

Weekly

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## State Medicaid Coverage for Tobacco-Dependence Treatments – United States, 2007

The prevalence of tobacco use among adults in the United States has been reduced by half since the 1960s (1,2). Despite this progress, low-income populations, such as Medicaid enrollees, continue to smoke at substantially higher rates than the general population (33% versus 20%) (1). The Public Health Service's Clinical Practice Guideline (2) and the Partnership for Prevention's Call for ACTTION (3) recommend comprehensive insurance coverage of tobacco-dependence treatments without barriers such as copayments, limitations in duration of treatment, prior authorization, and stepped-care therapy. Healthy People 2010 aims to expand coverage of evidencebased treatments for nicotine dependency to all 51 Medicaid programs (objective 27-8b) (4). To monitor progress toward that objective, in 2007, the Center for Health and Public Policy Studies at the University of California, Berkeley, surveyed all 51 Medicaid programs. This report summarizes the results of that survey, which found that 43 (84%) programs offered coverage for some form of tobacco-dependence treatment to Medicaid enrollees in traditional fee-for-service (FFS) Medicaid, with four Medicaid programs adding coverage since 2006 and 20 programs adding coverage in the past decade. Only two states (New Mexico and New Jersey) reported access to tobaccodependence treatments without any limitations or restrictions. Of the 25 states covering pharmacotherapy for Medicaid enrollees in both FFS and managed-care organizations (MCOs), only 13 covered the same tobacco-dependence treatments for enrollees in both populations. Research demonstrates that providing access to comprehensive tobacco-dependence treatments increases quit rates. Providing Medicaid coverage for these treatments would ensure that all enrollees can access and benefit from these treatments.

Medicaid coverage of tobacco-dependence treatments has been assessed regularly, since 1998, by the Center for Health and Public Policy Studies at the University of California, Berkeley. Starting in October 2007, designated Medicaid personnel for each program from all 50 states and the District of Columbia were sent a link to an online survey that included 43 questions regarding coverage of clinically effective tobacco-dependence treatments, the year coverage began, and program requirements and limitations. Programs were asked to respond regarding policies in both traditional FFS Medicaid (n = 51) and their contracts with Medicaid MCOs (n = 32).\* All Medicaid programs responded with information on both programs; data for MCOs were first collected starting with the 2007 survey. Medicaid program participation in the 2007 survey was 100%. To validate survey responses, Medicaid programs were asked to submit a written copy of their coverage policies for tobacco-dependence treatments. Of the 45 programs that reported offering any coverage in 2007, supporting documentation was obtained for 41 (91%) programs, 28 (62%) with detailed documentation matching their survey responses (six were missing documentation regarding varenicline [Chantix]) and 13 (29%) providing partial benefit information (e.g., documentation for pharmacotherapy but not counseling).

Of the 51 FFS Medicaid programs, 43 (84%) reported coverage for at least one tobacco-dependence treatment

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<sup>\*</sup> State Medicaid programs may contract with MCOs in their state to provide services for enrollees in their Medicaid programs. The specific arrangement varies from state to state, and the services covered under that contract also vary. Additional information is available at http://www.kff.org/medicaid/20010109a-index.cfm.

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(medication and/or counseling); two additional programs (Arizona and Washington) reported coverage for pregnant women only (Table 1). Forty-one (80%) Medicaid FFS programs covered some form of pharmacotherapy: nicotine patches (40 programs), bupropion (Zyban or its generic equivalent) (40 programs), varenicline (Chantix) (38 programs), nicotine gum (37 programs), nicotine nasal spray (33 programs), nicotine inhalers (32 programs), and nicotine lozenges (30 programs). Twenty-six programs (51%) covered tobacco-cessation counseling, with 19 states covering some form of tobacco-cessation counseling for their FFS population and seven states covering counseling services exclusively for pregnant women (Table 1). Among these 26 states, nine states covered group counseling for FFS enrollees, six states covered group counseling for pregnant women only, and 11 states did not cover group counseling. Individual counseling was covered in all but one of the 26 states (Virginia), with 17 covering FFS enrollees and eight providing coverage exclusively to pregnant women. Only four of the 26 states (Kentucky, Oregon, Utah, and West Virginia) covered telephone counseling using Medicaid funds; however, telephone counseling is available to the public for free in every state through quitlines (accessed by dialing 1-800-QUITNOW [784-8669]).

