111	_	0 1	2 8	2 6	3 7	_	1 1	3 10	6 21	15 24
Washington	30	11	85	206	157		3	16	25	14	3	2	13	64	24
American Samoa C.N.M.I.	_	0	1	_	1	_	0	0	_	_	_	0	2	3	1
Guam Puerto Rico	_	0 13	2 40	76	5 195	_	0 0	0 0	_	_	_	0 0	2 4	1	9 7
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 year 2008 and 2009 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).

		Streptococcal	diseases, inv	asive, group A	·	Streptococc		e, invasive di Age <5 years	sease, nondru	g resistant†
	Current		ious eeks	Cum	Cum	Current	Prev 52 w		Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States	77	95	237	2,444	2,720	21	34	121	761	861
New England	—	5 0	31	151	183	_	1	12	21	43
Connecticut Maine <sup>§</sup>	_	0	26 3	43 9	28 13	_	0 0	11	_	1
Massachusetts	_	3	10	60	110	_	1	3	15	34
New Hampshire	_	1	4	25	15	—	0	1	4	7
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	0 0	8 3	4 10	8 9	_	0 0	2 1	2	1
Mid. Atlantic	15	18	38	461	581	1	4	33	111	108
New Jersey	—	1	6	3	106	_	1	4	14	33
New York (Upstate)	7	6	25	174	181	1	2	17	59	43
New York City Pennsylvania	8	4 6	12 18	94 190	111 183	N	0 0	31 2	38 N	32 N
E.N. Central	6	16	43	479	538	1	6	18	111	156
Illinois	_	4	11	107	154	_	1	5	14	46
Indiana	—	3	23	81	69		0	13	11	17
Michigan Ohio	5	3 4	10 13	81 139	98 144	1	1	5 6	32 41	42 28
Wisconsin	1	1	10	71	73	_	ò	3	13	23
W.N. Central	19	5	37	206	217	_	2	11	66	39
lowa	—	0	0				0	0		
Kansas Minnesota	18	0 0	5 34	29 84	25 101	N	0 0	1 7	N 28	N 9
Missouri	1	1	8	54	54	_	1	4	28	19
Nebraska§	_	1	3	27	19	—	0	1	3	4
North Dakota South Dakota	_	0 0	2 2	2 10	7 11	_	0 0	3 2	3 4	2 5
S. Atlantic	11	22	46	542	536	5	6	14	154	169
Delaware	—	0	1	8	6	—	0	0	_	
District of Columbia		0	2		6	N	0	0	N	N
Florida Georgia	4	6 5	12 13	131 135	123 111	2 1	1 2	6 6	36 47	29 49
Maryland§	2	3	10	80	97	2	1	3	33	34
North Carolina	2	2	12	55	70	N	0	0	N	N
South Carolina <sup>§</sup> Virginia <sup>§</sup>		1 3	5 9	35 77	34 70	_	1 0	6 2	27 3	27 26
West Virginia	_	1	4	21	19	_	Ő	2	8	4
E.S. Central	4	4	10	107	88	_	1	6	28	53
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky Mississippi	1 N	1 0	5 0	19 N	19 N	<u>N</u>	0 0	0 2	N	N 14
Tennessee§	3	3	8	88	69	_	1	6	28	39
W.S. Central	15	10	75	218	216	13	6	46	140	123
Arkansas§	—	0	2	9	6	4	0	3	16	7
Louisiana Oklahoma	2	0 2	2 16	6 81	10 55	1	0 1	3 7	12 27	6 40
Texas§	13	6	59	122	145	8	4	34	85	70
Mountain	7	10	22	218	303	_	4	16	115	148
Arizona	1	3	8	65	99	—	2	10	67	66
Colorado Idaho§	6	3 0	8 2	85 3	75 10	_	1 0	4 2	22 4	34 2
Montana§	N	0	0	N	N	Ν	0	ō	Ň	N
Nevada <sup>§</sup>	—	0	1	3	6	—	0	1		2
New Mexico <sup>§</sup> Utah	_	2 1	7 6	40 21	78 30	_	0 0	3 4	11 11	21 22
Wyoming§	—	0	1		5	—	õ	1	—	1
Pacific	_	3	9	62	58	1	1	5	15	22
Alaska		0 0	4 0	8 N	12 N	1	0	4 0	10 N	12 N
California Hawaii	<u>N</u>	0	0	N 54	N 46	N	0 0	0	N 5	N 10
Oregon <sup>§</sup>	Ν	0	0	N	N	Ν	0	0	N	N
Washington	N	0	0	N	Ν	N	0	0	N	Ν
American Samoa	—	0	8	—	19	N	0	0	N	Ν
C.N.M.I. Guam	_	0	0	_	_	_	0	0	_	_
Puerto Rico	Ν	0	0	Ν	Ν	Ν	0	0	Ν	Ν
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 year 2008 and 2009 are provisional. \* Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available. (NNDSS event code 11717). § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

