

Chemical Suicides in Automobiles — Six States, 2006–2010

During a 3-month period in 2008 in Japan, 208 persons committed suicide by mixing household chemicals and, while in a confined space, breathing in the resultant poisonous gas (1). The large number of similar suicides is believed to have resulted from the posting of directions for generating poisonous gas on the Internet (1–3). In addition to claiming the suicide victim, lethal gas generated by intentionally mixing household chemicals can leak from confined spaces, triggering evacuations, and exposing bystanders and first responders to injury (2). Chemical suicides similar to those in Japan in 2008 have been reported increasingly in the United States, with the majority occurring inside automobiles (3). To characterize such incidents in the United States, the Agency for Toxic Substances and Disease Registry (ATSDR) analyzed reports of chemical suicides and attempted suicides that occurred in automobiles, using 2006–2009 data from states participating in the Hazardous Substances Emergency Events Surveillance (HSEES) system and 2010 data from states participating in the new National Toxic Substance Incidents Program (NTSIP). This report summarizes the results of that analysis, which found that, during 2006–2010, a total of 10 chemical suicide incidents were reported from six states, resulting in the deaths of nine suicide victims and injuries to four law enforcement officers. When responding to suspected chemical suicide incidents, emergency responders must take precautions to ensure both their safety and the safety of any bystanders in the immediate vicinity.

Fifteen states conducted surveillance for acute hazardous substance releases at some time during 2006–2010. An average of 13 of the states participated in HSEES* during 2006–2009, and nine states (two unfunded) participated in NTSIP† during 2010, the first year of the program. ATSDR uses these surveillance systems to track the public health consequences from acute hazardous materials (HazMat) releases. State health departments obtained data from multiple sources, including

state environmental agencies, police and fire departments, poison control centers, hospitals, local media, the U.S. Coast Guard's National Response Center, and the U.S. Department of Transportation's Hazardous Material Incident Reporting System. Both HSEES and NTSIP define a hazardous substance as one that might reasonably be expected to cause adverse health effects in humans. For this analysis, to find potential suicide incidents, open text fields were queried in the comments and synopsis sections of HSEES and NTSIP databases for the following terms: "kill," "die," "death," "intentional," "suicide," "car," "vehicle," "truck," and "auto." A case was defined as a suicide or attempted suicide using mixed chemicals in an automobile. Case reports were read to confirm that the suicide took place inside an automobile and chemicals were mixed.

Ten incidents of chemical suicide or attempted suicide in automobiles were reported: one in 2006, one in 2007, four in 2009, and four in 2010. The 10 incidents occurred in six states (Connecticut, Florida, New York, North Carolina, Utah, and Washington) and resulted in nine deaths of suicide victims (one person began a suicide attempt but aborted the effort)

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*Additional information available at <http://www.atsdr.cdc.gov/hs/hsees>.

†Additional information available at <http://www.atsdr.cdc.gov/ntsip>.



and injuries to four law enforcement officers who arrived on the scene. Two of the law enforcement officers experienced respiratory irritation; symptoms were not available for the other two. None of the four law enforcement officers wore personal protective equipment; however, two had received HazMat training.

Of the 10 incidents, nine occurred in residential areas and four resulted in evacuation orders affecting 85 persons. Thirty-two persons were decontaminated. In addition to household cleaners (not otherwise specified), the following chemicals were used in the 10 incidents: ammonium hydroxide, aluminum sulfide, calcium hypochlorite, calcium sulfide, germanium oxide, hydrochloric acid, potassium ferrocyanide, sodium hypochlorite, sulfur, sulfuric acid, and trichloroethylene.

Among the six victims for whom exact age was known, the median age was 31 years (range: 22–69 years); among the other four victims, two were aged <18 years, and two were aged ≥18 years. Seven of the 10 victims were male.

Illustrative Case Reports

North Carolina. In 2010, a “detergent suicide” victim was found deceased in a vehicle. A bucket inside the vehicle contained mixed chemicals that caused acute thiosulfate poisoning. Two law enforcement officers were exposed, one of whom was treated at the hospital. Local emergency responders evacuated the surrounding homes. The regional response team

removed and decontaminated the corpse of the suicide victim before transporting it to the medical examiner.

New York. In 2009, a hiker in a park found a car posted with signs warning of toxic gas and called 911. Inside the car, responders found a deceased person and two buckets of mixed chemicals. A HazMat team, sheriff’s deputies, and the medical examiner responded as well. The sheriff’s deputies evacuated hikers and residents within a half-mile of the scene. Some responders had consulted with a nearby county and used techniques learned during a similar HSEES incident that had occurred a few days earlier. Responders vented the car before decontaminating the body. The body was then double-bagged and, to protect the driver, transported by law enforcement officers in the open bed of a pickup truck. Ten HazMat team members and two nearby vehicles were decontaminated at the scene. A hazardous waste disposal service was contracted to remove the chemicals and decontamination fluids for disposal.

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What is already known on this topic?

Mixing household chemicals to create lethal levels of toxic gas in a confined space became a popular method of suicide in Japan, and similar suicides have been reported by the news media in the United States; however, little data have been collected systematically.

What is added by this report?

Surveillance data from 15 states during 2006–2010 identified 10 incidents of chemical suicides in automobiles, resulting in nine deaths to suicide victims and four injuries to law enforcement officers.

What are the implications for public health practice?

First responders, health-care providers, and others who might encounter chemical suicides or attempted suicides should be able to recognize them. Protective measures should be used in these situations to prevent injury or death among responders and bystanders.

Editorial Note

Suicide is the 11th leading cause of death in the United States and the third leading cause among persons aged 15–34 years, accounting for 9,418 deaths in this age group in 2007.[§] During National Suicide Prevention Week, September 4–10, CDC is encouraging health-care providers, public health practitioners, and others to learn more about strategies for preventing suicide[¶] and the availability of the 24-hour National Suicide Prevention Lifeline.^{**}

This analysis of chemical suicides in automobiles was limited to an average of 13 states that participated in HSEES and nine states (two unfunded) that participated in NTSIP during 2006–2010 and identified 10 cases during that 5-year period. The only other published report of chemical suicides in the United States reported 75 chemical suicides during 1999–2010. That report, which identified incidents by using the National Vital Statistics System, the National Association of Medical Examiners listserv, and Google searches, found that, of 30 incidents reported during 2008–2010, two occurred in 2008, 10 in 2009, and 18 in 2010. Of the 30 incidents, 24 (80%) occurred in cars (3).

In this report, two law enforcement officers were injured because they entered the suicide vehicles without adequate personal protective equipment or ventilation. Officers and other responders need to be informed about precautions they must take when responding to a potential chemical suicide. When initially arriving on the scene of a suspected chemical suicide, responders should assess the surroundings for

potential indicators (e.g., posted suicide or warning signs, open containers indicating the presence of household chemicals, and taped doors and windows) (4). Once a proper assessment of the scene has been made, responders should call for assistance from the local HazMat team or other responders who are trained to handle hazardous materials. In addition to assessing the surroundings, first responders can secure the area by ensuring nearby persons are safe and keeping ignition sources away (5,6). First responders always should protect themselves and follow appropriate HazMat guidelines (5,6) to address the situation.

The toxic gases most commonly formed by combining the chemicals in household cleaners are hydrogen sulfide and hydrogen cyanide (4). Hydrogen sulfide is a colorless, toxic gas. Its odor is often described as that of rotten eggs, but even a short exposure can cause olfactory fatigue (i.e., a temporary inability to smell the gas) (1,4). At low doses, exposure to hydrogen sulfide can cause eye and respiratory irritation, headache, dizziness, loss of appetite, and upset stomach (1,2,4). Brief exposures to high concentrations (>500 ppm) of hydrogen sulfide can cause loss of consciousness and death (7). Hydrogen cyanide is a bluish-white liquid or a colorless gas with a faint odor of bitter almonds and a bitter, burning taste (8,9). Hydrogen cyanide can cause changes in respiration depth, confusion, and asphyxia (4).

The findings in this report are subject to at least three limitations. First, because only a total of 15 states conducted surveillance at some time during 2006–2010 (in HSEES, NTSIP, or in both programs), the data might not be generalizable to the entire United States. Second, the number of chemical-assisted suicides described likely is an underestimate because some suicides might not have been reported or might have been missed by the query method of key word searches. Finally, the small number of incidents identified by ATSDR complicates evaluation of chemical suicide trends in the United States.

When handling chemically contaminated victims, safety precautions must be taken to prevent secondary contamination via transfer of hazardous materials (e.g., off-gassing) from victims to bystanders or emergency responders (10). Both victims and responders should be decontaminated at the scene to prevent further chemical-related injuries (4). Additionally, the transport vehicle needs to be well ventilated to protect from accumulation of poison off-gassing from the victim (6,7). Additional measures include warning hospital personnel of the potential for exposure and calling in the local HazMat team. Wearing the appropriate protective gear, the local HazMat team can assist with decontamination and preventing the chemical release from spreading (Box).

[§] Available at <http://www.cdc.gov/ncipc/wisqars/default.htm>.

[¶] Available at <http://www.cdc.gov/violenceprevention/suicide/index.html>.

^{**} Additional information available at <http://www.suicidepreventionlifeline.org/default.aspx>.

BOX. Precautions for emergency responders at the scene of suspected chemical suicide incidents**Survey surroundings of scene and vehicle**

- Search the area or the vehicle's exterior for posted or visible warning signs.
- Look for open containers or a mixing container.
- Look for attempts to seal the vehicle, such as taping of doors, windows, and air vents.
- Do **NOT** rely on the presence of a chemical or unusual odor as a warning signal.

Secure the area

- If gas is emitting from the vehicle, first responders should stay upwind.
- Keep bystanders away from the scene.
- Hazardous materials (HAZMAT) team or other responders trained to handle hazardous chemicals can help prevent the spreading of the gas while wearing appropriate protective gear.

Communication

- Call the local HAZMAT team or other responders trained to handle hazardous materials.
- Ensure dispatch information is shared among all responders to enhance safety.

Decontamination

- Decontaminate the victim at the scene.
- Decontaminate all responders and victims involved in the incident.
- Evaporated gas from the wet clothes of patients can cause secondary poisoning or contamination.
- Warn hospital personnel to take appropriate measures to avoid contamination of incoming patients.

Transportation and treatment of victim

- Because hydrogen sulfide and cyanide gases are in patient's exhalations, mouth-to-mouth resuscitation is unsafe.
- No antidote exists for hydrogen sulfide poisoning; treatment is supportive.
- Exposure to hydrogen cyanide requires supportive care and rapid administration of specific antidotes.
- Chemicals off-gassing from the victim might poison emergency medical services, morgue, or other response personnel; therefore, the transport vehicle should be well ventilated.

Sources: National Hazardous Materials Fusion Center. Chemical assisted suicide: responder information. Available at http://www.mass.gov/Eeops/docs/dfs/mfa/hazmat_training/chemical_assisted_suicide_responder_info.pdf.

US Department of Transportation. 2008 emergency response guidebook. Washington, DC: US Department of Transportation; 2008.

Agency for Toxic Substances and Disease Registry. Toxic substance portal: medical management guidelines for hydrogen sulfide. Atlanta, GA: Agency for Toxic Substances and Disease Registry; 2011. Available at <http://www.atsdr.cdc.gov/MMG/MMG.asp?id=385&tid=67>.

Agency for Toxic Substances and Disease Registry. Toxic substance portal: medical management guidelines for hydrogen cyanide. Atlanta, GA: Agency for Toxic Substances and Disease Registry; 2011. Available at <http://www.atsdr.cdc.gov/MMG/MMG.asp?id=1073&tid=19>.

References

1. Morii D, Miyagatani Y, Nakamae N, Murao M, Taniyama K. Japanese experience of hydrogen sulfide: the suicide craze in 2008. *J Occup Med Toxicol* 2010;5:28.
2. Truscott A. Suicide fad threatens neighbours, rescuers. *CMAJ* 2008;179:312–3.
3. Reedy SJ, Schwartz MD, Morgan BW. Suicide fads: frequency and characteristics of hydrogen sulfide suicides in the United States. *West J Emerg Med* 2011;12:300–4.
4. National Hazardous Materials Fusion Center. Chemical assisted suicide: responder information. Available at http://www.mass.gov/Eeops/docs/dfs/mfa/hazmat_training/chemical_assisted_suicide_responder_info.pdf. Accessed September 1, 2011.
5. US Fire Administration. Hazardous guidelines for first responders. Emmitsburg, MD: Federal Emergency Management Agency, US Fire Administration; 1998.
6. US Department of Transportation. 2008 emergency response guidebook. Washington, DC: US Department of Transportation; 2008.
7. Agency for Toxic Substances and Disease Registry. Toxic substance portal: medical management guidelines for hydrogen sulfide. Atlanta, GA: Agency for Toxic Substances and Disease Registry; 2011. Available at <http://www.atsdr.cdc.gov/mmg/mmg.asp?id=385&tid=67>. Accessed September 1, 2011.
8. National Institute for Occupational and Safety Health. NIOSH pocket guide to chemical hazards. Atlanta, GA: US Department of Health and Human Services, CDC, National Institute for Occupational and Safety Health; 2009. Available at <http://www.cdc.gov/niosh/npg/npgd0337.html>. Accessed September 2, 2011.
9. Agency for Toxic Substances and Disease Registry. Toxic substance portal: hydrogen cyanide. Atlanta, GA: Agency for Toxic Substances and Disease Registry; 2011. Available at <http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=249>. Accessed September 2, 2011.
10. Horton DK, Berkowitz Z, Kaye WE. Secondary contamination of ED personnel from hazardous materials events, 1995–2001. *Am J Emerg Med* 2003;21:199–204.

Maternal and Infant Outcomes Among Severely Ill Pregnant and Postpartum Women with 2009 Pandemic Influenza A (H1N1) — United States, April 2009–August 2010

Pregnant women with influenza are at increased risk for hospitalization and death (1,2). Since 2004, the Advisory Committee on Immunization Practices (ACIP) has recommended inactivated influenza vaccine for all women who are pregnant during influenza season, regardless of trimester (3). Nonetheless, after the 2004 recommendation, estimated annual influenza vaccination coverage among pregnant women was approximately 15%, before increasing to nearly 50% during the 2009 influenza A (H1N1) pandemic (4). Since April 2009, CDC has collaborated with state and local health departments to conduct enhanced surveillance for severe influenza among pregnant and postpartum women. To assess maternal and infant outcomes among severely ill pregnant and postpartum women with 2009 H1N1 during the 2009 H1N1 pandemic, CDC analyzed data for the period April 15, 2009 to August 10, 2010. This report summarizes the results of that analysis, which found that, among 347 severely ill pregnant women, 75 died from 2009 H1N1, and 272 were admitted to an intensive-care unit (ICU) and survived. Women who survived received antiviral treatment sooner after symptom onset than women who died. Pregnant women with severe influenza who delivered during their influenza hospitalization were more likely to deliver preterm and low birth weight infants than those in the general U.S. population; infants born after their mother's influenza hospitalization discharge were more likely to be small for gestational age. These data document the severe effects of 2009 H1N1 on pregnant women and their infants, emphasize the importance of vaccinating pregnant women against influenza (3,5), and demonstrate the value of prompt administration of antivirals to pregnant women with suspected or confirmed influenza (5,6).

CDC initially requested reporting of all pregnant women with influenza illness who had been reported to state/local health departments with illness onset from April 15, 2009, to August 21, 2009. In October 2009, CDC established the CDC Pregnancy Flu Line as a dedicated, ongoing mechanism for reporting severely ill pregnant and postpartum women with onset during August 21, 2009–August 10, 2010. Surveillance data with illness onset from April 15, 2009, to December 31, 2009, and reported to CDC by January 31, 2010, were reported previously (2). Health departments used existing public health surveillance infrastructure to identify women who were pregnant or postpartum (≤ 6 weeks) at illness onset, were admitted to an ICU or died, and had laboratory-confirmed

influenza as defined by a positive rapid influenza diagnostic test, real-time reverse transcriptase–polymerase chain reaction, or viral culture. Requested data included demographic and clinical information on infected pregnant women and, for the Flu Line, their newborns. The initial CDC data request elicited responses from 50 of the 53 state and local health departments contacted; the Flu Line received responses from 50 states, three localities, and one territory. Flu Line staff members followed up on incomplete case reports until final outcomes were obtained for mother and infant, when possible. Surveillance mechanisms among states varied. Women were assumed to be infected with 2009 H1N1 when influenza type was not available, based on U.S. virologic surveillance data that suggested nearly all influenza activity during this time was 2009 H1N1 (2,7).

Although the initial data request included pregnant women who were not severely ill with influenza, the Flu Line only included severely ill women, and this analysis of the entire pandemic period (April 15, 2009–August 10, 2010) includes only women with severe illness (i.e., death or ICU admission). Similarly, because data on postpartum women were not requested as part of the initial data request, totals are reported separately for pregnant and postpartum women, and differences in categorical variables for the entire period are presented for pregnant women only. Demographic and clinical factors were compared using Fisher's exact tests and corresponding *p* values. Small for gestational age was calculated by comparing the 2005 standard 10th percentiles for birth weight (8) to weight for gestational age at birth as reported in the Flu Line case report.

From April 15, 2009, to August 10, 2010, a total of 347 severely ill pregnant women, including 272 who were admitted to the ICU and survived and 75 pregnant women who died from 2009 H1N1, were reported to the surveillance systems. Fifteen severely ill postpartum women, including nine who died, also were reported.

Of the 307 pregnant women for whom information regarding the presence of underlying medical conditions was available, 153 (49.8%) had underlying conditions. Comparing pregnant women who died with those who were admitted to an ICU and survived, the women who died were significantly more likely to have underlying conditions (61.5%) than those who survived (46.7%) ($p=0.04$) (Table 1). The underlying conditions (generally indicated by checked boxes on the case

TABLE 1. Characteristics of pregnant women with 2009 pandemic influenza A (H1N1) severe illness (i.e., ICU admission or death) — United States, April 15, 2009–August 10, 2010

Characteristic	Died (n = 75)		Admitted to ICU and survived (n = 272)		p value
	No.	(%)	No.	(%)	
Maternal age (yrs)					
Mean age at illness onset (range)	26.9 (18–43)	—	25.9 (16–43)	—	0.17*
Unknown/Missing	1	—	13	—	
Race/Ethnicity					0.89 [†]
White, non-Hispanic	21	(35.6)	88	(36.8)	
Black, non-Hispanic	12	(20.3)	44	(18.4)	
Hispanic	20	(33.9)	88	(36.8)	
Other race	6	(10.2)	19	(8.0)	
Missing	16		33		
Trimester at symptom onset					0.23 [†]
First trimester (0–13 wks)	5	(6.9)	16	(6.5)	
Second trimester (14–28 wks)	22	(30.6)	103	(41.7)	
Third trimester (≥29 wks)	45	(62.5)	128	(51.8)	
Unknown/Missing	3		25		
Underlying illness/condition					0.04 [†]
None of the following underlying conditions	25	(38.5)	129	(53.3)	
Any of the following underlying conditions	40	(61.5)	113	(46.7)	
Asthma	22		55		
Obesity	19		39		
Diabetes (gestational or pregestational)	11		16		
Other medical conditions [§]	19		40		
Unknown/Missing	10		30		
Antiviral medication prescribed					0.02 [†]
No neuraminidase antiviral treatment	10	(13.9)	13	(5.2)	
Any neuraminidase antiviral treatment [¶]	62	(86.1)	238	(94.8)	
Unknown/Missing	3		21		
Total	75	100.0	272	100.0	
Days from symptom onset until treatment**					<0.01 [†]
≤2	4	(7.0)	76	(40.6)	
3–4	11	(19.3)	47	(25.1)	
>4	42	(73.7)	64	(34.2)	
Unknown/Missing	8		72		
Total	65	100.0	259	100.0	

Abbreviation: ICU = intensive-care unit.

* t-test used to assess difference in means between deaths versus ICU admissions.

[†] Fisher's exact test used to assess differences in proportions for deaths versus ICU admissions.

[§] Including immune suppression, cancer, pregestational/gestational hypertension, hemoglobinopathy, and chronic lung, autoimmune, neurologic, renal, thyroid, and cardiovascular diseases.

[¶] Includes only treatment with a neuraminidase inhibitor (oseltamivir or zanamivir).

** Excludes women who received no neuraminidase antiviral treatment.

report form) included asthma, pregestational/gestational diabetes, obesity, immune suppression, cancer, pregestational/gestational hypertension, hemoglobinopathy, and chronic lung, autoimmune, neurologic, renal, thyroid, and cardiovascular diseases. No statistically significant differences between the women who died and the ICU survivors were observed by age, race, or trimester of illness onset.

Among women who died, 86.1% received antiviral treatment with a neuraminidase inhibitor, compared with 94.8% of women who survived ($p=0.02$) (Table 1). Treatment timing was significantly different for women who died, compared with those who survived ($p<0.01$); only four (7.0%) of the pregnant women who died received treatment with a neuraminidase

inhibitor within 2 days of illness onset, compared with 76 (40.6%) of the women who survived. The Flu Line requested reports of any severe influenza illness with onset after August 21, 2009; however, the first shipments of 2009 H1N1 vaccine did not occur until approximately 2 months after this date, and only 105 (48%) of the 218 Flu Line reports included vaccination status. Of the 105, three women who were admitted to an ICU reported receiving the 2009 H1N1 vaccine at least 2 weeks before onset of illness; none of the women who died were reported to have received the 2009 H1N1 vaccine.

Data on pregnancy outcomes were requested for Flu Line reports only, and pregnancy outcome data were available for 168 (77%) of the 218 Flu Line reports. Of the 168

pregnancy outcomes, 148 (88%) were live births, 11 (7%) were spontaneous abortions, seven (4%) were fetal deaths, one was an ectopic pregnancy, and one was a 15-week elective abortion secondary to intrauterine growth restriction. Among 85 liveborn singleton infants born during their mothers' hospitalization for influenza, 63.6% were born preterm or very preterm (<37 weeks gestation), 4.1% were small for gestational age; 43.8% had low birth weight, 69.4% were admitted to the neonatal intensive care unit, and 29.2% had a low 5-minute Apgar score (defined as ≤ 6) (Table 2). Of 54 liveborn singleton infants born 5–187 days (median: 85 days) after their mother's discharge from influenza hospitalization, 20.8% were born preterm, 25.0% were small for gestational age, 19.2% had low birth weight, 22.0% were admitted to the neonatal intensive care unit, and 2.0% had a low 5-minute Apgar score (Table 2).

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Editorial Note

These data underscore the severe effects of influenza on pregnant women and their infants. Although previous reports have noted similar maternal findings, national influenza pandemic pregnancy data have heretofore not included infant outcomes. Among women who delivered while hospitalized for influenza, 63.6% delivered preterm or very preterm and 43.8% delivered low birth weight infants compared with U.S. averages of 12.3% for preterm birth and 8.2% for low birth weight (9). Similarly, 25.0% of infants born after their mothers'

TABLE 2. Outcomes for live births to pregnant women with 2009 pandemic influenza A (H1N1) severe illness (i.e., ICU admission or death) — United States, April 15, 2009–August 10, 2010

Outcome	Delivery during maternal hospitalization for 2009 H1N1 illness		Delivery after discharge from 2009 H1N1 illness hospitalization		Estimated % in U.S. population
	No.	(%)	No.	(%)	
Gestational age at delivery (wks)					
Very preterm (<32)	17	(22.1)	0	—	
Preterm (32–36)	32	(41.6)	10	(20.8)	
Very preterm and preterm (<37)	49	(63.6; CI = 51.8–74.3)	10	(20.8; CI = 10.5–35.0)	12.3*
Term (≥ 37)	28	(36.4)	38	(79.2)	
Unknown/Missing	8	—	6	—	
Small for gestational age					
≤ 10 th centile for gestational age [†]	3	(4.1; CI = 0.0–11.5)	13	(25.0; CI = 14.0–39.0)	10.0 [†]
>10th centile for gestational age	70	(95.9)	39	(75.0)	
Unknown/Missing	12	—	2	—	
Birthweight (g)					
Low (<2,500)	32	(43.8; CI = 32.2–56.0)	10	(19.2; CI = 9.6–32.5)	8.2*
Normal ($\geq 2,500$)	41	(56.2)	42	(80.8)	
Unknown/Missing	12	—	2	—	
Admission to neonatal ICU					
No admission	22	(30.6)	39	(78.0)	
Admission	50	(69.4; CI = 57.5–79.8)	11	(22.0; CI = 11.5–36.0)	6.1 [§]
Unknown/Missing	13	—	4	—	
5-minute Apgar scores					
Low (≤ 6)	21	(29.2; CI = 19.1–41.1)	1	(2.0; CI = 0.1–10.7)	1.6 [¶]
Normal (>6)	51	(70.8)	49	(98.0)	
Unknown/Missing	13	—	4	—	
Total	85**	100.0	54**	100.0	

Abbreviations: ICU = intensive-care unit; CI = 95% confidence interval.

