

Weekly

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Assisted Reproductive Technology and Trends in Low Birthweight – Massachusetts, 1997–2004

Low birthweight (LBW) (<2,500 g) is an important cause of infant morbidity and mortality (1). The rate of LBW has been steadily increasing in the United States. In 2005, the most recent year for which data are available, LBW represented 8.2% of all births, the highest level reported in the past 4 decades (2). The use of assisted reproductive technology (ART)* has been associated with LBW (3,4). Research in 1999 indicated that, in Massachusetts during 1989–1996, the rate of LBW increased, paralleling the national trend, and an increasing percentage of LBW infants were born to mothers aged \geq 35 years and to mothers with more education.[†] These findings suggested that a proportion of LBW births might be attributable to infertility treatment; however, at that time, no information was available from birth certificate records to examine whether ART was associated with the increasing rates of LBW. To investigate the role of ART, the Massachusetts Department of Public Health (MDPH) and CDC linked birth certificate records to ART records for the years 1997-2004 (the most recent data available). This report summarizes the results of that analysis, which indicated that, on average, 2% of births during the period resulted from ART; however, 7% of LBW births resulted from ART. The rate of LBW increased during this period among non-ART singletons (from 4.8% to 5.1%), accounting for an additional 407 LBW infants, and among ART singletons (from 6.4% to 8.2%), accounting for an additional 59 LBW infants. Although ART contributes disproportionately to LBW, only a small percentage of the excess LBW births in Massachusetts

* ART includes infertility treatments in which both eggs and sperm are handled in a laboratory for the purpose of establishing a pregnancy. Procedures include in vitro fertilization, gamete intrafallopian transfer, zygote intrafallopian transfer, embryo cryopreservation, and surrogate birth. are explained by ART; therefore, other causes for the increase in LBW should be examined.

The analysis was conducted by merging birth certificate records and ART records for 1997-2004. After all births in Massachusetts, information for birth certificate records is abstracted by hospital staff and sent to the Massachusetts Registry of Vital Records and Statistics. All clinics that perform ART report standardized data without personal identifiers for every ART procedure to CDC, as mandated by the Federal Fertility Clinic Success Rate and Certification Act.§ For this analysis, investigators linked birth certificate records with live-birth ART records in 2-year intervals (5). Birth certificate records and ART records were included based on mother's residence in Massachusetts. A deterministic linkage was performed using maternal and infant dates of birth and plurality. Questions regarding duplicate matches were resolved using postal code of residence. A total of 13,025 ART records were linked to a birth certificate record, representing 83% of

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[†]Additional information available at http://www.cdc.gov/mmwr/preview/ mmwrhtml/00056908.htm.

[§] Fertility Clinic Success Rate and Certification Act of 1992 (FCSRCA), Public Law 102–493, October 24, 1992. Additional information available at http:// www.popline.org/docs/1270/087273.html and http://wwwn.cdc.gov/dls/art/ fcsrca.aspx.

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eligible ART births. These were defined as Massachusetts ART births. ART records not linked to birth certificate records (n = 2,684 [17% of eligible ART births]) were excluded. During 1997–2004, a total of 713 births (0.1% of birth records) occurred in which use of ART was recorded on the birth certificate but the births were not linked to a Massachusetts livebirth ART record. These births were excluded because whether they reflected mothers who had undergone ART procedures in another state or were simply missed by the linkage could not be established. All other births were defined as non-ART births.

Gestational age at birth was obtained from the clinical estimate in weeks recorded on the birth certificate record. Births were excluded if the gestational age was not deemed realistic or not consistent with viability (i.e., <24 weeks [n = 1,329 (0.2%)] or >43 weeks [n = 5,229 (0.8%)]). Birthweight was obtained from the birth certificate record. Birthweight was missing for 203 infants (0.03%). Therefore, for the study period, a total of 636,349 births (98.8% of all birth certificate records) were included in the analysis, 623,434 non-ART (98%) and 12,915 ART (2%) births.

LBW percentages were calculated for births overall and by ART status and plurality. The population attributable risk percentage (PAR%) for LBW resulting from ART was calculated for each 2-year period. The Cochrane-Armitage test for trend was used to test for changes over time.

During 1997-2004 in Massachusetts, the percentage of births resulting from ART ranged from 1.8% to 2.3% (Table 1). During this period, 7.0% of all LBW births were attributable to ART (PAR% range: 5.9%-8.1%). From 1997-1998 to 2003-2004, the percentage of LBW among all infants increased from 6.8% to 7.5% (p-value for trend <0.0001) (Table 2). The percentage of LBW births increased among non-ART births overall (from 6.3% to 7.0%; p-value for trend <0.0001) and among non-ART singleton births (from 4.8% to 5.1%; p-value for trend < 0.0001). Among ART singleton births, the percentage of LBW births also increased (from 6.4% to 8.2%; p-value for trend = 0.03). After adjusting for the change in the distribution of births by plurality from 1997 to 2004, 407 additional LBW non-ART singleton births and 59 additional LBW ART singleton births occurred during 2003–2004 compared with 1997–1998. The percentage of LBW births did not increase among twin births or among triplet and higher order multiple births.

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Editorial Note: In 1996, Massachusetts introduced a question on its birth certificate form regarding the use of fertility

TABLE 1. Percentage of all births resulting from assisted reproductive technology (ART) and population attributable risk percentage (PAR%) of low birthweight (LBW)* attributable to ART,[†] by 2-year period — Massachusetts, 1997–2004

1997-1998	1999–2000	2001-2002	2003–2004	Total
1.8	2.3	1.9	2.2	2.0
7.1	8.1	5.9	6.9	7.0
		1997–1998 1999–2000 1.8 2.3 7.1 9.1	1.8 2.3 1.9 71 91 50	1997–19981999–20002001–20022003–20041.82.31.92.2

s than 2,500 g

[†] PAR% = [(Incidence LBW_{Total} - Incidence LBW_{Non-ART}) / Incidence LBW_{Total}] x 100. For example, during 1997–1998, PAR% = [(6.76 – 6.28) / 6.76] x 100 = 7.10

TABLE 2. Number and percentage of low birthweight (LBW) births,* by 2-year period, plurality, and assisted reproductive technology
(ART) status — Massachusetts, 1997–2004

		Year													
	Total		1997–1998	В		1999–2000			2001–2002			2003–2004			
Type of birth	no. of births for	Total no.	LBW births		Total no.	LBW	births	Total no.	LBW	births	Total no.	LBW births		– p-value	
and plurality	all years	of births	No.	(%)	of births	No.	(%)	of births	No.	(%)	of births	No.	(%)	for trend [†]	
All births	636,349	160,054	10,819	(6.8)	158,554	10,714	(6.8)	160,484	11,497	(7.2)	157,257	11,832	(7.5)	<0.0001	
Non ART births	623,434	157,142	9,861	(6.3)	154,956	9,630	(6.2)	157,489	10,616	(6.7)	153,847	10,768	(7.0)	<0.0001	
Singleton	602,259	152,276	7,343	(4.8)	150,437	7,300	(4.9)	151,514	7,551	(5.0)	148,032	7,615	(5.1)	<0.0001	
Twin	20,135	4,610	2,285	(49.6)	4,360	2,189	(50.2)	5,675	2,783	(49.0)	5,490	2,848	(51.9)	0.06	
Triplet and higher	1,040	256	233	(91.0)	159	141	(88.7)	300	282	(94.0)	325	305	(93.9)	0.07	
ART births	12,915	2,912	958	(32.9)	3,598	1,084	(30.1)	2,995	881	(29.4)	3,410	1,064	(31.2)	0.17	
Singleton	6,615	1,428	92	(6.4)	1,795	118	(6.6)	1,575	118	(7.5)	1,817	148	(8.2)	0.03	
Twin	5,534	1,211	614	(50.7)	1,613	791	(49.0)	1,268	618	(48.7)	1,442	775	(53.7)	0.10	
Triplet and higher	766	273	252	(92.3)	190	175	(92.1)	152	145	(95.4)	151	141	(93.4)	0.41	

* Less than 2,500 g.

[†] By Cochrane-Armitage test.

assistance; however, this item has only 30% sensitivity for ART treatment.⁹ Linking birth certificate records with ART records provides a more sensitive measure of use of ART than birth certificate records alone. Using linked records, the analysis in this report determined that, during 1997-2004 in Massachusetts, although ART accounted for 2% of all births, approximately 7% of LBW births were attributable to ART. However, LBW in Massachusetts increased among both ART and non-ART singletons, and only a small part of the increase in LBW might be explained by ART.

Despite substantial improvements in the United States in infant survival and outcomes, a steady increase in the rate of LBW has occurred. During 1984-2005, the rate of LBW in the United States increased 22%, from 6.7% to 8.2% of all births (2). The rate of LBW among all singletons also increased 7% since 2000, from 6.0% to 6.4% (2). Although the contribution of ART to national rates of LBW is not known, these results from one state are important to consider in the context of increasing rates of LBW nationwide.

Certain factors increase the risk for LBW, such as prematurity, congenital abnormalities, maternal hypertension and diabetes, maternal smoking and drug use, infections, placental abnormalities, socioeconomic factors, and multiple gestations (6,7). LBW also has been associated with ART, but a large part of the elevated risk for LBW among ART births has been attributed to an increased incidence of multiple gestations (3). ART also has been associated with LBW among singleton births. However, for those births, the etiology is less clear; studies have shown potential effects stemming from the treatment itself and from underlying infertility (3). Other factors might be contributing to the increase among non-ART births, such as an increase in delayed childbearing (7) or iatrogenic preterm delivery (8).

The findings in this report are subject to at least four limitations. First, ART births might have been misclassified as non-ART births if they were not linked to an ART record. However, given the 83% linkage rate of ART records, potential underestimation of ART births would not substantially affect results. Second, some births might have been misclassified as Massachusetts ART births if they were missing residency information but involved mothers who underwent ART in Massachusetts and delivered in one of three neighboring states. Third, the reliability of information from birth records is variable. However, birthweight from birth certificate records has been shown to have high accuracy when compared with medical records (9). Finally, births occurring at <24 weeks' gestation, the conventional limit of infant viability, were not included in the analysis. Although these births tend to be LBW, they represented only 0.2% of eligible birth records.

⁹ Zhang Z, Schieve L, Macaluso M, Cohen B, Nannini A, Wright V. Evaluation of assisted reproductive technology reporting on the Massachusetts birth certificates. Presented at the 12th Annual Maternal and Child Health Epidemiology Conference, December 6-8, 2006, Atlanta, GA.

The excess LBW births in Massachusetts during 1997–2004 is largely not explained by ART, although ART disproportionately contributed to the overall prevalence of LBW. Future LBW research and prevention efforts are needed and should include 1) determining the risk factors that contribute to increasing rates of LBW among non-ART births, and 2) investigating additional risk factors and etiologies for LBW among ART singleton births. Additionally, further reducing rates of multiple gestation resulting from ART, as recommended by the Society for Assisted Reproductive Technology and the American Society for Reproductive Medicine (*10*), and making clinicians more aware of the elevated risk for LBW among ART births also might reduce this outcome among ART births.

Acknowledgments

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Methicillin-Resistant Staphylococcus aureus Among Players on a High School Football Team — New York City, 2007

On September 12, 2007, the New York City Department of Health and Mental Hygiene (DOHMH) was notified of three players on a Brooklyn high school football team with cultureconfirmed methicillin-resistant *Staphylococcus aureus* (MRSA) skin and soft tissue infections (SSTIs). During August 19-24, the team had attended a preseason football training camp, where all 59 players on the team lived together in the school gymnasium. An investigation by DOHMH revealed four culture-confirmed and two suspected cases of MRSA among 51 players interviewed (11.8% attack rate). Of the six cases, three involved abscesses that required incision and drainage. The risk for MRSA infection was higher among those who shared towels during the training camp than among those who did not (relative risk [RR] = 8.2). In addition, the six players with MRSA infections had a mean body mass index (BMI) that was significantly higher than the mean for those who were not infected. Multivariable logistic modeling determined that sharing towels during camp (adjusted odds ratio [AOR] = 15.7) and higher BMI (AOR = 1.4) were associated independently with MRSA infection. Similar outbreaks have been reported among football teams in which inadequate hygiene, combined with skin injuries and living in close quarters, contributed to the spread of MRSA infection. Such outbreaks might be prevented by better educating players and coaches regarding SSTIs and by better promoting proper player hygiene, particularly during training camps.

Initial investigation by DOHMH began on September 12. Investigators learned that all 59 players had attended a preseason training camp during August 19-24. The players had lived together in the school gymnasium, slept on cots in close proximity to each other, and showered in the school locker room, usually only once at the end of the day. The school had supplied antibacterial soap in pump dispensers in the showers; however, several players brought their own soap. Players supplied their own towels. Players reported that they usually left their towels on their cots or on the floor when not in use. The school offered a daily laundry service for uniforms and towels during the camp; however, most players did not have their towels washed and wore their uniforms two or three times between launderings. Players often remained in sweat-soaked clothes between the morning and afternoon practices. The school did not have whirlpools or hot tubs.