<u> </u>		Si	treptococ	cus pneur	<i>nonia</i> e, in	vasive dise	ease, dru	g resistant	t,						
			All ages					ged <5 yea	rs		Sy			l seconda	ry
	•	Prev 52 w			•	•		/ious /eeks	•				vious veeks	•	
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	46	55	276	1,407	1,636	6	9	20	208	222	72	262	452	4,690	4,714
New England	_	1 0	48 48	26	29	_	0 0	5 5	1	2	5	6 1	15 5	130 27	120
Connecticut Maine <sup>§</sup>	_	0	40	7	11	_	0	1	_	_	1	0	2	1	7 3
Massachusetts New Hampshire	_	0	1 3	1 5	_	_	0	1 0	1	_	3 1	4 0	11 2	88 10	95 6
Rhode Island§	_	0	6	5	8	_	0	1	_	1	—	0	5	4	4
Vermont <sup>§</sup> Mid. Atlantic	6	0 4	2 14	8 86	10 171	2	0 0	1 3	— 15	1 13	 13	0 32	2 51	711	5 678
New Jersey	_	0	0	_	_	_	0	0	_	—	_	4	13	90	83
New York (Upstate) New York City	2	1	10 4	38 2	32 72	1	0	2 2	10	4	2 9	2 22	8 36	40 458	48 422
Pennsylvania	4	1	8	46	67	1	Ő	1	5	9	2	5	11	123	125
E.N. Central Illinois	13 N	9 0	41 0	271 N	359 N	N	1 0	7 0	37 N	47 N	_2	24 9	44 19	330 65	445 164
Indiana		2	32	54	126		0	6	9	15	_	2	10	60	58
Michigan Ohio	13	0 7	2 18	13 204	13 220	_	0 1	1 4	1 27	2 30	_2	4 6	18 28	93 92	81 122
Wisconsin	_	0	0	_		—	0	0	_	_	—	1	4	20	20
W.N. Central lowa	_	2 0	161 0	55	127	_	0 0	4 0	16	23	1	7 0	14 2	113 10	163 8
Kansas	_	1	5	17	54	_	0	2	9	3	1	0	3	9	10
Minnesota Missouri	_	0 1	156 5	32	15 53	_	0 0	4	5	15 2	_	2 3	6 10	25 58	40 100
Nebraska§	—	0	0	_	_	—	0	0	_	—	—	0	2	10	5
North Dakota South Dakota	_	0 0	2 2	4 2	2 3	_	0 0	0 2	2	3	_	0 0	0 1	1	_
S. Atlantic	22	23	53	700	656	2	4	14	95	93	15	61	262	1,073	959
Delaware District of Columbia	N	0 0	1 0	8 N	2 N	N	0 0	0 0	N	N	_	0 3	4 9	14 63	1 49
Florida Georgia	20 2	14 8	36 25	430 197	333 243	2	3 1	13 5	66 26	53 33	1	21 11	38 227	420 130	381 149
Maryland§	_	0	1	4	4	_	Ó	0	_	1	_	7	16	113	121
North Carolina South Carolina§	N	0 0	0	N	N	N	0	0 0	N	N	10 4	6 2	19 6	183 36	112 34
Virginia <sup>§</sup>	Ν	0	0 13	N 61	N 74	Ν	0	0 3	N 3	N 6	_	5 0	16	113	109
West Virginia E.S. Central	5	1 5	25	165	167	2	1	3	24	6 26	13	22	1 36	1 448	3 396
Alabama§	N	0	0	N	N	N	0	0	N	N	_	8	17	165	171
Kentucky Mississippi	2	1 0	5 2	47	42 1	_	0 0	2 1	7	8	1 3	1 3	10 18	23 80	35 48
Tennessee§	3	3	22	118	124	2	0	3	17	18	9	8	19	180	142
W.S. Central Arkansas <sup>§</sup>	_	1 0	7 5	48 29	58 10	_	0 0	3 3	9 6	10 3	16 16	48 3	80 35	914 74	783 46
Louisiana		1	6	19	48		0	1	3	7	_	14	40	223	187
Oklahoma Texas <sup>§</sup>	N	0 0	0 0	N	N	N	0 0	0 0	N	N	_	1 29	7 40	23 594	35 515
Mountain	—	2	7	54	68	—	0	3	10	7	1	9	23	120	235
Arizona Colorado	_	0 0	0 0	_	_	_	0 0	0 0	_	_	_	4 2	13 10	21 39	122 61
Idaho <sup>§</sup> Montana <sup>§</sup>	N	0 0	1	N	N	N	0 0	1 0	N	N	_	0 0	2 7	3	1
Nevada <sup>§</sup>	_	1	4	26	32	_	0	2	6	2	1	1	7	38	28
New Mexico <sup>§</sup> Utah	_	0 1	0 6	22	36	_	0 0	0 3	4	5	_	1 0	5 2	19	11 11
Wyoming§	—	0	2	6	_	—	0	0	—	_	—	0	1	—	1
Pacific Alaska	_	0	1 0	_2	1	_	0 0	1 0	1	1	6	46 0	66 1	851	935
California	Ν	0	0	N	N	Ν	0	0	N	N	5	41	59	777	848
Hawaii Oregon§	N	0 0	1 0	2 N	1 N	N	0 0	1 0	1 N	1 N	_	0 0	3 3	14 12	11 4
Washington	N	0	0	N	N	N	0	0	N	N	1	3	9	48	72
American Samoa C.N.M.I.	<u>N</u>		0	N	N	N	0	0	N	N	_	0	0	_	_
Guam Puerto Rico	_	0 0	0 0	_	—	_	0 0	0 0	—	_	— 11	0 3	0 11		61
U.S. Virgin Islands	_	0	0	_	_	_	0	0	_	_	—	3	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 year 2008 and 2009 are provisional. † Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720). § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