* Information available at http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_03.pdf.

[†] As defined by the 2005 natality file. Available at <http://www.cdc.gov/nchs/births.htm>.

[§] Information available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_05.pdf.

[¶] Information available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_24.pdf.

** Total cases reported to the Flu Line (after August 21, 2009) where singleton live birth (multiples excluded) was known and outcome and delivery timing were known (four live births were missing delivery timing with regard to mother's influenza hospitalization); infant data were not requested for mothers with symptom onset on or before August 21, 2009.

What is already known on this topic?

Based on data from seasonal influenza and the 2009 H1N1 pandemic, pregnant women are more severely affected with influenza than the general population. During the 2009 H1N1 pandemic, early treatment of pregnant women with antiviral medications was associated with fewer admissions to an intensive-care unit (ICU) and fewer deaths.

What is added by this report?

For the period April 15, 2009–August 10, 2010, CDC received reports on 347 severely ill pregnant women with 2009 H1N1 influenza, including 272 who were admitted to an ICU and survived and 75 who died. Consistent with earlier reports, prompt treatment (i.e., <2 days after onset) with recommended antiviral medications was associated with fewer deaths. Infants born during maternal hospitalization for influenza illness were more likely to be preterm and of lower birth weight than the general population, and infants born after their mothers had been discharged were more likely to be small for gestational age and of lower birth weight.

What are the implications for public health practice?

These data emphasize the importance of influenza vaccination for pregnant women, regardless of pregnancy trimester, and of prompt, empiric treatment with appropriate antiviral medications for pregnant women with suspected or confirmed influenza.

influenza hospitalization discharge were small for gestational age, compared with 10.0% of the general population (8).

The findings in this report are subject to at least four limitations. First, reporting requirements and case identification are not standardized across states and localities. Second, since August 2009, CDC has only collected and this report is only presenting data on severely ill pregnant women, and this analysis is not representative of the burden of influenza illness among all pregnant women. Third, because many women do not know they are pregnant early in pregnancy, illness in the first trimester might be more likely to be underreported. Finally, 49.8% of the pregnant women had underlying medical conditions in addition to severe influenza; although the presence of an underlying medical condition is common among reproductive-aged women (e.g., 34% of reproductive aged women in the United States are obese) (10), the degree to which adverse infant outcomes can be attributed to 2009 H1N1 or to the underlying conditions is unknown.

These data reaffirm recommendations that pregnant and postpartum women receive prompt, empiric treatment with antiviral medications for suspected or confirmed influenza (5,6). In addition, the severe impact of 2009 H1N1 influenza among pregnant women and their infants emphasizes the importance of prevention in this group. The cornerstone of influenza prevention among pregnant women remains promotion of influenza vaccination; ACIP recommends vaccination for women regardless of trimester (3). Despite this recommendation and the recent increase in influenza vaccination among pregnant women, coverage remains lower than optimal and increasing vaccination coverage in this group continues to be a key public health priority (5).

Acknowledgments

State and local health department staff members who collected data for CDC on maternal and infant outcomes among severely ill pregnant and postpartum women. Listing available at <http://www.cdc.gov/ncbddd/birthdefects/acknowledgements.html>.

References

1. Rasmussen SA, Jamieson DJ, Bresee JS. Pandemic influenza and pregnant women. *Emerg Infect Dis* 2008;14:95–100.
2. Siston AM, Rasmussen SA, Honein MA, et al. Pandemic 2009 influenza A (H1N1) virus illness among pregnant women in the United States. *JAMA* 2010;303:1517–25.
3. CDC. Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. *MMWR* 2010;59(No. RR-8).
4. CDC. Influenza vaccination coverage among pregnant women—United States, 2010–11 influenza season. *MMWR* 2011;60:1078–82.
5. Rasmussen SA, Kissin DM, Yeung LF, et al. Preparing for influenza after 2009 H1N1: special considerations for pregnant women and newborns. *Am J Obstet Gynecol* 2011;204:S13–20.
6. CDC. Antiviral agents for the treatment and chemoprophylaxis of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2011;60(No. RR-1).
7. CDC. Seasonal influenza: FluView. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at <http://www.cdc.gov/flu/weekly>. Accessed September 6, 2011.
8. National Center for Health Statistics. User guide to the 2005 natality public use file. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2005.
9. Hamilton BE, Martin JA, Ventura, MA. Births: preliminary data for 2009. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2010. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_03.pdf. Accessed September 2, 2010.
10. Flegal KM, Carroll MD, Ogden CL, Curtin LR. Prevalence and trends in obesity among US adults, 1999–2008. *JAMA* 2010;303:235–41.

Surveillance for Foodborne Disease Outbreaks — United States, 2008

Foodborne agents cause an estimated 48 million illnesses annually in the United States, including 9.4 million illnesses from known pathogens (1,2). CDC collects data on foodborne disease outbreaks submitted from all states and territories through the Foodborne Disease Outbreak Surveillance System. During 2008, the most recent year for which data are finalized, 1,034 foodborne disease outbreaks were reported, which resulted in 23,152 cases of illness, 1,276 hospitalizations, and 22 deaths. Among the 479 outbreaks with a laboratory-confirmed single etiologic agent reported, norovirus was the most common, accounting for 49% of outbreaks and 46% of illnesses. *Salmonella* was the second most common, accounting for 23% of outbreaks and 31% of illnesses. Among the 218 outbreaks attributed to a food vehicle with ingredients from only one of 17 defined food commodities (3), the top commodities to which outbreaks were attributed were poultry (15%), beef (14%), and finfish (14%), whereas the top commodities to which outbreak-related illnesses were attributed were fruits and nuts (24%), vine-stalk vegetables (23%), and beef (13%). Outbreak surveillance provides insights into the agents that cause foodborne illness, types of implicated foods, and settings where transmission occurs. Public health, regulatory, and food industry professionals can use this information to target prevention efforts against pathogens and foods that cause the most foodborne disease outbreaks.

Since 1992, CDC has defined a foodborne disease outbreak as the occurrence of two or more similar illnesses resulting from ingestion of a common food. State, local, and territorial health department officials use a standard, Internet-based form to voluntarily submit reports of foodborne outbreaks to CDC. An online toolkit of clinical and laboratory information is available to support investigation and reporting of outbreaks.*

This report includes outbreaks in which the first illness occurred in 2008 and were reported to CDC by June 28, 2011. Data requested for each outbreak include the number of illnesses, hospitalizations, and deaths; the etiologic agent (confirmed or suspected†); the implicated food or foods; and the setting of food preparation and consumption. CDC classifies foods as one of 17 commodities if a single contaminated ingredient is identified or if all ingredients belong to that commodity (3). Outbreaks that could not be assigned to one of the 17 commodities, or for which the report

contained insufficient information for commodity assignment, were not attributed to any commodity. Population-based rates of reported outbreaks were calculated for each state, using U.S. Census estimates of the 2008 state populations.§

Public health officials from 47 states, the District of Columbia, and Puerto Rico reported 1,034 outbreaks; multistate outbreaks involving three additional states (Indiana, Mississippi, and Montana) were reported by CDC (Figure). The number (1,034) of outbreaks was 10% lower than the annual average reported (1,151) for 2003–2007, and the number of outbreak-related illnesses was 5% lower (23,152 versus 24,400) (Table 1). An average of 24 (range: 2–128) outbreaks were reported from each state or territory (Figure). The average rate was 0.53 (range: 0.06–2.20) outbreaks per 100,000 population.

Of the total number of outbreak-related foodborne illnesses, 1,276 (6%) resulted in hospitalization. *Salmonella* was the most common cause of outbreak-related hospitalizations, causing 62% of hospitalizations reported, followed by Shiga toxin-producing *Escherichia coli* (STEC) (17%) and norovirus (7%). Outbreaks caused by *Clostridium botulinum* resulted in the highest proportion of persons hospitalized (90%), followed by *Listeria* outbreaks (76%). Among the 22 deaths associated with foodborne disease outbreaks in 2008, 20 were attributed to bacterial etiologies (13 *Salmonella*, three *Listeria monocytogenes*, three STEC [two O157, one O111], one *Staphylococcus*), one to norovirus, and one to a mycotoxin.

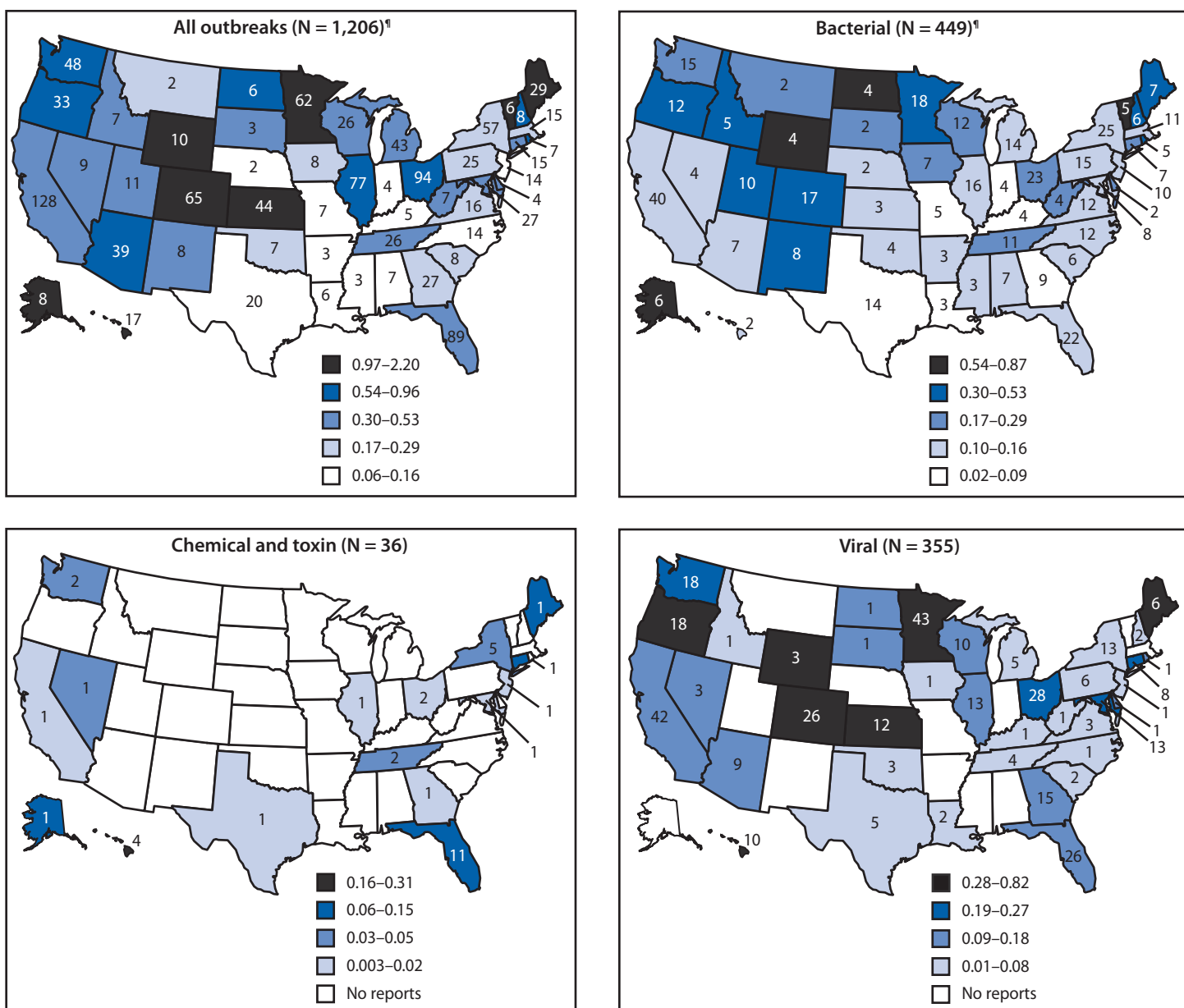
A single confirmed or suspected etiologic agent was identified in 666 (64%) outbreaks (479 confirmed, 187 suspected) (Table 1). Among the 479 outbreaks with a single confirmed etiologic agent, viruses caused 234 (49%) outbreaks, bacteria caused 212 (44%) outbreaks, chemicals and toxins caused 27 (6%) outbreaks, and parasites caused six (1%) outbreaks. Norovirus was the most common cause of outbreaks and illnesses, accounting for 233 (49%) of the confirmed, single-etiology outbreaks and 7,235 (46%) illnesses. *Salmonella* was the second most common etiologic agent, causing 110 (23%) confirmed, single-etiology outbreaks and 52% of those caused by bacteria. Among the 108 *Salmonella* outbreaks with a serotype reported, Enteritidis was the most common serotype, causing 29 (27%) confirmed, single-etiology outbreaks. STEC caused 36 (8%) confirmed, single-etiology outbreaks, of which 35 were caused by serogroup O157.

*The reporting form is available at <http://www.cdc.gov/outbreaknet/nors>; the toolkit is available at http://www.cdc.gov/outbreaknet/references_resources.

†Definitions are available at http://www.cdc.gov/outbreaknet/references_resources/guide_confirming_diagnosis.html.

§Available at <http://www.census.gov/popest/datasets.html>.

FIGURE. Rate of reported foodborne disease outbreaks per 100,000 population* and number of outbreaks,† by affected states and major etiology group[§] — Foodborne Disease Outbreak Surveillance System, United States, 2008



* Cutpoints for outbreak rate categories determined using Jenks Natural Breaks Optimization in ArcGIS. Legend differs for each etiology.

† Number of reported outbreaks in each state.

§ Analysis restricted to outbreaks caused by a single confirmed or suspected etiology.

¶ Includes 17 multistate outbreaks that are assigned as an outbreak to each state involved.

A food vehicle was reported for 481 (47%) outbreaks, among which the food vehicle could be assigned to one of the 17 commodities in 218 (45%) of the outbreaks (Table 2). The commodities most commonly implicated were poultry (32 outbreaks), beef (31), and finfish (30). The commodities associated with the most outbreak-related illnesses were fruits-nuts (1,755 illnesses), vine-stalk vegetables (1,622), and beef (952). The pathogen-commodity pairs responsible

for the most outbreaks were norovirus in leafy vegetables (18 outbreaks), ciguatoxin in finfish (14), STEC O157 in beef (12), and *Salmonella* in poultry (11). The pathogen-commodity pairs responsible for the most outbreak-related illnesses were *Salmonella* in vine-stalk vegetables (1,604 illnesses) and *Salmonella* in fruits-nuts (1,401).

Seventeen multistate outbreaks (i.e., outbreaks in which the exposure occurred in more than one state) were reported.

TABLE 1. Number and percentage of reported foodborne outbreaks and outbreak-associated illnesses, by etiology* — Foodborne Disease Outbreak Surveillance System, United States, 2008, and 2003–2007 mean annual totals

Etiology	Outbreaks						Illnesses						Hospitalizations					
	2008		2003–2007				2008		2003–2007				2008		2003–2007			
	CE	SE	Total		Mean annual total†		CE	SE	Total		Mean annual total†		CE	SE	Total		Mean annual total†	
		No.	(%)	No.	(%)			No.	(%)	No.	(%)			No.	(%)	No.	(%)	
Bacterial																		
<i>Salmonella</i> [§]	110	7	117	(18)	129	(17)	4,883	77	4,960	(27)	3,290	(17)	791	6	797	(66)	369	(49)
<i>Clostridium perfringens</i>	21	19	40	(6)	44	(6)	965	444	1,409	(8)	1,815	(9)	3	1	4	(<1)	12	(2)
<i>Escherichia coli</i> , Shiga toxin-producing (STEC) [¶]	36	—	36	(5)	27	(4)	920	—	920	(5)	402	(2)	214	—	214	(18)	115	(15)
<i>Campylobacter</i> **	21	4	25	(4)	22	(3)	604	11	615	(3)	623	(3)	20	5	25	(2)	13	(2)
<i>Bacillus cereus</i>	3	12	15	(2)	18	(2)	73	49	122	(1)	138	(1)	—	1	1	(<1)	—	(0)
<i>Staphylococcus enterotoxin</i> ^{††}	6	8	14	(2)	35	(5)	257	54	311	(2)	472	(2)	12	—	12	(1)	20	(3)
<i>Shigella</i> ^{§§}	6	—	6	(1)	11	(1)	170	—	170	(1)	500	(3)	4	—	4	(<1)	12	(2)
<i>Clostridium botulinum</i>	4	—	4	(1)	3	(<1)	10	—	10	(<1)	10	(<1)	9	—	9	(1)	8	(1)
Other bacterial	1	2	3	(<1)	15	(2)	64	24	88	(<1)	117	(1)	—	—	—	(0)	1	(<1)
<i>Listeria</i> ^{¶¶}	3	—	3	(<1)	2	(<1)	33	—	33	(<1)	13	(<1)	25	—	25	(2)	11	(1)
<i>Vibrio parahaemolyticus</i>	1	—	1	(<1)	5	(1)	2	—	2	(<1)	109	(1)	—	—	—	(0)	1	(<1)
<i>Vibrio</i> other	—	1	1	(<1)	1	(<1)	—	3	3	(<1)	2	(<1)	—	—	—	(0)	—	(0)
<i>Escherichia coli</i> , enterotoxigenic	—	—	—	(0)	2	(<1)	—	—	—	(0)	125	(1)	—	—	—	(0)	1	(<1)
<i>Brucella</i> sp.	—	—	—	(0)	1	(<1)	—	—	—	(0)	2	(<1)	—	—	—	(0)	1	(<1)
<i>Yersinia enterocolitica</i>	—	—	—	(0)	1	(<1)	—	—	—	(0)	3	(<1)	—	—	—	(0)	1	(<1)
Total	212	53	265	(40)	316	(41)	7,981	662	8,643	(47)	7,623	(40)	1,078	13	1,091	(91)	566	(75)
Chemical and toxin																		
Scombroid toxin/histamine	10	2	12	(2)	31	(4)	51	4	55	(<1)	125	(1)	1	—	1	(<1)	4	(1)
Ciguatoxin	11	3	14	(2)	12	(2)	60	21	81	(<1)	51	(<1)	—	—	—	(0)	8	(1)
Cleaning agents	—	3	3	(<1)	—	(0)	—	14	14	(<1)	1	(<1)	—	—	—	(0)	—	(0)
Heavy metals	2	—	2	(<1)	1	(<1)	54	—	54	(<1)	4	(<1)	—	—	—	(0)	—	(0)
Other chemical	1	1	2	(<1)	12	(2)	39	3	42	(<1)	147	(1)	—	2	2	(<1)	7	(1)
Mycotoxins	1	—	1	(<1)	2	(<1)	3	—	3	(<1)	18	(<1)	3	—	3	(<1)	8	(1)
Paralytic shellfish poison	1	—	1	(<1)	1	(<1)	3	—	3	(<1)	2	(<1)	3	—	3	(<1)	2	(<1)
Plant/herbal toxins	1	—	1	(<1)	—	(0)	6	—	6	(<1)	3	(<1)	6	—	6	(<1)	—	(0)
Neurotoxic shellfish poison	—	—	—	(0)	1	(<1)	—	—	—	(0)	4	(<1)	—	—	—	(0)	2	(<1)
Puffer fish tetrodotoxin	—	—	—	(0)	—	(0)	—	—	—	(0)	1	(<1)	—	—	—	(0)	1	(<1)
Other natural toxins	—	—	—	(0)	1	(<1)	—	—	—	(0)	4	(<1)	—	—	—	(0)	1	(<1)
Total	27	9	36	(5)	63	(8)	216	42	258	(1)	361	(2)	13	2	15	(1)	33	(4)
Parasitic																		
<i>Cyclospora</i>	3	—	3	(<1)	2	(<1)	66	—	66	(<1)	185	(1)	2	—	2	(<1)	—	(0)
<i>Cryptosporidium</i>	2	—	2	(<1)	2	(<1)	32	—	32	(<1)	39	(<1)	—	—	—	(0)	1	(<1)
<i>Giardia</i>	1	—	1	(<1)	2	(<1)	8	—	8	(<1)	44	(<1)	—	—	—	(0)	—	(0)
<i>Trichinella</i>	—	—	—	(0)	1	(<1)	—	—	—	(0)	1	(<1)	—	—	—	(0)	—	(0)
Other parasitic	—	—	—	(0)	—	(0)	—	—	—	(0)	4	(<1)	—	—	—	(0)	—	(0)
Total	6	—	6	(1)	7	(1)	106	—	106	(1)	273	(1)	2	—	2	(<1)	3	(<1)
Viral																		
Norovirus	233	123	356	(54)	376	(49)	7,235	1,940	9,175	(50)	10,534	(55)	70	20	90	(7)	117	(15)
Hepatitis A	1	—	1	(<1)	5	(1)	22	—	22	(<1)	234	(1)	4	—	4	(<1)	37	(5)
Rotavirus	—	1	1	(<1)	1	(<1)	—	27	27	(<1)	17	(<1)	—	—	—	(0)	—	(0)
Other viral	—	1	1	(<1)	3	(<1)	—	9	9	(<1)	126	(1)	—	—	—	(0)	3	(<1)
Total	234	125	359	(54)	385	(50)	7,257	1,976	9,233	(51)	10,911	(57)	74	20	94	(8)	158	(21)
Known etiology***	479	187	666	(64)	771	(67)	15,560	2,680	18,240	(79)	19,167	(79)	1,167	35	1,202	(94)	759	(88)
Unknown etiology†††	—	—	350	(34)	344	(30)	—	—	4,262	(18)	4,379	(18)	—	—	40	(3)	50	(6)
Multiple etiologies	11	7	18	(2)	36	(3)	540	110	650	(3)	854	(3)	33	1	34	(3)	52	(6)
Total	490	194	1,034	(100)	1,151	(100)	16,100	2,790	23,152	(100)	24,400	(100)	1,200	36	1,276	(100)	861	(100)

Abbreviations: CE = confirmed etiology, SE = suspected etiology.

* If at least one etiology was laboratory-confirmed, the outbreak was considered to have a confirmed etiology. If no etiology was laboratory-confirmed, but an etiology was reported based on clinical or epidemiologic features, the outbreak was considered to have a suspected etiology.

† Because of rounding, numbers might not add up to the etiology category total or the known etiology total.

‡ *Salmonella* serotypes accounting for more than five reported outbreaks include: Enteritidis (30 outbreaks), Typhimurium (18), Heidelberg (eight), and Braenderup (six).

¶ STEC O111 (one confirmed outbreak), STEC O157:H7 (32 confirmed outbreaks), and STEC O157:NM(H-) (three confirmed outbreaks).

** *Campylobacter coli* (one confirmed outbreak, no suspected outbreaks), *Campylobacter jejuni* (15 confirmed outbreaks, four suspected outbreaks).†† *Staphylococcus aureus* (six confirmed outbreaks, five suspected outbreaks) and *Staphylococcus* unknown (three suspected outbreaks).§§ *Shigella sonnei* (six confirmed outbreaks, no suspected outbreaks).¶¶ *Listeria monocytogenes* (three confirmed outbreaks, no suspected outbreaks).

*** The denominator for the etiology percentages is the known etiology total. The denominator for the known etiology, unknown etiology, and multiple etiologies percentages is the total.

††† An etiologic agent was not confirmed or suspected based on clinical, laboratory, or epidemiologic information.