Investigators hypothesized that sharing facilities and equipment, previous skin injuries, player position, inadequate player hygiene, and having a higher BMI might be risk factors linked to MRSA infections (1-3). To find additional cases, identify risk factors for infection, and implement infection control measures, DOHMH conducted face-to-face interviews on September 14 with 51 of the 59 players, using a close-ended questionnaire; the eight remaining players could not be contacted. In addition, a DOHMH physician further examined the five players reported by the school nurse as potentially infected.

A confirmed MRSA case was defined as a clinically compatible SSTI with a positive MRSA culture in a team member during August 5–September 14, a period ranging from 2 weeks before to 3 weeks after the end of the training camp. A suspected MRSA case was defined as a clinically compatible SSTI or systemic infection with no culture confirmation. Date of symptom onset was defined as the date an infected player reported first noticing an infected wound.

Among the 51 players interviewed, four confirmed and two suspected MRSA cases were identified (11.8% attack rate). Molecular typing with pulsed-field gel electrophoresis revealed that three of the confirmed cases were USA300, a strain usually considered to be a community-associated MRSA. An isolate from the fourth player with confirmed MRSA was not available for typing. Symptom onsets ranged from August 24, the last day of training camp, to September 6, a total of 13 days after the camp (Figure 1).

In the four confirmed cases, infections initially appeared as a blister on the ankle, calf, hip, or instep. One suspected case involved impetigo on the upper arm; the other suspected case involved impetigo on the arms and eyebrow. Three players reported their wounds to the school nurse or a physician only after blisters had developed into infections requiring medical attention. The six players with confirmed or suspected MRSA infections were referred to their personal physicians for treatment. Three of the players had abscesses that required incision and drainage. Three of the players with confirmed cases were treated with Bactrim and doxycycline, clindamycin and mupirocin, and Bactrim and mupirocin, respectively. One of the players with suspected MRSA infection was treated with ciprofloxacin. Antibiotics used to treat the remaining two players were unknown.

Interviews with the players revealed that 33 (65%) had sustained at least one cut, abrasion, or turf burn during the preseason camp or regular season. The players reported that, unless the skin injuries were severe, they had cleaned, dressed, or bandaged them by themselves. No players reported sharing towels or soap during the regular season, because players went home after practice to shower. However, 10 (20%) had shared towels and six (12%) had shared soap during training camp, when the players showered on site.

In a retrospective cohort analysis, after combining confirmed and suspected MRSA cases, bivariate RRs and their 95% confidence intervals (CIs) were calculated to identify risk factors associated with infection. Multivariable logistic regression was used to evaluate the independent association of multiple risk factors, including BMI, which was modeled as a continuous variable because the small number of cases did not allow for tests based on BMI categories (i.e., normal, overweight, and obese).

Sharing towels during training camp significantly increased the risk for MRSA infection (RR = 8.2) (Table). Sharing protective pads, sharing soap, showering less than once a day, having more than one skin injury, and washing uniforms less than once a day were not significant risk factors for infection. Playing at lineman or linebacker and wide receiver or

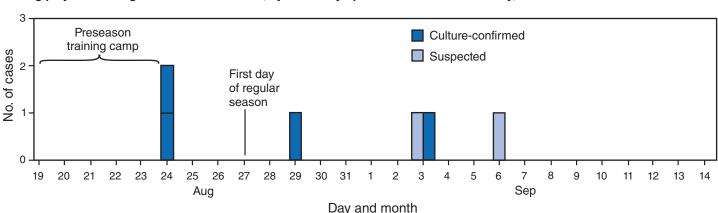


FIGURE 1. Number* of culture-confirmed and suspected cases of methicillin-resistant *Staphylococcus aureus* (MRSA) infection[†] among players on a high school football team, by date of symptom onset — New York City, 2007

* N = 6.

⁺ A confirmed MRSA case was defined as a clinically compatible skin and soft tissue infection (SSTI) with a positive MRSA culture in a team member during August 5–September 14, a period ranging from 2 weeks before to 3 weeks after the end of the training camp. A suspected MRSA case was defined as a clinically compatible SSTI or systemic infection with no culture confirmation. cornerback positions (previously shown to be potential risk factors in football MRSA outbreaks [2,4]) also were not significant risk factors (Table).

The six players with MRSA infection had a mean BMI of 29.1 (CI = 24.7-33.3), which was significantly higher by t-test (t = 2.56; p=0.014) than the mean BMI of 23.8(CI = 22.8-25.0) for the 45 players without infection. Using CDC's child and teen BMI-for-age weight status categories,* five of the six (83%) players with MRSA infection could be classified as overweight or obese, compared with 20 of the 45 (44%) players without infection (Figure 2). A bivariate analysis using logistic regression revealed that higher BMI was associated with higher risk for infection (OR = 1.3 per unit increase in BMI; CI = 1.1-1.7). A multivariable logistic model confirmed that both sharing towels during training camp (AOR = 15.7; CI = 1.5–167.4) and BMI (AOR = 1.4; CI = 1.1–1.9) were associated independently with MRSA infection.

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Editorial Note: Since 2000, outbreaks of MRSA SSTIs have been reported among players on high school, college, and professional football teams with attack rates similar to those described in this report (1-4). Despite education efforts by CDC and state and local health departments, MRSA infections continue to be a problem among football players. A 2007 CDC survey of high school athletic trainers revealed that 53% had treated MRSA infections in football players (1). The results of this investigation suggest that sharing of towels among players at a preseason training camp was associated with MRSA infec-

*Additional information available at http://www.cdc.gov/nccdphp/dnpa/ healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.htm.

tion, a risk factor previously linked to football-related MRSA outbreaks (1-3). These results are also consistent with three previous reports that identified MRSA infections in football teams temporally linked to training camps (2-4), which might be a setting that increases risk behaviors for infection (4). Living in close quarters for an extended period, a potential risk factor identified in other settings (5), might have further contributed to the outbreak.

The results also indicated that higher BMI among team players was associated with higher risk for MRSA infection, independent of sharing towels. These results are consistent with those of two other football-related outbreaks (5) and published reports linking higher BMI with a range of infections, including skin infections (6). The possibility that higher BMI is confounded by player positions (e.g., lineman) involving heavier players and more frequent contact is not supported by the data, which found no differences by player position. Evaluating player position in general is statistically problematic because sample sizes vary substantially by position on most football rosters.

The findings in this report are subject to at least two limitations. First, the small number of cases reduced the precision of the point estimates, as reflected in the wide CIs. Second, because players were not interviewed until 3 weeks after the first reported symptom onsets, they might not have been able to accurately recall events, leading to misclassification of players by risk factor.

High school football programs might be able to reduce the risk for MRSA outbreaks by improving their procedures and facilities to promote optimal player hygiene, particularly during training camps. Improvements might include providing a towel service and collecting used towels from players on a daily basis. Skin injuries should be monitored closely by coaches

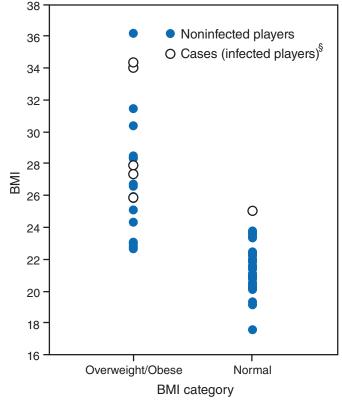
TABLE. Association between exposure to	o risk factors	and culture	-confirmed or s	uspecte	d cases of	methicillin-resistant
Staphylococcus aureus (MRSA) infection* i	n players on a	high school	football team —	New Yo	rk City, 2007	7

_	Pl	ayers expos	sed	Play	ers not ex	posed		
Risk factor	Cases	Total	Attack rate (%)	Cases	Total	Attack rate (%)	Relative risk	(95% Cl†)
Sharing towels during training camp	4	10	(40)	2	41	(5)	8.2	(1.7–38.6)
Sharing soap during training camp	2	6	(33)	4	45	(9)	3.8	(0.9-16.2)
Sharing protective pads during training camp	0	4	_	6	47	(13)	—	_
Showering less than once a day during training camp	0	2	—	6	49	(12)	—	—
Having more than one skin injury during training camp	3	18	(17)	2	26	(8)	2.2	(0.4–11.7)
Washing uniforms less than once a day during training camp	5	45	(11)	1	6	(17)	0.7	(0.1–4.8)
Playing at lineman or linebacker	2	17	(12)	4	34	(12)	1.0	(0.2-4.9)
Playing at wide receiver or cornerback	1	23	(4)	5	28	(18)	0.2	(0.03–1.9)

* A confirmed MRSA case was defined as a clinically compatible skin and soft tissue infection (SSTI) with a positive MRSA culture in a team member during August 5-September 14, a period ranging from 2 weeks before to 3 weeks after the end of the training camp. A suspected MRSA case was defined as a clinically compatible SSTI or systemic infection with no culture confirmation.

[†] Confidence interval.

FIGURE 2. Number of players on a high school football team* categorized as overweight/obese or normal, based on body mass index (BMI),[†] by case status regarding methicillin-resistant *Staphylococcus aureus* (MRSA) infection — New York City, 2007



* N = 51.

- [†] Using CDC's child and teen BMI-for-age weight status categories, persons with a BMI equal to or greater than the 85th percentile are categorized as overweight or obese. Additional information available at http://www. cdc.gov/nccdphp/dnpa/healthyweight/assessing/bmi/childrens_bmi/ about_childrens_bmi.htm.
- [§] Includes both confirmed and suspected cases of MRSA infection. A confirmed MRSA case was defined as a clinically compatible skin and soft tissue infection (SSTI) with a positive MRSA culture in a team member during August 5–September 14, a period ranging from 2 weeks before to 3 weeks after the end of the training camp. A suspected MRSA case was defined as a clinically compatible SSTI or systemic infection with no culture confirmation.

and trainers, rather than by players alone. Living arrangements might be modified so that players are not living in close quarters for extended periods. Education on SSTI identification, prevention, and intervention might be included as a standard component of football training camps.

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Children with Elevated Blood Lead Levels Related to Home Renovation, Repair, and Painting Activities – New York State, 2006–2007

Although blood lead levels (BLLs) $\geq 10 \ \mu g/dL$ are associated with adverse behavioral and developmental outcomes, and environmental and medical interventions are recommended at $\geq 20 \ \mu g/dL$, no level is considered safe (1,2). A 1997 analysis conducted by the New York State Department of Health (NYSDOH) indicated that home renovation, repair, and painting (RRP) activities were important sources of lead exposure among children with BLLs $\geq 20 \,\mu g/dL$ in New York state (excluding New York City) during 1993–1994 (3). Subsequently, local health departments in New York state began to routinely collect information about RRP activities when investigating children's home environments for lead sources. This report updates the 1997 analysis with data from environmental investigations conducted during 2006-2007 in New York state (excluding New York City) for 972 children with BLLs $\geq 20 \ \mu g/dL$. RRP activities were identified as the probable source of lead exposure in 139 (14%) of the 972 children. Resident owners or tenants performed 66% of the RRP work, which often included sanding and scraping (42%), removal of painted materials or structures (29%), and other activities (29%) that can release particles of lead-based paint. RRP activities continued to be an important source of lead exposure during 2006–2007. Children living in housing

built before 1978 (when lead-based paint was banned from residential use) that are undergoing RRP activities should be considered at high risk for elevated BLLs, and appropriate precautions should be taken to prevent exposure.

Since 1993, New York state regulations* have required BLL testing for all children at ages 1 and 2 years. In 2007, 83% of children were tested at least once before age 3 years, but only 41% were tested at ages 1 and 2 years (NYSDOH, unpublished data, 2008). Regulations also require laboratories to report all BLLs to NYSDOH, which then provides results to respective local health departments. For all children reported with BLLs $\geq 20 \ \mu g/dL$, local health departments are required to conduct environmental investigations to determine potential sources of exposure and recommend actions to reduce or eliminate exposures following CDC guidelines (1,2). Investigations include questioning about any activities that might have disturbed lead-based paint, including RRP activities, inspection of the home and household items for evidence of cracked or peeling paint, and water testing. If available, paint chips are tested for lead.

During 2006–2007, local health departments conducted environmental investigations for all 972 children reported in New York state with BLLs $\geq 20 \ \mu g/dL$. In January 2008, NYSDOH abstracted data from local health department records to identify investigations in which RRP activities were determined to be the most likely source of lead exposure and in which no other source of exposure was identified. RRP activities were considered the most likely source if an activity occurred that might have generated dust or paint chips that could have been inhaled or ingested. Lead-based paint that was intact and in good condition was not considered a source of exposure. For each case, abstracted data included 1) child's age, 2) blood test date, 3) BLL, 4) address and approximate age of dwelling, 5) activities that might have disturbed paint, and 6) identity of person who performed the RRP work.