### **MMWR**

<u> </u>									We	st Nile vi	rus disease	et.			
		Varice	ella (chicke	enpox)			Ne	euroinvasi	ve			Nonn	euroinvas	ive§	
	Current		vious veeks	Cum	Cum	Current	Prev 52 w		Cum	Cum	Current		vious veeks	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States	221	385	821	6,861	15,082	_	1	75	_	3	_	1	77	_	12
New England	6	19	49	132	760	_	0	2	_	_	_	0	1	_	1
Connecticut Maine <sup>¶</sup>	_	11 1	26 11	_	375 134	_	0	2 0	_	_	_	0 0	1 0	_	1
Massachusetts		0	1		_	—	0	1	—	—	—	0	0	—	—
New Hampshire Rhode Island¶	4	4 0	11 0	89	127	_	0 0	0 1	_	_	_	0 0	0 0	_	_
Vermont <sup>¶</sup>	2	4	17	43	124	_	0	0	_	_	_	0	0	_	_
Mid. Atlantic	40	39	80	747	1,166	_	0	8	_	_	_	0	4	_	_
New Jersey New York (Upstate)	N N	0	0	N N	N N	_	0	2 5	_	_	_	0	1 2	_	_
New York City		0	0			_	0	2	_	_	_	0	2	_	_
Pennsylvania	40	39	80	747	1,166	_	Ō	2	_	_	_	Ō	1	_	_
E.N. Central	72	145	241	3,206	3,574	—	0	8	—	—	—	0	3	_	_
Illinois Indiana	_	37 0	73 14	764 83	500	_	0 0	4	_	_	_	0	2 1	_	_
Michigan	12	50	113	964	1,509	_	0	4	_	_	_	0	2	_	_
Ohio	56	42	91	1,198	1,292	—	0	3	—	—	—	0	1	—	—
Wisconsin W.N. Central	4 27	6 21	50	197 574	273 673	_	0 0	2 6	_	-	_	0 0	1		
lowa	27 N	21	114 0	574 N	673 N	_	0	2	_	1	_	0	21 1	_	_
Kansas	4	6	22	153	281	—	0	2	—	1	—	0	3	_	_
Minnesota		0 11	0 51	385	369		0	2 3	_	—	_	0	4		_
Missouri Nebraska¶	23 N	0	0	385 N	369 N	_	0	3	_	_	_	0	6	_	_
North Dakota	_	0	108	36	_	_	0	2	_	_	_	0	11	_	_
South Dakota		0	4		23		0	5	_	—	_	0	6		_
S. Atlantic Delaware	57	62 0	164 5	1,074 2	2,348 11	_	0	4 0	_	_	_	0	4	_	_
District of Columbia	_	Ő	2		15	_	ŏ	2	_	_	_	Ő	1	_	_
Florida	54	29	67	750	884	_	0	2	—	—	—	0	0	_	_
Georgia Maryland <sup>¶</sup>	N N	0	0	N N	N N	_	0 0	1 2	_	_	_	0	1	_	_