During 2006–2007, two states began covering tobaccodependence treatments (Idaho<sup>†</sup> and Wyoming), two states expanded existing coverage beyond pregnant women only (Kentucky and Iowa), and seven states expanded coverage of existing tobacco-dependence treatments. Specifically, in 2007, four states (Arkansas, California, Maine, and Mississippi) added coverage for varenicline (Chantix), Maryland added coverage for individual counseling, Ohio added coverage for nicotine nasal spray, and New Jersey reinstated coverage for all forms of nicotine replacement therapy.<sup>§</sup>

Data collected over the past decade on Medicaid program coverage of tobacco-dependence treatments indicate an increase in coverage levels (Figure) (5,6). In 1998, 23 Medicaid programs covered some form of tobacco-dependence treatment, with 22 programs covering pharmacotherapy and three programs covering tobacco-cessation counseling. As of 2007, an upward trend in both forms of coverage was observed, with 41 programs covering pharmacotherapy and 19 covering counseling.

In the 2007 survey, Medicaid programs were asked about limitations placed on tobacco-dependence treatment coverage.

<sup>&</sup>lt;sup>†</sup> In Idaho, Medicaid enrollees can use a Preventive Health Assistance program, which provides up to \$200 in benefits per enrollee per year to be used for weight-management programs or tobacco-dependence treatments. Additional information is available from the Idaho Department of Health and Welfare at http://healthandwelfare.idaho.gov/site/4161/default.aspx.

<sup>&</sup>lt;sup>§</sup> Coverage for nicotine replacement therapy had been dropped in 2006.

# TABLE 1. State Medicaid fee-for-service program coverage of tobacco-dependence treatments,\* by type of coverage and year coverage began — United States, 2007<sup>†</sup>

					Medica	tion cover	age		Co	unseling co	verage
State/Area	Year any coverage began	Gum	Patch	Nasal spray	Inhaler	Lozenge		Bupropion hydrochloride (Zyban <sup>§</sup> )	Group	Individual	Telephone
Alaska	2006	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No
Arizona	Unknown (P <sup>¶</sup> )	No	No	No	No	No	No	No	No	Yes (P)	No
Arkansas	1999	Yes	Yes	No	No	No	Yes**	Yes	No	Yes	No
California	1996	Yes	Yes	Yes	Yes	Yes	Yes**	Yes	No <sup>††</sup>	No	No
Colorado	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (P)	Yes (P)	No
Delaware	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
District of Columbia	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Florida	1998	Yes	Yes	No	No	No	Yes	Yes	No	No	No
Hawaii	1999	Yes§§	Yes§§	Yes§§	Yes§§	Yes§§	Yes§§	Yes§§	No	No	No
Idaho <sup>¶¶</sup>	2007	Yes**	Yes**	Yes**	Yes**	Yes**	Yes**	Yes**	No	No	No
Illinois	2000	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Indiana	1999	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Iowa	2007	Yes**	Yes**	No	No	No	No	Yes**	No	Yes (P)	No
Kansas	1999	No	Yes	No	No	No	Yes	Yes	No	No	No
Kentucky	2007	No	No	No	No	No	No	No	Yes (P)	Yes (P)	Yes**
Louisiana	1990	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No
Maine	1996	Yes	Yes	Yes	Yes	Yes	Yes**	No***	No	Yes	No
Maryland	1996	No	Yes <sup>†††</sup>	Yes	Yes	No	Yes	Yes	No	Yes**	No
Massachusetts	2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Michigan	1997	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes <sup>§§§</sup>	No
Minnesota	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Mississippi	2001	Yes	Yes	Yes	Yes	Yes	Yes**	Yes	Yes (P)	Yes (P)	No
Montana	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Nevada	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
New Hampshire	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (P)	Yes (P)	No
New Jersey	1996	Yes**	Yes**	Yes**	Yes**	Yes**	Yes	Yes	No	No	No
New Mexico	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes <sup>¶¶¶</sup>	Yes <sup>¶¶¶</sup>	No
New York	1999	Yes	Yes	Yes	Yes	No	Yes	Yes	No****	No <sup>††</sup>	No
North Carolina	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
North Dakota	1996	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No
Ohio	1998	Yes	Yes	Yes**	Yes	Yes	Yes	Yes	No	No	No
Oklahoma	1999	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Oregon	1998	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pennsylvania	2002	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Rhode Island	1994	No****	No****	No****	No****	No****	No	No	Yes	Yes	No
South Carolina	2004 <sup>††</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No <sup>††</sup>	No <sup>††</sup>	No
South Dakota	2004	No	No	No	No	No	Yes	Yes	No	No	No
Texas	1996	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No
Utah <sup>††††</sup>	2001	Yes	Yes	Yes <sup>††</sup>	Yes <sup>††</sup>	Yes	Yes	Yes	Yes (P)	Yes (P)	Yes
Vermont	1999	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
	1996	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (P)	No	No
Virginia Washington	2002 (P)									Yes (P)	
West Virginia	2002 (F) 2000	No Yes	No Yes	No Yes	No Yes	No Yes	No No	Yes (P) Yes	No No	Yes (P) Yes	No Yes
Wisconsin	2000 1996						Yes			Yes	
		No Yes**	Yes	Yes	Yes	No Voo**		Yes	No Voo**	res Yes**	No
Wyoming	2007		Yes**	No	No	Yes**	Yes**	Yes**	Yes**		No
Total states/areas	45	37	40	33	32	30	38	41	15	25	4
All Medicaid enrollees	43	37	40	33	32	30	38	40	9	17	4§§§§
Pregnant women only	2	0	0	0	0	0	0	1	6	8	0
Added in 2007	41111	4	4	3	2	3	6	3	1	2	1