The results indicated that, during 2006–2007, the elevated BLLs of 139 (14%) of the 972 children with BLLs $\geq 20 \ \mu g/dL$ were related to RRP activities (Table). Among the 139 children, 63 (45%) had BLLs of 20–24 $\mu g/dL$, 24 (17%) had BLLs of 25–29 $\mu g/dL$, and 52 (38%) had BLLs $\geq 30 \ \mu g/dL$. Most of the children (71%) were aged 1–2 years, and 25% were aged 3–5 years. The 139 children resided in 131 homes; eight homes had two children per home, and all other homes had only one child. All but one of the homes were built before 1978. Of 131 homes in which environmental investigations were conducted, 56 (43%) were identified as urban, 36 (28%) as suburban, and 39 (30%) as rural.

TABLE. Number and percentage of children with elevated bloodlead levels (BLL \geq 20 μ g/dL) related to home renovation, repair, and painting (RRP) activities, by selected characteristics — New York (excluding New York City), 1993–1994 and 2006–2007

	1993	8–1994	2006	-2007
Characteristic	No.	(%)	No.	(%)
No. of children with BLL				
related to RRP activities	320	(6.9)*	139	(14.3)*
BLL (µg/dL)				
20–24	117	(36.6)	63	(45.3)
25–29	76	(23.8)	24	(17.3)
30–39	87	(27.2)	30	(21.6)
≥40	40	(12.5)	22	(15.8)
Age (yrs)				· · /
<1	29	(9.1)	4	(2.9)
1–2	163	(50.9)	98	(70.5)
3–5	88	(27.5)	35	(25.2)
≥6	9	(2.8)	2	(1.4)
Unknown	31	(9.7)	0	`—́
Area of home		· · /		
Suburban	120	(37.5)	36†	(27.5)
Rural	101	(31.6)	39†	(29.8)
Urban	60	(18.8)	56†	(42.8)
Unknown	39	(12.2)	0†	_
Types of RRP activity				
Scraping and/or sanding	155	(48.4)	58	(41.7)
Painted component removal	41	(12.8)	40	(28.8)
Chemical stripping	32	(10.0)	0	_
Hand-held heat guns/torches	17	(5.3)	1	(0.7)
Exterior blasting	5	(1.6)	0	_
Multiple activities	47	(14.7)	21	(15.1)
Unknown	23	(7.2)	19	(13.7)
Work performed by				
Resident owner/tenant	187	(58.4)	92	(66.2)
Contractor	42	(13.1)	9	(6.5)
Other	73	(22.8)	17	(12.2)
Multiple persons	0	_	3	(2.2)
Unknown	18	(5.6)	18	(13.0)

* Of a total of 4,608 environmental investigations conducted during 1993– 1994 and 972 conducted during 2006–2007.

[†] RRP activities occurred at 131 homes and involved 139 children who had BLLs \geq 20 μ g/dL.

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Editorial Note: In the United States, median BLLs in children aged <5 years have declined 89% from 1976–1980 to 2003–2004 (4). This decline is largely a result of the phaseout of leaded gasoline and efforts by federal, state, and local agencies to limit lead paint hazards in housing. The latter has resulted in a decline in housing units with lead paint hazards from 64 million to 38 million during 1990–2000 (4). The decline in the prevalence of elevated BLLs over time has been most pronounced among children belonging to high-risk groups, especially non-Hispanic black children (5). However, an estimated 250,000 children remain at risk for exposure to

^{*}Title 10 NYCRR Part 67, available at http://www.health.state.ny.us/ environmental/lead/laws_and_regulations/chapter_2_subpart_67.htm.

harmful lead levels in the United States (4). Children living in housing undergoing RRP and built before 1978, when leadbased paint was banned from residential use, and particularly those built before 1950, when concentrations of lead in paint were higher (6), are now at high risk for elevated BLLs. This is of particular concern in New York state, where both the number (3,309,770) and proportion (43%) of housing units built before 1950 are greater than in any other state (7).

The assessment described in this report showed that RRP activities were an important source of lead exposure among children with BLLs $\geq 20 \ \mu g/dL$ during 2006–2007 in New York state. Of 972 children investigated for BLLs $\geq 20 \ \mu g/dL$ during 2006–2007, 139 (14%) were traceable to RRP. Among the 131 homes linked to RRP-related lead exposures, all but one were built before 1978. Young children in homes built before 1978 are known to be a high-risk group for lead exposure (5), and these findings indicate RRP activities are an important source of lead exposure in this group.

NYSDOH used methods identical to ones used for this analysis to assess the role of RRP in elevated BLLs during 1993–1994, except that the majority of 2006–2007 records were electronic. During 1993–1994, the total number of children reported with BLLs $\geq 20 \ \mu g/dL$ related to RRP was 320, and these children made up 7% of all children detected with BLLs $\geq 20 \ \mu g/dL$, compared with 139 children and 14% of such cases during 2006–2007. Thus, although the absolute number of RRP-related cases dropped substantially between the two periods, the relative burden of these cases on the state's lead screening and treatment efforts increased.

The increase in the relative burden of RRP-related cases might signal a shift in populations at risk for lead exposure in New York state. Additional analyses and follow-up studies are needed to better characterize this possible shift.

The findings in this study are subject to at least two limitations. First, any incomplete reporting of children with BLLs $\geq 20 \ \mu g/dL$ by laboratories might result in an underestimation of the number of children exposed to lead. Second, RRP activities also might be an important lead exposure source among children with lower BLLs ($< 20 \ \mu g/dL$) who were not included in this study. Although not required by regulation, several local health departments conducted environmental investigations for children with BLLs $< 20 \ \mu g/dL$ during 2006–2007. Children identified with BLLs $< 20 \ \mu g/dL$ were similar in characteristics to those in this analyses, and RRP activities were the most probable source of lead exposure for 71 (40%) of 178 children (NYSDOH, unpublished data, 2008).

Contractors performed a small percentage (6.5%) of RRP work related to elevated BLLs in New York state during 2006–2007. Resident owners or tenants performed 66% of this work. To help prevent lead contamination when contractors

perform RRP projects, the U.S. Environmental Protection Agency issued regulations in March 2008 that will require all renovators in the United States that work on certain types of housing or child-occupied facilities to be certified and follow specific work practices as of April 2010 (8). To address the risk from RRP by owners and do-it-yourselfers, more public outreach and education is needed to raise awareness of potential lead-exposure hazards from RRP and to ensure protective measures that safely contain dust and paint chips. In New York, state and local health departments have implemented education programs on RRP activities and lead-safe work practices for contractors and do-it-yourselfers.[†]

Persons who remove lead-based paint should follow recommendations of the U.S. Department of Housing and Urban Development and the U.S. Environmental Protection Agency to protect children from lead exposure (9,10). These recommendations include 1) relocate occupants during paint removal, and exclude children and pregnant women from the work area; 2) isolate work areas from other areas of the house; 3) avoid practices that create lead dust or fumes; 4) perform a full cleanup after work is completed; and 5) consider monitoring BLLs in persons who live or work in the dwelling.

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Invasive Haemophilus influenzae Type B Disease in Five Young Children – Minnesota, 2008

On January 23, this report was posted as an MMWR Early Release on the MMWR website (http://www.cdc.gov/mmwr).

In 2008, five children aged <5 years were reported to the Minnesota Department of Health (MDH) with invasive Haemophilus influenzae type b (Hib) disease; one died. Only one of the children had completed the primary Hib immunization series; three had received no doses of Hib-containing vaccine (1). The five Hib cases are the largest number among children aged <5 years reported from Minnesota since 1992. The cases occurred during a Hib vaccine recall and continuing nationwide shortage that began in December 2007. The recall of certain lots of the two Hib-containing vaccines manufactured by Merck & Co., Inc. (West Point, Pennsylvania) and cessation of production of both vaccines left only one manufacturer of Hib vaccine in the United States (Sanofi Pasteur, Swiftwater, Pennsylvania) (2,3). In response, CDC recommended that health-care providers defer the routine 12-15 month booster dose for children not at increased risk for Hib disease (2,3). CDC also emphasized that all children should complete the primary series with available Hib-containing vaccines. However, Minnesota vaccination data indicate that primary Hib series coverage was lower during 2008 than coverage with other vaccines administered at the same ages and lower than Hib coverage in previous years. Increases in Hib cases like the one in Minnesota do not appear to have occurred in other states. The increase highlights the need to ensure that all children complete the primary Hib immunization series. Additional investigation to better elucidate the factors that led to these cases is being conducted by MDH and CDC.

Minnesota conducts surveillance for invasive *H. influenzae* disease as part of the Active Bacterial Core surveillance system of CDC's Emerging Infections Program (4). A Hib case is defined as isolation of *H. influenzae* from a normally sterile site in a resident of the state. Merck products are both Hib PRP-

OMP* vaccines, for which a primary series consists of 2 doses at 2 and 4 months. Sanofi Pasteur products are Hib PRP-TT[†] vaccines, for which a primary series consists of a 3-dose primary series at 2, 4, and 6 months. For both Hib vaccine series, a routine booster is recommended at age 12–15 months

During 2008 in Minnesota, five children aged 5 months to 3 years were reported with invasive Hib disease; one died (Table). The patients resided in five different counties in Minnesota and had no known relationship to each other. Three patients had received no vaccinations because of parent or guardian deferral or refusal. One child was aged 5 months and had received 2 doses of Hib PRP-TT vaccine in accordance with the primary series schedule. Another child had received 2 doses of Hib PRP-OMP vaccine, but no booster dose, per CDC recommendations during the shortage. Subsequent to Hib infection, this child was diagnosed with hypogammaglobulinemia. None of the five were enrolled in group child care. The five cases in 2008 were the most reported for 1 year from Minnesota since 1992, when 10 cases were reported (Figure 1).

Although the recall and cessation of production of Merck Hib-containing vaccines in December 2007 resulted in a nationwide Hib vaccine shortage, supply of the remaining two products manufactured by Sanofi Pasteur is adequate for all infants to complete the 3-dose primary vaccine series. However, in February 2008 the Minnesota Vaccines for Children program began receiving reports from vaccine providers regarding shortages of vaccine in their offices. In response, MDH advised providers to ensure completion of the primary series as recommended whenever possible and to track and recall infants who had not completed the primary series so that they could be vaccinated as soon as doses were available. On January 13, MDH examined 2008 vaccination coverage data in the Minnesota Immunization Information Connection (MIIC), Minnesota's immunization registry. Data were reviewed for 25,699 children born between November 1, 2007 and March 31, 2008 (Figure 2). Among children aged 7 months, 3-dose primary Hib series coverage was 46.5%, which is lower than the age-appropriate coverage for children who had received pneumococcal conjugate or diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccination. In contrast, data from the 2007 National Immunization Survey, conducted prior to the shortage, showed that Hib vaccination coverage among children in Minnesota aged 19 months to 35 months was high and did not differ from the national average, suggesting that coverage has declined as a result of the shortage.

^{*} Capsular polysaccharide polyribosomal phosphate (PRP)–outer membrane protein (OMP).

[†]PRP-tetanus toxoid.

Patient	Month of illness onset	Patient age at illness onset	Clinical syndrome [†]	Outcome	Hib vaccination status
1	January	15 mos	Meningitis	Survived	2 doses at 2 and 5 months (PRP-OMP)§
2	February	3 yrs	Pneumonia	Survived	0 doses
3	November	7 mos	Meningitis	Died	0 doses
4	November	5 mos	Meningitis	Survived	2 doses at 2 and 4 months (PRP-TT) [¶]
5	December	20 mos	Epiglottitis	Survived	0 doses

TABLE. Characteristics of five reported cases of invasive *Haemophilus influenzae* type b (Hib) disease* in persons aged <5 years — Minnesota, 2008

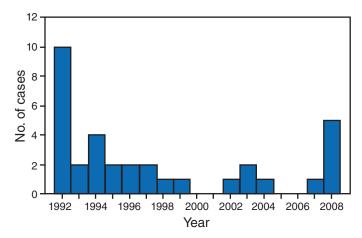
* Defined as isolation of H. influenzae from a normally sterile site in a Minnesota resident.

[†]One patient had meningitis with subdural abscess.

[§] Hib vaccine, capsular polysaccharide polyribosomal phosphate (PRP)-outer membrane protein (OMP), 2-dose primary series.

[¶]Hib vaccine, PRP-tetanus toxoid, 3-dose primary series.

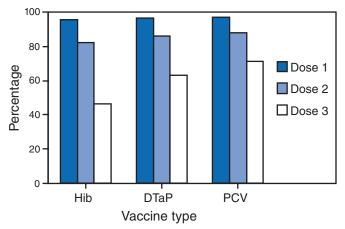
FIGURE 1. Number of reported cases of invasive *Haemophilus influenzae* type b (Hib) disease in persons aged <5 years — Minnesota, 1992–2008



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Editorial Note: Before development of Hib conjugate vaccines, Hib was the most common cause of bacterial meningitis in children aged <5 years. Since implementation of the Hib conjugate vaccine immunization program in the United States in the early 1990s, the incidence of Hib disease has declined from a peak of 41 cases per 100,000 children aged <5 years in 1987 to approximately 0.11 cases per 100,000 in 2007 (*3*,*5*). As with other bacterial diseases in which acquisition of carriage is necessary for development of invasive disease, reductions in asymptomatic carriage and transmission are substantial contributors to the reduction in Hib disease achieved through vaccination programs (*6*–*8*). This herd immunity provided by high vaccinated and undervaccinated persons (*6*–*8*).