North Carolina	N	0	Ő	N	N	_	õ	1	_	_	_	õ	1	_	_
South Carolina <sup>¶</sup>	—	7	68	82	401	_	0	0	_	_	—	0	1	—	_
Virginia <sup>¶</sup> West Virginia	3	11 10	60 32	28 212	694 343	_	0 0	0 1	_	_	_	0 0	1 0	_	_
E.S. Central	_	6	29	17	710	_	0	7	_	_	_	Ő	9	_	4
Alabama¶		5	29	16	702	_	0	3	_	_	_	0	2	_	1
Kentucky Mississippi	N	0 0	0 1	N 1	N 8	_	0 0	1 4	_	_	_	0 0	0 8	_	2
Tennessee <sup>¶</sup>	N	0	Ó	Ň	N	_	ő	2	_	_	_	0	3	_	1
W.S. Central	_	66	355	481	4,581	_	0	8	_	_	_	0	7	_	4
Arkansas	—	4 1	47 5	19 27	366 40	_	0	1 3	_	_	_	0	1 5	_	_
Louisiana Oklahoma	N	0	0	27 N	40 N	_	0	1	_	_	_	0	1	_	2
Texas <sup>¶</sup>	_	51	345	435	4,175	_	ō	6	_	_	—	Ō	4	_	2
Mountain	18	27	83	578	1,223	—	0	12	—	2	—	0	22	—	3
Arizona Colorado	17	0 11	0 44	279	503	_	0 0	10 4	_	1	_	0	8 10	_	1
Idaho <sup>¶</sup>	Ň	0	0	Ň	N	_	ŏ	i	_	1	_	õ	6	_	i
Montana		3 0	27 0	70	163	_	0 0	0	_	_	—	0	2 3	—	_
Nevada <sup>¶</sup> New Mexico <sup>¶</sup>	N 1	2	10	N 60	N 123	_	0	2 1	_	_	_	0	3	_	_
Utah	_	10	31	169	425	_	0	2	_	_	_	0	5	_	_
Wyoming <sup>¶</sup>		0	1	_	9	—	0	0	—	—	_	0	2	_	1
Pacific Alaska	1	3 2	8 6	52 32	47 16	_	0 0	38 0	_	_	_	0 0	23 0	_	_
California	_	0	0	_	_	_	0	37	_	_	_	0	20	_	_
Hawaii		1	4	20	31	—	0	0	—	—	—	0	0	—	—
Oregon <sup>¶</sup> Washington	N N	0	0	N N	N N	_	0	2 1	_	_	_	0	4	_	_
American Samoa	N	0	0	N	N	_	0	0	_	_	_	0	0	_	_
C.N.M.I.	_	_	_	_	_	—	—	_	—	—	—	_	_	—	—
Guam Puerto Rico	_	1 8	17 17	114	33 281	_	0 0	0 0	_	_	_	0 0	0 0		_
U.S. Virgin Islands	_	0	0	114	201	_	0	0	_	_	_	0	0	_	_
	Ith of North						0	0				v	· ·		

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 23, 2009, and May 17, 2008 (20th week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting year 2008 and 2009 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.