TABLE 2. Number of reported foodborne disease outbreaks and outbreak-associated illnesses, by etiology* and food commodity — Foodborne Disease Outbreak Surveillance System, United States, 2008

Etiology	Outbreaks (illnesses)							Total
	Attributed to a single commodity		Attributed to food vehicle containing >1 commodity		Attributed to unknown commodity			
Bacterial								
<i>Salmonella</i> [†]	40	(3,690)	24	(734)	53	(536)	117	(4,960)
<i>Clostridium perfringens</i>	20	(897)	12	(226)	8	(286)	40	(1,409)
<i>Escherichia coli</i> , Shiga toxin–producing (STEC) [§]	21	(427)	5	(98)	10	(395)	36	(920)
<i>Campylobacter</i> [¶]	17	(538)	2	(6)	6	(71)	25	(615)
<i>Bacillus cereus</i>	7	(70)	7	(50)	1	(2)	15	(122)
<i>Staphylococcus enterotoxin</i> **	3	(27)	8	(124)	3	(160)	14	(311)
<i>Shigella</i> ^{††}	0	(0)	0	(0)	6	(170)	6	(170)
<i>Clostridium botulinum</i>	1	(2)	2	(6)	1	(2)	4	(10)
Other bacterial	1	(64)	2	(24)	0	(0)	3	(88)
<i>Listeria</i> ^{§§}	2	(28)	1	(5)	0	(0)	3	(33)
<i>Vibrio parahaemolyticus</i>	1	(2)	0	(0)	0	(0)	1	(2)
<i>Vibrio</i> other	0	(0)	0	(0)	1	(3)	1	(3)
Total	113	(5,745)	63	(1,273)	89	(1,625)	265	(8,643)
Chemical and toxin								
Scombroid toxin/histamine	11	(53)	1	(2)	0	(0)	12	(55)
Ciguatoxin	14	(81)	0	(0)	0	(0)	14	(81)
Cleaning agents	0	(0)	1	(3)	2	(11)	3	(14)
Heavy metals	0	(0)	1	(2)	1	(52)	2	(54)
Other chemical	0	(0)	0	(0)	2	(42)	2	(42)
Mycotoxins	1	(3)	0	(0)	0	(0)	1	(3)
Paralytic shellfish poison	1	(3)	0	(0)	0	(0)	1	(3)
Plant/herbal toxins	1	(6)	0	(0)	0	(0)	1	(6)
Total	28	(146)	3	(7)	5	(105)	36	(258)
Parasitic								
<i>Cyclospora</i>	3	(66)	0	(0)	0	(0)	3	(66)
<i>Cryptosporidium</i>	0	(0)	0	(0)	2	(32)	2	(32)
<i>Giardia</i>	0	(0)	0	(0)	1	(8)	1	(8)
Total	3	(66)	0	(0)	3	(40)	6	(106)
Viral								
Norovirus	35	(618)	94	(2,484)	227	(6,073)	356	(9,175)
Hepatitis A	1	(22)	0	(0)	0	(0)	1	(22)
Rotavirus	0	(0)	1	(27)	0	(0)	1	(27)
Other viral	0	(0)	0	(0)	1	(9)	1	(9)
Total	36	(640)	95	(2,511)	228	(6,082)	359	(9,233)
Known etiology^{¶¶}	180	(6,575)	161	(3,791)	325	(7,852)	666	(18,240)
Unknown etiology^{***}	33	(409)	67	(577)	250	(3,276)	350	(4,262)
Multiple etiologies	5	(193)	9	(202)	4	(255)	18	(650)
Total	218	(7,177)	237	(4,570)	579	(11,383)	1,034	(23,152)

* If at least one etiology was laboratory-confirmed, the outbreak was considered to have a confirmed etiology. If no etiology was laboratory-confirmed, but an etiology was reported based on clinical or epidemiologic features, the outbreak was considered to have a suspected etiology.

† *Salmonella* serotypes accounting for more than five reported outbreaks included: Enteritidis (30 outbreaks), Typhimurium (18), Heidelberg (eight), and Braenderup (six).

§ STEC O111 (one confirmed outbreak), STEC O157:H7 (32 confirmed outbreaks), and STEC O157:NM(H-) (three confirmed outbreaks).

¶ *Campylobacter coli* (one confirmed outbreak, no suspected outbreaks), *Campylobacter jejuni* (15 confirmed outbreaks, four suspected outbreaks).

** *Staphylococcus aureus* (six confirmed outbreaks, five suspected outbreaks) and *Staphylococcus* unknown (three suspected outbreaks).

†† *Shigella sonnei* (six confirmed outbreaks, no suspected outbreaks).

§§ *Listeria monocytogenes* (three confirmed outbreaks, no suspected outbreaks).

¶¶ The denominator for the etiology percentages is the known etiology total. The denominator for the known etiology, unknown etiology, and multiple etiologies percentages is the total.

*** An etiologic agent was not confirmed or suspected based on clinical, laboratory or epidemiologic information.

Multistate outbreaks involved a median of seven (range: 2–46) states. Nine were caused by *Salmonella*. The etiologic agent was isolated from an implicated food in six of these outbreaks. The foods in these six outbreaks were cantaloupe, cereal, ground turkey, ground white pepper, jalapeño and serrano peppers (4), and peanut butter and peanut paste (5). Six multistate

outbreaks were caused by STEC O157; STEC was isolated from ground beef in two outbreaks. Two multistate outbreaks were caused by *Listeria*. One outbreak was caused by *Listeria* in Mexican-style cheese made from pasteurized milk, the other by *Listeria* in sprouts.

Among the 868 outbreaks with a known single setting where food was consumed, 52% resulted from food consumed in a restaurant or deli, 15% in a private home, and the remainder in other locations.[¶] Among the 481 outbreaks for which a food vehicle was identified, 19 (4%) resulted in product recalls.** The recalled foods were beef (five outbreaks), dietary supplements (two), cantaloupe (two), alfalfa sprouts (two), and cereal, cheese, fish, jalapeño and serrano peppers, melon, pancakes, spices, and peanut butter and peanut paste (one each). One beef establishment had two product recalls (6).

Reported by

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Editorial Note

As for the previous 10 years, beef, poultry, and finfish were the commodities associated with the largest number of foodborne outbreaks. As a result of several large multistate outbreaks, vine-stalk vegetables, fruits-nuts, and beef were the commodities with the most outbreak-associated illnesses. The number of STEC O157 and *Salmonella* Enteritidis outbreaks in 2008 continued to exceed the *Healthy People 2010* food safety objective to reduce outbreaks of infections caused by key foodborne bacteria (objective 10-2) (7). The 35 outbreaks caused by STEC O157 was more than triple the *Healthy People 2010* target of 11, and the 29 outbreaks attributed to *Salmonella* serotype Enteritidis exceeded the target of 22 by nearly a third.

Salmonella was the leading cause of hospitalizations and deaths and the cause of more than half of the multistate outbreaks. Two of the most common foods implicated in outbreaks of *Salmonella* infections have been poultry and eggs or egg products; consequently, several U.S. food safety initiatives have been implemented since the 1960s to limit contamination of these commodities. Recent Food and Drug Administration safety initiatives include additional regulations to improve the safety of shell eggs that went into effect in 2010. In addition, new U.S. Department of Agriculture Food Safety

What is already known about this topic?

Surveillance for foodborne disease outbreaks can identify opportunities to prevent and control foodborne diseases, which cause millions of illnesses in the United States each year.

What is added by this report?

Among the 1,034 foodborne disease outbreaks reported in 2008, most of the single, laboratory-confirmed agents of outbreak-associated illnesses were norovirus and *Salmonella*. The largest numbers of foodborne disease outbreaks were associated with beef, poultry, and fish, and the largest numbers of outbreak-associated illnesses were associated with vine-stalk vegetables, fruits-nuts, and beef.

What are the implications for public health practice?

Public health, regulatory, and food industry professionals can use surveillance data to target prevention efforts against pathogens and foods that cause the most foodborne disease outbreaks.

and Inspection Service performance standards lowered the allowable limit for *Salmonella* contamination of young chicken and turkey carcasses at processing plants, effective July 2011.^{††}

Norovirus remained the leading cause of outbreaks and illnesses in 2008. Most norovirus outbreaks with an implicated food vehicle were attributed to foods containing more than one commodity; a specific food vehicle was reported in a lower proportion of norovirus outbreaks than in outbreaks attributed to other causes. In norovirus outbreaks caused by a single food commodity, produce commodities that typically are not cooked, (i.e., leafy vegetables), continued to be the leading commodities implicated. Many outbreaks result from contamination of food during preparation and service via unwashed or improperly washed hands of food workers who are shedding norovirus in their stools. This often results in contamination of more than one food item. Contaminated environmental surfaces and infected consumers also lead to transmission of norovirus in food service settings. Additionally, norovirus contamination can occur during food production and processing, resulting in widespread exposure.

The findings in this report are subject to at least four limitations. First, only a small proportion of foodborne illnesses reported each year are identified as associated with outbreaks. The extent to which the distributions of food vehicles and preparation and consumption settings implicated in foodborne disease outbreaks reflect the same sources of infection and settings of sporadic illnesses is difficult to determine (8).

[¶] Additional data on foodborne disease outbreaks and illnesses for the 17 commodity categories and by settings where food was consumed is available at http://www.cdc.gov/outbreaknet/surveillance_data.html.

** Additional information on product recalls is available at <http://www.fda.gov/safety/recalls/default.htm> and http://www.fsis.usda.gov/fsis_recalls/index.asp.

^{††} Egg safety final rule, available at <http://www.fda.gov/food/foodsafety/product-specificinformation/eggsafety/eggsafetyactionplan/ucm170615.htm>; and Food Safety and Inspection Service new performance standards for *Salmonella* and *Campylobacter* in young chicken and turkey slaughter establishments; new compliance guides, available at <http://www.fsis.usda.gov/oppde/rdad/frpubs/2010-0029.pdf>.

Second, CDC's outbreak surveillance database is dynamic; agencies can submit new reports and can change or delete previous reports as new information becomes available. Therefore, the results of this analysis might differ from those published earlier or subsequently. Third, many reported outbreaks had an unknown etiology, an unknown food vehicle, or both, and conclusions drawn from outbreaks with a confirmed or suspected etiology or food vehicle might not apply to outbreaks of unknown etiology or food source. Finally, because of variations in outbreak detection, investigation, and reporting, comparisons with previous years should be made with caution.

Ensuring adequate epidemiologic and regulatory investigative capacity at the state and federal levels is essential to identify outbreak sources and implement timely control measures (9). Public health, regulatory, and food industry professionals use foodborne outbreak surveillance data to target prevention efforts against pathogens and foods that cause the most foodborne disease outbreaks. Additional information on outbreaks, including the Foodborne Outbreak Online Database (FOOD), is available at <http://www.cdc.gov/foodborneoutbreaks>.

References

1. Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States—major pathogens. *Emerg Infect Dis* 2011;17:1–15.
2. Scallan E, Griffin PM, Angulo FJ, Tauxe RV, Hoekstra RM. Foodborne illness acquired in the United States—unspecified agents. *Emerg Infect Dis* 2011;17:16–22.
3. Painter JA, Ayers T, Woodruff R, et al. Recipes for foodborne outbreaks: a scheme for categorizing and grouping implicated foods. *Foodborne Pathog Dis* 2009;6:1259–64.
4. Barton Behravesh C, Mody RK, Jungk J, et al. 2008 outbreak of *Salmonella* Saintpaul infections associated with raw produce. *N Engl J Med* 2011;364:918–27.
5. Cavallaro E, Date K, Medus C, et al. *Salmonella* Typhimurium infections associated with peanut products. *N Engl J Med* 2011;365:601–10.
6. CDC. Two multistate outbreaks of Shiga toxin–producing *Escherichia coli* infections linked to beef from a single slaughter facility—United States, 2008. *MMWR* 2010;59:557–60.
7. US Department of Health and Human Services. Food safety. Healthy people 2010 (midcourse review). Washington, DC: US Department of Health and Human Services; 2000. Available at <http://www.healthypeople.gov/2010/data/midcourse/html/focusareas/fa10toc.htm>. Accessed September 1, 2011.
8. CDC. Surveillance for foodborne disease outbreaks—United States, 2007. *MMWR* 2010;59:973–9.
9. CDC. Assessment of epidemiology capacity in state health departments—United States, 2009. *MMWR* 2009;58:1373–7.

Respiratory Syncytial Virus — United States, July 2007–June 2011

Each year in the United States, an estimated 75,000–125,000 hospitalizations related to respiratory syncytial virus (RSV) occur among children aged <1 year, and RSV infection results in approximately 1.5 million outpatient visits among children aged <5 years (1,2). In the United States, RSV season begins in the fall, peaks in winter, and ends in the late winter and early spring (3). However, the exact timing and duration vary from year to year and by geographic region (4). To describe trends in RSV seasonality, data from the National Respiratory and Enteric Virus Surveillance System (NREVSS) were used to determine the onset, offset, and peak of the July 2010–June 2011 RSV season, and for an aggregate analysis of the four most recent RSV seasons (July 2007–June 2011). During 2010–11, excluding Florida, season onset occurred from mid-November to early January, and offset occurred from mid-March to late April across all 10 U.S. Department of Health and Human Services (HHS) regions. Florida is reported separately because it has an earlier onset and longer duration than the rest of the country (4). During the four seasons from 2007 through 2011, onset among the HHS regions excluding Florida ranged from mid-October to early January, and offset ranged from early February to early May. Information on national and regional patterns can be used by clinicians and public health officials to guide diagnostic testing during respiratory disease outbreaks and determine when to provide RSV immunoprophylaxis for children at high risk for serious complications (5).

NREVSS is a passive, laboratory-based surveillance system that monitors the circulation of RSV and other respiratory and enteric viruses. Participating laboratories report weekly to CDC the number of RSV tests and the proportion that are positive.* For consistency, analysis was restricted to results of antigen detection methods, which were used by 98% of participating laboratories during 2007–2011. Only laboratories that reported for ≥30 weeks during a season, with an average of ≥10 tests per week were included in these analyses. Onset, offset, and duration were calculated based on the percentage of positive RSV tests.† The onset, offset, and peak were calculated at the national level with and without Florida, and for Florida and each of the 10 HHS regions§ individually. Data from Florida,

part of HHS Region 4, were analyzed separately because the season can begin up to 3 months earlier in Florida than in the rest of the country (4).

During July 2010–June 2011, a total of 509 laboratories reported at least 1 week of RSV testing to NREVSS. Of these 509 laboratories, 179 (35.2%) from 42 states met inclusion criteria and reported a total of 320,751 tests, of which 50,860 (15.9%) were positive. National RSV onset occurred the week ending November 20, 2010, and lasted 21 weeks until the week ending April 9, 2011 (Table). The peak week occurred the week ending February 5, 2011. With data from Florida excluded from the analysis, the national RSV season onset occurred 1 week later (week ending November 27, 2010). Onset for the 10 HHS regions ranged from mid-November to early January, and season offset ranged from mid-March to late April. Median RSV season duration was 19 weeks (range: 13–22 weeks) (Table). Region 1 (Boston) had the shortest season, and Region 4 (Atlanta) had the longest season.

During the four reporting seasons from July 2007 to June 2011, the average number of laboratories that met inclusion criteria was 208 (range: 179–240). National RSV onset occurred from mid-October to mid-November, with the onset of each individual season within 3 weeks of the 4-season median (Figure). Offset occurred from mid-March to early April, with each season offset within 2 weeks of the median. National median season duration was 21 weeks (range: 19–22 weeks), and the median peak RSV week occurred in mid-January.

During the 4-season period, among the 10 HHS Regions excluding Florida, RSV season onset began as early as mid-October and lasted as late as early May. Each region had individual season onset and offset dates within 5 weeks on either side of the median onset and offset. The median seasonal durations ranged from 13 to 23 weeks, and median peak RSV activity occurred from mid-December to early February (Figure). In all regions, the most current RSV season (2010–11)

* Surveillance Data, Inc. (SDI), a private company that conducts RSV surveillance with support from MedImmune, Inc. (Gaithersburg, Maryland), also contributes laboratory data to NREVSS.

† As defined by NREVSS, RSV national and regional season onset is the first of 2 consecutive weeks during which the mean percentage of specimens testing positive for RSV antigen is ≥10%. RSV season offset is the last of 2 consecutive weeks during which the mean percentage of positive specimens is ≥10%. Season duration is the number of weeks between season onset and offset, and the peak is the week with the highest proportion of positive RSV tests.

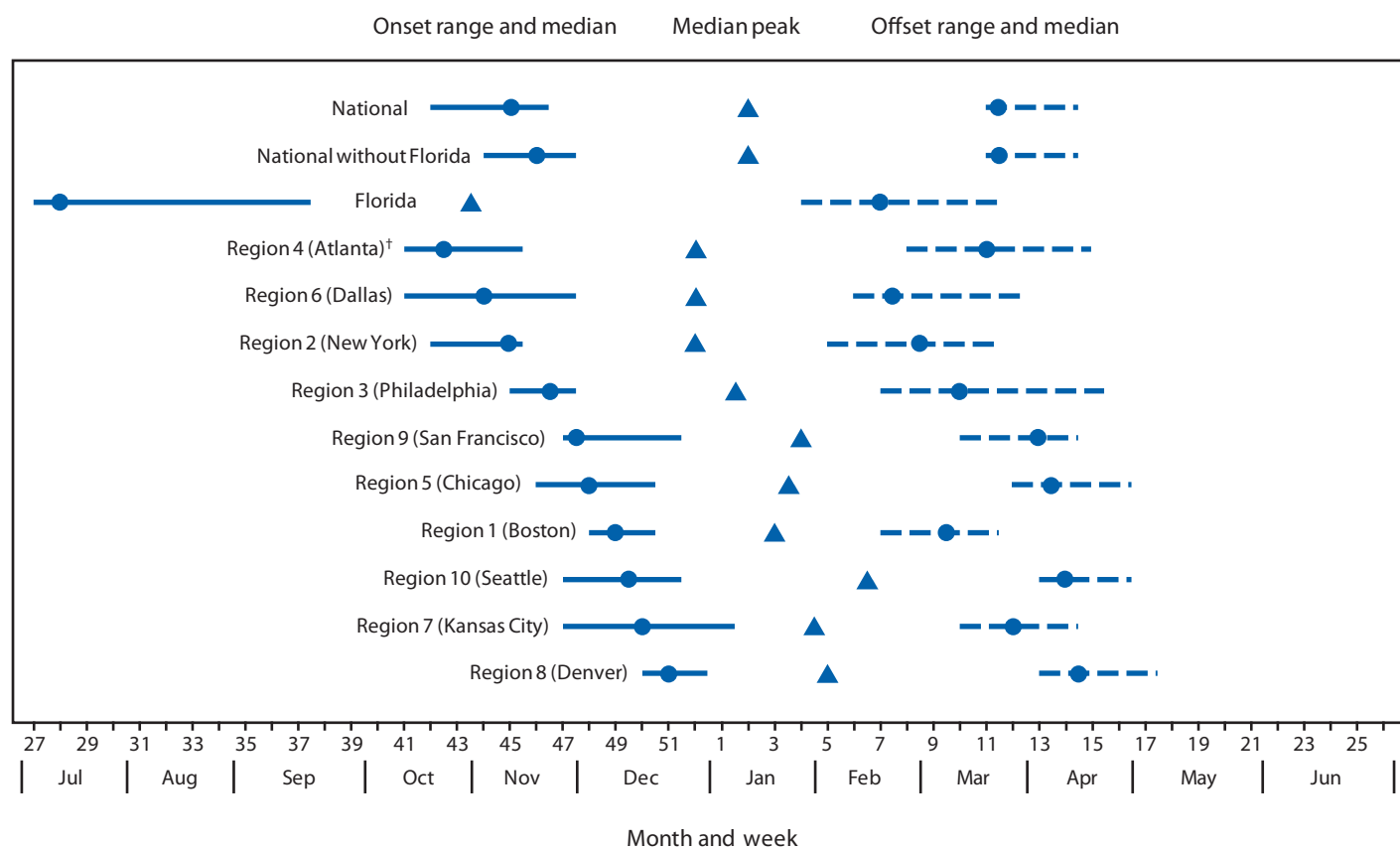
§ The 10 HHS regions (listed by region number and location of the regional headquarters) are Region 1 (Boston): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Region 2 (New York): New Jersey and New York; Region 3 (Philadelphia): Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia; Region 4 (Atlanta): Alabama, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region 5 (Chicago): Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Region 6 (Dallas): Arkansas, Louisiana, New Mexico, Oklahoma, and Texas; Region 7 (Kansas City): Iowa, Kansas, Missouri, and Nebraska; Region 8 (Denver): Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region 9 (San Francisco): Arizona, California, Hawaii, and Nevada; and Region 10 (Seattle): Alaska, Idaho, Oregon, and Washington.

TABLE. Summary of 2010–11 respiratory syncytial virus season, by U.S. Department of Health and Human Services Region and in Florida — National Respiratory and Enteric Virus Surveillance System, July 2010–June 2011

HHS Region or state	States	2010–11 season			
		No. of laboratories reporting	Onset week ending	Offset week ending	Season duration (wks)
National	All contributing states and DC	179	11/20	4/9	21
National without FL	All contributing states and DC without FL	157	11/27	4/9	20
Florida	FL	22	9/18	3/19	27
Region 2 (New York)	NJ, NY	16	11/13	3/19	19
Region 4 (Atlanta)*	AL, GA, KY, MS, NC, SC, TN	22	11/13	4/9	22
Region 6 (Dallas)	AR, LA, NM, OK, TX	26	11/27	3/26	18
Region 9 (San Francisco)	AZ, CA, HI, NV	25	11/27	4/2	19
Region 3 (Philadelphia)	DE, DC, MD, PA, VA, WV	17	11/27	4/16	21
Region 1 (Boston)	CT, ME, MA, NH, RI, VT	6	12/18	3/12	13
Region 10 (Seattle)	AK, ID, OR, WA	7	12/18	4/2	16
Region 5 (Chicago)	IL, IN, MI, MN, OH, WI	22	12/18	4/23	19
Region 7 (Kansas City)	IA, KS, MO, NE	8	1/1	4/9	15
Region 8 (Denver)	CO, MT, ND, SD, UT, WY	8	1/1	4/30	18

* Excludes data from Florida.

FIGURE. Respiratory syncytial virus (RSV) season onset and offset range and median, by U.S. Department of Health and Human Services Region* and in Florida — National Respiratory and Enteric Virus Surveillance System, July 2007–June 2011



* Listed by region number and headquarters city. Region 1 (Boston): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. Region 2 (New York): New Jersey and New York. Region 3 (Philadelphia): Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia. Region 4 (Atlanta): Alabama, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. Region 5 (Chicago): Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Region 6 (Dallas): Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. Region 7 (Kansas City): Iowa, Kansas, Missouri, and Nebraska. Region 8 (Denver): Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming. Region 9 (San Francisco): Arizona, California, Hawaii, and Nevada. Region 10 (Seattle): Alaska, Idaho, Oregon, and Washington. Idaho, Maine, New Mexico, and the District of Columbia did not have any participating laboratories in the four-season (2007–2011) analysis.
 † Excludes data from Florida.

onset and offset began during the same week or later than the onset during the first year of analysis (2007–08).

Weekly updates showing RSV national, regional, and state trends are available from the NREVSS website at <http://www.cdc.gov/surveillance/nrevss>. Additional information about Florida RSV trends is available from the Florida Department of Health website at http://www.doh.stat.fl.us/disease_ctrl/epi/rsv/rsv.htm.

Reported by

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Editorial Note

NREVSS data in this analysis were consistent with previously reported geographic differences in RSV seasonality (3,7); however, a narrow range of onset and offset dates was documented for most regions. Several factors might contribute to regional differences, including type of community (urban versus rural), population density, and weather patterns (6). Furthermore, although differences exist across regions within a given year, studies have shown variations in RSV activity reported by laboratories in the same region, even within short distances of one another (3,7,8). Comparisons between first and last years of analysis show a possible trend in later seasonal onset and offset dates. However, a progressively later onset and offset through the 4-season period was not consistent in all regions. Whether an actual change is occurring is unclear, and continued monitoring of RSV detections is necessary. Timely data are posted on the NREVSS website to alert health professionals and public health officials about the timing of the season.

NREVSS detections have been shown to correlate with RSV hospitalizations (9) and are a reliable measure for identifying RSV activity. Thus, surveillance data have been used to guide timing of RSV immunoprophylaxis with palivizumab. Palivizumab is a monoclonal anti-RSV antibody recommended to be administered as monthly injections during RSV season to children at high risk for severe RSV disease (i.e., select infants with congenital heart disease, chronic lung disease, or compromised immune systems, and those born prematurely) (10). The American Academy of Pediatrics provides guidelines for identifying infants and children likely to benefit from immunoprophylaxis and for timing of RSV immunoprophylaxis by region (10).

What is already known on this topic?

Respiratory syncytial virus (RSV) is the leading cause of pneumonia and bronchiolitis among infants. In the United States, the season generally begins during the fall and continues through the winter and spring months; however, the exact timing of RSV circulation can vary by location and year. The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a network of laboratories that track RSV trends by calculating the percentage of RSV antigen tests performed each week that are positive.

What is added by this report?

The most recent RSV season began in November 2010 and ended in April 2011; in several regions, the onset and offset was slightly later during the 2010–11 season compared with the first season of analysis (2007–08).

What are the implications for public health practice?

Understanding long-term seasonal trends in RSV activity is helpful for guiding diagnostic testing during respiratory disease outbreaks and timing the use of RSV immunoprophylaxis for reducing RSV-related hospitalizations of children at high risk for serious disease.