Three of the five Hib cases in Minnesota occurred in children who had not been vaccinated. One case occurred in a child FIGURE 2. Percentage of infants* who, by age 7 months, had received 1, 2, and 3 doses of *Haemophilus influenzae* type b (Hib) conjugate vaccine, diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine, and pneumococcal conjugate vaccine (PCV) — Minnesota Immunization Information Connection, 2008



* Born during November 1, 2007–March 31, 2008; N = 25,699.

who was too young to complete the primary series, and a fifth case occurred in a child with an immunodeficiency. Given the prolonged booster dose deferral and reduced primary series coverage in the state, the increase in the number of Hib cases likely reflects increasing carriage and transmission affecting those with suboptimal primary series vaccination coverage, or a weakening of herd immunity. None of the children failed to receive vaccine because of the vaccine shortage. However, MDH is planning evaluations to describe the extent of Hib carriage in the affected communities and understand reasons why some children are not vaccinated. While the shortage continues, completion of the primary series in all children is essential to safeguard individual protection as well as to strengthen herd immunity.

The current Hib vaccine supply in the United States is sufficient to ensure completion of the primary series for all children, but not yet to resume the booster dose. However, vaccine shortages are difficult to manage. Health-care providers must maintain sufficient stocks on hand for every child brought for vaccination each day. During shortages, local supply/demand mismatches can occur, resulting in missed doses (9,10). Hib vaccine supply problems can be further complicated because the primary series for the recalled products consists of 2 doses, but the primary series for the available products consists of 3 doses. Regardless of brand or product used, full vaccination with the primary series of Hib vaccine by age 7 months is critical to protect children from disease. Providers who have questions regarding Hib vaccine supply needed to complete the primary vaccine series should contact their state health departments. Combination products may be used for any or all doses of the Hib primary series. Further, if combination vaccines are the only vaccines available to providers, a combination product should be used to complete the primary Hib series, even when this results in receipt of additional doses of another antigen. In response to the findings described in this report, MDH is working with vaccination providers and other partners to resolve any local supply problems. As the vaccine supply resolves, MDH will expedite resumption of the booster dose in communities where Hib cases have been reported.

Invasive Hib disease in children aged <5 years is a nationally notifiable condition. Health-care providers should promptly report all suspected cases of Hib to their local health department. CDC routinely analyzes national surveillance data for invasive Hib disease in children aged <5 years. As of January 13, 2009, no other increases in Hib cases in children aged <5 years had been reported from other states or territories. CDC is working with health departments to identify areas of suboptimal primary Hib series coverage that might lead to increased transmission and disease. Prompt recognition and reporting of Hib cases is important both in understanding the impact of the Hib vaccine shortage and in guiding recommendations for resuming routine booster vaccination and catch-up of undervaccinated children.

Acknowledgments

This report is based, in part, on contributions by S Jawahir, S Ersted, L Triden, J Harper, MS, K Como-Sabetti, MPH, Minnesota Dept of Health.

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Notice to Readers

American Heart Month – February 2009

As part of American Heart Month, February 6 is National Wear Red Day, a day when persons across the United States wear red to show their support for women's heart disease awareness. Heart disease is the leading cause of death in the United States for both men and women, with women accounting for nearly half of those deaths (1).

In 2006, 7.9 million persons in the United States reported ever having a heart attack (1). The major signs of a heart attack are chest pain or discomfort; pain in the arm or shoulder; pain in the jaw, neck or back; shortness of breath; and feeling weak, light-headed, or faint. Although the most commonly experienced symptom of a heart attack for both men and women is chest pain or discomfort, women are more likely than men to experience other symptoms, such as shortness of breath, pain in the back or jaw, or nausea (2). Women also are more likely than men to delay seeking emergency treatment for a heart attack. Receiving immediate treatment substantially increases the chance of surviving a heart attack (2).

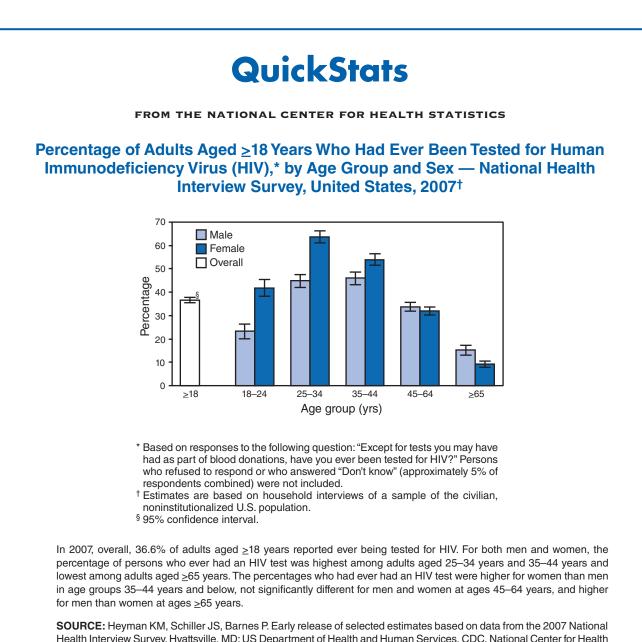
Additional information on women and heart disease prevention is available at http://www.cdc.gov/women/heart. Information on National Wear Red Day activities is available at http://www.nhlbi.nih.gov/health/hearttruth/wrd/index.htm. Information on CDC's heart disease programs is available at http://www.cdc.gov/dhdsp.

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Erratum: Vol. 57, No. 53

In the report, "Racial/Ethnic Differences in the Birth Prevalence of Spina Bifida — United States, 1995–2005," an error occurred in the second sentence of the Editorial Note. The sentence should have read: "The previous study revealed that from October 1995–December 1996 (before the folic acid fortification mandate) to October 1998–December 1999 (after the **January 1998** mandate deadline), the prevalence of spina bifida decreased from 2.62 to 2.02 per 10,000 live births, a decrease of 22.9% (*3*)."



Health Interview Survey. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2008. Available at http://www.cdc.gov/nchs/about/major/nhis/released200806.htm.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending January 24, 2009 (3rd week)*

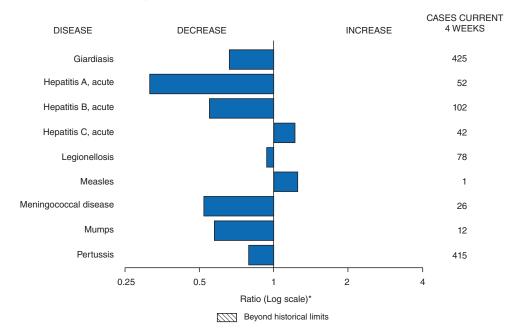
	Current	Cum	5-year weekly			ases re evious	eported years	I	States reporting cases
Disease	week	2009	average [†]	2008	2007	2006	2005	2004	during current week (No.)
Anthrax	_	_	_	_	1	1	_	_	
Botulism:									
foodborne	_	_	0	14	32	20	19	16	
infant	—	_	1	99	85	97	85	87	
other (wound and unspecified)	—	2	0	21	27	48	31	30	
Brucellosis	_	1	1	80	131	121	120	114	
Chancroid	_	_	0	28	23	33	17	30	
Cholera			0	2	7	9	8	6	
Cyclosporiasis [§]	2	3	2	130	93	137	543	160	FL (2)
Diphtheria	_	_	—	_	_	_	_	—	
Domestic arboviral diseases ^{§,¶} :									
California serogroup	_	_	_	40	55	67	80	112	
eastern equine	_	_	—	3	4	8	21	6	
Powassan	_	_	_	1	7	1	1	1	
St. Louis	_	_	0	10	9	10	13	12	
western equine	_	_		_	_	_	_	_	
Ehrlichiosis/Anaplasmosis [§] ,**:	1	c	0	060	000	E70	FOC	220	
Ehrlichia chaffeensis Ehrlichia owingii	1	6	2	863 9	828	578	506	338	TN (1)
Ehrlichia ewingii Anaplasma phagooutophilum	_	_	1			646	706	537	
Anaplasma phagocytophilum undetermined	_	_	0	546 71	834 337	646 231	786 112	537	
	_	_	0	/ 1	337	231	112	59	
Haemophilus influenzae, ^{††} invasive disease (age <5 yrs):									
serotype b		1	0	28	22	29	9	19	
nonserotype b	2	6	3	175	199	175	135	135	MN (1), OK (1)
unknown serotype	4	16	4	188	180	179	217	177	NY (1), GA (1), FL (1), AZ (1)
lansen disease§	1	1	1	72	101	66	87	105	CA (1)
lantavirus pulmonary syndrome§	_	_	0	16	32	40	26	24	0/(1)
lemolytic uremic syndrome, postdiarrheal [§]	_	4	1	243	292	288	221	200	
lepatitis C viral, acute	6	26	13	847	845	766	652	720	VT (1), NY (1), MI (1), WI (1), WA (1), CA (1)
HV infection, pediatric (age <13 years) ^{§§}	_		3	_			380	436	
nfluenza-associated pediatric mortality [§] , ^{¶¶}	_	2	1	90	77	43	45	_	
isteriosis	5	21	11	687	808	884	896	753	VT (1), PA (1), OH (2), CO (1)
Aeasles***	_	1	0	134	43	55	66	37	
Aeningococcal disease, invasive ^{†+†} :									
A, C, Y, and W-135	_	2	5	306	325	318	297	_	
serogroup B	1	1	3	161	167	193	156	_	MN (1)
other serogroup	_	_	1	31	35	32	27	_	
unknown serogroup	5	22	17	595	550	651	765	—	PA (1), OH (3), WA (1)
lumps	3	12	9	400	800	6,584	314	258	NE (1), MD (1), NC (1)
lovel influenza A virus infections	—	—	—	2	4	N	N	N	
Plague	—	—	0	1	7	17	8	3	
Poliomyelitis, paralytic	_	_	_	_	_	_	1	—	
Polio virus infection, nonparalytic§	_	_	_	_	_	N	N	N	
Psittacosis§	—	_	0	10	12	21	16	12	
Q fever total ^{§,§§§} :	—	1	1	94	171	169	136	70	
acute	—	1	0	82	_	_	_	_	
chronic	—	—	_	12	—	_	_	—	
Rabies, human	—	—	0	1	1	3	2	7	
Rubella ¹¹¹¹	—	1	0	17	12	11	11	10	
Rubella, congenital syndrome	_	_	_	_	_	1	1	_	
SARS-CoV [§] ,****	—	_	—	_	_	_	_	—	
Smallpox [§]	_								
Streptococcal toxic-shock syndromes	—	1	3	133	132	125	129	132	
Syphilis, congenital (age <1 yr)	—		7	244	430	349	329	353	
		1	0	16	28	41	27	34	00 (1)
oxic-shock syndrome (staphylococcal)§	1	4	1	70	92	101	90	95	CO (1)
richinellosis	1	1	0	37	107	15	16	5	CO (1)
Fularemia	_	1	0	110	137	95	154	134	
Typhoid fever		12	6	401	434	353	324	322	
/ancomycin-intermediate Staphylococcus aureus		3	0	36	37	6	2	-	OH (1)
/ancomycin-resistant Staphylococcus aureus§	1		1	452	2 540	1 N	3 N	1 N	EL (1)
/ibriosis (noncholera Vibrio species infections)§	1	11	1	452	549	N	N	N	FL (1)

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 January 24, 2009 (3rd 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.
- [†] 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.
- S 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.
- ¹ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
- ** The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).
- ^{††} Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
- ^{§§} Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.
- ¹¹ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Two influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.
- *** No measles cases were reported for the current week.
- ⁺⁺⁺ Data for meningococcal disease (all serogroups) are available in Table II.
- §§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
- 1111 No rubella cases were reported for the current week.
- **** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals January 24, 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 Team
Patsy A. Hall
Deborah A. Adams Rosaline Dhara
Willie J. Anderson Michael S. Wodajo
Lenee Blanton Pearl C. Sharp