See Table 1 footnotes on next page.

Of the 43 programs offering coverage for tobacco-dependence treatments to their entire Medicaid FFS populations, 41 placed some form of limit on coverage by requiring copayments (32 states), limiting duration of treatment (25 states), requiring

prior authorization (21 states), and requiring enrollment in behavioral modification to gain coverage for pharmacotherapy (13 states). Only two states (New Mexico and New Jersey)

#### **MMWR**

# TABLE 1. (Continued) State Medicaid fee-for-service program coverage of tobacco-dependence treatments,\* by type of coverage and year coverage began — United States, 2007<sup>†</sup>

**SOURCE:** 2007 State Medicaid Tobacco-Dependence Treatment Survey, Center for Health and Public Policy Studies, University of California, Berkeley. \* Based on response to the following survey item: "Please indicate if your Medicaid program covered any of the following tobacco-dependence treatments in 2007: nicotine gum, nicotine patch, nicotine nasal spray, nicotine inhaler, nicotine lozenge, Chantix, Zyban, bupropion, individual face-to-face counseling, group counseling, proactive telephone counseling." Each state also was asked to provide documentation of coverage.

<sup>¶</sup> P = Medicaid coverage exclusively for pregnant women.

<sup>††</sup> Response differs from previous year's survey because of a previous reporting error. In most cases, this was a result of the state reporting on managedcare organization coverage policies and not Medicaid fee-for-service.

§§ Covered only after the gum or patch was used in conjunction with quitline support for 2 weeks.

11 In 2007, Idaho provided a \$200 per enrollee per year allowance for personal health benefits that could be applied to smoking cessation benefits.

\*\*\* Maine covered bupropion, but not specifically for smoking cessation.

- <sup>+++</sup> Coverage for nicotine patches differs from the 2006 report because of a different interpretation of Maryland's coverage policy. Generally, Maryland does not cover any pharmaceuticals that are available over-the-counter; however, some prescription-only (legend) patches are still available and therefore were covered.
- §§§ Covered since 2006. This was erroneously reported as "not covered" in the previous report.

<sup>1111</sup> Fee-for-service covers when a valid behavioral health diagnosis other than tobacco dependence exists.

\*\*\*\* Fee-for-service Medicaid did not cover, but Medicaid managed-care organizations were required to cover.

tttt Utah's coverage will continue until Tobacco Settlement funds expire.