Because local activity does not always correspond to national patterns (3,7), NREVSS data can be used to guide the timing of RSV immunoprophylaxis at the local level. In a study using NREVSS data, 5-year median onset and offset dates were calculated for individual laboratories and showed that RSV transmission trends can be local and do not necessarily reflect regional trends (8).

The findings in this report are subject to at least four limitations. First, NREVSS data depend on voluntary reporting, a potential source of bias. Second, the number of participating laboratories that met inclusion criteria for analyses differed each season, which might explain some of the variation. Third, although NREVSS data provide good approximation of regional RSV seasonal characteristics, they might not always reflect RSV activity at the state or county level. Finally, percentage of positive detections reflects test ordering practices and might not directly reflect disease burden (e.g., number of cases or severity of the seasonal outbreak). Despite these limitations, NREVSS continues to play a crucial role in providing epidemiologic data on RSV circulation, guiding diagnostic testing, and helping plan prevention measures. Laboratories wishing to participate in NREVSS should contact CDC at e-mail nrevss@cdc.gov.

References

1. Shay DK, Holman RC, Newman RD, et al. Bronchiolitis-associated hospitalizations among U.S. children, 1980–1996. *JAMA* 1999; 282:1440–6.

2. Hall CB, Weinberg GA, Iwane MK, et al. The burden of respiratory syncytial virus infection in young children. *N Engl J Med* 2009; 360:588–98.
3. Mullins JA, LaMonte AC, Bresee JS, et al. Substantial variability in community RSV season timing. *Pediatr Infect Dis J* 2003;22:857–62.
4. CDC. Respiratory syncytial virus activity—United States, July 2008–December 2009. *MMWR* 2010;59:230–3.
5. American Academy of Pediatrics. Respiratory syncytial virus. In: Pickering LK, Baker CJ, Kimberlin DW, Long SS, eds. *Red book: 2009 report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2009:560–9.
6. Zachariah P, Shah S, Gao D, Simoes EA. Predictors of the duration of the respiratory syncytial virus season. *Pediatr Infect Dis J* 2009; 28:772–6.
7. Panozzo CA, Fowlkes AL, Anderson LJ. Variation in timing of respiratory syncytial virus outbreaks: lessons from national surveillance. *Pediatr Infect Dis J* 2007;26(11 Suppl):S41–5.
8. Panozzo CA, Stockman LJ, Curns AT, Anderson LJ. Use of respiratory syncytial virus surveillance data to optimize the timing of immunoprophylaxis. *Pediatrics* 2010;126:e116–23.
9. Light M, Bauman J, Mavunda K, et al. Correlation between respiratory syncytial virus (RSV) test data and hospitalization of children for lower respiratory tract illness in Florida. *Pediatr Infect Dis J* 2008; 27:512–8.
10. American Academy of Pediatrics Committee on Infectious Diseases. Modified recommendations for use of palivizumab for prevention of respiratory syncytial virus infections. *Pediatrics* 2009;124:1694–701.

Vital Signs: Current Cigarette Smoking Among Adults Aged ≥ 18 Years — United States, 2005–2010

On September 6, 2011, this report was posted as an MMWR Early Release on the MMWR website (<http://www.cdc.gov/mmwr>).

Abstract

Background: Tobacco use remains the leading cause of preventable morbidity and mortality in the United States.

Methods: The 2005–2010 National Health Interview Surveys and the 2010 Behavioral Risk Factor Surveillance System survey were used to estimate national and state adult smoking prevalence, respectively. Current cigarette smokers were defined as adults aged ≥ 18 years who reported having smoked ≥ 100 cigarettes during their lifetime and who now smoke every day or some days.

Results: In 2010, 19.3% of U.S. adults were current cigarette smokers. Higher smoking prevalence was observed in the Midwest (21.8%) and South (21.0%). From 2005 to 2010, the proportion of smokers declined from 20.9% to 19.3% ($p < 0.05$ for trend), representing approximately 3 million fewer smokers in 2010 than would have existed had prevalence not declined since 2005. The proportion of daily smokers who smoked one to nine cigarettes per day (CPD) increased from 16.4% to 21.8% during 2005–2010 ($p < 0.05$ for trend), whereas the proportion who smoked ≥ 30 CPD decreased from 12.7% to 8.3% ($p < 0.05$ for trend).

Conclusions: During 2005–2010, an overall decrease was observed in the prevalence of cigarette smoking among adults; however, the amount and direction of change has not been consistent year-to-year.

Implications for Public Health Practice: Enhanced efforts are needed to accelerate the decline in cigarette smoking among adults. Population-based prevention strategies, such as tobacco taxes, media campaigns, and smoke-free policies, in concert with clinical cessation interventions, can help decrease cigarette smoking and reduce the health burden and economic impact of tobacco-related diseases in the United States.

Introduction

Tobacco use remains the single largest preventable cause of death and disease in the United States. The health consequences of tobacco use include heart disease, multiple types of cancer, pulmonary disease, adverse reproductive effects, and the exacerbation of chronic health conditions (1). Each year, approximately 443,000 persons in the United States die from smoking-related illnesses. In addition, smoking has been estimated to cost the United States \$96 billion in direct medical expenses and \$97 billion in lost productivity each year (2).

Monitoring tobacco use provides important information about the extent of tobacco use and helps to guide decisions about tobacco control strategies for the overall population and its subgroups.* To assess recent progress toward achieving the *Healthy People 2020* objective to reduce the national prevalence of current cigarette smoking to $\leq 12.0\%$ (objective TU-1),[†]

this report provides national and state-level estimates from the 2005–2010 National Health Interview Surveys (NHIS) and 2010 Behavioral Risk Factor Surveillance System (BRFSS) survey, respectively.

Methods

The NHIS is administered to a nationally representative random probability sample of noninstitutionalized, civilian U.S. adults aged ≥ 18 years. The 2010 NHIS included 27,157 respondents, of whom a total of 190 were excluded because of unknown smoking status. In 2010, the overall response rate was 60.8%; response rates for prior NHIS survey years have been reported previously.[§] BRFSS is a state-based, random-digit-dialed telephone survey of noninstitutionalized, civilian U.S. adults aged ≥ 18 years; in 2010, the Council of American Survey and Research Organizations (CASRO) median response rate was 54.6% (ranging from 39.1% in Oregon to 68.8% in Nebraska), and the median cooperation

*Additional information available at: http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf.

[†]Additional information available at <http://healthypeople.gov/2020/topicsobjectives2020>.

[§]Additional information available at http://www.cdc.gov/nchs/nhis/quest_data_related_1997_forward.htm.

rate was 76.9% (ranging from 56.8% in California to 86.1% in Minnesota).[¶]

For both surveys, current cigarette smokers were defined as respondents who had smoked ≥ 100 cigarettes during their lifetime and responded “every day” or “some days” to the question, “Do you now smoke cigarettes every day, some days, or not at all?” Overall and sex-specific estimates of current smoking and number of cigarettes smoked per day (CPD) were determined by age, race/ethnicity, education, poverty status, and U.S. census region. Poverty status was defined using 2009 poverty thresholds published by the U.S. Census Bureau.

NHIS data were adjusted for nonresponse and weighted to provide national smoking prevalence estimates; 95% confidence intervals that account for the survey’s multistage probability sample design were calculated. NHIS results with relative standard error of $\geq 30\%$ are not reported. Statistical significance of observed differences was assessed using 95% confidence intervals. Data from BRFSS were weighted to adjust for the differential probability of both selection and response.

Using NHIS data, logistic regression was used to analyze temporal changes in national smoking prevalence and CPD (among daily smokers) during 2005–2010, overall and by age, race/ethnicity, education, poverty status, and U.S. census region. These 6-year linear trend analyses were constructed using 2005 as the baseline to enable comparability with previous national trend estimates (3); results were adjusted for sex, age, and race/ethnicity, and the Wald test was used to determine statistical significance (defined as $p < 0.05$).

Direct standardization was used to determine the population impact of the decline in smoking prevalence during 2005–2010. After adjustment for population changes in sex, age, and race/ethnicity, the difference in smoking prevalence from 2005 to 2010 was applied to 2010 U.S. census data to determine the number of additional smokers that would have existed in 2010 had prevalence not declined since 2005.

Results

In 2010, an estimated 19.3% (45.3 million) of U.S. adults were current cigarette smokers; of these, 78.2% (35.4 million) smoked every day, and 21.8% (9.9 million) smoked some days. Prevalence was higher among men (21.5%) than women (17.3%) (Table). Adults aged 25–44 years (22.0%) and 45–64 years (21.1%) had the highest prevalences among age groups. Among racial/ethnic populations, non-Hispanic American Indians/Alaska Natives had the highest prevalence (31.4%), followed by non-Hispanic whites (21.0%) and non-Hispanic blacks (20.6%). Smoking prevalence

generally decreased with increasing education and was higher among adults living below the poverty level (28.9%) than among those at or above the poverty level (18.3%). By region, prevalence was highest in the Midwest (21.8%) and South (21.0%) and lowest in the West (15.9%).** By state, smoking prevalence was lowest in Utah (9.1%) and California (12.1%) and highest in West Virginia (26.8%) and Kentucky (24.8%) (Figure 1).

During 2005–2010, the overall proportion of U.S. adults who were current smokers declined from 20.9% to 19.3% ($p < 0.05$ for trend) (Table), representing approximately 3 million fewer smokers in 2010 than would have existed had prevalence not declined since 2005. However, this decline in prevalence was not uniform across the population; statistically significant reductions were observed only among persons aged 18–24 years or 25–44 years, Hispanics and non-Hispanic Asians, those living at or above the poverty level, and those living in the Northeast or Midwest ($p < 0.05$ for trend). No population group experienced a significant increase in smoking prevalence during 2005–2010.

The mean number of CPD among daily smokers was 16.7 in 2005 and 15.1 in 2010. During 2005–2010, the proportion of daily smokers who smoked one to nine CPD increased from 16.4% to 21.8% ($p < 0.05$ for trend), whereas the proportion who smoked ≥ 30 CPD declined from 12.7% to 8.3% ($p < 0.05$ for trend) (Figure 2).

Conclusions and Comment

The prevalence of current cigarette smoking among U.S. adults aged ≥ 18 years declined slightly during 2005–2010, representing approximately 3 million fewer smokers than would have existed had the prevalence continued at the 2005 level. During the same period, an increase was observed in the proportion of daily smokers who smoked one to nine CPD, whereas a corresponding decrease was observed in the proportion who smoked ≥ 30 CPD. However, cigarette smoking remains widespread; in 2010, approximately one in five U.S. adults (19.3%) were current smokers. Moreover, year-to-year decreases in smoking prevalence have been observed only sporadically in recent years; for example, a slight decrease occurred from 2006 to 2007 but not from 2007 to 2008 (4). If current patterns continue, smoking prevalence is projected to fall to approximately 17% in 2020 (5), and the national *Healthy People* objective to reduce smoking prevalence to $\leq 12\%$ will not be met.

** *Northeast*: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. *Midwest*: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. *South*: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. *West*: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

[¶] Based on CASRO definitions. The response rate is the percentage of persons who completed interviews among all eligible persons, including those who were not successfully contacted. The cooperation rate is the percentage of persons who completed interviews among all eligible persons who were contacted.

TABLE. Percentage of persons aged ≥18 years who were current cigarette smokers,* by selected characteristics — National Health Interview Survey, United States, 2005 and 2010

Characteristic	2005			2010								
	Males		Females		Total		Males		Females		Total	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Age group (yrs)												
18–24	28.0	(25.0–31.0)	20.7	(18.3–23.1)	24.4	(22.4–26.4)	22.8	(19.9–25.7)	17.4	(15.0–19.8)	20.1	(18.2–22.0) [†]
25–44	26.8	(25.4–28.2)	21.4	(20.2–22.6)	24.1	(23.1–25.1)	24.3	(22.8–25.8)	19.8	(18.4–21.2)	22.0	(21.0–23.0) [†]
45–64	25.2	(23.7–26.7)	18.8	(17.7–19.9)	21.9	(21.0–22.8)	23.2	(21.6–24.8)	19.1	(17.9–20.3)	21.1	(20.1–22.1)
≥65	8.9	(7.6–10.2)	8.3	(7.3–9.3)	8.6	(7.8–9.4)	9.7	(8.3–11.1)	9.3	(8.1–10.5)	9.5	(8.6–10.4)
Race/Ethnicity[§]												
White, non-Hispanic	24.0	(22.8–25.2)	20.0	(19.1–20.9)	21.9	(21.1–22.7)	22.6	(21.5–23.7)	19.6	(18.6–20.6)	21.0	(20.2–21.8)
Black, non-Hispanic	26.7	(23.9–29.5)	17.3	(15.6–19.0)	21.5	(19.9–23.1)	24.8	(22.3–27.3)	17.1	(15.1–19.1)	20.6	(19.1–22.1)
Hispanic	21.1	(19.2–23.0)	11.1	(9.8–12.4)	16.2	(15.0–17.4)	15.8	(14.0–17.6)	9.0	(7.8–10.2)	12.5	(11.4–13.6) [†]
AI/AN, non-Hispanic	37.5	(20.7–54.3)	26.8	(15.5–38.1)	32.0	(22.3–41.7)	— [¶]	—	36.0	(24.1–47.9)	31.4	(22.3–40.5)
Asian, non-Hispanic**	20.6	(15.7–25.5)	6.1	(3.7–8.5)	13.3	(10.4–16.2)	14.7	(11.7–17.7)	4.3	(3.0–5.6)	9.2	(7.6–10.8) [†]
Multiple race, non-Hispanic	26.1	(16.3–35.9)	23.5	(14.8–32.2)	24.8	(17.7–31.9)	28.4	(19.0–37.8)	23.8	(17.1–30.5)	25.9	(20.2–31.6)
Education^{††}												
0–12 yrs (no diploma)	29.5	(27.2–31.8)	21.9	(20.1–23.7)	25.5	(24.0–27.0)	28.5	(26.1–30.9)	21.8	(19.6–24.0)	25.1	(23.5–26.7)
≤8 yrs	21.0	(17.7–24.3)	13.4	(11.1–15.7)	17.1	(15.1–19.1)	20.3	(17.4–23.2)	11.2	(8.5–13.9)	16.2	(14.2–18.2)
9–11 yrs	36.8	(33.3–40.3)	29.0	(26.1–31.9)	32.6	(30.3–34.9)	38.3	(34.0–42.6)	29.8	(26.3–33.3)	33.8	(31.3–36.3)
12 yrs (no diploma)	30.2	(23.5–36.9)	22.2	(16.9–27.5)	26.0	(21.8–30.2)	22.4	(15.4–29.4)	21.2	(15.7–26.7)	21.7	(17.1–26.3)
GED	47.5	(41.4–53.6)	38.8	(33.6–44.0)	43.2	(39.0–47.4)	46.4	(40.1–52.7)	44.1	(37.6–50.6)	45.2	(40.9–49.5)
High school graduate	28.8	(27.0–30.6)	20.7	(19.3–22.1)	24.6	(23.5–25.7)	27.4	(25.2–29.6)	20.6	(18.9–22.3)	23.8	(22.4–25.2)
Some college (no degree)	26.2	(24.4–28.0)	19.5	(18.0–21.0)	22.5	(21.4–23.6)	25.1	(22.7–27.5)	21.6	(19.6–23.6)	23.2	(21.6–24.8)
Associate degree	26.1	(23.3–28.9)	17.1	(15.0–19.2)	20.9	(19.2–22.6)	21.8	(18.7–24.9)	16.4	(14.1–18.7)	18.8	(17.0–20.6)
Undergraduate degree	11.9	(10.5–13.3)	9.6	(8.3–10.9)	10.7	(9.8–11.6)	10.2	(8.8–11.6)	9.5	(8.1–10.9)	9.9	(8.9–10.9)
Graduate degree	6.9	(5.3–8.5)	7.4	(6.0–8.8)	7.1	(6.0–8.2)	7.1	(5.3–8.9)	5.4	(4.0–6.8)	6.3	(5.1–7.5)
Poverty status^{§§}												
At or above poverty level	23.7	(22.6–24.8)	17.6	(16.7–18.5)	20.6	(19.9–21.3)	20.2	(19.2–21.2)	16.4	(15.6–17.2)	18.3	(17.6–19.0) [†]
Below poverty level	34.3	(31.1–37.5)	26.9	(24.5–29.3)	29.9	(27.9–31.9)	33.2	(30.3–36.1)	25.7	(23.6–27.8)	28.9	(27.1–30.7)
Unspecified	21.2	(19.2–23.2)	16.1	(14.8–17.4)	18.4	(17.2–19.6)	18.8	(15.9–21.7)	13.7	(11.7–15.7)	16.0	(14.3–17.7)
U.S. census region^{¶¶}												
Northeast	20.7	(18.6–22.8)	17.9	(16.3–19.5)	19.2	(17.8–20.6)	18.5	(16.5–20.5)	16.3	(14.8–17.8)	17.4	(16.2–18.6) [†]
Midwest	27.3	(25.3–29.3)	21.3	(19.8–22.8)	24.2	(23.0–25.4)	22.9	(21.2–24.6)	20.8	(18.8–22.8)	21.8	(20.4–23.2) [†]
South	25.3	(23.6–27.0)	18.5	(17.3–19.7)	21.8	(20.6–23.0)	23.9	(22.3–25.5)	18.3	(17.1–19.5)	21.0	(20.0–22.0)
West	20.1	(18.3–21.9)	13.9	(12.6–15.2)	17.0	(16.0–18.0)	18.8	(17.0–20.6)	13.0	(11.8–14.2)	15.9	(14.7–17.1)
Total	23.9	(22.9–24.9)	18.1	(17.4–18.8)	20.9	(20.3–21.5)	21.5	(20.7–22.3)	17.3	(16.5–18.1)	19.3	(18.7–19.9)[†]

Abbreviations: CI = confidence interval; AI/AN = American Indian/Alaska Native; GED = General Education Development certificate.

* Persons who reported smoking at least 100 cigarettes during their lifetime and who, at the time of interview, reported smoking every day or some days. Excludes 296 (2005) and 190 (2010) respondents whose smoking status was unknown.

[†] Linear trend $p < 0.05$ (2005 through 2010).

[§] Excludes 45 (2005) and 36 (2010) respondents of unknown race.

[¶] Data not reported because relative standard error $\geq 30\%$.

** Does not include Native Hawaiians or Other Pacific Islanders.

^{††} Among persons aged ≥ 25 years. Excludes 339 (2005) and 119 (2010) persons whose educational level was unknown.

^{§§} Based on reported family income and poverty thresholds published by the U.S. Census Bureau. Family income is reported by the family respondent who might or might not be the same as the sample adult respondent from whom smoking information is collected.

^{¶¶} *Northeast*: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. *Midwest*: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. *South*: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. *West*: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

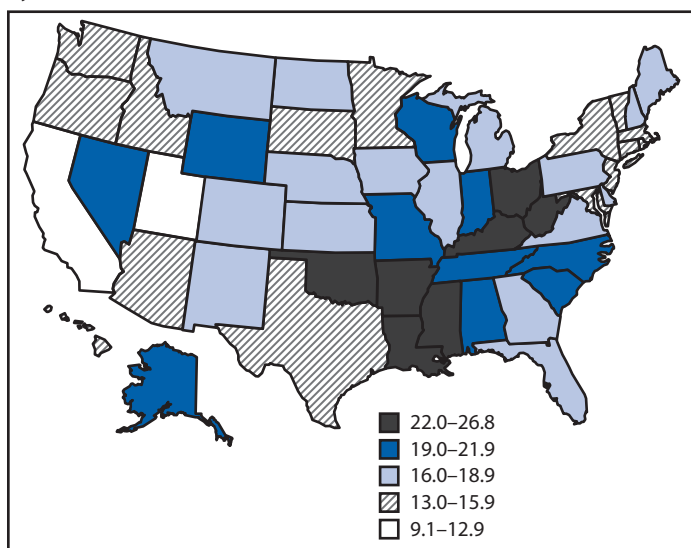
Fuller implementation of evidence-based interventions is needed to accelerate progress toward achieving the *Healthy People 2020* objective (6). The World Health Organization has identified specific tobacco control interventions as “best buys” (i.e., cost-effective population-based strategies) to enhance public health.^{††} These strategies include increasing

the price of tobacco products, implementing smoke-free laws in workplaces and public places, warning about the dangers of tobacco use, and enforcing restrictions on tobacco advertising, promotion, and sponsorship. Sustained implementation of these strategies, in addition to universal access to affordable and effective cessation interventions, would help reduce the national prevalence of tobacco use (6).

Despite an overall decline in smoking during 2005–2010, the findings in this report indicate that previously described

^{††} Additional information available at http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf.

FIGURE 1. Percentage of persons aged ≥ 18 years who were current cigarette smokers,* by state — Behavioral Risk Factor Surveillance System, United States, 2010

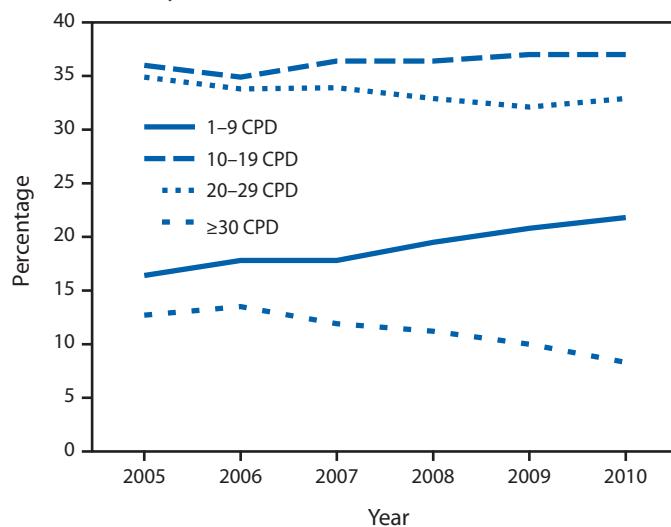


* Persons who reported smoking at least 100 cigarettes during their lifetime and who, at the time of the survey, reported smoking cigarettes every day or some days.

variations in smoking prevalence persist (3), particularly by race/ethnicity, education, income, and region; thus, interventions focused on reducing tobacco-related disparities remain necessary (6). Although smoking prevalence was found to be lowest among Hispanics and non-Hispanic Asians, previous research indicates that wide variability in smoking prevalence exists among Hispanic and Asian subpopulations (7). In addition, the decline in smoking prevalence observed during 2005–2010 was not uniform across the population, and most subgroups will not meet the *Healthy People 2020* target if current trends continue. Although prevalence declined among persons aged 18–44 years during 2005–2010, the reduction was modest when compared with previous declines observed among this age group (4). The slowing in the decline among younger adults is consistent with concurrent trends observed among youths^{§§} and indicates that smoking among adults will remain an important public health issue for the foreseeable future unless effective tobacco control strategies are fully implemented and sustained.

During 2009–2010, major advances were made in tobacco control. The 2009 Family Smoking Prevention and Tobacco Control Act^{¶¶} gives the Food and Drug Administration authority to regulate the manufacture, distribution, and marketing of tobacco products. In addition, the Patient

FIGURE 2. Percentage of daily smokers* aged ≥ 18 years, by number of cigarettes smoked per day (CPD) and year — National Health Interview Survey, United States, 2005–2010



* Persons who reported smoking at least 100 cigarettes during their lifetime and who, at the time of the survey, reported smoking cigarettes every day.

Protection and Affordable Care Act^{***} provides expanded coverage for evidence-based smoking-cessation treatments for many persons in the United States. Finally, the Children's Health Insurance Program Reauthorization Act of 2009^{†††} raised the federal tax rate for cigarettes from \$0.39 to \$1.01 per pack. Increasing the price of cigarettes can prevent initiation among nonsmokers and reduce cigarette consumption, particularly among youths and low-income smokers (8).

Changes observed in CPD among daily smokers during 2005–2010 are consistent with previously reported national declines in cigarette consumption (9). The reasons for this shift are unknown, but might be attributed to the proliferation of smoke-free environments (10), greater public awareness of the dangers of smoking (11), and increased cigarette prices (8). However, even light and intermittent smoking is associated with premature mortality (12), and significant health benefits to smokers from reducing the amount smoked have not been demonstrated (1). No amount of smoking is safe, and the best option for any smoker is to quit completely (1). Cessation advice and assistance using proven methods should be offered to all smokers.^{§§§}

The findings in this report are subject to at least six limitations. First, estimates of smoking were self-reported and not validated by biochemical tests. Although studies of self-reported smoking might yield lower prevalence estimates than studies of serum cotinine (a breakdown product of nicotine) (13), it is unlikely that the degree

^{§§} Additional information available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5926a1.htm>.

^{¶¶} Additional information available at <http://www.fda.gov/tobaccoproducts/default.htm>.