<sup>b</sup> Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. <sup>1</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

576

#### TABLE III. Deaths in 122 U.S. cities,\* week ending May 23, 2009 (20th week)

Reporting area	All causes, by age (years)								All causes, by age (years)						
	All Ages	≥65	45–64	25–44	1–24	<1	P&I <sup>†</sup> Total	Reporting area	All Ages	≥65	45–64	25–44	1–24	<1	P&I <sup>†</sup> Total
New England	482	308	130	32	2	10	47	S. Atlantic	1,585	953	406	115	50	61	79
Boston, MA	142	75	51	11	—	5	8	Atlanta, GA	168	99	44	17	7	1	9
Bridgeport, CT	28	20	8	—	—	—	2	Baltimore, MD	150	77	44	15	7	7	14
Cambridge, MA	16	11	5	_	—	—	3	Charlotte, NC	134	92	25	9	2	6	15
Fall River, MA	27	20	4	3	_	_	1	Jacksonville, FL	155	101	35	9	6	4	10
Hartford, CT	41	25	12	4	—	—	4	Miami, FL	103	72 27	14	13 4	1	3	8
Lowell, MA Lynn, MA	15 7	10 3	4 1	1 2	1	_	1	Norfolk, VA Richmond, VA	45 65	27 29	13 29	4	1 3	2	4
New Bedford, MA	18	14	4		_	_	3	Savannah, GA	85	29 54	29	2	3		4
New Haven, CT	27	25	_	1	_	1	6	St. Petersburg, FL	47	37	8	_	1	1	_
Providence, RI	49	32	13	2	_	2	7	Tampa, FL	227	153	52	11	3	8	11
Somerville, MA	3	1	2	_	_	_	_	Washington, D.C.	388	199	116	28	16	29	7
Springfield, MA	29	14	9	5	1	_	3	Wilmington, DE	18	13	5	_	_	_	_
Waterbury, CT	21	13	5	2	—	1	—	E.S. Central	860	560	223	51	13	13	69
Worcester, MA	59	45	12	1	_	1	9	Birmingham, AL	148	89	39	12	6	2	16
Mid. Atlantic	1,868	1,279	429	99	30	30	107	Chattanooga, TN	91	68	14	3	3	3	4
Albany, NY	47	27	12	6	1	1	1	Knoxville, TN	98	62	31	4	1	_	9
Allentown, PA	20	15	3	1	_	1	2	Lexington, KY	48	31	13	1	_	3	2
Buffalo, NY Camden, NJ	76 26	52 14	18 7	2 1	2 1	2 3	10 3	Memphis, TN Mobile, AL	153 116	102 80	41 26	10 8	1	1	17 7
Elizabeth, NJ	26 12	14	5	_		3	3	Montgomery, AL	72	80 48	26 18	8 5	_	1	10
Erie, PA	38	31	6	1		_	1	Nashville, TN	134	40 80	41	8	2	3	4
Jersey City, NJ	16	4	9	3	_	_		W.S. Central	1,378	869	340	97	42	30	80
New York City, NY	1,128	790	258	49	14	16	51	Austin, TX	107	57	39	7	2	2	7
Newark, NJ	U	U	U	Ŭ	U	U	U	Baton Rouge, LA	54	36	11	5	2	_	_
Paterson, NJ	U	U	U	U	U	U	U	Corpus Christi, TX	73	45	20	4	2	2	6
Philadelphia, PA	132	72	36	15	6	3	6	Dallas, TX	196	125	51	10	3	7	10
Pittsburgh, PA§	34	22	10	2	—	—	3	El Paso, TX	55	47	6	—	1	1	1
Reading, PA	40	33	6	_		1	4	Fort Worth, TX	U	U	U	U	U	U	U
Rochester, NY	124	81	30	7	4	2	11	Houston, TX	404	240	108	33	16	7	24
Schenectady, NY	14	13	3	4	1	_	2	Little Rock, AR	63	46	11	3 U	1 U	2 U	4 U
Scranton, PA Syracuse, NY	26 76	19 53	16	4 5	1	1	2 6	New Orleans, LA San Antonio, TX	U 261	U 173	U 50	22	12	4	17
Trenton, NJ	26	18	6	2	_	_		Shreveport, LA	77	47	20	5	2	3	7
Utica, NY	17	14	2	1	_	_	2	Tulsa, OK	88	53	24	8	1	2	4
Yonkers, NY	16	14	2	_	_	_		Mountain	941	599	228	59	30	25	50
E.N. Central	1,925	1,242	462	115	45	54	120	Albuquerque, NM	U	Ŭ	Ű	Ŭ	Ŭ	Ū	Ŭ
Akron, OH	39	<sup>29</sup>	7	2	1	_	1	Boise, ID	73	51	16	4	_	2	2