			Chlamydi	a [†]			Cocc	idiodomy	cosis		Cryptosporidiosis					
		Prev	ious				Prev	ious					ious			
	Current	52 w	eeks	Cum	Cum	Current	52 w	eeks	Cum	Cum	Current	52 v	veek	Cum	Cum	
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008	
United States	9,437	21,611	25,238	37,778	54,771	93	122	322	354	585	40	103	433	112	203	
New England Connecticut	354	707 210	1,053 473	1,322	1,613 186	N	0	1 0	N	N	_	5 0	20 2	3 2	46 38	
Maine§	51	51	72	175	146	N	0	0	N	N	_	0	6	1	—	
Massachusetts New Hampshire	204 19	327 41	623 64	818 81	1,027 115	N	0	0 1	N	N	_	1	9 4	_	5 3	
Rhode Island§	59	55	208	176	130	_	0	0	_	_	_	Ó	3	_		
Vermont§	21	16	52	72	9	N	0	0	N	N	—	1	7	—	—	
Mid. Atlantic New Jersey	1,877	2,760 430	5,091 576	6,261 269	5,992 1,230	N	0	0	N	N	5	12 0	34 2	18	24 2	
New York (Úpstate)	426	532	1,857	851	384	N	Ō	Ō	N	N	4	4	17	8	1	
New York City Pennsylvania	1,100 351	1,047 803	3,412 1,078	3,584 1,557	2,094 2,284	N N	0	0	N N	N N	1	2 5	6 15	3 7	7 14	
E.N. Central	1,165	3,502	4,285	4,081	10,546	_	1	3	1	3	6	25	126	20	43	
Illinois Indiana	85 235	1,071 377	1,407 713	642 836	3,306 1,071	N N	0 0	0 0	N N	N N	1	2 3	13 12	1	5 1	
Michigan	649	826	1,226	2,221	2,472		0	3	_	2	_	5	13	1	14	
Ohio Wisconsin	 196	796 315	1,261 615	382	2,487 1,210	N	0 0	2 0	1 N	1 N	5	6 9	59 46	14 4	15 8	
Wisconsin W.N. Central	400	1,269	1.696	2,275	3,306		0	2	_		3	16	68	9	13	
Iowa	_	174	239	346	484	N	Ō	0	N	N	—	4	30	_	6	
Kansas Minnesota	23	181 264	529 339	339 101	213 891	<u>N</u>	0 0	0 0	<u>N</u>	<u>N</u>	3	1 4	8 15	3	_	
Missouri	231	484	566	1,097	1,263		0	2			—	3	13	3	2	
Nebraska ^ş North Dakota	87	83 35	244 58	210 3	186 125	N N	0 0	0 0	N N	N N	_	2 0	8 2	_2	3 1	
South Dakota	59	55	85	179	144	Ν	0	0	Ν	Ν	—	1	9	1	1	
S. Atlantic Delaware	1,887 103	3,643 69	6,329 150	7,837 292	8,785 179	_	0	1	_	_	15	17 0	47 2	39	37 1	
District of Columbia	_	127	201	239	405		Ō	0			_	0	2		1	
Florida Georgia	906 4	1,368 523	1,571 1,307	3,542 83	3,461 1,153	N N	0	0	N N	N N	8 5	7 4	35 13	16 12	16 10	
Maryland§	280	444	693	1,255	891	—	Ō	1	—	—	2	1	4	3	_	
North Carolina South Carolina [§]	95	0 478	1,208 3,042	937	7 1,520	N N	0 0	0 0	N N	N N	_	0 1	16 4	5 1	5	
Virginia§	472	621	1,059	1,361	1,024	N	0	0	N	N	—	1	4	1	1	
West Virginia E.S. Central	27 636	60 1,571	102 2,302	128 3,642	145 4,042	Ν	0	0 0	N	Ν	_	0 2	3 9	1 2	3 8	
Alabama§	_	441	547	206	1,422	Ν	Ō	0	Ν	Ν	_	1	6	1	5	
Kentucky Mississippi	219 417	245 408	373 1.048	859 1.436	650 581	N N	0	0	N N	N N	_	0 0	4 2	_	2 1	
Tennessee§	—	535	792	1,141	1,389	Ň	õ	ŏ	Ň	N	_	1	6	1	_	
W.S. Central	589	2,781	3,530	1,970	7,491		0	1			1	6	164	1	2	
Arkansas [§] Louisiana	321 200	276 417	455 775	922 852	715 807	<u>N</u>	0 0	0 1	N	N	_	0 1	7 5	_	1	
Oklahoma Texas [§]	68	142 1,934	391 2,343	196	714 5,255	N N	0	0	N N	N N	1	1 3	16 149	1	1	
Mountain	536	1,354	1,806	2.501	3,524	65	88	182	254	302	1	8	37	5	15	
Arizona	336	470	650	1,022	1,065	65	86	181	253	294	_	1	9	1	3	
Colorado Idaho [§]	133 28	266 63	578 314	795 34	830 151	N N	0 0	0	N N	N N	1	1	12 5	2	3 5	
Montana§	—	58	87	45	178	Ν	0	0	N	N	—	1	3	1	1	
Nevada [§] New Mexico [§]	_	176 132	415 455	277 194	650 308	_	0	6 3	1	2 3	_	0 1	1 23	1	3	
Utah Wyoming§	 39	104 31	253 58	49 85	331 11	_	0 0	2 1	_	3	_	0 0	6 4	_	_	
Pacific	1,993	3,698	4,460	7,889	9,472	28	33	159	99	280	9	8	20	15	15	
Alaska	103	85	178	223	143	N	0	0	N	N	1	0	1	1	—	
California Hawaii	1,409 46	2,878 104	3,307 164	6,221 208	7,168 266	28 N	33 0	159 0	99 N	280 N	5	5 0	14 1	9	11	
Oregon§	185	186	631	404	553	N	0	0	N	N	1	1	4	3	4	
Washington American Samoa	250	404 0	527 20	833	1,342	N N	0 0	0 0	N N	N N	2 N	1 0	12 0	2 N	N	
C.N.M.I.	_	_	_	_	_	—	_	_				_	_			
Guam Puerto Rico	102	4 117	24 333	308	1 132	N	0	0 0	N	N	N	0 0	0 0	N	N	
U.S. Virgin Islands		13	23	_	26	_	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 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).

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W.S. Central 4 7 20 9 9 192 927 1,297 672 2,867 2 2 8	2	1 8
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Louisiana — 2 10 1 4 86 169 317 332 430 — 0 1 Oklahoma 3 3 9 7 2 23 50 124 72 319 2 1 7	2	4
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Pacific 19 53 112 71 106 256 601 759 1,349 1,836 — 2 6	4	7
Alaska — 2 10 4 2 17 10 18 42 19 — 0 2	1	—
California 13 35 56 53 80 178 494 633 1,118 1,515 — 0 3 Hawaii — 1 4 1 1 5 11 22 24 34 — 0 2	2	1
Oregon [§] 2 8 18 9 21 28 22 48 54 89 - 1 4	1	6
Washington 4 8 70 4 2 28 57 90 111 179 — 0 2 American Samoa — 0 0 — — 0 1 — — 0 0	_	_
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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

(3rd week)*				Hepat	itis (viral,	acute), by	type [†]								
			Α					В					gionellosi	s	
	Current	Prev 52 w	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	14	44	76	58	126	14	67	93	112	189	27	44	145	97	111
New England Connecticut	_	1 0	7 4	_	6 1	_	1 0	7 7	1 1	_2	2 2	2 0	16 5	2 2	_2
Maine [§] Massachusetts	_	0	2 5	_	1 3	_	0 0	2 1	_	1 1	_	0 0	2 2	_	_
New Hampshire	_	0	2	_	_	_	0	2	_	_	_	0	5	_	_
Rhode Island [§] Vermont [§]	_	0	2 1	_	1	_	0 0	1	_	_	_	0 0	14 1	_	2
Mid. Atlantic	2	5	12	6	24	3	8	14	7	31	9	14	59	25	27
New Jersey New York (Upstate)	1	1	4 4	2	6 4	3	2 1	7 6	5	15	4	1 5	8 19		7 2
New York City	_	2	6	1	8	_	1	6	_	4	_	2	12	1	5
Pennsylvania	1	1	6	3	6 17	_	2 8	8	2	12	5 4	6 9	33	13	13 36
E.N. Central Illinois	_	6 2	16 10	11 2	5		3	15 6	25	22 4	4	9	40 10	21	8
Indiana Michigan	_	0 2	4 7	4	8	_	1 2	4 6	5	6	_	1 2	6 16	1 3	
Ohio	_	1	4	5	2	2	2	12	20	10	4	3	18	17	16
Wisconsin W.N. Central	_	0 4	2 16	2	2 15	1	0 2	1 7	7	2 5	_	0 2	3 9	_	1 3
Iowa	_	1	7		7	_	0	2		_	_	0	2	_	1
Kansas Minnesota	_	0	3 8	_	1	_	0	3 4	_	1	_	0	1 4	_	_
Missouri	_	1	3	2	1	1	1	4	6	4	—	1	7	—	_
Nebraska [§] North Dakota	_	0	5 0	_	4	_	0 0	2 1	1	_	_	0	4 0	_	2
South Dakota	—	0	1	—	1	—	0	0	—	—	—	0	1	—	—
S. Atlantic Delaware	4	7 0	14 1	18	20	2	17 0	34 1	31	65 3	6	8 0	22 2	27	21
District of Columbia	U	0	0	U	U	U	0	0	U	U	_	0	2		1
Florida Georgia	4	2 1	8 4	10 3	11 3	1	6 3	12 8	12 10	16 8	5	3 0	7 4	11 4	9 2
Maryland [§] North Carolina	_	1 0	4 9	5	_4	1	2 0	4 17	1 7	6 16	1	2 0	10 7	6 6	5 1
South Carolina§	_	0	3	_		_	1	4	_	9	_	0	2	—	1
Virginia [§] West Virginia	_	1 0	5 1	_	2	_	2 1	7 4	1	3 4	_	1 0	4 3	_	1
E.S. Central	_	1	9	3	2	_	7	13	8	16	_	2	10	5	6
Alabama [§] Kentucky	_	0	2 3	1	2	_	2 2	6 5	2 1	5 5	_	0 1	2 4	1	5
Mississippi	—	0	2	1	_	—	1	3	1	_	_	0	1	_	—
Tennessee [§] W.S. Central	_	0	6	1		_	3	8	4	6	_	1	5	4	1
Arkansas§	_	4 0	12 1	_	5	_2	13 0	23 4	9	11	_	1 0	9 2	1	_2
Louisiana Oklahoma	_	0	1 3	_	1	2	1 2	4 8	1 3	_4	_	0	2 6	1	_
Texas [§]	_	4	11	_	4	_	8	19	5	7	_	1	5	_	2
Mountain Arizona	5 4	4 2	12 11	8 7	8 4	_	4 1	12 5	1	12 7	4 3	2 0	8 3	10 8	5 1
Colorado	1	0	3	1	2	_	0	3	_	2	_	0	2	_	2
Idaho [§] Montana [§]	_	0	3 1	_	_	_	0 0	2 1	_	_	_	0	1	_	_
Nevada§	_	0 0	3	_		—	Ö O	3	_	1	1	Ö O	2	2	1
New Mexico [§] Utah	_	0	3 2	_	_2	_	0	2 3	1	1 1	_	0	1 2	_	1
Wyoming§	_	0	1	_			0	1				0	0		_
Pacific Alaska	3	9 0	24 1	10	29	4	6 0	29 2	23 1	25	_2	4 0	10 1	6	9
California	3	7	24 2	10	25 1	4	5 0	19	21	21	2	3 0	8	6	8
Hawaii Oregon [§]	_	0 0	3	_	3	_	1	1 3		1 3	_	Ō	1 2	_	1
Washington	—	1	5	—	—	—	1	10		_		0	3		_
American Samoa C.N.M.I.	_	0	0	_	_	_	0	0	_	_	N	0	0	<u>N</u>	N
Guam	—	0	0		—	—	0 0	0		3	_	0	0	—	_
Puerto Rico U.S. Virgin Islands	_	0 0	2 0	1	_	_	0	5 0	_	3	_	0 0	1 0	_	_
-	141 6 N I 41-		-				-	-				-	-		