^{***} Additional information available at <http://www.dol.gov/ebsa/healthreform>.

^{†††} Additional information available at <http://www.cms.gov/chipra>.

^{§§§} Additional information available at http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf.

Key Points

- Tobacco use is the leading cause of preventable death and illness in the United States. Approximately half of smokers will die from a smoking-related disease.
- In 2010, 19.3% of U.S. adults were current cigarette smokers, compared with 20.9% in 2005, representing approximately 3 million fewer smokers than would have existed had no decrease occurred.
- At this slow rate of decline, adult smoking rates in the United States will reach approximately 17% by 2020, substantially higher than the *Healthy People 2020* target goal of $\leq 12\%$.
- Some daily smokers appear to be smoking fewer cigarettes per day. However, no amount of smoking is safe, and the best option for any smoker is to quit completely.
- Sustained, adequately funded, comprehensive state tobacco control programs can reduce adult smoking in the United States.
- Additional information is available at <http://www.cdc.gov/vitalsigns>.

of any underreporting would have changed meaningfully since 2005; thus, underreporting is unlikely to have affected the trends described in this report. Second, questionnaires were administered only in English and Spanish, which might have resulted in imprecise estimates for racial/ethnic populations unable to respond to the survey because of language barriers. Similarly, small samples sizes for certain population groups resulted in less precise estimates. Fourth, neither NHIS nor BRFSS include institutionalized populations and persons in the military, which prevents the generalizability of the results to these groups. Fifth, the 2010 BRFSS data analyzed in this report did not include adults without telephone service (1.7%) or with wireless-only service (24.9%) (14); because adults with wireless-only service are more likely to smoke cigarettes than the rest of the U.S. population (14), state smoking prevalences are likely to be underestimated. However, this limitation did not affect national estimates or trends because they are based on NHIS, which uses household-based sampling. Finally, the 2010 NHIS response rate was 60.8%, and the median response rate for the 2010 BRFSS was 54.6%. Lower response rates increase the potential for bias; however, national estimates from state-aggregated BRFSS data have been shown to be comparable to estimates from NHIS and other surveys with higher response rates (15).

Sustained, adequately funded, comprehensive state tobacco control programs accelerate progress toward reducing the health burden and economic impact of tobacco-related diseases in the United States (6). States that invest more fully in comprehensive

tobacco control programs have seen larger declines in cigarette sales than the United States as a whole, and smoking prevalence among adults and youths has declined faster as spending for tobacco control programs has increased (6). California's adult smoking prevalence declined approximately 40% during 1998–2006. Similarly, Maine, New York, and Washington have seen 45%–60% reductions in youth smoking with sustained comprehensive statewide programs (6). CDC recommended appropriate annual funding levels for each state comprehensive tobacco control program in 2007 (6). However, in 2010, only North Dakota funded tobacco control programs at this level, whereas 28 states provided less than 25% of CDC-recommended amounts (CDC, unpublished data, 2011). Full implementation of comprehensive tobacco control policies and programs at CDC-recommended funding levels would result in a substantial reduction in tobacco-related morbidity and mortality and billions of dollars in savings from averted medical costs and lost productivity (2,6).

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National Center for Health Statistics, Public Health Surveillance Program Office, CDC.

References

1. US Department of Health and Human Services. How tobacco smoke causes disease: the biology and behavioral basis for smoking-attributable disease: a report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, CDC; 2010. Available at http://www.cdc.gov/tobacco/data_statistics/sgr/2010/index.htm. Accessed August 4, 2011.
2. CDC. Smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 2000–2004. *MMWR* 2008; 57:1226–8.
3. CDC. Vital Signs: current cigarette smoking among adults aged ≥ 18 years—United States, 2009. *MMWR* 2010;59:1135–40.
4. CDC. Cigarette smoking among adults and trends in smoking cessation—United States, 2008. *MMWR* 2009;58:1227–32.
5. Mendez D, Warner KE. Setting a challenging yet realistic smoking prevalence target for *Healthy People 2020*: learning from the California experience. *Am J Public Health* 2008;98:556–9.
6. CDC. Best practices for comprehensive tobacco control programs—2007. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at http://www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm. Accessed August 4, 2011.
7. Caraballo RS, Yee SL, Gfroerer J, Mirza SA. Adult tobacco use among racial and ethnic groups living in the United States, 2002–2005. *Prev Chronic Dis* 2008;5:1–9.
8. CDC. Federal and state cigarette excise taxes—United States, 1995–2009. *MMWR* 2009;58:524–7.

9. Pierce JP, White MM, Messer K. Changing age-specific patterns of cigarette consumption in the United States, 1992–2002: association with smoke-free homes and state-level tobacco control activity. *Nicotine Tob Res* 2009;11:171–7.
10. CDC. State smoke-free laws for worksites, restaurants, and bars—United States, 2000–2010. *MMWR* 2011;60:472–5.
11. World Health Organization. WHO report on the global tobacco epidemic, 2011: warning about the dangers of tobacco. Geneva, Switzerland: World Health Organization; 2011. Available at http://whqlibdoc.who.int/publications/2011/9789240687813_eng.pdf. Accessed August 4, 2011.
12. Schane RE, Ling PM, Glantz SA. Health effects of light and intermittent smoking: a review. *Circulation* 2010;121:1518–22.
13. Gorber SC, Schofield-Hurwitz S, Hardt J, Levasseur G, Tremblay M. The accuracy of self-reported smoking: a systematic review of the relationship between self-reported and cotinine-assessed smoking status. *Nicotine Tob Res* 2009;11:12–24.
14. Blumberg SJ, Luke JV. Wireless substitution: early release of estimates from the National Health Interview Survey, January–June 2010. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2010. Available at <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201012.htm>. Accessed August 4, 2011.
15. Nelson DE, Holtzman D, Bolen J, Stanwyck CA, Mack KA. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Social Prev Med* 2001;46:S3–42.

Swine-Origin Influenza A (H3N2) Virus Infection in Two Children — Indiana and Pennsylvania, July–August 2011

On September 2, 2011, this report was posted as an MMWR Early Release on the MMWR website (<http://www.cdc.gov/mmwr>).

Influenza A viruses are endemic in many animal species, including humans, swine, and wild birds, and sporadic cases of transmission of influenza A viruses between humans and animals do occur, including human infections with avian-origin influenza A viruses (i.e., H5N1 and H7N7) and swine-origin influenza A viruses (i.e., H1N1, H1N2, and H3N2) (1). Genetic analysis can distinguish animal origin influenza viruses from the seasonal human influenza viruses that circulate widely and cause annual epidemics. This report describes two cases of febrile respiratory illness caused by swine-origin influenza A (H3N2) viruses identified on August 19 and August 26, 2011, and the current investigations. No epidemiologic link between the two cases has been identified, and although investigations are ongoing, no additional confirmed human infections with this virus have been detected. These viruses are similar to eight other swine-origin influenza A (H3N2) viruses identified from previous human infections over the past 2 years, but are unique in that one of the eight gene segments (matrix [M] gene) is from the 2009 influenza A (H1N1) virus. The acquisition of the M gene in these two swine-origin influenza A (H3N2) viruses indicates that they are “reassortants” because they contain genes of the swine-origin influenza A (H3N2) virus circulating in North American pigs since 1998 (2) and the 2009 influenza A (H1N1) virus that might have been transmitted to pigs from humans during the 2009 H1N1 pandemic. However, reassortments of the 2009 influenza A (H1N1) virus with other swine influenza A viruses have been reported previously in swine (3). Clinicians who suspect influenza virus infection in humans with recent exposure to swine should obtain a nasopharyngeal swab from the patient for timely diagnosis at a state public health laboratory and consider empiric neuraminidase inhibitor antiviral treatment to quickly limit potential human transmission (4).

Case Reports

Patient A. On August 17, 2011, CDC was notified by the Indiana State Department of Health Laboratories of a suspected case of swine-origin influenza A (H3N2) infection in a boy aged <5 years. The boy, who had received influenza vaccine in September 2010, experienced onset of fever, cough, shortness of breath, diarrhea, and sore throat on July 23, 2011. He was brought to a local emergency department (ED) where a respiratory specimen later tested positive for influenza A

(H3). The boy was discharged home, but was not treated with influenza antiviral medications. He has multiple chronic health conditions, returned to the ED on July 24, 2011, and was hospitalized for treatment of those health problems, which had worsened. The boy was discharged home on July 27, 2011, and has since recovered from this illness. As part of routine CDC-supported influenza surveillance, the respiratory specimen collected on July 24, 2011, was forwarded to the Indiana State Department of Health Laboratories, where polymerase chain reaction (PCR) testing identified a suspect swine-origin influenza A (H3N2) virus on August 17, 2011. The specimen was forwarded to CDC where the findings were confirmed through genome sequencing on August 19, 2011.

No direct exposure to swine was identified for this child; however, a caretaker reported direct contact with asymptomatic swine in the weeks before the boy’s illness onset and provided care to the child 2 days before illness onset. No respiratory illness was identified in any of the child’s family or close contacts, the boy’s caretaker, or in the family or contacts of the caretaker.

Patient B. On August 24, 2011, CDC was notified by the Pennsylvania Department of Health of a suspected case of swine-origin influenza A (H3N2) virus infection in a girl aged <5 years. The girl, who had received influenza vaccine in September 2010, experienced acute onset of fever, nonproductive cough, and lethargy on August 20, 2011. She was brought to a local hospital ED where a nasopharyngeal swab tested positive for influenza A by rapid influenza diagnostic test. She was not treated with influenza antiviral medications and was discharged home the same day. The girl has completely recovered from this illness.

A nasopharyngeal swab and nasal wash specimen were obtained at the ED and forwarded to the Pennsylvania State Department of Health Bureau of Laboratories for additional testing as part of routine CDC-supported influenza surveillance. On August 23, 2011, the state public health laboratory identified a suspected swine-origin influenza A (H3N2) virus by PCR testing, and both specimens were forwarded to CDC. On August 26, 2011, genome sequencing confirmed the virus as swine-origin influenza A (H3N2). On August 16, 2011, the girl was reported to have visited an agricultural fair where she had direct exposure to swine and other animals. No additional illness in the girl’s family or close contacts has been identified, but illness in other fair attendees

continues to be investigated. No additional confirmed swine-origin influenza virus infections have been identified thus far.

Epidemiologic and Laboratory Investigations

As of September 2, 2011, no epidemiologic link between patients A and B had been identified, and no additional cases of confirmed infection with the identified strain of swine-origin influenza A (H3N2) virus had been identified. Surveillance data from both states showed low levels of influenza activity at the time of both patients' illnesses. Case and contact investigations by the county and state human and animal health agencies in Indiana and Pennsylvania are ongoing, and enhanced surveillance for additional human cases is being implemented in both states.

Preliminary genetic characterization of these two influenza viruses has identified them as swine-origin influenza A (H3N2) viruses. Full genome sequences have been posted to publicly available web sites. The viruses are similar, but not identical to each other. Seven of the eight gene segments, including the hemagglutinin (HA) and neuraminidase (NA) genes, are similar to those of swine H3N2 influenza viruses circulating among U.S. pigs since 1998 (2) and previously identified in the eight other sporadic cases of human infection with swine-origin influenza A (H3N2) viruses in the United States since 2009.* The one notable difference from the viruses previously identified in human infections with swine-origin influenza A (H3N2) virus is that these two viruses have a matrix (M) gene acquired from the 2009 influenza A (H1N1) virus, replacing the classical swine M gene present in the prior eight swine-origin influenza A (H3N2) virus infections in humans.

Although reassortment between swine influenza and 2009 influenza A (H1N1) viruses has been reported in pigs in the United States (3), this particular genetic combination of swine influenza virus segments is unique and has not been reported previously in either swine or humans, based on a review of influenza genomic sequences publicly available in GenBank.† Analysis of data submitted to GenBank via the U.S. Department of Agriculture (USDA) Swine Influenza Virus Surveillance Program subsequent to this case identified two additional influenza A (H3N2) isolates from swine containing the M gene from the 2009 influenza A (H1N1) virus. Genome sequencing is underway to completely characterize the genetic composition of these two swine influenza isolates. (USDA Agricultural Research Service and USDA Animal and Plant Health Inspection Service, unpublished data, 2011).

*Additional information is available at <http://www.cdc.gov/flu/weekly/pastreports.htm>.

† Available at <http://www.ncbi.nlm.nih.gov/genbank>.

The viruses in these two patients are resistant to amantadine and rimantadine, but are susceptible to the neuraminidase inhibitor drugs oseltamivir and zanamivir. Because these viruses carry a unique combination of genes, no information currently is available regarding the capacity of this virus to transmit efficiently in swine, humans, or between swine and humans.

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Editorial Note

To detect human infections with animal influenza viruses more effectively, CDC and state and local health departments have strengthened laboratory and epidemiologic procedures to promptly detect sporadic cases such as these. Since 2005, state public health laboratories have had the capability to detect non-human origin–influenza A viruses by PCR testing. From 2005 to 2007, CDC received reports of approximately one human infection with a swine-origin influenza virus each year. In 2007, human infection with a novel influenza A virus, including swine-origin influenza virus infections, became a nationally notifiable condition. Since that time, CDC has received approximately three to five reports a year of human infections with swine-origin influenza viruses. The recent increase in reporting might be, in part, a result of increased influenza testing capabilities in public health laboratories that allows for identification of human and swine-origin influenza viruses, but genetic changes in swine influenza viruses and other factors also might be contributing to this increase (2,5,6). During December 2005–November 2010, before the two cases described in this report, 21 cases of human infection with swine-origin influenza were reported (12 cases with swine-origin influenza A (H1N1) virus infection, eight cases with swine-origin influenza A (H3N2) virus infection, and one case

What is already known on this topic?

During December 2005–November 2010, 21 cases of human infection with swine-origin influenza were reported, including 12 cases with swine-origin influenza A (H1N1) virus infection, eight cases with swine-origin influenza A (H3N2) virus infection, and one case with swine-origin influenza A (H1N2) virus infection.

What is added by this report?

This report describes two cases of febrile respiratory illness caused by swine-origin influenza A (H3N2) viruses identified on August 19 and August 26, 2011. The viruses identified in these cases are unique in that one of the eight gene segments (matrix [M] gene) is from the 2009 influenza A (H1N1) virus.

What are the implications for public health practice?

Non-human influenza virus infections rarely result in human-to-human transmission, but the implications of sustained ongoing transmission between humans is potentially severe; therefore, prompt and thorough identification and investigation of these sporadic human infections with non-human influenza viruses are needed to reduce the risk for sustained transmission.

with swine-origin influenza A (H1N2) virus infection). Six of these 21 cases occurred in patients who reported direct exposure to pigs; 12 patients reported being near pigs; human-to-human transmission was suspected in two cases after epidemiologic investigations revealed no reported contact with swine in either case, but contact with ill persons who reported swine exposure was the suspected source of infection; the exposure in one case was unknown (7) (CDC, unpublished data; 2011). Although the vast majority of human infections with animal influenza viruses do not result in human-to-human transmission (8,9), each case should be investigated fully to ascertain whether these viruses are transmitted among humans and to limit further exposure of humans to infected animals, if infected animals are identified. Such investigations require close collaboration between CDC, state and local public health officials, and animal health officials.

The lack of known direct exposure to pigs in one of the two cases described in this report suggests the possibility that limited human-to-human transmission of this influenza virus occurred. Likely transmission of swine-origin influenza A (H3N2) virus from close contact with an infected person has been observed in past investigations of human infections

with swine-origin influenza A virus, but has not resulted in sustained human-to-human transmission. Preliminary evidence from the investigation of the Indiana case shows no ongoing transmission. No influenza illness has been identified, but if additional chains of transmission are identified, rapid intervention is warranted to try to prevent further spread of the virus. Clinicians should consider swine-origin influenza A virus infection as well as seasonal influenza virus infections in the differential diagnosis of patients with febrile respiratory illness who have been near pigs. Clinicians who suspect influenza virus infection in humans with recent exposure to swine should obtain a nasopharyngeal swab from the patient, place the swab in a viral transport medium, contact their state or local health department to facilitate transport and timely diagnosis at a state public health laboratory, and consider empiric neuraminidase inhibitor antiviral treatment (4). CDC requests that state public health laboratories send all suspected swine-origin influenza A specimens to the CDC, Influenza Division, Virus Surveillance and Diagnostics Branch Laboratory.

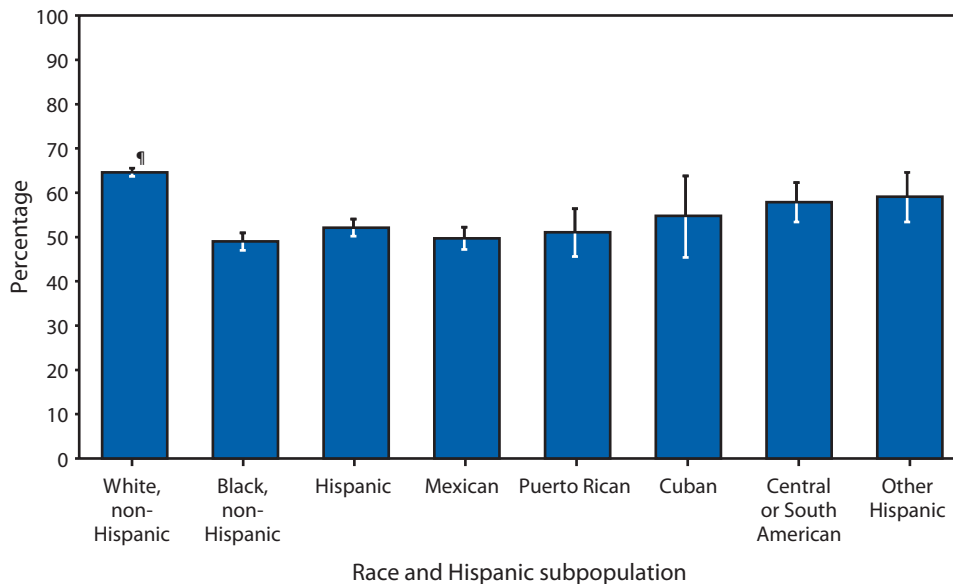
References

1. Wright PF, Neumann G, Kawaoka Y. Orthomyxoviruses. In: Knipe DM, Howley PM, eds. *Fields virology*. Vol. 2. 5th ed. Philadelphia, PA: Lippincott, Williams, and Wilkins; 2007:1692–740.
2. Vincent AL, Ma W, Lager KM, Janke BH, Richt JA. Swine influenza viruses: a North American perspective. *Adv Virus Res* 2008;72:127–54.
3. Duchatez MF, Hause B, Stigger-Rosser E, et al. Multiple reassortment between pandemic (H1N1) 2009 and endemic influenza viruses in pigs, United States. *Emerg Infect Dis* 2011;17:1624–9.
4. CDC. Antiviral agents for the treatment and chemoprophylaxis of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2011;60(No. RR-1).
5. Vincent AL, Swenson SL, Lager KM, Gauger PC, Loiacono C, Zhang Y. Characterization of an influenza A virus isolated from pigs during an outbreak of respiratory disease in swine and people during a county fair in the United States. *Vet Microbiol* 2009;137:51–9.
6. Newman AP, Reisdorf E, Beinemann J, et al. Human case of swine influenza A (H1N1) triple reassortant virus infection, Wisconsin. *Emerg Infect Dis* 2008;14:1470–2.
7. Shinde V, Bridges CB, Uyeki TM, et al. Triple reassortant swine influenza A (H1) in humans in the United States, 2005–2009. *N Engl J Med* 2009;25:2616–25.
8. Myers KP, Olsen CW, Gray GC. Cases of swine influenza in humans: a review of the literature. *Clin Infect Dis* 2007;44:1084–8.
9. Wells DL, Hopfensperger DJ, Arden NH, et al. Swine influenza virus infections. Transmission from ill pigs to humans at a Wisconsin agricultural fair and subsequent probable person-to-person transmission. *JAMA* 1991;265:478–81.

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Adults Aged ≥ 18 Years with Self-Reported Excellent or Very Good Health,* by Race and Hispanic Subpopulation[†] — National Health Interview Survey, United States, 2009[§]



* Based on responses to the following question: "Would you say your health in general is excellent, very good, good, fair, or poor?" Health status data were obtained by asking respondents to assess their own health and that of other family members living in the same household.

[†] Persons of Hispanic ethnicity might be of any race or combination of races.

[§] Estimates are based on household interviews of a sample of the U.S. civilian, noninstitutionalized population. Estimates are age adjusted using the projected 2000 U.S. standard population as the standard population and using four age groups: 18–44 years, 45–64 years, 65–74 years, and ≥ 75 years.

[¶] 95% confidence interval.

During 2009, nearly two thirds (65%) of non-Hispanic white adults assessed their health as excellent or very good, compared with less than half (49%) of non-Hispanic black adults. Approximately 52% of Hispanic adults were in excellent or very good health. Among Hispanic subpopulations, the percentage ranged from 50% of Mexican adults to 58% of Central or South American adults and 59% of other Hispanic adults.

Source: National Health Interview Survey, 2009 data. Available at <http://www.cdc.gov/nchs/nhis.htm>.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending September 3, 2011 (35th week)*