Canton, OH	32	22	9	_	_	1	1	Colorado Springs, CO	60	42	11	3	3	1	2
Chicago, IL	350	189	102	28	18	6	27	Denver, CO	83	55	18	7	1	2	3
Cincinnati, OH	81	38	18	10	5	10	10	Las Vegas, NV	250	156	69	13	7	5	18
Cleveland, OH	214	149	48	12	4	1	7	Ogden, UT	50	34	7	5	1	3	2
Columbus, OH	174	118	45	8	1	2	11	Phoenix, AZ	167	92	49	11	8	7	11
Dayton, OH	125	97	20	3	1 4	4 9	7 6	Pueblo, CO	23	16	6	1 9	7	3	2
Detroit, MI Evansville, IN	148 28	77 20	44 7	14 1	4	9	6 1	Salt Lake City, UT Tucson, AZ	136 99	83 70	34 18	9 6	3	2	2 8
Fort Wayne, IN	57	39	12	5	1	_	4	Pacific	1,615	1,130	333	71	47	34	157
Gary, IN	9	4	3	2	_	_	_	Berkeley, CA	5	3	1	_	1	_	-
Grand Rapids, MI	56	39	12	3	_	2	6	Fresno, CA	114	88	17	5	4	_	15
Indianapolis, IN	179	115	47	4	3	10	14	Glendale, CA	30	25	4	_	_	1	6
Lansing, MI	40	33	5	2	_	_	2	Honolulu, HI	78	63	12	2	_	1	11
Milwaukee, WI	94	56	24	9	4	1	5	Long Beach, CA	56	40	13	2	1	_	6
Peoria, IL	48	36	8	2	—	2	6	Los Angeles, CA	260	155	67	17	11	10	41
Rockford, IL	44	34	7	2	—	1	2	Pasadena, CA	22	15	2	3	2	—	—
South Bend, IN	49	34	12	—	1	2	2	Portland, OR	98	71	23		4		5
Toledo, OH	105	73	22	7	2	1	3	Sacramento, CA	209	140	47	9	7	6	16
Youngstown, OH	53	40	10	1		2	5	San Diego, CA	143	99	32	6	3	3	10
W.N. Central Des Moines, IA	614	379	162	48	13	11	42	San Francisco, CA	110	75	25	5	1	4	8
	84	57	20	4	3	_	5	San Jose, CA	203	153	29	10	5	6	19
Duluth, MN Kansas City, KS	21 25	20 13	1 9	2	1	_	3 5	Santa Cruz, CA Seattle, WA	33 99	24 66	8 23	1 6	3	1	6 7
Kansas City, KS Kansas City, MO	25 94	63	9 21	2	2	_	5	Spokane, WA	99 59	66 43	23 10	6 4	3	2	7 5
Lincoln, NE	94 26	17	4	8 5		_	8 3	Tacoma, WA	59 96	43 70	20	4	5		5 2
Minneapolis, MN	20 54	31	15	5	1	2	6	Total <sup>¶</sup>	11,268	7,319	2,713	687	272	268	751
Omaha, NE	87	57	26	2	1	1	5		11,200	1,010	2,710	007	212	200	751
St. Louis, MO	112	52	38	11	4	6	3	1							
St. Paul, MN	50	31	13	5	_	1	1	1							
Wichita, KS	61	38	15	6	1	1	3	1							

U: Unavailable. —:No reported cases. \* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of >100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included. \* Pneumonia and influenza.

<sup>5</sup> Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks. <sup>1</sup> Total includes unknown ages.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format. To receive an electronic copy each week, visit *MMWR*'s free subscription page at *http://www.cdc.gov/mmwr/mmwrsubscribe.html*. Paper copy subscriptions are available through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

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

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

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

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

☆ U.S. Government Printing Office: 2009-523-019/41176 Region IV ISSN: 0149-2195