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending January 24, 2009, and January 19, 2008 (3rd 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	_	Meningococcal disease, invasive [†] All serotypes					
			vious veeks	<u>^</u>				vious veeks				Prev	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	37	445	1,454	160	392	9	21	44	24	43	6	19	47	25	47
New England	_	44	260	10	64	_	0	6	_	2	_	0	3	_	3
Connecticut Maine [§]	_	0 3	0 73	_	_	_	0 0	3 1	_	_	_	0	1	_	_
Massachusetts	_	10	114	_	45	_	Ō	2	_	2	_	Ō	3	_	3
New Hampshire Rhode Island§	_	13 0	141 0	3	18	_	0 0	2 1	_	_	_	0 0	0 0	_	_
Vermont [§]	_	4	40	7	1	_	0	1	_	_	_	0	0	_	_
Mid. Atlantic	12	250	1,004	53	214	2	4	14	2	9	1	2	6	2	4
New Jersey New York (Upstate)	7	31 99	211 702	 13	71 8	2	0 0	0 5	2	_	_	0	2 3	_	2 1
New York City		99 0	4		6 5		3	10		7	_	0	2	1	_
Pennsylvania	5	93	532	40	130	—	1	3	—	2	1	1	5	1	1
E.N. Central Illinois	6	11 0	146 12	13	25 2	_	2 1	7 5	_2	14 9	3	3 1	9 5	6	11 7
Indiana	_	0	8	_		_	0	2	_	9	_	0	4	_	_
Michigan	—	1	10	1	2	—	0	2	_	2	_	0	3	_	2
Ohio Wisconsin	6	1 9	5 129	1 11	1 20	_	0 0	3 3	_2	3	3	1 0	4 2	6	1
W.N. Central	_	8	156	_		1	1	10	1	_	1	2	8	3	3
Iowa	_	1	8	_	1	—	Ō	3	—	_	_	0	3	—	1
Kansas Minnesota	_	0 4	1 152	_	_	1	0 0	2 8	1	_	1	0 0	2 7	1	1
Missouri	_	0	1	_	_	_	0	3		_	_	0	3	2	1
Nebraska [§] North Dakota	_	0 0	2 1	_	_	_	0 0	2 0	_	_	_	0	1	_	_
South Dakota	_	0	1	_	_	_	0	0	_	_	_	0	1	_	_
S. Atlantic	13	63	219	67	80	5	4	15	9	10	_	3	10	7	8
Delaware District of Columbia	4	12 2	37 11	11	23 3	—	0 0	1 2	1	_	_	0 0	1 0	_	_
Florida	2	2	10	8	1	4	1	7	4	3	_	1	3	3	4
Georgia		0	3	_		_	1	5	_	3	—	0	2	1	1
Maryland§ North Carolina	6	28 0	158 7	41	45	1	1 0	7 7	1 2		_	0 0	4 3	2	_
South Carolina§		0	2	2	—	—	0	1	—	—	—	0	3	—	3
Virginia [§] West Virginia	1	13 1	53 11	5	7 1	_	1 0	3 0	1	_	_	0 0	2 1	1	_
E.S. Central	_	1	5	1	_	1	0	2	1	2	_	1	6	_	5
Alabama§	—	Ó	2	_	—	—	0	1	_	1	—	0	2	—	
Kentucky Mississippi	_	0 0	2 1	_	_	_	0 0	1	_	1	_	0 0	1 2	_	3
Tennessee§	_	ŏ	3	1	_	1	ŏ	2	1	_	_	Ő	3	_	2
W.S. Central	_	2	8	_	_	_	1	11	—	_	_	2	7	_	3
Arkansas [§] Louisiana	_	0 0	0	_	_	_	0 0	0 1	_	_	_	0	2 3	_	2
Oklahoma	_	0	0	_	_	_	Ő	2	_	_	_	Ő	3	_	1
Texas [§]		2	8		—	—	1	11	—		—	1	5		
Mountain Arizona	1	0 0	16 2	_2	_	_	0 0	3 2	_	2 1	_	1 0	4 2	2	4
Colorado	1	õ	1	1	_	_	0	1	—	1	—	õ	1	_	_
Idaho [§] Montana [§]	_	0 0	1 16	_	_	_	0 0	1 0	_	_	_	0 0	1	1	_
Nevada§	_	ŏ	2	_	_	_	0	3	_	_	_	ŏ	1	1	1
New Mexico [§] Utah	_	0 0	2	1	_	_	0 0	1	_	_	_	0 0	1	_	3
Wyoming [§]	_	0	1	_	_	_	0	0	_	_	_	0	1 1	_	
Pacific	5	4	13	14	8	_	3	10	9	4	1	5	19	5	6
Alaska	_	0	2		_	—	0	2	—		—	0	2	1	—
California Hawaii	5 N	3 0	8 0	13 N	8 N	_	2 0	8 1	8	3	_	3 0	19 1	_2	_4
Oregon§	_	1	3	1	_	_	Ō	2	1	1	<u> </u>	1	3	1	2
Washington		0	9			_	0	7	_	—	1	0	5	1	—
American Samoa C.N.M.I.	N	0	0	N	N	_	0	0	_	_	_	0	0	_	_
Guam	_	0	0	_	_	_	0	2	_	_	_	0	0	_	_
Puerto Rico	N	0	0	N	N	—	0	1	1	—	—	0	1	—	—
U.S. Virgin Islands	N	0	0	N	N	_	0	0	_	_	—	0	0	_	_

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

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

(3rd week)*			Pertussis				Ra	abies, anin	nal	Rocky Mountain spotted fever						
		Prev	vious					/ious					vious			
	Current		eeks	Cum	Cum	Current		veeks	Cum	Cum	Current		veeks	Cum	Cum	
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008	
United States New England	92	184 9	403 32	323 2	361 81	16 1	103 7	168 20	66 7	263 7	3	32 0	145 2	22	8	
Connecticut	—	0	4	_	7	1	4	17	4	_	<u> </u>	0	0		<u> </u>	
Maine [†] Massachusetts	_	0 7	5 24	1	1 71	N	1 0	5 0	1 N	1 N	N	0 0	0 1	N	N	
New Hampshire Rhode Island [†]	_	1 1	4 7	1	1	N	0 0	3 0	N	3 N	_	0 0	1 2	_	_	
Vermont [†]	_	0	2	_	1		1	6	2	3	_	0	0	_	_	
Mid. Atlantic	9	18	38	35	52	4	33	67	12	52	_	1	6	_	2	
New Jersey New York (Upstate)	2	1 7	6 28	6	6 6	4	0 9	0 20	12	16	_	0 0	2 5	_	1	
New York City Pennsylvania	7	0 8	5 31	 29	8 32	_	0 21	2 52	_	2 34	_	0 0	2	_	1	
E.N. Central	, 19	33	189	84	71	_	3	28	1	1	_	2	15	_	1	
Illinois	—	7	43	6	10	—	1	21	1	1	—	1	11	—	1	
Indiana Michigan	1	1 6	27 14	2 13	6	_	0 0	2 8	_	_	_	0 0	3 1	_	_	
Ohio Wisconsin	18	10 2	176 7	62 1	47 8	N	1 0	7 0	N	N	_	0 0	4	—	_	
Wisconsin W.N. Central	21	17	, 118	101	45	_	3	13			1	4	32	1	1	
lowa Kansas	_	3 1	21 13	_	7	_	0	5	—	_	_	0 0	2	_	_	
Minnesota	_	2	26	_	_	_	0	10	_	_	_	0	0	_	_	
Missouri Nebraska†	13 7	6 2	50 33	89 11	30 4	_	1 0	8 0	_	_	1	4 0	31 4	1	1	
North Dakota		0	1	_	_	—	0	7	—	—	—	0	0	_	—	
South Dakota S. Atlantic	1 25	0 17	7 44	1 63	2 35	— 11	0 34	2 88	34	184	2	0 13	1 71	20	3	
Delaware	1	0	3	2	_	_	0	0	_		—	0	5		—	
District of Columbia Florida	7	0 6	1 20	27	2 4	4	0	0 37	7	100	_	0 0	2 3	_	_	
Georgia	_	1	8	—	2	_	5	42	_	13	_	1	8	_	1	
Maryland [†] North Carolina	1 16	2 0	8 15	7 19	9 10	7	8 9	17 16	6 11	23 19	1	1 3	7 55	2 16	1 1	
South Carolina [†] Virginia [†]	_	2 3	11 12	8	3 5	_	0 11	0 24	9	29	1	1 2	9 15	2	_	
West Virginia	_	0	2	_		_	1	9	1		_	0	1		_	
E.S. Central Alabama [†]	—	8 1	29 5	12 1	18 4	_	3 0	7 0	4	7	_	3 1	23 8	_	—	
Kentucky	_	2	11	8	2	_	0	4	4	1	_	0	1	_	_	
Mississippi Tennessee [†]	_	2 2	5 14	1 2	11	_	0 2	1 6	_	1 5	_	0 2	3 19	_	_	
W.S. Central	6	30	157	7	4	_	1	11	2	3	_	2	41	1	_	
Arkansas† Louisiana	_	1	20 7	_	_2	_	0 0	6 0	1	3	_	0 0	14 1	1	_	
Oklahoma	1	Ó	21	1	_	—	0	10	1	—	—	0	26	_	—	
Texas [†] Mountain	5 8	26 15	150 34	6 12	2 38	_	0 1	1 8	_	2	_	1	6 3	_	-	
Arizona	_	3	10	1	9	N	Ó	Ō	N	N	_	Ó	2	_	1	
Colorado Idaho†	6 2	3 1	7 5	6 4	16	_	0	0	_	_	_	0	1	_	_	
Montana [†]	_	1	11	—	3	_	0	2	_	_	_	0	1	—	—	
Nevada† New Mexico†	_	0 1	7 8	_	1	_	0 0	4 3	_	2	_	0 0	2 1	_	1	
Utah Wyoming [†]	_	4 0	17 2	1	7 2	_	0 0	6 3	_	_	_	0 0	1 2	_	_	
Pacific	4	25	82	7	17	_	3	13	6	7	_	0	2 1	_	_	
Alaska	3	3	21	6	8	—	0	4	2	4	Ν	Ō	Ó	Ν	Ν	
California Hawaii	_	8 0	23 2	_	2	_	3 0	12 0	4	3	N	0 0	1 0	N	N	
Oregon [†] Washington	1	3 6	10 62	1	7	_	0 0	3 0	_	_	N	0 0	1 0	N	N	
American Samoa	_	0	02	_	_	N	0	0	N	N	N	0	0	N	N	
C.N.M.I. Guam	_	0	0	_	_	_	0	0	_	_	N	0	0	N	N	
Puerto Rico	_	0	0	_	_	—	1	5	_	1	N	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).

(3rd week)*		S	almonellos	sis		Shic	a toxin-p	oducina E	E. coli (ST	Shigellosis						
			vious					ious					/ious			
	Current		veeks	Cum	Cum	Current	52 w		Cum	Cum	Current		reeks	Cum	Cum	
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008	
United States New England	308 1	889 17	1,489 63	1,189 20	1,968 552	9	82 3	251 14	80 1	135 51	122	431 2	611 7	635	761 44	
Connecticut	—	0	11	11	484	—	0	1	1	44	—	0	0	—	38	
Maine [§] Massachusetts	1	3 12	8 52	7	2 52	_	0	3 11	_	1 5	_	0 1	6 5	_	5	
New Hampshire	—	2	10	1	7	—	1	3	—	1	—	Ó	1	—	1	
Rhode Island [§] Vermont [§]	_	2 1	9 7	1	3 4	_	0 0	3 3	_	_	_	0 0	1 2	_	_	
Mid. Atlantic	28	88 12	177 30	111	209 56	1	6 0	192 3	_4	14 3	5	44 12	96 38	38 3	58	
New Jersey New York (Upstate)	14	26	60	29	24	1	3	188	3	3	3	11	35	5	28 3	
New York City Pennsylvania	1 13	20 27	53 78	23 59	61 68	_	1	5 8	1	6 2	2	13 4	35 23	19 11	18 9	
E.N. Central	40	93	194	134	211	_	11	74	4	16	44	74	121	169	181	
Illinois Indiana	3	25 9	72 53	3 5	70 4	_	1	10 14	_	_	_	19 10	35 39	5 1	75 39	
Michigan	5	17	38	26	55	—	2	43	1	5	1	3	20	14	2	
Ohio Wisconsin	32	26 14	65 50	88 12	48 34	_	3 4	17 20	2 1	4 7	39 4	42 7	80 33	136 13	47 18	
W.N. Central Iowa	21	49 8	151 16	62	77 17	_4	12 2	59 21	13	5 3	_4	17 3	40 12	7	30 4	
Kansas Minnesota	 17	7 13	31 70	3 17	8 1	4	1 3	7 21	1 4	_	3	1 5	5 25	1 3	_	
Missouri	3	13	48	31	38	4	2	11	6	2	_	3	14	2	17	
Nebraska ^ş North Dakota	1	4 0	13 7	6	12	_	2 0	29 1	2	_	1	0	3 5	1	_	
South Dakota	_	3	9	5	1	_	1	4	_	_	_	Ő	9	_	9	
S. Atlantic Delaware	98 1	245 2	457 9	464 1	422 4	_2	14 0	50 2	34	19 1	16	58 0	100 1	117 1	161	
District of Columbia	—	1	4	—	4	—	0	1	_	1	—	0	3	_	1	
Florida Georgia	53 15	97 43	174 86	201 45	254 40	_	2 1	11 7	12 2	10	5 4	14 20	34 48	31 23	71 54	
Maryland§	13	13	36	32	33	1	2	10	7	1	2	2	8	13	3	
North Carolina South Carolina§	1	24 18	106 55	143 16	1 37	_	1 0	19 4	12	1	_	3 8	27 32	32 5	25	
Virginia [§] West Virginia	13 2	19 3	42 6	23 3	28 21	1	3 0	25 3	1	1 4	5	4 0	35 3	12	7	
E.S. Central	8	58	138	61	123	1	5	21	5	10	5	34	67	24	137	
Alabama [§] Kentucky	_	15 9	47 18	25 15	43 22	_	1	17 7	1	3 2	_	7 3	18 24	2 3	30 21	
Mississippi	_	14	57		27	_	0	2	_	1	_	4	18	_	51	
Tennessee§ W.S. Central	8 18	14 135	60 265	21 36	31 67	1	2 6	7 27	4	4 5	5 24	17 93	46 215	19 174	35 42	
Arkansas§	10	11	40	14	11	—	1	3	_	_	—	11	27	3	2	
Louisiana Oklahoma	3 5	17 14	50 36	9 8	28 6	_	0 1	1 19	_	_	1 3	11 3	25 11	4 8	12 6	
Texas§	_	91	179	5	22	_	5	12	_	5	20	64	188	159	22	
Mountain Arizona	30 13	59 19	110 45	70 33	113 33	_	10 1	39 5	2 2	11 1	11 7	21 12	53 34	54 38	36 18	
Colorado Idaho [§]	13 3	12 3	43 14	13 10	26 6	_	3 2	18 15	_	2 1	4	2 0	11 2	4	10	
Montana§	_	2	8	3	2	_	0	3	_	3	_	0	1	_	_	
Nevada [§] New Mexico [§]	1	3 6	9 33	11	11 23	_	0 1	2 6	_	3	_	4 1	13 10	10 2	4 3	
Utah Wyoming [§]	_	6 1	19 4	_	5 7	_	1 0	9 1	_	1	_	1 0	3 1	_	1	
Pacific	64	112	- 521	231	, 194	1	10	51	17	4	13	28	82	52	72	
Alaska California	2 51	1 81	4 507	4 194	3 153		0	1 39	16	1 3	12	0 26	1 74	1 46	63	
Hawaii	1	4	15	13	18	_	0	2	1			1	3	_	3	
Oregon [§] Washington	2 8	7 12	20 124	12 8	20	_	1 2	8 36	_	_	1	1	10 24	4 1	6	
American Samoa	_	0	1	_	1		0	0	_	_	_	0	0	_	1	
C.N.M.I. Guam	_	0	2	_	_	_	0	0	_	_	_	0	3	_	_	
Puerto Rico	1	9	29	3	25	_	0	1	—	—	—	0	4	—	—	
U.S. Virgin Islands		0	0		_		0	0				0	0		_	

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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).