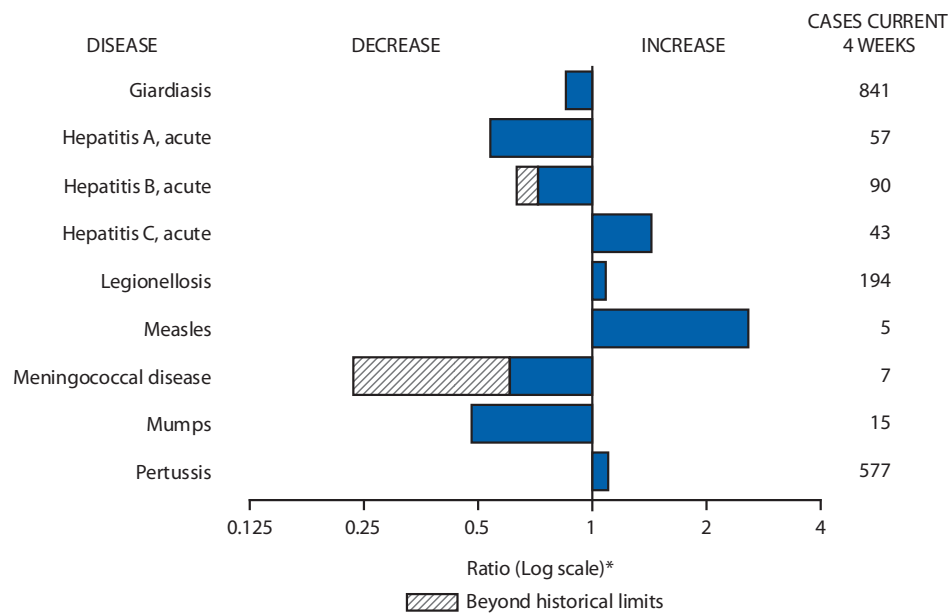
Disease	Current week	Cum 2011	5-year weekly average [†]	Total cases reported for previous years					States reporting cases during current week (No.)
				2010	2009	2008	2007	2006	
Anthrax	—	—	0	—	1	—	1	1	
Arboviral diseases ^{§, ¶} :									
California serogroup virus disease	—	33	4	75	55	62	55	67	
Eastern equine encephalitis virus disease	—	1	0	10	4	4	4	8	
Powassan virus disease	—	12	0	8	6	2	7	1	
St. Louis encephalitis virus disease	—	1	1	10	12	13	9	10	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
Babesiosis	19	384	0	NN	NN	NN	NN	NN	NY (17), PA (1), TN (1)
Botulism, total	—	63	3	112	118	145	144	165	
foodborne	—	6	1	7	10	17	32	20	
infant	—	49	1	80	83	109	85	97	
other (wound and unspecified)	—	8	1	25	25	19	27	48	
Brucellosis	2	54	3	115	115	80	131	121	NE (1), FL (1)
Chancroid	—	11	0	24	28	25	23	33	
Cholera	—	22	0	13	10	5	7	9	
Cyclosporiasis [§]	3	125	2	179	141	139	93	137	FL (2), TN (1)
Diphtheria	—	—	—	—	—	—	—	—	
<i>Haemophilus influenzae</i> ,** invasive disease (age <5 yrs):									
serotype b	—	5	0	23	35	30	22	29	
nonsensory type b	—	76	2	200	236	244	199	175	
unknown serotype	—	165	2	223	178	163	180	179	
Hansen disease [§]	1	33	2	98	103	80	101	66	OH (1)
Hantavirus pulmonary syndrome [§]	—	17	1	20	20	18	32	40	
Hemolytic uremic syndrome, postdiarrheal [§]	1	98	8	266	242	330	292	288	IA (1)
Influenza-associated pediatric mortality ^{§, ††}	1	111	1	61	358	90	77	43	AZ (1)
Listeriosis	2	346	22	821	851	759	808	884	NY (1), PA (1)
Measles ^{§§}	3	181	1	63	71	140	43	55	MN (3)
Meningococcal disease, invasive ^{¶¶} :									
A, C, Y, and W-135	—	130	3	280	301	330	325	318	
serogroup B	—	67	2	135	174	188	167	193	
other serogroup	—	7	0	12	23	38	35	32	
unknown serogroup	1	283	6	406	482	616	550	651	FL (1)
Novel influenza A virus infections ^{***}	—	4	0	4	43,774	2	4	NN	
Plague	—	1	0	2	8	3	7	17	
Poliomyelitis, paralytic	—	—	—	—	1	—	—	—	
Polio virus Infection, nonparalytic [§]	—	—	—	—	—	—	—	NN	
Psittacosis [§]	1	2	0	4	9	8	12	21	PA (1)
Q fever, total [§]	2	67	3	131	113	120	171	169	
acute	2	49	2	106	93	106	—	—	MD (1), CA (1)
chronic	—	18	0	25	20	14	—	—	
Rabies, human	—	1	—	2	4	2	1	3	
Rubella ^{†††}	—	3	0	5	3	16	12	11	
Rubella, congenital syndrome	—	—	—	—	2	—	—	1	
SARS-CoV [§]	—	—	—	—	—	—	—	—	
Smallpox [§]	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome [§]	—	83	1	142	161	157	132	125	
Syphilis, congenital (age <1 yr) ^{§§§}	—	128	9	377	423	431	430	349	
Tetanus	—	5	1	26	18	19	28	41	
Toxic-shock syndrome (staphylococcal) [§]	—	57	2	82	74	71	92	101	
Trichinellosis	—	8	0	7	13	39	5	15	
Tularemia	4	77	3	124	93	123	137	95	ND (2), NE (1), OK (1)
Typhoid fever	5	237	13	467	397	449	434	353	NY (1), MD (1), NC (1), FL (1), CA (1)
Vancomycin-intermediate <i>Staphylococcus aureus</i> [§]	2	43	1	91	78	63	37	6	NYC (1), OH (1)
Vancomycin-resistant <i>Staphylococcus aureus</i> [§]	—	—	0	2	1	—	2	1	
Vibriosis (noncholera <i>Vibrio</i> species infections) [§]	15	417	22	846	789	588	549	NN	NYC (1), MD (1), VA (2), FL (6), TN (1), WA (4)
Viral hemorrhagic fever ^{¶¶¶}	—	—	—	1	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending September 3, 2011 (35th week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts.
 * Case counts for reporting years 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf.
 † Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/5yearweeklyaverage.pdf.
 ‡ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table except starting in 2007 for the arboviral diseases, STD data, TB data, and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/osels/ph_surveillance/nndss/phs/infdis.htm.
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
 ** Data for H. influenzae (all ages, all serotypes) are available in Table II.
 †† Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since October 3, 2010, 115 influenza-associated pediatric deaths occurring during the 2010-11 influenza season have been reported.
 ‡‡ Of the three measles cases reported for the current week, one was imported, and two were indigenous.
 ¶¶ Data for meningococcal disease (all serogroups) are available in Table II.
 *** CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC. The four cases of novel influenza A virus infection reported to CDC during 2010, and the four cases reported during 2011, were identified as swine influenza A (H3N2) virus and are unrelated to the 2009 pandemic influenza A (H1N1) virus. Total case counts are provided by the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD).
 ††† No rubella cases were reported for the current week.
 §§§ Updated weekly from reports to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
 ¶¶¶ There was one case of viral hemorrhagic fever reported during week 12 of 2010. The one case report was confirmed as lassa fever. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals September 3, 2011, with historical data



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

Notifiable Disease Data Team and 122 Cities Mortality Data Team

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	<i>Chlamydia trachomatis</i> infection					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	12,431	25,769	31,142	863,792	866,066	76	324	567	11,687	NN	198	134	391	5,113	6,111
New England	799	854	2,043	29,396	27,355	—	0	1	1	NN	—	5	55	245	383
Connecticut	213	219	1,557	6,715	7,172	—	0	0	—	NN	—	0	49	49	77
Maine†	—	59	100	2,086	1,700	—	0	0	—	NN	—	1	4	34	76
Massachusetts	466	408	860	15,030	13,780	—	0	0	—	NN	—	3	7	89	119
New Hampshire	9	53	81	1,823	1,577	—	0	1	1	NN	—	1	5	43	45
Rhode Island†	89	76	154	2,773	2,284	—	0	0	—	NN	—	0	1	1	15
Vermont†	22	26	84	969	842	—	0	0	—	NN	—	1	4	29	51
Mid. Atlantic	1,382	3,338	5,069	105,433	113,466	—	0	1	3	NN	28	17	38	616	585
New Jersey	—	521	908	17,533	17,622	—	0	0	—	NN	—	1	4	20	30
New York (Upstate)	665	715	2,099	24,033	22,547	—	0	0	—	NN	15	4	13	144	138
New York City	—	1,102	2,612	29,549	41,652	—	0	0	—	NN	—	2	6	45	58
Pennsylvania	717	961	1,240	34,318	31,645	—	0	1	3	NN	13	9	26	407	359
E.N. Central	815	3,980	7,039	130,110	137,712	—	0	5	37	NN	91	32	108	1,374	1,738
Illinois	19	1,080	1,320	32,853	40,598	—	0	0	—	NN	—	3	23	120	240
Indiana	192	468	3,376	17,831	13,268	—	0	0	—	NN	—	4	14	166	204
Michigan	420	930	1,405	31,654	33,678	—	0	3	22	NN	2	5	13	206	243
Ohio	184	1,002	1,134	33,652	34,528	—	0	3	15	NN	89	9	67	621	312
Wisconsin	—	450	559	14,120	15,640	—	0	0	—	NN	—	8	61	261	739
W.N. Central	214	1,450	1,668	47,816	48,504	—	0	2	6	NN	45	19	103	865	1,313
Iowa	12	211	255	7,031	7,068	—	0	0	—	NN	1	7	21	258	286
Kansas	21	195	288	6,709	6,555	—	0	0	—	NN	1	0	4	13	83
Minnesota	—	284	368	7,876	10,459	—	0	0	—	NN	—	0	21	—	308
Missouri	164	533	759	18,598	17,388	—	0	0	—	NN	40	4	59	323	384
Nebraska†	—	106	218	4,061	3,395	—	0	2	6	NN	3	4	26	142	152
North Dakota	—	43	90	1,336	1,529	—	0	0	—	NN	—	0	9	16	16
South Dakota	17	63	93	2,205	2,110	—	0	0	—	NN	—	1	13	113	84
S. Atlantic	4,085	5,169	6,616	183,231	174,071	—	0	2	3	NN	14	21	57	787	737
Delaware	85	83	220	2,854	2,830	—	0	0	—	NN	—	0	1	7	5
District of Columbia	139	107	180	3,539	3,560	—	0	0	—	NN	—	0	1	5	2
Florida	815	1,492	1,706	51,225	50,757	—	0	0	—	NN	6	8	23	309	273
Georgia	312	979	2,384	34,567	29,829	—	0	0	—	NN	6	5	11	198	194
Maryland†	349	448	1,125	15,153	16,158	—	0	2	3	NN	1	1	6	46	29
North Carolina	1,175	786	1,477	31,924	30,018	—	0	0	—	NN	—	0	17	36	64
South Carolina†	458	523	946	18,900	17,527	—	0	0	—	NN	1	2	8	85	79
Virginia†	648	655	965	22,283	20,915	—	0	0	—	NN	—	2	8	85	78
West Virginia	104	78	121	2,786	2,477	—	0	0	—	NN	—	0	5	16	13
E.S. Central	515	1,794	3,314	62,241	62,060	—	0	0	—	NN	2	7	20	198	209
Alabama†	—	528	1,564	17,914	17,775	—	0	0	—	NN	—	3	14	84	98
Kentucky	207	267	2,352	10,565	10,546	—	0	0	—	NN	—	1	4	28	56
Mississippi	—	398	614	13,479	14,728	—	0	0	—	NN	1	0	2	20	12
Tennessee†	308	593	795	20,283	19,011	—	0	0	—	NN	1	1	6	66	43
W.S. Central	2,587	3,342	4,338	119,008	119,330	—	0	1	1	NN	1	7	62	260	283
Arkansas†	275	315	440	11,044	10,384	—	0	0	—	NN	—	0	3	11	22
Louisiana	46	526	1,052	15,616	17,227	—	0	1	1	NN	—	0	9	35	45
Oklahoma	436	224	850	7,384	9,808	—	0	0	—	NN	1	2	34	61	61
Texas†	1,830	2,400	3,107	84,964	81,911	—	0	0	—	NN	—	4	28	153	155
Mountain	507	1,649	2,155	57,637	56,077	70	249	432	9,316	NN	5	12	30	415	422
Arizona	155	512	698	17,450	18,370	68	247	427	9,200	NN	—	1	4	27	26
Colorado	—	412	848	15,504	12,972	—	0	0	—	NN	—	3	12	114	94
Idaho†	—	75	235	2,619	2,736	—	0	0	—	NN	3	2	9	84	71
Montana†	32	61	88	2,193	2,048	—	0	2	3	NN	2	1	6	53	34
Nevada†	222	199	380	7,313	6,848	2	1	5	66	NN	—	0	7	3	24
New Mexico†	78	198	1,183	6,939	7,310	—	0	4	34	NN	—	3	12	87	100
Utah	20	132	175	4,403	4,402	—	0	2	10	NN	—	1	5	27	54
Wyoming†	—	38	90	1,216	1,391	—	0	2	3	NN	—	0	5	20	19
Pacific	1,527	3,845	6,559	128,920	127,491	6	53	142	2,320	NN	12	11	29	353	441
Alaska	—	109	157	3,680	4,208	—	0	0	—	NN	—	0	3	7	2
California	969	2,920	5,763	99,211	97,368	6	53	142	2,315	NN	9	6	19	213	233
Hawaii	—	108	138	3,230	4,152	—	0	0	—	NN	—	0	0	—	1
Oregon	244	267	524	9,212	7,597	—	0	1	5	NN	2	2	11	82	144
Washington	314	423	522	13,587	14,166	—	0	0	—	NN	1	1	9	51	61
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	NN	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	NN	—	—	—	—	—
Guam	—	6	81	189	615	—	0	0	—	NN	—	0	0	—	—
Puerto Rico	122	96	349	3,641	4,209	—	0	0	—	NN	N	0	0	N	N
U.S. Virgin Islands	1	16	27	539	385	—	0	0	—	NN	—	0	0	—	—

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

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

* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Dengue Virus Infection†									
	Dengue Fever§					Dengue Hemorrhagic Fever¶				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
	Med	Max				Med	Max			
United States	—	3	37	75	528	—	0	2	—	7
New England	—	0	3	1	5	—	0	0	—	—
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine**	—	0	2	—	3	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	0	—	—
New Hampshire	—	0	0	—	—	—	0	0	—	—
Rhode Island**	—	0	1	—	—	—	0	0	—	—
Vermont**	—	0	1	1	2	—	0	0	—	—
Mid. Atlantic	—	1	14	22	180	—	0	1	—	4
New Jersey	—	0	3	—	22	—	0	0	—	—
New York (Upstate)	—	0	2	—	28	—	0	1	—	2
New York City	—	0	10	10	112	—	0	1	—	2
Pennsylvania	—	0	2	12	18	—	0	0	—	—
E.N. Central	—	0	6	6	50	—	0	0	—	1
Illinois	—	0	2	1	13	—	0	0	—	—
Indiana	—	0	1	1	11	—	0	0	—	—
Michigan	—	0	2	2	8	—	0	0	—	—
Ohio	—	0	1	—	13	—	0	0	—	—
Wisconsin	—	0	2	2	5	—	0	0	—	1
W.N. Central	—	0	6	3	21	—	0	1	—	—
Iowa	—	0	1	2	1	—	0	0	—	—
Kansas	—	0	1	1	3	—	0	0	—	—
Minnesota	—	0	1	—	12	—	0	0	—	—
Missouri	—	0	1	—	4	—	0	0	—	—
Nebraska**	—	0	6	—	—	—	0	0	—	—
North Dakota	—	0	0	—	1	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	1	—	—
S. Atlantic	—	1	10	23	186	—	0	1	—	1
Delaware	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—
Florida	—	1	8	19	144	—	0	1	—	1
Georgia	—	0	2	3	9	—	0	0	—	—
Maryland**	—	0	0	—	—	—	0	0	—	—
North Carolina	—	0	1	1	6	—	0	0	—	—
South Carolina**	—	0	1	—	13	—	0	0	—	—
Virginia**	—	0	2	—	12	—	0	0	—	—
West Virginia	—	0	0	—	2	—	0	0	—	—
E.S. Central	—	0	1	—	5	—	0	0	—	—
Alabama**	—	0	1	—	2	—	0	0	—	—
Kentucky	—	0	0	—	2	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	0	—	—
Tennessee**	—	0	0	—	1	—	0	0	—	—
W.S. Central	—	0	2	5	24	—	0	0	—	1
Arkansas**	—	0	0	—	—	—	0	0	—	1
Louisiana	—	0	1	2	4	—	0	0	—	—
Oklahoma	—	0	1	—	4	—	0	0	—	—
Texas**	—	0	1	3	16	—	0	0	—	—
Mountain	—	0	2	3	16	—	0	0	—	—
Arizona	—	0	2	2	6	—	0	0	—	—
Colorado	—	0	0	—	—	—	0	0	—	—
Idaho**	—	0	1	—	2	—	0	0	—	—
Montana**	—	0	1	—	3	—	0	0	—	—
Nevada**	—	0	0	—	4	—	0	0	—	—
New Mexico**	—	0	0	—	1	—	0	0	—	—
Utah	—	0	1	1	—	—	0	0	—	—
Wyoming**	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	7	12	41	—	0	0	—	—
Alaska	—	0	0	—	1	—	0	0	—	—
California	—	0	5	2	28	—	0	0	—	—
Hawaii	—	0	4	5	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—
Washington	—	0	2	5	12	—	0	0	—	—
Territories										
American Samoa	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	21	453	473	7,719	—	0	14	5	182
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance).

§ Dengue Fever includes cases that meet criteria for Dengue Fever with hemorrhage, other clinical and unknown case classifications.

¶ DHF includes cases that meet criteria for dengue shock syndrome (DSS), a more severe form of DHF.

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

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	<i>Ehrlichia chaffeensis</i>					<i>Anaplasma phagocytophilum</i>					Undetermined				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
	Med	Max				Med	Max				Med	Max			
United States	11	7	109	520	517	10	16	42	379	1,367	2	1	13	69	73
New England	—	0	2	4	3	—	2	15	105	67	—	0	1	1	2
Connecticut	—	0	0	—	—	—	0	6	—	25	—	0	0	—	—
Maine§	—	0	1	1	2	—	0	2	12	13	—	0	0	—	—
Massachusetts	—	0	0	—	—	—	0	10	49	—	—	0	0	—	—
New Hampshire	—	0	1	2	1	—	0	4	11	11	—	0	1	1	2
Rhode Island§	—	0	1	1	—	—	0	10	30	17	—	0	0	—	—
Vermont§	—	0	0	—	—	—	0	1	3	1	—	0	0	—	—
Mid. Atlantic	2	1	7	43	71	7	4	27	187	188	—	0	2	7	8
New Jersey	—	0	1	—	46	—	0	3	—	57	—	0	0	—	1
New York (Upstate)	2	0	7	39	19	7	3	25	161	121	—	0	2	7	5
New York City	—	0	1	4	5	—	0	5	24	10	—	0	0	—	—
Pennsylvania	—	0	1	—	1	—	0	1	2	—	—	0	1	—	2
E.N. Central	—	0	3	21	36	—	1	9	10	425	2	0	4	33	40
Illinois	—	0	2	11	12	—	0	1	3	5	—	0	1	2	3
Indiana	—	0	0	—	—	—	0	0	—	—	2	0	3	26	14
Michigan	—	0	2	4	2	—	0	1	—	2	—	0	2	3	—
Ohio	—	0	1	6	6	—	0	1	4	2	—	0	1	1	—
Wisconsin	—	0	1	—	16	—	0	9	3	416	—	0	1	1	23
W.N. Central	—	1	17	132	113	—	1	20	26	620	—	0	11	14	8
Iowa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Kansas	—	0	1	2	6	—	0	1	1	1	—	0	0	—	—
Minnesota	—	0	12	—	—	—	0	20	1	609	—	0	11	—	—
Missouri	—	0	17	129	106	—	0	7	23	10	—	0	7	13	8
Nebraska§	—	0	1	—	1	—	0	0	—	—	—	0	1	1	—
North Dakota	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
South Dakota	—	0	1	1	—	—	0	1	1	—	—	0	0	—	—
S. Atlantic	8	3	33	184	198	3	1	8	40	47	—	0	1	5	4
Delaware	—	0	2	14	16	—	0	1	1	4	—	0	0	—	—
District of Columbia	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Florida	—	0	3	13	8	3	0	1	7	2	—	0	0	—	—
Georgia	—	0	3	16	19	—	0	2	7	1	—	0	1	1	1
Maryland§	—	0	3	19	18	—	0	2	3	12	—	0	0	—	2
North Carolina	8	0	17	55	68	—	0	6	17	19	—	0	0	—	—
South Carolina§	—	0	1	1	4	—	0	1	—	—	—	0	0	—	—
Virginia§	—	1	13	66	63	—	0	2	5	9	—	0	1	3	1
West Virginia	—	0	1	—	2	—	0	0	—	—	—	0	1	1	—
E.S. Central	1	0	7	56	76	—	0	2	10	18	—	0	1	6	8
Alabama§	—	0	1	—	10	—	0	1	3	7	N	0	0	N	N
Kentucky	—	0	2	9	12	—	0	0	—	—	—	0	0	—	1
Mississippi	—	0	1	3	3	—	0	0	—	2	—	0	0	—	1
Tennessee§	1	0	5	44	51	—	0	1	7	9	—	0	1	6	6
W.S. Central	—	0	87	80	19	—	0	9	—	2	—	0	0	—	1
Arkansas§	—	0	11	34	4	—	0	2	—	—	—	0	0	—	—
Louisiana	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	82	45	11	—	0	7	—	2	—	0	0	—	—
Texas§	—	0	1	1	3	—	0	1	—	—	—	0	0	—	1
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	1	3	—
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	1	3	—
Colorado	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Idaho§	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Montana§	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Nevada§	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
New Mexico§	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming§	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	—	1	—	0	1	1	—	—	0	0	—	2
Alaska	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
California	—	0	1	—	1	—	0	0	—	—	—	0	0	—	2
Hawaii	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	0	—	—	—	0	1	1	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
Puerto Rico	N	0	0	N	N	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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† Cumulative total *E. ewingii* cases reported for year 2010 = 10, and 11 cases reported for 2011.

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

Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Giardiasis					Gonorrhea					Haemophilus influenzae, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	178	288	549	9,254	13,026	3,039	5,816	7,484	194,627	203,541	20	64	141	2,182	2,083
New England	7	25	50	776	1,121	145	102	206	3,535	3,611	—	4	12	138	124
Connecticut	—	4	12	131	201	69	43	150	1,504	1,632	—	1	6	37	25
Maine [§]	7	3	11	106	131	—	3	17	146	123	—	0	2	15	9
Massachusetts	—	12	22	343	485	59	48	80	1,539	1,531	—	2	6	62	66
New Hampshire	—	2	6	66	125	4	2	7	87	102	—	0	2	10	8
Rhode Island [§]	—	1	10	39	49	10	7	16	224	177	—	0	2	9	10
Vermont [§]	—	2	8	91	130	3	0	8	35	46	—	0	3	5	6
Mid. Atlantic	51	57	106	1,833	2,172	294	719	1,121	23,454	23,363	6	13	32	483	396
New Jersey	—	6	20	132	314	—	125	205	4,482	3,755	—	2	7	71	71
New York (Upstate)	31	21	72	666	741	119	114	271	3,790	3,630	2	3	18	130	105
New York City	4	17	28	548	611	—	231	497	6,336	7,948	—	3	6	106	65
Pennsylvania	16	16	27	487	506	175	263	364	8,846	8,030	4	4	11	176	155
E.N. Central	22	47	99	1,479	2,256	236	1,023	2,091	33,976	37,674	2	11	22	378	338
Illinois	—	9	16	260	519	5	265	369	8,186	10,337	—	3	10	112	117
Indiana	—	6	14	181	278	41	114	1,018	4,296	3,730	—	2	7	70	67
Michigan	3	10	25	304	468	133	235	490	8,020	9,351	—	1	4	44	24
Ohio	19	16	29	530	556	57	319	390	10,622	10,975	2	2	7	106	83
Wisconsin	—	7	35	204	435	—	94	127	2,852	3,281	—	1	5	46	47
W.N. Central	20	24	73	718	1,414	51	300	363	9,963	9,754	5	4	10	111	151
Iowa	5	5	15	177	200	1	38	57	1,258	1,184	—	0	0	—	1
Kansas	—	2	7	62	160	2	40	57	1,348	1,387	—	0	2	15	16
Minnesota	—	0	33	—	552	—	38	62	1,088	1,452	—	0	5	—	53
Missouri	10	8	26	276	260	48	150	183	4,998	4,549	2	1	5	59	58
Nebraska [§]	4	4	11	134	157	—	24	49	793	781	1	1	3	25	14
North Dakota	1	0	12	22	15	—	4	8	125	137	2	0	6	11	9
South Dakota	—	1	6	47	70	—	11	20	353	264	—	0	1	1	—
S. Atlantic	41	56	127	1,771	2,600	1,096	1,463	1,862	48,952	51,723	5	15	31	527	536
Delaware	2	0	2	20	23	10	17	48	551	655	—	0	2	3	5
District of Columbia	—	1	3	26	41	34	37	69	1,283	1,396	—	0	1	—	3
Florida	29	24	75	800	1,397	274	377	486	13,106	13,655	4	5	12	171	128
Georgia	—	13	51	498	512	84	313	874	10,436	10,297	—	3	7	100	119
Maryland [§]	5	4	11	167	196	70	118	246	3,626	4,706	—	2	5	59	45
North Carolina	N	0	0	N	N	364	267	468	10,333	10,043	1	1	8	54	92
South Carolina [§]	4	2	9	73	102	134	145	257	5,302	5,377	—	1	5	53	67
Virginia [§]	1	7	32	165	306	109	110	185	3,763	5,257	—	2	8	73	61
West Virginia	—	0	8	22	23	17	15	29	552	337	—	0	9	14	16
E.S. Central	—	4	11	105	128	120	495	1,007	16,838	16,830	—	3	11	135	123
Alabama [§]	—	4	11	105	128	—	160	410	5,416	5,184	—	1	4	40	21
Kentucky	N	0	0	N	N	61	69	712	2,882	2,742	—	0	4	19	24
Mississippi	N	0	0	N	N	—	118	197	3,681	4,131	—	0	3	12	10
Tennessee [§]	N	0	0	N	N	59	142	189	4,859	4,773	—	2	5	64	68
W.S. Central	1	6	17	164	261	772	912	1,319	30,674	32,719	1	3	26	99	97
Arkansas [§]	—	3	9	79	74	68	95	138	3,304	3,171	1	0	3	24	14
Louisiana	1	3	12	85	125	107	144	372	4,416	5,321	—	1	4	36	20
Oklahoma	—	0	0	—	62	143	61	254	2,128	2,882	—	1	19	38	56
Texas [§]	N	0	0	N	N	454	597	867	20,826	21,345	—	0	4	1	7
Mountain	7	26	58	816	1,204	85	192	253	6,795	6,471	1	5	12	187	224
Arizona	2	3	8	86	104	34	69	110	2,570	2,172	1	2	6	74	82
Colorado	—	12	23	380	485	—	45	89	1,436	1,835	—	1	5	44	66
Idaho [§]	3	3	9	100	143	—	2	14	82	77	—	0	2	14	12
Montana [§]	2	2	5	47	76	—	1	4	48	76	—	0	1	2	2
Nevada [§]	—	1	8	35	67	49	33	103	1,389	1,255	—	0	2	12	5
New Mexico [§]	—	1	6	54	73	2	28	98	1,089	795	—	1	4	27	27
Utah	—	3	13	97	222	—	4	9	158	236	—	0	3	13	25
Wyoming [§]	—	0	5	17	34	—	0	3	23	25	—	0	1	1	5
Pacific	29	49	128	1,592	1,870	240	616	791	20,440	21,396	—	4	10	124	94
Alaska	—	2	7	56	68	—	20	34	652	903	—	0	3	19	17
California	21	32	67	1,078	1,146	176	498	695	16,815	17,480	—	0	6	29	16
Hawaii	—	0	4	23	42	—	13	26	417	492	—	0	3	17	16
Oregon	4	7	20	212	331	21	24	40	883	683	—	2	6	56	40
Washington	4	8	57	223	283	43	52	86	1,673	1,838	—	0	2	3	5
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	2	—	0	17	6	55	—	0	0	—	—
Puerto Rico	—	1	7	26	59	4	6	14	221	198	—	0	0	—	1
U.S. Virgin Islands	—	0	0	—	—	—	2	7	83	99	—	0	0	—	—

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† Data for H. influenzae (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
	Med	Max				Med	Max				Med	Max			
United States	11	22	74	722	1,069	14	48	167	1,533	2,191	5	17	39	633	554
New England	—	1	4	37	78	—	1	8	45	42	—	1	4	40	38
Connecticut	—	0	3	9	20	—	0	4	10	16	—	1	3	25	24
Maine†	—	0	2	4	7	—	0	2	5	11	—	0	2	6	2
Massachusetts	—	0	2	16	42	—	0	6	29	8	—	0	2	5	12
New Hampshire	—	0	1	—	—	—	0	1	1	5	N	0	0	N	N
Rhode Island†	—	0	1	3	9	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	2	5	—	—	0	0	—	2	—	0	1	4	—
Mid. Atlantic	2	4	12	137	172	2	5	12	178	210	—	1	6	55	73
New Jersey	—	1	4	18	50	—	1	4	32	57	—	0	4	1	16
New York (Upstate)	2	1	4	33	36	1	1	9	32	34	—	0	4	31	35
New York City	—	1	6	47	51	—	1	5	54	64	—	0	0	—	3
Pennsylvania	—	1	3	39	35	1	2	4	60	55	—	0	3	23	19
E.N. Central	—	4	9	124	133	—	5	36	222	357	—	3	12	121	65
Illinois	—	1	3	29	35	—	1	6	48	92	—	0	1	5	—
Indiana	—	0	3	11	11	—	1	3	31	52	—	0	5	44	24
Michigan	—	1	6	51	46	—	1	6	59	94	—	2	7	67	27
Ohio	—	1	5	28	27	—	1	30	69	82	—	0	1	4	8
Wisconsin	—	0	2	5	14	—	0	3	15	37	—	0	1	1	6
W.N. Central	1	1	25	32	55	—	2	16	91	78	—	0	6	6	11
Iowa	—	0	3	4	6	—	0	1	7	12	—	0	0	—	—
Kansas	—	0	2	3	10	—	0	2	9	5	—	0	1	2	—
Minnesota	—	0	22	9	13	—	0	15	9	6	—	0	6	2	6
Missouri	—	0	1	10	15	—	2	5	54	45	—	0	1	—	3
Nebraska†	1	0	4	4	10	—	0	3	11	9	—	0	1	2	2
North Dakota	—	0	3	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	2	1	—	0	1	1	1	—	0	0	—	—
S. Atlantic	6	5	13	150	234	4	12	33	396	605	—	4	11	153	125
Delaware	—	0	1	2	6	—	0	1	—	20	U	0	0	U	U
District of Columbia	—	0	0	—	1	—	0	0	—	3	—	0	0	—	2
Florida	3	1	6	47	91	3	4	11	137	201	—	1	5	35	36
Georgia	—	1	4	31	26	—	2	8	60	122	—	1	3	26	15
Maryland†	1	0	4	20	14	1	1	4	39	44	—	1	2	27	18
North Carolina	2	0	3	17	39	—	2	12	77	69	—	1	7	39	30
South Carolina†	—	0	2	9	22	—	1	4	22	40	—	0	1	1	1
Virginia†	—	0	4	16	33	—	1	7	42	64	—	0	2	9	9
West Virginia	—	0	5	8	2	—	0	18	19	42	—	0	6	16	14
E.S. Central	1	0	6	33	30	3	9	14	280	238	2	3	8	110	103
Alabama†	—	0	2	1	5	—	2	4	63	45	—	0	1	7	5
Kentucky	—	0	6	7	13	1	2	6	77	84	2	1	6	45	70
Mississippi	—	0	1	6	2	—	1	3	31	22	U	0	0	U	U
Tennessee†	1	0	5	19	10	2	4	7	109	87	—	1	5	58	28
W.S. Central	1	3	15	68	86	5	7	67	186	361	2	2	11	61	50
Arkansas†	—	0	1	—	1	—	1	4	28	44	—	0	0	—	1
Louisiana	—	0	1	2	5	—	1	4	22	41	—	0	2	5	2
Oklahoma	—	0	4	3	1	3	1	16	46	64	—	1	10	33	18
Texas†	1	2	11	63	79	2	4	45	90	212	2	0	3	23	29
Mountain	—	2	5	49	115	—	2	5	54	98	—	1	4	38	44
Arizona	—	0	2	13	50	—	0	3	12	16	U	0	0	U	U
Colorado	—	0	2	17	31	—	0	3	15	34	—	0	3	13	9
Idaho†	—	0	1	6	6	—	0	1	2	6	—	0	2	7	8
Montana†	—	0	1	2	4	—	0	0	—	—	—	0	1	3	2
Nevada†	—	0	3	5	11	—	0	3	16	31	—	0	1	5	4
New Mexico†	—	0	1	3	3	—	0	2	5	3	—	0	1	7	11
Utah	—	0	2	1	7	—	0	1	4	7	—	0	1	1	10
Wyoming†	—	0	1	2	3	—	0	1	—	1	—	0	1	2	—
Pacific	—	3	15	92	166	—	3	25	81	202	1	1	12	49	45
Alaska	—	0	1	2	1	—	0	1	4	2	U	0	0	U	U
California	—	2	15	64	131	—	1	22	32	137	—	0	4	19	19
Hawaii	—	0	2	7	6	—	0	1	5	3	U	0	0	U	U
Oregon	—	0	2	4	14	—	0	4	24	32	—	0	3	12	11
Washington	—	0	4	15	14	—	0	4	16	28	1	0	5	18	15
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	5	8	4	—	0	8	28	56	—	0	8	10	44
Puerto Rico	—	0	2	4	11	—	0	3	6	15	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	62	53	128	1,781	2,134	259	361	1,559	18,706	23,195	19	27	114	839	1,127
New England	—	4	16	112	166	3	75	280	3,175	6,989	—	2	20	50	77
Connecticut	—	1	6	25	25	—	34	169	1,424	2,391	—	0	20	6	2
Maine†	—	0	3	6	7	—	11	58	316	423	—	0	1	2	5
Massachusetts	—	2	9	58	89	—	17	71	494	2,767	—	1	5	33	60
New Hampshire	—	0	5	8	15	—	11	57	454	1,033	—	0	2	2	2
Rhode Island†	—	0	4	9	23	1	1	35	109	110	—	0	4	2	6
Vermont†	—	0	1	6	7	2	5	61	378	265	—	0	1	5	2
Mid. Atlantic	32	13	53	491	536	229	150	1,144	12,187	8,197	1	7	22	174	342
New Jersey	—	2	18	48	89	—	51	547	4,807	2,901	—	0	6	8	78
New York (Upstate)	18	5	19	177	163	111	35	214	2,317	1,805	1	1	6	27	51
New York City	—	3	17	86	93	—	2	18	38	529	—	3	13	101	173
Pennsylvania	14	5	19	180	191	118	62	473	5,025	2,962	—	1	4	38	40
E.N. Central	11	10	49	429	480	2	22	82	885	3,264	1	3	7	96	118
Illinois	—	1	6	48	117	—	1	18	86	116	—	1	4	38	48
Indiana	—	1	5	57	40	—	0	14	69	74	—	0	2	6	9
Michigan	—	2	13	93	121	—	1	9	62	80	1	0	4	17	21
Ohio	11	4	34	230	154	2	1	9	38	22	—	1	4	30	31
Wisconsin	—	0	5	1	48	—	17	63	630	2,972	—	0	2	5	9
W.N. Central	1	2	9	52	82	4	3	39	82	1,835	—	1	45	21	49
Iowa	—	0	2	7	13	—	0	11	62	76	—	0	3	13	10
Kansas	—	0	2	4	7	—	0	2	7	10	—	0	2	6	8
Minnesota	—	0	8	—	23	—	0	35	—	1,728	—	0	45	—	3
Missouri	—	1	5	35	23	—	0	1	—	4	—	0	2	—	13
Nebraska†	1	0	1	3	8	—	0	2	7	8	—	0	1	2	13
North Dakota	—	0	1	1	3	4	0	10	4	8	—	0	1	—	—
South Dakota	—	0	2	2	5	—	0	1	2	1	—	0	1	—	2
S. Atlantic	17	9	22	292	361	21	57	160	2,171	2,645	15	8	20	291	299
Delaware	—	0	1	6	12	2	11	43	578	514	—	0	1	3	2
District of Columbia	—	0	3	9	14	—	0	5	11	31	—	0	1	5	10
Florida	9	3	7	105	113	5	2	8	81	51	4	2	7	74	88
Georgia	—	1	4	26	41	—	0	2	13	9	—	1	7	55	53
Maryland†	5	1	6	47	80	10	18	103	719	1,125	8	1	8	70	62
North Carolina	3	1	7	47	39	3	0	8	49	60	3	0	6	33	32
South Carolina†	—	0	2	11	10	—	0	3	16	27	—	0	1	2	3
Virginia†	—	1	9	35	43	1	18	76	656	747	—	1	8	49	48
West Virginia	—	0	2	6	9	—	0	14	48	81	—	0	1	—	1
E.S. Central	—	2	10	100	97	—	1	3	31	35	1	0	3	21	23
Alabama†	—	0	2	10	12	—	0	2	7	1	—	0	1	3	5
Kentucky	—	0	3	21	19	—	0	1	—	4	—	0	1	6	6
Mississippi	—	0	3	10	11	—	0	1	1	—	—	0	1	1	2
Tennessee†	—	1	8	59	55	—	0	3	23	30	1	0	3	11	10
W.S. Central	1	3	13	78	112	—	1	29	25	76	—	1	18	24	65
Arkansas†	—	0	2	7	14	—	0	0	—	—	—	0	1	3	4
Louisiana	—	0	3	13	5	—	0	1	1	3	—	0	1	1	2
Oklahoma	—	0	3	7	11	—	0	0	—	—	—	0	1	3	4
Texas†	1	2	11	51	82	—	1	29	24	73	—	1	17	17	55
Mountain	—	2	5	58	125	—	0	4	23	21	—	1	4	46	43
Arizona	—	1	3	20	43	—	0	2	6	2	—	0	4	18	20
Colorado	—	0	2	4	23	—	0	1	1	2	—	0	3	16	13
Idaho†	—	0	1	4	4	—	0	2	2	8	—	0	1	2	1
Montana†	—	0	1	—	4	—	0	2	5	1	—	0	1	1	2
Nevada†	—	0	2	11	18	—	0	1	3	—	—	0	2	6	3
New Mexico†	—	0	1	5	6	—	0	2	4	5	—	0	1	2	1
Utah	—	0	2	12	20	—	0	1	1	3	—	0	1	1	3
Wyoming†	—	0	1	2	7	—	0	1	1	—	—	0	0	—	—
Pacific	—	5	21	169	175	—	3	11	127	133	1	4	10	116	111
Alaska	—	0	0	—	2	—	0	2	5	5	—	0	2	4	3
California	—	4	15	147	147	—	3	9	106	83	—	2	10	81	77
Hawaii	—	0	1	1	1	N	0	0	N	N	—	0	1	5	2
Oregon	—	0	2	9	10	—	0	2	10	38	—	0	4	11	8
Washington	—	0	6	12	15	—	0	4	6	7	1	0	5	15	21
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	1	1	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	1	N	0	0	N	N	—	0	1	—	4
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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Morbidity and Mortality Weekly Report

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Meningococcal disease, invasive [†] All serogroups					Mumps					Pertussis				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	1	14	53	487	554	4	7	47	191	2,346	100	310	2,925	8,679	13,775
New England	—	0	3	23	14	—	0	1	5	23	1	8	24	282	336
Connecticut	—	0	1	3	2	—	0	0	—	11	—	1	8	30	72
Maine [§]	—	0	1	3	3	—	0	1	—	1	1	2	8	85	34
Massachusetts	—	0	2	11	4	—	0	1	3	8	—	4	13	99	185
New Hampshire	—	0	1	1	—	—	0	0	—	3	—	1	7	41	10
Rhode Island [§]	—	0	1	—	—	—	0	1	1	—	—	1	4	17	24
Vermont [§]	—	0	3	5	5	—	0	1	1	—	—	0	3	10	11
Mid. Atlantic	—	1	6	56	56	—	1	23	23	2,039	25	36	125	981	887
New Jersey	—	0	1	3	17	—	0	2	8	335	—	2	10	76	114
New York (Upstate)	—	0	4	18	9	—	0	3	5	655	20	12	81	411	306
New York City	—	0	3	22	14	—	0	22	9	1,030	—	0	19	38	53
Pennsylvania	—	0	2	13	16	—	0	16	1	19	5	15	70	456	414
E.N. Central	—	2	7	65	94	—	1	7	50	44	15	63	198	1,794	3,132
Illinois	—	0	3	20	19	—	1	3	30	15	—	15	50	458	549
Indiana	—	0	2	9	21	—	0	1	—	3	—	5	26	126	447
Michigan	—	0	4	7	15	—	0	1	7	16	4	22	57	479	887
Ohio	—	1	2	20	23	—	0	5	11	9	11	18	80	516	987
Wisconsin	—	0	2	9	16	—	0	1	2	1	—	9	26	215	262
W.N. Central	—	1	4	33	39	—	0	4	27	79	2	24	501	771	1,316
Iowa	—	0	1	8	8	—	0	1	5	37	—	6	36	126	356
Kansas	—	0	1	2	6	—	0	1	4	4	—	2	10	68	122
Minnesota	—	0	2	—	3	—	0	4	1	4	—	0	469	295	392
Missouri	—	0	2	12	16	—	0	3	9	9	1	6	43	197	270
Nebraska [§]	—	0	2	8	5	—	0	1	4	23	1	1	13	39	117
North Dakota	—	0	1	1	1	—	0	3	4	—	—	0	10	36	32
South Dakota	—	0	1	2	—	—	0	0	—	2	—	0	3	10	27
S. Atlantic	1	2	8	98	101	2	0	3	19	45	31	31	106	918	1,144
Delaware	—	0	1	1	—	—	0	0	—	—	—	0	5	21	9
District of Columbia	—	0	1	1	1	—	0	0	—	3	—	0	2	3	5
Florida	1	1	5	38	45	—	0	2	5	8	17	6	17	228	217
Georgia	—	0	1	11	8	—	0	2	4	2	1	3	13	120	172
Maryland [§]	—	0	1	10	6	—	0	1	1	9	4	2	6	51	90
North Carolina	—	0	3	13	12	2	0	2	7	7	6	3	35	127	221
South Carolina [§]	—	0	1	9	10	—	0	0	—	4	1	3	25	95	255
Virginia [§]	—	0	2	10	17	—	0	2	2	10	2	7	41	221	140
West Virginia	—	0	3	5	2	—	0	0	—	2	—	0	41	52	35
E.S. Central	—	0	3	20	28	—	0	1	3	9	7	9	28	240	533
Alabama [§]	—	0	2	9	5	—	0	1	1	6	—	3	11	89	149
Kentucky	—	0	2	2	12	—	0	0	—	1	3	1	16	55	173
Mississippi	—	0	1	2	3	—	0	1	2	—	—	1	10	22	54
Tennessee [§]	—	0	2	7	8	—	0	1	—	2	4	2	10	74	157
W.S. Central	—	1	12	39	59	1	1	15	47	59	14	24	297	617	2,022
Arkansas [§]	—	0	1	8	5	—	0	1	1	5	1	1	16	38	161
Louisiana	—	0	2	8	12	—	0	2	—	5	—	0	3	15	29
Oklahoma	—	0	2	7	14	—	0	1	1	—	2	0	92	25	31
Texas [§]	—	0	10	16	28	1	1	14	45	49	11	20	187	539	1,801
Mountain	—	1	4	34	44	1	0	4	7	14	4	43	100	1,216	941
Arizona	—	0	1	10	11	—	0	0	—	5	3	14	29	503	292
Colorado	—	0	1	8	15	—	0	1	3	7	—	9	63	281	139
Idaho [§]	—	0	1	4	5	1	0	1	2	—	1	2	15	94	122
Montana [§]	—	0	2	3	1	—	0	0	—	—	—	2	16	70	36
Nevada [§]	—	0	1	1	8	—	0	1	—	—	—	0	5	18	21
New Mexico [§]	—	0	1	1	3	—	0	2	2	—	—	3	10	81	86
Utah	—	0	2	7	1	—	0	1	—	2	—	5	16	164	236
Wyoming [§]	—	0	1	—	—	—	0	1	—	—	—	0	2	5	9
Pacific	—	3	26	119	119	—	0	3	10	34	1	70	1,710	1,860	3,464
Alaska	—	0	1	2	1	—	0	1	1	1	—	0	6	19	27
California	—	2	17	86	76	—	0	3	3	22	—	57	1,569	1,340	2,960
Hawaii	—	0	1	4	1	—	0	1	2	3	—	1	9	64	57
Oregon	—	0	3	15	24	—	0	1	4	2	1	5	11	179	212
Washington	—	0	8	12	17	—	0	1	—	6	—	9	131	258	208
Territories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	2	9	12	432	—	0	14	31	2
Puerto Rico	—	0	1	—	1	—	0	1	1	1	—	0	1	2	1
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Rabies, animal					Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC) [†]				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	34	56	119	1,712	3,114	655	931	1,703	27,909	33,568	59	98	264	3,016	3,425
New England	6	3	13	121	220	2	29	351	1,254	1,820	—	2	36	131	163
Connecticut	—	0	9	28	101	—	0	330	330	491	—	0	36	36	60
Maine [§]	5	1	3	46	43	2	2	8	89	83	—	0	3	22	12
Massachusetts	—	0	0	—	—	—	17	41	554	927	—	1	10	44	60
New Hampshire	—	0	3	15	15	—	3	8	112	135	—	0	3	17	18
Rhode Island [§]	—	0	4	15	23	—	1	62	128	136	—	0	2	4	2
Vermont [§]	1	1	3	17	38	—	1	5	41	48	—	0	3	8	11
Mid. Atlantic	7	13	29	425	770	59	93	201	3,219	4,049	18	9	24	362	384
New Jersey	—	0	0	—	—	—	12	40	322	839	—	1	6	36	86
New York (Upstate)	7	7	20	247	367	33	25	66	891	950	10	4	12	141	125
New York City	—	0	4	9	134	4	21	46	737	909	—	1	6	57	50
Pennsylvania	—	6	17	169	269	22	32	108	1,269	1,351	8	3	15	128	123
E.N. Central	6	2	14	117	198	42	89	161	2,842	4,225	8	12	30	455	616
Illinois	4	1	6	40	99	—	28	57	941	1,424	—	2	7	76	117
Indiana	—	0	4	10	—	—	11	23	308	552	1	2	7	80	99
Michigan	1	1	6	38	58	3	14	49	504	668	—	2	14	105	117
Ohio	1	0	3	29	41	39	21	47	820	938	7	2	10	120	109
Wisconsin	N	0	0	N	N	—	9	40	269	643	—	2	12	74	174
W.N. Central	3	2	40	55	203	61	47	86	1,520	2,064	13	13	40	485	636
Iowa	—	0	2	—	22	2	9	20	299	375	—	2	15	129	129
Kansas	—	0	4	21	48	8	7	20	269	305	2	1	8	65	51
Minnesota	—	0	34	—	25	—	0	21	—	542	—	0	11	—	212
Missouri	—	0	2	—	56	38	16	41	643	544	7	4	14	173	169
Nebraska [§]	3	0	3	26	42	5	4	13	163	165	—	2	7	75	50
North Dakota	—	0	6	8	10	8	0	15	30	26	4	0	10	10	5
South Dakota	—	0	0	—	—	—	3	17	116	107	—	1	4	33	20
S. Atlantic	8	19	75	744	815	321	279	707	8,456	8,814	8	14	29	432	455
Delaware	—	0	0	—	—	1	3	10	109	116	—	0	2	11	4
District of Columbia	—	0	0	—	—	—	1	4	38	76	—	0	1	3	8
Florida	—	0	66	66	121	162	107	226	3,330	3,605	3	3	15	92	138
Georgia	—	0	0	—	—	37	42	121	1,522	1,749	—	2	8	81	72
Maryland [§]	—	6	14	204	258	33	18	51	610	730	—	1	8	29	64
North Carolina	—	0	0	—	—	68	33	251	1,250	825	5	2	11	84	44
South Carolina [§]	N	0	0	N	N	18	30	99	889	885	—	0	4	12	17
Virginia [§]	—	11	27	411	383	2	21	68	666	695	—	3	9	117	94
West Virginia	8	0	30	63	53	—	0	14	42	133	—	0	4	3	14
E.S. Central	—	2	7	75	135	42	60	168	2,192	2,347	1	5	22	196	173
Alabama [§]	—	1	7	51	56	—	16	57	555	610	—	1	15	65	37
Kentucky	—	0	2	10	15	13	9	32	271	361	1	1	5	29	40
Mississippi	—	0	1	1	—	10	21	61	757	728	—	0	12	17	11
Tennessee [§]	—	0	4	13	64	19	17	50	609	648	—	2	11	85	85
W.S. Central	—	1	31	53	591	65	133	515	3,556	4,059	2	7	151	214	195
Arkansas [§]	—	0	10	41	22	26	14	43	487	423	—	1	3	28	40
Louisiana	—	0	0	—	—	—	15	52	505	848	—	0	2	6	13
Oklahoma	—	0	20	12	38	31	11	95	407	378	2	1	55	38	16
Texas [§]	—	0	30	—	531	8	87	381	2,157	2,410	—	6	95	142	126
Mountain	2	0	5	22	46	8	48	90	1,571	1,964	5	11	30	363	426
Arizona	N	0	0	N	N	2	14	39	478	647	—	2	14	61	42
Colorado	—	0	0	—	—	—	10	23	365	409	—	3	11	82	161
Idaho [§]	—	0	2	2	7	1	3	8	106	114	1	3	6	69	52
Montana [§]	N	0	0	N	N	2	2	10	91	72	3	1	5	32	28
Nevada [§]	—	0	2	4	5	3	3	11	96	220	—	0	7	26	25
New Mexico [§]	2	0	1	10	9	—	6	19	190	215	—	1	6	27	32
Utah	—	0	2	6	7	—	6	15	201	243	—	1	7	53	68
Wyoming [§]	—	0	4	—	18	—	1	9	44	44	1	0	3	13	18
Pacific	2	3	15	100	136	55	107	288	3,299	4,226	4	13	46	378	377
Alaska	—	0	2	9	11	—	1	6	41	62	—	0	1	1	1
California	2	3	10	84	112	41	77	232	2,530	3,074	2	8	36	247	161
Hawaii	—	0	0	—	—	—	6	14	220	233	—	0	1	5	27
Oregon	—	0	2	7	13	1	6	14	159	392	—	1	11	48	65
Washington	—	0	14	—	—	13	12	42	349	465	2	2	16	77	123
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	2	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	3	6	8	—	0	0	—	—
Puerto Rico	1	0	6	24	33	—	6	25	118	389	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/nndss/phs/files/ProvisionalNationa%20NotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

† Includes *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).