(3rd week)*						<u> </u>		<u> </u>					
		Streptococcal	diseases, inv	asive, group A		Streptococcus pneumoniae, invasive disease, nondrug resistant [†] Age <5 years							
			vious veeks					vious veeks					
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008			
United States	56	84	181	209	306	20	33	55	57	127			
New England	—	4	31	1	18	1	1	11	1	8			
Connecticut Maine [§]	_	0 0	26 3	_	1	_	0 0	11	_	_			
Massachusetts	—	1	8		15		0	4	—	6			
New Hampshire Rhode Island [§]	_	0 0	2 9	1	2	_	0 0	1 2	_	_2			
Vermont§	_	0	3	_	_	1	ŏ	1	1	_			
Mid. Atlantic	14	17	43	31	73	1	3	15	4	25			
New Jersey New York (Upstate)	8	2 6	11 17	12	16 17	1	1 2	4 15	4	5 8			
New York City	_	4	10	4	17	_	0	5	—	12			
Pennsylvania	6	6	16	15	23	N	0	2	N	N			
E.N. Central Illinois	11	15 5	42 16	43 7	54 16	1	5 1	15 5	10	24 7			
Indiana	3	2	9	3	5	_	0	5	_	_			
Michigan	3 5	3 5	10 14	8 24	14 16	1	1	5 4	2	8			
Ohio Wisconsin	5	5	14	24	3	_	1 0	4	8	6 3			
W.N. Central	1	5	39	10	10	2	2	11	5	8			
lowa	—	0	õ	_	_	_	0	0	—	—			
Kansas Minnesota	_	0 0	5 35	1	1	2	0 0	3 9	1 2	1			
Missouri	—	2	10	3	8	_	1	2	2	5			
Nebraska [§] North Dakota	_	1 0	3 3		_	_	0 0	1 2	_	_2			
South Dakota	1	ŏ	2	2	1	_	ŏ	1	_	_			
S. Atlantic	20	21	37	77	74	9	6	16	22	29			
Delaware District of Columbia	1	0 0	2 4	2	2	_	0	0	_	_			
Florida	6	5	10	19	24	3	1	4	5	4			
Georgia Maryland§	8 2	4 3	14 8	24 11	14 18	5	1	4 4	8 5	4 11			
North Carolina		2	10	5	2	N	0	4	N	N			
South Carolina§	2	1	5	9	5	1	1	6	4	5			
Virginia [§] West Virginia	1	3 0	9 3	5 2	7 2	_	0 0	6 1	_	5			
E.S. Central	1	3	9	9	8	1	2	6	1	1			
Alabama§	N	0	0	N	N	N	0	0	N	N			
Kentucky Mississippi	N	1 0	3 0	N	2 N	N	0 0	0 3	N	N 1			
Tennessee§	1	3	6	9	6	1	1	5	1	_			
W.S. Central	4	9	28	19	10	1	5	16	6	7			
Arkansas [§] Louisiana	_	0	2 2	_	1	1	0 0	2 3	1 4	2 1			
Oklahoma	3	2	8	14	3	_	1	3	_	1			
Texas [§]	1	6	25	5	6	_	3	13	1	3			
Mountain Arizona	4	9 3	20 9	12 8	50 15	3 1	4 2	11 7	7 5	24 15			
Colorado	3	2	8	3	13	2	1	4	2	5			
Idaho ^ş Montana ^ş	N	0 0	2 0	N	1 N	_	0	1	_	1			
Nevada§	_	ŏ	1	_	2	Ν	0	Ó	Ν	N			
New Mexico [§] Utah	_	1	8 4	1	13 6	_	0 0	3 4	_	1 2			
Wyoming [§]	_	0	2	_		_	0	4	_				
Pacific	1	3	8	7	9	1	0	2	1	1			
Alaska California	1	1 0	4	2	1	N N	0	0	N N	N N			
Hawaii	_	2	8	5	8	1	0	2	1	1			
Oregon [§]	N	0	0	N	N	N	0	0	N	N			
Washington American Samoa	Ν	0 0	0 12	N	N	N	0	0 0	N	N			
C.N.M.I.	_	_	_	_	_		_	_	<u>N</u>	<u>N</u>			
Guam		0	0				0	0					
Puerto Rico U.S. Virgin Islands	N	0 0	0 0	N	N	N N	0 0	0 0	N N	N N			
S.S. Virgin Islands		0	0			1 1	0	0	ÍN	ÍN.			

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

C.N.M.L. Commonwealth of Normer Martana 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).

		S	treptococ	cus pneur	noniae, in	vasive dise	ease, dru	g resistan	t,								
			All ages				Ag	ged <5 yea	rs		Syphilis, primary and secondary						
			vious					/ious					vious				
Reporting area	Current week	52 w	veeks Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008	Current week	52 w	eeks Max	Cum 2009	Cum 2008		
United States	31	52	105	150	2003	1	8	23	10	31	93	242	303	390	633		
New England	1	1	48	2	5	_	0	5		_	4	5	14	12	15		
Connecticut Maine [§]	—	0	48	_	_	—	0	5	—	—	—	0	3	_	—		
Massachusetts	_	0 0	2 0	_	2	_	0	0	_	_	3	4	2 11	9	12		
New Hampshire	—	0	0	—		—	0	0	—	—	1	0	2	3	1		
Rhode Island [§] Vermont [§]	1	0 0	2 2	2	2 1	_	0 0	1 1	_	_	_	0 0	5 2	_	2		
Mid. Atlantic	3	4	13	4	22	_	0	2	_	1	30	32	52	87	93		
New Jersey New York (Upstate)		0	0 5	1	3	_	0 0	0 1	_	_		4 3	10 7	5 1	11 1		
New York City	_	1	6	_	7	_	0	Ö	_	_	28	20	36	72	57		
Pennsylvania	2	1	9	3	12		0	2		1	1	5	12	9	24		
E.N. Central Illinois	5	12 0	41 7	32	83 31	_	2 0	7 2	_2	13 7	15 2	23 7	38 19	46 6	69 29		
Indiana	_	2	31		12	—	0	5	—	_	2	3	10	4	4		
Michigan Ohio	5	0 7	3 18	2 30	4 36	_	0 1	1 4	2	1 5	6 4	3 6	21 15	15 19	10 23		
Wisconsin	_	Ö	0	_	_	—	Ó	0	_	_	1	1	4	2	3		
W.N. Central	—	2	9	5	23	_	0	2	_	_1	2	8	14	10	26		
lowa Kansas	_	0 1	0 5	_	7	_	0 0	0 1	_	1	_	0 0	2 5	_	_		
Minnesota	—	0	0	_	_	—	0	0	—	—	_	2	6	1	5		
Missouri Nebraska ^ş	_	1 0	5 0	5	16	_	0 0	1 0	_	_	_2	4 0	10 2	9	21		
North Dakota	—	0	0	—	_	—	0	0	—	—	—	0	0	—	—		
South Dakota S. Atlantic	 21	0 21	1 53		121		0 3	1 13	6	10	 26	0 55	1 106	 127	90		
Delaware		0	1		_		0	0		10	20	0	4	2	_		
District of Columbia Florida		0 13	3 30	62	3 74	_	0 2	1 12	5	8	6	2 19	9 37	14 55	6 51		
Georgia	4	6	23	21	38	1	1	5	1	2	—	13	51	—	3		
Maryland [§] North Carolina	N	0	2 0	1 N	1 N	N	0 0	1 0	N	N	5 14	7 5	14 19	11 32	12 6		
South Carolina§	_	0	0	_	_	_	0	0	_	_	1	2	6	3	4		
Virginia [§] West Virginia	N	0 1	0 9	N 2	N 5	N	0 0	0 2	N	N	_	5 0	16 1	10	8		
E.S. Central	1	5	20	13	23	_	1	4	1	2	6	21	37	36	54		
Alabama§	Ň	0	0	N	N	Ν	Ó	Ó	N	N	—	8	17	9	25		
Kentucky Mississippi	_	1 0	6 2	6	6	_	0 0	2 1	1	_	2 4	1 3	10 19	5 5	4 5		
Tennessee§	1	3	18	7	17	—	0	3	—	2	—	8	19	17	20		
W.S. Central Arkansas [§]	_	2 0	7 4	6 5	8	_	0 0	2 1	1 1	2	4 3	42 2	63 19	29 19	116 4		
Louisiana	_	1	6	1	8	_	0	1	_	2	1	10	31	7	25		
Oklahoma Texas [§]	N	0	0	N	N	N	0 0	0	N	N	_	1 26	5 47	3	10 77		
Mountain	_	2	14	_	4	_	0	4	_	1	_	9	16	6	28		
Arizona	_	0	0	_	—	—	Ō	Ö	—	—	_	5	13	_	13		
Colorado Idaho [§]	N	0 0	0 1	N	N	N	0 0	0 1	N	N	_	1 0	7 2	3	6		
Montana§		0	1	_	_	_	0	0	_	—	—	0	7		_		
Nevada [§] New Mexico [§]	N	0	1	N	N	N	0 0	0	N	N	_	1	6 4	1 2	5 4		
Utah	—	1	13	—	4	—	Ö	4	—	1	—	0	2	_	_		
Wyoming [§]		0	1		_		0	0	_	_	_	0	1				
Pacific Alaska	N	0 0	1 0	2 N	1 N	N	0 0	1 0	N	1 N	6	44 0	64 1	37	142		
California Hawaii	N	0 0	0 1	N 2	N 1	N	0	0	N	N 1	4	40 0	58 3	27 4	124 3		
Oregon§	N	0	0	N	N	N	Ō	0	N	N	2	0	3	2	2		
Washington	N	0	0	N	N	N	0	0	N	N	—	3	9	4	13		
American Samoa C.N.M.I.	N	0	0	N	N	N	0	0	N	N	_	0	0	_	_		
Guam	_	0	0	_	_	_	0	0	_	_		0	0	_	—		
Puerto Rico U.S. Virgin Islands	—	0 0	0 0	_	—		0 0	0	—	—	1	3 0	11 0	4	1		
0.3. Virgin Islanus	_	U	0	_		_	U	U			_	U	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. C.N.M.I: Commonwealth of Normern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Max * 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).