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Shigellosis					Spotted Fever Rickettsiosis (including RMSF) [†]									
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Confirmed					Probable				
		Med	Max			Current week	Med	Max	Cum 2011	Cum 2010	Current week	Med	Max	Cum 2011	Cum 2010
United States	122	232	742	6,882	9,396	3	2	15	117	106	36	24	245	1,110	1,103
New England	—	3	29	131	276	—	0	0	—	—	—	0	1	3	2
Connecticut	—	0	28	28	69	—	0	0	—	—	—	0	0	—	—
Maine [§]	—	0	4	19	5	—	0	0	—	—	—	0	1	—	1
Massachusetts	—	2	13	76	181	—	0	0	—	—	—	0	1	1	—
New Hampshire	—	0	2	1	9	—	0	0	—	—	—	0	1	1	1
Rhode Island [§]	—	0	4	4	11	—	0	0	—	—	—	0	1	1	—
Vermont [§]	—	0	1	3	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	14	14	74	440	1,256	1	0	2	11	2	—	1	5	24	74
New Jersey	—	2	10	51	288	—	0	0	—	1	—	0	3	—	44
New York (Upstate)	9	3	18	155	151	1	0	1	3	1	—	0	2	5	9
New York City	1	4	14	154	225	—	0	0	—	—	—	0	2	10	9
Pennsylvania	4	3	56	80	592	—	0	2	8	—	—	0	3	9	12
E.N. Central	8	16	40	493	1,227	—	0	2	4	3	3	1	6	62	66
Illinois	—	5	10	115	712	—	0	1	—	2	—	0	2	22	29
Indiana [§]	—	1	4	40	46	—	0	0	—	1	2	0	4	30	18
Michigan	1	3	10	110	183	—	0	1	1	—	—	0	1	—	1
Ohio	7	5	27	228	229	—	0	2	3	—	1	0	2	10	12
Wisconsin	—	0	4	—	57	—	0	0	—	—	—	0	1	—	6
W.N. Central	1	9	38	215	1,696	1	0	7	23	11	3	4	30	252	214
Iowa	—	0	4	12	39	—	0	0	—	—	—	0	2	4	5
Kansas [§]	—	2	12	38	195	—	0	0	—	—	—	0	0	—	—
Minnesota	—	0	4	—	39	—	0	0	—	—	—	0	2	—	—
Missouri	1	5	18	153	1,390	—	0	4	16	8	3	4	30	246	206
Nebraska [§]	—	0	10	8	26	—	0	3	5	3	—	0	1	2	2
North Dakota	—	0	0	—	—	1	0	1	2	—	—	0	0	—	1
South Dakota	—	0	2	4	7	—	0	0	—	—	—	0	0	—	—
S. Atlantic	80	68	133	2,506	1,574	1	1	7	62	67	23	6	50	304	337
Delaware [§]	—	0	1	3	36	—	0	1	1	1	—	0	4	15	16
District of Columbia	—	0	2	10	24	—	0	1	1	—	—	0	1	1	—
Florida [§]	65	42	98	1,805	684	—	0	1	3	2	1	0	2	7	7
Georgia	7	12	26	370	499	—	0	5	36	48	—	0	0	—	—
Maryland [§]	5	2	5	65	89	—	0	1	2	—	—	0	3	18	33
North Carolina	2	4	36	149	104	1	0	4	11	12	22	1	41	162	173
South Carolina [§]	1	1	4	36	49	—	0	1	5	1	—	0	2	15	12
Virginia [§]	—	2	8	64	88	—	0	1	3	3	—	2	8	83	96
West Virginia	—	0	66	4	1	—	0	0	—	—	—	0	1	3	—
E.S. Central	2	13	29	371	498	—	0	3	4	16	6	5	18	237	310
Alabama [§]	—	4	15	116	109	—	0	1	—	4	—	0	5	28	58
Kentucky	1	1	6	35	185	—	0	1	1	6	—	0	0	—	—
Mississippi	—	2	9	101	36	—	0	0	—	1	—	0	4	9	17
Tennessee [§]	1	4	14	119	168	—	0	2	3	5	6	4	18	200	235
W.S. Central	3	60	503	1,632	1,686	—	0	8	3	1	—	2	235	197	91
Arkansas [§]	—	2	7	48	39	—	0	2	2	—	—	0	37	170	56
Louisiana	—	5	19	154	180	—	0	0	—	—	—	0	1	3	2
Oklahoma	2	2	161	66	193	—	0	5	1	—	—	0	202	21	17
Texas [§]	1	49	338	1,364	1,274	—	0	1	—	1	—	0	5	3	16
Mountain	10	15	32	474	501	—	0	5	10	2	1	0	6	31	8
Arizona	5	6	19	162	269	—	0	4	10	—	—	0	6	18	—
Colorado [§]	—	2	7	58	63	—	0	1	—	—	—	0	1	2	—
Idaho [§]	1	0	3	14	18	—	0	0	—	—	—	0	1	1	3
Montana [§]	1	1	15	115	7	—	0	0	—	2	—	0	1	1	1
Nevada [§]	3	0	6	17	22	—	0	0	—	—	—	0	0	—	—
New Mexico [§]	—	3	9	74	90	—	0	0	—	—	—	0	1	1	1
Utah	—	1	4	32	32	—	0	0	—	—	—	0	1	1	3
Wyoming [§]	—	0	1	2	—	—	0	0	—	—	1	0	2	7	—
Pacific	4	21	63	620	682	—	0	2	—	4	—	0	0	—	1
Alaska	—	0	2	5	1	N	0	0	N	N	N	0	0	N	N
California	4	17	59	498	538	—	0	2	—	4	—	0	0	—	—
Hawaii	—	1	3	37	36	N	0	0	N	N	N	0	0	N	N
Oregon	—	1	4	27	40	—	0	0	—	—	—	0	0	—	1
Washington	—	1	8	53	67	—	0	1	—	—	—	0	0	—	—
Territories															
American Samoa	—	1	1	1	1	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	5	N	0	0	N	N	N	0	0	N	N
Puerto Rico	—	0	1	—	4	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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[†] Illnesses with similar clinical presentation that result from Spotted fever group rickettsia infections are reported as Spotted fever rickettsioses. Rocky Mountain spotted fever (RMSF) caused by *Rickettsia rickettsii*, is the most common and well-known spotted fever.

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Streptococcus pneumoniae,† invasive disease														
	All ages					Age <5					Syphilis, primary and secondary				
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Current week	Previous 52 weeks		Cum 2011	Cum 2010
		Med	Max				Med	Max				Med	Max		
United States	86	298	937	9,675	10,625	7	23	101	702	1,307	99	254	363	8,164	9,098
New England	—	17	79	541	594	—	1	5	29	76	5	8	18	245	317
Connecticut	—	6	49	235	246	—	0	3	6	22	5	1	8	39	59
Maine [§]	—	2	13	92	84	—	0	1	3	6	—	0	3	11	16
Massachusetts	—	0	3	21	53	—	0	3	8	37	—	5	11	145	201
New Hampshire	—	2	8	72	79	—	0	1	5	4	—	0	3	13	14
Rhode Island [§]	—	2	8	70	73	—	0	1	2	4	—	0	7	32	25
Vermont [§]	—	1	6	51	59	—	0	2	5	3	—	0	2	5	2
Mid. Atlantic	3	33	81	964	1,095	—	3	27	83	165	9	29	46	931	1,153
New Jersey	—	13	35	452	491	—	1	4	28	41	—	5	12	134	159
New York (Upstate)	—	2	10	59	107	—	1	9	33	81	3	3	20	124	93
New York City	3	14	42	453	497	—	0	14	22	43	—	15	31	440	652
Pennsylvania	N	0	0	N	N	N	0	0	N	N	6	7	13	233	249
E.N. Central	9	66	113	2,089	2,154	—	4	10	116	195	6	30	48	991	1,329
Illinois	N	0	0	N	N	N	0	0	N	N	5	13	22	405	633
Indiana	—	15	32	458	486	—	0	4	20	41	1	3	8	109	127
Michigan	4	15	29	468	494	—	1	4	25	59	—	5	10	159	178
Ohio	5	26	45	862	834	—	2	7	59	68	—	9	21	286	357
Wisconsin	—	9	24	301	340	—	0	3	12	27	—	1	4	32	34
W.N. Central	28	4	35	124	558	2	0	5	9	77	1	7	18	196	221
Iowa	N	0	0	N	N	N	0	0	N	N	—	0	2	12	15
Kansas	N	0	0	N	N	N	0	0	N	N	1	0	3	17	13
Minnesota	—	0	24	—	420	—	0	5	—	62	—	3	10	80	83
Missouri	N	0	0	N	N	N	0	0	N	N	—	2	9	81	103
Nebraska [§]	3	2	9	81	93	1	0	2	8	13	—	0	2	5	5
North Dakota	25	0	18	43	45	1	0	1	1	2	—	0	1	1	—
South Dakota	N	0	0	N	N	N	0	0	N	N	—	0	1	—	2
S. Atlantic	26	72	170	2,694	2,887	4	7	22	201	365	35	64	178	2,139	2,065
Delaware	—	1	6	35	27	—	0	1	—	—	2	0	4	15	4
District of Columbia	—	1	3	28	53	—	0	1	4	7	1	3	8	116	99
Florida	13	23	68	968	1,069	1	3	13	88	146	2	23	37	760	741
Georgia	8	22	54	716	916	3	2	7	50	112	14	12	130	409	439
Maryland [§]	3	10	32	389	369	—	1	4	26	42	3	8	18	302	196
North Carolina	N	0	0	N	N	N	0	0	N	N	9	7	19	248	287
South Carolina [§]	2	8	25	329	364	—	0	3	20	42	4	4	10	144	98
Virginia [§]	N	0	0	N	N	N	0	0	N	N	—	4	16	143	197
West Virginia	—	0	48	229	89	—	0	6	13	16	—	0	2	2	4
E.S. Central	3	19	36	634	722	—	1	4	39	69	2	15	34	466	600
Alabama [§]	N	0	0	N	N	N	0	0	N	N	—	4	11	118	169
Kentucky	N	0	0	N	N	N	0	0	N	N	2	2	16	76	90
Mississippi	N	0	0	N	N	N	0	0	N	N	—	3	16	113	151
Tennessee [§]	3	19	36	634	722	—	1	4	39	69	—	5	11	159	190
W.S. Central	16	31	368	1,288	1,305	1	4	30	122	174	26	35	59	1,148	1,399
Arkansas [§]	—	3	26	158	121	—	0	3	12	12	7	3	10	133	152
Louisiana	1	3	11	116	72	—	0	2	10	17	—	8	27	241	348
Oklahoma	N	0	0	N	N	N	0	0	N	N	2	1	6	36	61
Texas [§]	15	25	333	1,014	1,112	1	3	27	100	145	17	22	33	738	838
Mountain	1	32	72	1,228	1,232	—	3	8	93	170	2	12	23	372	390
Arizona	1	12	45	591	596	—	1	5	44	77	—	4	8	150	151
Colorado	—	11	23	375	367	—	0	4	26	51	—	2	8	72	85
Idaho [§]	N	0	0	N	N	N	0	0	N	N	—	0	2	6	2
Montana [§]	N	0	0	N	N	N	0	0	N	N	—	0	1	4	3
Nevada [§]	N	0	0	N	N	N	0	0	N	N	2	3	9	90	69
New Mexico [§]	—	3	13	169	115	—	0	2	11	14	—	1	4	43	31
Utah	—	2	8	74	143	—	0	3	12	25	—	0	4	7	49
Wyoming [§]	—	0	15	19	11	—	0	1	—	3	—	0	0	—	—
Pacific	—	3	11	113	78	—	0	2	10	16	13	51	66	1,676	1,624
Alaska	—	3	11	111	78	—	0	2	9	16	—	0	1	1	3
California	N	0	0	N	N	N	0	0	N	N	11	41	57	1,367	1,381
Hawaii	—	0	3	2	—	—	0	1	1	—	—	0	5	8	27
Oregon	N	0	0	N	N	N	0	0	N	N	—	3	10	111	47
Washington	N	0	0	N	N	N	0	0	N	N	2	5	13	189	166
Territories															
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	2	4	13	146	158
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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† Includes drug resistant and susceptible cases of invasive Streptococcus pneumoniae disease among children <5 years and among all ages. Case definition: Isolation of S. pneumoniae from a normally sterile body site (e.g., blood or cerebrospinal fluid).

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 3, 2011, and September 4, 2010 (35th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
	Current week	Previous 52 weeks		Cum 2011	Cum 2010	Neuroinvasive					Nonneuroinvasive§				
		Med	Max			Current week	Previous 52 weeks	Cum 2011	Cum 2010	Current week	Previous 52 weeks	Cum 2011	Cum 2010		
United States	74	273	367	8,059	10,446	—	1	71	85	379	—	0	37	50	295
New England	—	22	46	667	734	—	0	2	1	9	—	0	1	—	4
Connecticut	—	5	16	169	222	—	0	1	1	5	—	0	1	—	3
Maine¶	—	5	16	135	132	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	6	18	260	197	—	0	1	—	3	—	0	0	—	1
New Hampshire	—	0	9	9	90	—	0	0	—	1	—	0	0	—	—
Rhode Island¶	—	1	6	29	23	—	0	0	—	—	—	0	0	—	—
Vermont¶	—	2	10	65	70	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	8	35	71	1,401	1,154	—	0	15	6	90	—	0	10	3	45
New Jersey	—	12	54	783	411	—	0	3	—	12	—	0	6	1	4
New York (Upstate)	N	0	0	N	N	—	0	5	1	43	—	0	1	2	28
New York City	—	0	0	—	—	—	0	5	4	24	—	0	1	—	8
Pennsylvania	8	19	41	618	743	—	0	3	1	11	—	0	2	—	5
E.N. Central	20	68	118	1,874	3,384	—	0	15	10	34	—	0	7	4	16
Illinois	1	17	31	476	871	—	0	10	4	15	—	0	4	—	7
Indiana¶	2	4	18	162	254	—	0	2	3	2	—	0	1	—	5
Michigan	5	20	38	615	1,003	—	0	6	1	16	—	0	1	—	2
Ohio	12	20	58	620	896	—	0	1	2	1	—	0	3	4	1
Wisconsin	—	0	22	1	360	—	0	0	—	—	—	0	1	—	1
W.N. Central	—	9	42	239	597	—	0	3	4	24	—	0	7	7	59
Iowa	N	0	0	N	N	—	0	1	—	2	—	0	1	—	3
Kansas¶	—	4	15	77	248	—	0	1	—	2	—	0	2	—	11
Minnesota	—	0	0	—	—	—	0	1	—	3	—	0	1	—	4
Missouri	—	5	24	105	286	—	0	1	—	3	—	0	1	1	—
Nebraska¶	—	0	5	3	8	—	0	1	3	8	—	0	7	4	18
North Dakota	—	0	10	31	32	—	0	0	—	2	—	0	1	2	7
South Dakota	—	1	7	23	23	—	0	1	1	4	—	0	1	—	16
S. Atlantic	23	36	64	1,218	1,514	—	0	6	11	23	—	0	3	6	16
Delaware¶	—	0	3	6	25	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	2	12	16	—	0	1	—	2	—	0	1	—	2
Florida¶	18	15	38	616	723	—	0	4	8	6	—	0	1	1	1
Georgia	N	0	0	N	N	—	0	1	—	4	—	0	1	2	8
Maryland¶	N	0	0	N	N	—	0	3	1	8	—	0	2	3	4
North Carolina	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
South Carolina¶	—	0	9	12	75	—	0	1	—	—	—	0	0	—	—
Virginia¶	5	8	25	293	369	—	0	1	2	3	—	0	0	—	1
West Virginia	—	7	32	279	306	—	0	0	—	—	—	0	0	—	—
E.S. Central	—	5	15	174	207	—	0	3	14	4	—	0	2	8	8
Alabama¶	—	5	14	163	200	—	0	0	—	1	—	0	0	—	2
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	0	—	1
Mississippi	—	0	3	11	7	—	0	3	12	2	—	0	2	8	3
Tennessee¶	N	0	0	N	N	—	0	1	2	1	—	0	0	—	2
W.S. Central	22	43	258	1,612	2,016	—	0	12	8	61	—	0	2	5	15
Arkansas¶	1	3	17	134	143	—	0	2	—	4	—	0	1	—	—
Louisiana	—	2	6	52	53	—	0	3	2	13	—	0	1	2	6
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Texas¶	21	39	247	1,426	1,820	—	0	11	6	44	—	0	2	3	9
Mountain	1	19	65	797	758	—	0	18	18	91	—	0	10	11	97
Arizona	1	3	50	376	—	—	0	13	14	61	—	0	5	6	45
Colorado¶	—	4	31	155	281	—	0	5	—	19	—	0	5	2	42
Idaho¶	N	0	0	N	N	—	0	1	1	—	—	0	0	—	1
Montana¶	—	2	28	104	156	—	0	0	—	—	—	0	0	—	—
Nevada¶	N	0	0	N	N	—	0	2	3	—	—	0	1	2	2
New Mexico¶	—	1	2	26	84	—	0	6	—	10	—	0	1	—	3
Utah	—	4	26	128	224	—	0	1	—	—	—	0	1	—	—
Wyoming¶	—	0	3	8	13	—	0	1	—	1	—	0	1	1	4
Pacific	—	2	6	77	82	—	0	7	13	43	—	0	4	6	35
Alaska	—	1	4	37	31	—	0	0	—	—	—	0	0	—	—
California	—	0	3	7	26	—	0	7	13	43	—	0	3	6	34
Hawaii	—	1	4	33	25	—	0	0	—	—	—	0	0	—	—
Oregon	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
Washington	N	0	0	N	N	—	0	1	—	—	—	0	1	—	1
Territories															
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	4	16	19	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	5	21	107	438	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

* Case counts for reporting year 2010 and 2011 are provisional and subject to change. For further information on interpretation of these data, see http://www.cdc.gov/osels/ph_surveillance/ndss/phs/files/ProvisionalNationalNotifiableDiseasesSurveillanceData20100927.pdf. Data for TB are displayed in Table IV, which appears quarterly.

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

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

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

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TABLE III. Deaths in 122 U.S. cities,* week ending September 3, 2011 (35th week)

Reporting area	All causes, by age (years)						P&I [†] Total	Reporting area (Continued)	All causes, by age (years)						P&I [†] Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
New England	508	351	110	24	11	12	55	S. Atlantic	1,170	731	305	77	35	21	53
Boston, MA	130	84	32	8	2	4	13	Atlanta, GA	135	73	40	14	8	—	1
Bridgeport, CT	32	23	5	2	1	1	3	Baltimore, MD	155	93	47	9	4	2	10
Cambridge, MA	15	12	3	—	—	—	—	Charlotte, NC	123	78	29	10	3	3	4
Fall River, MA	27	20	7	—	—	—	1	Jacksonville, FL	114	80	27	5	1	1	7
Hartford, CT	48	36	7	—	2	3	7	Miami, FL	104	66	29	4	5	—	7
Lowell, MA	26	19	5	2	—	—	3	Norfolk, VA	42	25	11	2	1	3	4
Lynn, MA	10	6	4	—	—	—	1	Richmond, VA	52	26	16	6	1	2	3
New Bedford, MA	16	13	2	1	—	—	2	Savannah, GA	67	44	19	4	—	—	3
New Haven, CT	40	24	6	4	4	2	6	St. Petersburg, FL	44	31	10	1	1	1	2
Providence, RI	50	33	15	1	—	1	2	Tampa, FL	190	136	34	15	3	2	4
Somerville, MA	2	—	1	1	—	—	—	Washington, D.C.	125	67	36	7	8	7	5
Springfield, MA	28	14	10	2	1	1	2	Wilmington, DE	19	12	7	—	—	—	3
Waterbury, CT	30	25	3	2	—	—	5	E.S. Central	827	533	206	50	23	15	58
Worcester, MA	54	42	10	1	1	—	10	Birmingham, AL	195	114	58	14	5	4	18
Mid. Atlantic	1,619	1,118	369	80	29	22	62	Chattanooga, TN	82	55	19	4	4	—	3
Albany, NY	56	36	15	2	2	1	—	Knoxville, TN	100	67	26	4	3	—	8
Allentown, PA	25	20	5	—	—	—	—	Lexington, KY	42	27	10	2	2	1	3
Buffalo, NY	87	55	20	5	4	3	6	Memphis, TN	183	120	38	13	6	6	13
Camden, NJ	30	20	4	4	1	1	—	Mobile, AL	56	40	14	2	—	—	4
Elizabeth, NJ	7	6	—	1	—	—	—	Montgomery, AL	22	17	4	—	—	1	1
Erie, PA	46	33	10	3	—	—	—	Nashville, TN	147	93	37	11	3	3	8
Jersey City, NJ	15	11	1	3	—	—	1	W.S. Central	1,106	697	283	52	45	29	49
New York City, NY	878	614	199	42	12	10	25	Austin, TX	86	52	23	5	5	1	3
Newark, NJ	24	11	8	2	3	—	1	Baton Rouge, LA	58	33	10	9	6	—	—
Paterson, NJ	18	11	4	1	1	1	—	Corpus Christi, TX	44	27	13	2	1	1	5
Philadelphia, PA	128	87	35	6	—	—	11	Dallas, TX	178	94	54	8	12	10	8
Pittsburgh, PA [§]	47	27	15	2	1	2	2	El Paso, TX	82	50	22	5	1	4	2
Reading, PA	32	22	6	1	2	1	—	Fort Worth, TX	U	U	U	U	U	U	U
Rochester, NY	83	60	16	2	2	3	3	Houston, TX	236	152	65	6	3	10	4
Schenectady, NY	24	20	4	—	—	—	6	Little Rock, AR	U	U	U	U	U	U	U
Scranton, PA	21	13	7	1	—	—	2	New Orleans, LA	U	U	U	U	U	U	U
Syracuse, NY	31	26	3	1	1	—	3	San Antonio, TX	216	148	47	11	8	2	11
Trenton, NJ	30	19	10	1	—	—	1	Shreveport, LA	61	46	11	1	2	1	5
Utica, NY	14	13	—	1	—	—	1	Tulsa, OK	145	95	38	5	7	—	11
Yonkers, NY	23	14	7	2	—	—	—	Mountain	1,047	693	257	51	20	24	58
E.N. Central	1,881	1,272	428	104	38	39	107	Albuquerque, NM	122	87	27	3	2	3	13
Akron, OH	41	25	7	9	—	—	1	Boise, ID	58	47	8	1	1	1	—
Canton, OH	27	20	6	1	—	—	3	Colorado Springs, CO	68	49	14	3	1	1	—
Chicago, IL	231	154	52	15	10	—	8	Denver, CO	81	51	17	7	2	4	5
Cincinnati, OH	96	58	25	6	6	1	5	Las Vegas, NV	248	159	69	10	5	4	20
Cleveland, OH	261	192	54	9	1	5	13	Ogden, UT	37	31	5	—	1	—	2
Columbus, OH	240	164	50	15	5	6	29	Phoenix, AZ	179	91	61	14	6	6	12
Dayton, OH	130	90	25	8	—	7	5	Pueblo, CO	33	24	8	1	—	—	—
Detroit, MI	148	69	63	11	4	1	4	Salt Lake City, UT	98	59	25	8	2	4	4
Evansville, IN	54	37	12	3	1	1	4	Tucson, AZ	123	95	23	4	—	1	2
Fort Wayne, IN	60	44	12	2	—	2	2	Pacific	1,641	1,118	355	91	46	30	118
Gary, IN	12	7	3	2	—	—	—	Berkeley, CA	8	6	2	—	—	—	—
Grand Rapids, MI	36	27	3	2	1	3	1	Fresno, CA	121	81	26	8	4	2	7
Indianapolis, IN	113	73	28	5	5	2	11	Glendale, CA	32	25	7	—	—	—	4
Lansing, MI	35	18	14	2	1	—	1	Honolulu, HI	67	44	14	6	—	3	12
Milwaukee, WI	72	49	17	2	—	4	4	Long Beach, CA	73	48	16	4	3	2	8
Peoria, IL	57	37	14	3	1	2	6	Los Angeles, CA	236	155	56	13	7	5	26
Rockford, IL	60	44	14	1	—	1	5	Pasadena, CA	16	14	1	—	1	—	1
South Bend, IN	57	49	2	4	—	2	2	Portland, OR	92	63	22	4	1	1	2
Toledo, OH	98	69	21	3	3	2	3	Sacramento, CA	225	148	52	16	7	2	18
Youngstown, OH	53	46	6	1	—	—	—	San Diego, CA	151	104	33	8	3	3	5
W.N. Central	518	332	122	37	11	16	40	San Francisco, CA	110	74	24	6	6	—	10
Des Moines, IA	85	61	17	6	1	—	10	San Jose, CA	185	134	37	6	2	6	11
Duluth, MN	21	16	3	1	—	1	2	Santa Cruz, CA	24	18	4	2	—	—	2
Kansas City, KS	28	18	7	2	1	—	2	Seattle, WA	124	74	27	14	5	4	4
Kansas City, MO	82	48	14	9	6	5	4	Spokane, WA	57	39	14	—	2	2	5
Lincoln, NE	37	30	6	1	—	—	1	Tacoma, WA	120	91	20	4	5	—	3
Minneapolis, MN	53	25	20	4	1	3	6	Total[¶]	10,317	6,845	2,435	566	258	208	600
Omaha, NE	89	63	20	5	—	1	7								
St. Louis, MO	13	3	5	3	1	1	—								
St. Paul, MN	54	37	12	3	—	2	4								
Wichita, KS	56	31	18	3	1	3	4								

U: Unavailable. —: No reported cases.

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

[†] Pneumonia and influenza.

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

[¶] Total includes unknown ages.

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