<u> </u>									We	st Nile vi	rus disease	et.					
		Varice	ella (chicke	enpox)			Ne	uroinvasi	ve		Nonneuroinvasive§						
		Prev	vious	• •			Prev	ious				Prev	vious				
	Current		veeks	Cum	Cum	Current	52 w		Cum	Cum	Current		eeks	Cum	Cum		
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008		
United States	251	505	1,001	787	1,367	—	1	76	_	_	_	1	73	_	1		
New England Connecticut	_	10 0	22 0	16	39	_	0	2 2	_	_	_	0	1	_	_		
Maine [¶]	_	0	0	_	_	_	0	0	_	_	_	0	Ó	_	_		
Massachusetts	_	0	1			_	0	0	_	_	_	0	0	_	_		
New Hampshire Rhode Island [¶]	_	5 0	13 0	11	21	_	0 0	0 1	_	_	_	0 0	0	_	_		
Vermont [¶]	_	4	17	5	18	_	0	0	_	_	_	0	0	_	_		
Mid. Atlantic	37	43	81	100	184	_	0	8	_	_	_	0	4	_	_		
New Jersey	N	0	0	N	N	—	0	1	_	_	_	0	1	_	_		
New York (Upstate) New York City	N N	0 0	0	N N	N N	_	0	5 2	_	_	_	0 0	2 2	_	_		
Pennsylvania	37	43	81	100	184	_	0	2	_	_	_	0	1	_	_		
E.N. Central	56	135	312	284	457	_	0	8	_	_	_	0	3	_	_		
Illinois	4	23	66	38	11	—	0	4	_	_	_	0	2	_	_		
Indiana Michigan		0 55	0 116	 75	226	_	0	1 4	_	_	_	0	1 2	—	—		
Michigan Ohio	38	46	106	164	220	_	0	3	_	_	_	0	1	_	_		
Wisconsin	3	4	50	7		_	Õ	2	_	_	_	Õ	1	_	_		
W.N. Central	37	21	71	68	70	_	0	6	_	_	_	0	21	_	—		
lowa	Ν	0	0	N	N	_	0	2	_	_	_	0	1	_	_		
Kansas Minnesota	_	6 0	40 0	_2	26	_	0 0	2 2	_	_	_	0 0	3 4	_	_		
Missouri	37	9	51	66	43	_	ő	3	_	_	_	Ő	1	_	_		
Nebraska [¶]	N	0	0	N	N	—	0	1	—	_	—	0	8	_	_		
North Dakota South Dakota	—	0 0	39	_	1	—	0	2	—	—	—	0 0	11 6	—	—		
South Dakota S. Atlantic		0 86	5 173	101	ا 244	_	0	5 3	_	_	_	0	6 3	_	_		
Delaware	47	1	5	101	244	_	0	0	_	_	_	0	1	_	_		
District of Columbia	_	0	3	_	4		0	0	_	—	_	0	0	_	_		
Florida	34	29	87	78	53	_	0	2	_	—	_	0	0	—	_		
Georgia Maryland¶	N N	0 0	0	N N	N N	_	0 0	1 2	_	_	_	0	1 2	_	_		
North Carolina	N	Õ	Õ	N	N	_	Õ	ō	_	_	_	Õ	ō	_	_		
South Carolina [®]	—	13	67	1	43	_	0	0	—	—	—	0	1	_	—		
Virginia [¶] West Virginia	13	20 11	81 33	22	72 72	_	0	0 1	_	_	_	0 0	1 0	_	_		
E.S. Central	4	17	101	16	52	_	0	7	_	_	_	0	8		1		
Alabama [¶]	4	17	101	16	52	_	ŏ	3	_	_	_	ŏ	3	_	_		
Kentucky	N	0	0	Ν	N	_	0	1	_	_	_	0	0	_	_		
Mississippi Tennessee [¶]	N	0 0	2 0	N	N	_	0	4 2	_	_	_	0 0	7 3	_	1		
W.S. Central	51	113	435	150	158	_	0	2 8	_	_	_	0	7	_	1		
Arkansas		9	435	- 150	19	_	Ő	1	_	_	_	Ő	1	_	_		
Louisiana		1	10	2	5	—	0	3	—	_	—	0	5	_	_		
Oklahoma Texas [¶]	N 51	0 107	0 422	N 148	N	_	0 0	1	_	_	_	0 0	1 4	_	_		
Mountain	16	39	422 90	42	134 154	_	0	6 12	_	_	_	0	4 22	_			
Arizona		0	90	42	154	_	0	10	_	_	_	0	8	_	_		
Colorado	16	14	44	16	68	—	0	4	—	_	—	0	10	_	_		
Idaho [¶]	N	0	0	N	N	—	0	1	—	—	—	0	6	—	—		
Montana ¹¹ Nevada ¹¹	N	5 0	27 0	21 N	24 N	_	0 0	0 2	_	_	_	0 0	2 3	_	_		
New Mexico [¶]	_	3	18	5	18	_	0	2	_	_	_	ŏ	1	_	_		
Utah	_	11	55	_	43	—	0	2	_	_	_	0	5	_	_		
Wyoming [¶]	_	0	4		1	_	0	0	_	_	_	0	2	_	_		
Pacific Alaska	3 3	2 1	8 6	10 9	9 2	_	0	38 0	_	_	_	0 0	23 0	_	_		
California	-	0	0	9	_	_	0	37	_	_	_	0	19	_	_		
Hawaii		1	5	1	7	_	0	0	_	_	_	0	0	_	—		
Oregon [¶]	N	0	0	N	N	_	0	2	_	_	_	0	4	_	_		
Washington American Samoa	N N	0 0	0	N N	N	_	0 0	1 0	_	_	_	0 0	1 0	_	_		
American Samoa C.N.M.I.	N			N	N	_			_	_	_			_	_		
Guam	_	1	17	_	4	_	0	0	_	_	_	0	0	_	_		
Puerto Rico	2	7	20	5	24	_	0	0	_	_	_	0	0	_	_		
U.S. Virgin Islands	_	0	0	—	—	_	0	0	—	_	—	0	0	_	—		

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

[§] Not 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.
[¶] Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,* week ending January 24. 2009 (3rd week)

		All cau	ises, by a	age (yea	rs)					All cau	ises, by a	age (yea	rs)		_
Reporting area	All Ages	>65	45–64	25–44	1-24	<1	P&I [†] Total	Reporting area	All Ages	<u>>65</u>	45–64	25–44	1-24	<1	- P&I [†] Total
	_								-						_
New England Boston, MA	481 147	355 98	89 28	25 15	7 3	5 3	40 12	S. Atlantic Atlanta, GA	1,238 59	804 22	304 14	68 5	30	32 18	72 3
Bridgeport, CT	32	26	4		1	1	3	Baltimore, MD	177	105	55	10	3	4	11
Cambridge, MA	14	13	1	_	_	_	2	Charlotte, NC	87	67	10	7	3	-	6
Fall River, MA	29	24	4	1	_	_	3	Jacksonville, FL	146	98	38	9	1	_	12
Hartford, CT	36	25	8	2	1	_	1	Miami, FL	75	52	12	7	4	_	2
Lowell, MA	20	13	6	_	1	_	3	Norfolk, VA	58	38	11	3	4	2	6
Lynn, MA	6	4	2	_	_	_	1	Richmond, VA	215	133	64	10	4	4	13
New Bedford, MA	24	16	7	1	_	_	2	Savannah, GA	64	46	14	2		2	4
New Haven, CT	U	Ŭ	Ŭ	Ŭ	U	U	Ū	St. Petersburg, FL	50	34	10	2	4	_	3
Providence, RI	50	41	9	_	_	_	_	Tampa, FL	218	155	51	7	4	1	11
Somerville, MA	5	5	_	_	_	_	_	Washington, D.C.	77	44	23	6	3	1	1
Springfield, MA	31	21	4	4	1	1	4	Wilmington, DE	12	10	2	_	_	_	_
Waterbury, CT	25	22	3	_	_	_	1	E.S. Central	962	619	237	64	20	21	76
Worcester, MA	62	47	13	2	_		8	Birmingham, AL	204	139	44	14	4	3	19
Mid. Atlantic	2,169	1,505	467	102	24	71	135	Chattanooga, TN	76	46	19	6	3	2	7
Albany, NY	55	32	16	3	1	3	5	Knoxville, TN	104	68	27	8	_	1	4
Allentown, PA	30	21	6	2	1	_	2	Lexington, KY	79	58	14	3	2	2	6
Buffalo, NY	91	70	12	5	1	3	10	Memphis, TN	203	132	57	8	3	3	18
Camden, NJ	23	14	5	3	1	—	_	Mobile, AL	112	66	27	8	5	5	7
Elizabeth, NJ	26	18	7	1	_	—	1	Montgomery, AL	33	22	7	3	1	—	5
Erie, PA	51	40	10	1	—	—	4	Nashville, TN	151	88	42	14	2	5	10
Jersey City, NJ	15	8	5	1	—	1	1	W.S. Central	1,277	849	288	80	32	28	56
New York City, NY	1,125	803	247	45	11	19	60	Austin, TX	96	63	20	5	3	5	6
Newark, NJ	51	29	13	5	3	1	2	Baton Rouge, LA	U	U	U	U	U	U	U
Paterson, NJ	15	8	6	1	—	_	4	Corpus Christi, TX	70	48	20	2	—	—	6
Philadelphia, PA	272	151	58	19	4	40	22	Dallas, TX	235	150	49	19	10	7	7
Pittsburgh, PA§	46	30	12	4	—	—	3	El Paso, TX	103	79	18	4	1	1	4
Reading, PA	35	28	5	1	—	1	1	Fort Worth, TX	—	—	—	—	—	—	—
Rochester, NY	154	118	27	5	1	3	17	Houston, TX	412	251	107	33	12	9	11
Schenectady, NY	24	20	3	1	_	_	—	Little Rock, AR	82	46	22	7	4	3	2
Scranton, PA	39	31	5	2	1	—	1	New Orleans, LA	U	U	U	U	U	U	U
Syracuse, NY	53	39	13	1	_	—	1	San Antonio, TX	U	U	U	U	U	U	U
Trenton, NJ	19	15	3	1	—	_		Shreveport, LA	89	64	20	4	_	1	8
Utica, NY	22	13	9		—	_	1	Tulsa, OK	190	148	32	6	2	2	12
Yonkers, NY	23	17	5	1				Mountain	911	609	208	62	20	12	68
E.N. Central	2,245	1,500	533	132	39	41	152	Albuquerque, NM	U	U	U	U	U	U	U
Akron, OH	64	39	18	4	1	2		Boise, ID	52	42	8	2	_		8
Canton, OH	43	34	9		_	_	4	Colorado Springs, CO	87	57	14	8	7	1	4
Chicago, IL	366	234	93	27	8	4	21	Denver, CO	88	52	26	7	1	2	8
Cincinnati, OH	80	51	19	5	_	5	10	Las Vegas, NV	217	148	53	12	1	3	25
Cleveland, OH	203	138	46	13	5	1	6	Ogden, UT	40	29	8	2	_	1	4
Columbus, OH	176	108	44	13	2	9	19	Phoenix, AZ	125	76	30	14	3	2	9
Dayton, OH	157	115	26	9	6	1	19	Pueblo, CO	34	23	9	1	1	_	1
Detroit, MI	177	80	69	18	5	5	6	Salt Lake City, UT	122	80	26	9	5	2	3
Evansville, IN	55	43	10	2	-	_	7	Tucson, AZ	146	102	34	7	2	1	6
Fort Wayne, IN	81	58	16	4	1	2	8	Pacific Darkelay CA	1,828	1,301	380	83	38	25	195
Gary, IN Grand Rapids, MI	20	8	7	1	3	1	1	Berkeley, CA	14	12	2	8	3	2	1 18
	57 246	43 176	13 55	6	3	1 6	2 17	Fresno, CA	151 34	104 27	34 6	8 1			6
Indianapolis, IN	240 71	53	18	0	3	0	3	Glendale, CA Honolulu, HI	96	27 66	27	1	1	1	8
Lansing, MI				15	-								1	1	
Milwaukee, WI Peoria. IL	119	80 39	23 12	15 3	1	1	7	Long Beach, CA	68	37	25	5	10	6	8 34
	56 70						5	Los Angeles, CA	245	165	46	15	13		
Rockford, IL		55	10	3	1	1	5	Pasadena, CA	22	19	2	10		1	1
South Bend, IN	41	26 83	7 27	4 3	2	2	2 3	Portland, OR	146	95	38	10	2	2	10
Toledo, OH Youngstown, OH	113 50	83 37	27	3	_	_	3 7	Sacramento, CA San Diego, CA	197 147	147 114	38 22	8 6	2 4	2	28 12
W.N. Central	50 658	417			10	21	7 59	San Diego, CA San Francisco, CA		83	22 24	6		3	12
Des Moines, IA	658 170	417	170 42	32 8	18 2	21 5	59 14	San Francisco, CA San Jose, CA	116 280	83 215	24 45	6 9	8	3	15 37
Des Moines, IA Duluth, MN	43	22	42 15	8	2	5 1	14	San Jose, CA Santa Cruz, CA	280 37	215	45 4	9 2	8	3	
				3	2	1		Santa Cruz, CA Seattle, WA				2	2	3	3
Kansas City, KS Kansas City, MO	8	3	2	I			1		107	73	26				6
	88	61	19	3	5	3	5	Spokane, WA	61 107	44	12	3	1	1	5
Lincoln, NE Minnoapolis MN	56	42	10		1	2	1	Tacoma, WA Total [¶]	107	70	29	6	228	1	3
Minneapolis, MN	45	23	16	4			6		11,769	7,959	2,676	648	228	256	853
Omaha, NE	111	66	30	6	6	3	17	1							
St. Louis, MO	49	33	9	3	_	4	3	1							
St. Paul, MN	58	32	21	4	_	1	5	1							
Wichita, KS	30	22	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.

⁶ 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.
 ¹ Total includes unknown ages.

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