§§§§ Telephone counseling is available for free to the entire population in every state and the District of Columbia through quitlines (available by dialing 1-800-QUITNOW [784-8669]). Four states use some of their Medicaid funds to support quitline operations.

Initial Since 2006, two states (Kentucky and Iowa) expanded coverage beyond exclusively pregnant women to the general Medicaid population, and two states (Idaho and Wyoming) began new coverage for tobacco-dependence treatments.

did not report having any of these limitations on coverage for tobacco-dependence treatments.

Although the majority of the survey addressed policies related to FFS Medicaid, data also were collected on coverage for tobacco-dependence treatments in Medicaid MCOs. Of the 51 Medicaid programs surveyed, 13 indicated that they did not contract with MCOs, and six programs reported that pharmacotherapy was not included in MCO contracts but was provided by a third party through a "carve out" arrangement.<sup>9</sup> Of the 32 Medicaid programs that contract with MCOs, 13 reported requiring the same tobacco-dependence treatment for their MCOs and FFS populations (Table 2). Four programs required MCOs to cover some of the tobacco-dependence treatments in FFS Medicaid, and two programs (Rhode Island and New York) required more coverage in MCOs than FFS. Thirteen states reported that they did not require coverage of tobacco-dependence treatments in Medicaid MCO contracts. Of these 13 states, six covered tobacco-dependence treatments in FFS Medicaid, and seven did not. Therefore, of the 25 states covering pharmacotherapy for FFS Medicaid that also contracted with Medicaid MCOs, only 13 had the same tobacco-dependence treatment coverage requirements for both populations.

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Editorial Note: This report updates previously published data on Medicaid coverage for tobacco-dependence treatments and provides additional information on coverage of tobacco-dependence treatments in Medicaid MCOs (5,6). The number of Medicaid FFS programs covering effective tobacco-dependence treatments has increased over time, from 23 programs in 1998 to 43 in 2007. In addition, although coverage for tobacco-cessation counseling has increased over time, it still lags far behind coverage for pharmacotherapy. Although Medicaid programs are making progress toward the Healthy People 2010 objective (27-8b) (4), only six states cover all of the effective pharmacotherapies and individual and group counseling. To achieve the Healthy People 2010 objective, 45 Medicaid programs need to expand their coverage to include all pharmacotherapies approved by the Food and Drug Administration (FDA) and behavioral therapies.

Smoking rates among Medicaid enrollees are much higher than among the general population, with 33% of enrollees reporting being current smokers in 2007 (1). This translates into 4.7 million smokers enrolled in Medicaid programs (1). Medicaid expenditures attributable to smoking total nearly \$22 billion annually; representing 11% of total Medicaid expenditures (7). Tobacco-dependence treatments are highly cost-effective and even cost-saving (8). However, coverage for tobacco-dependence treatments differs widely from state to state. For example, FFS Medicaid enrollees in Oregon

<sup>&</sup>lt;sup>†</sup> N = 45. In 2007, four states with Medicaid programs (Ålabama, Connecticut, Missouri, and Tennessee) covered none of the tobacco-dependence treatments recommended in the 2000 Public Health Service *Clinical Practice Guideline*. Two states (Georgia and Nebraska) covered bupropion without prior authorization; therefore, it could have been used for smoking cessation, although this was not the intention of the coverage policy. <sup>§</sup> Covered specifically for smoking cessation.

<sup>\*\*</sup> Treatment added in 2007.

<sup>&</sup>lt;sup>9</sup> A "carve out" is defined as Medical services that are separated from a contract and paid under a different arrangement (Inkelas M. Incentives in a Medicaid carve-out: impact on children with special health care needs. Health Serv Res 2005;40:79–100).

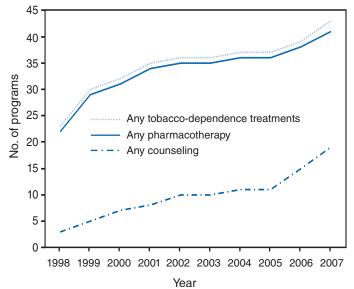


FIGURE. Number of state Medicaid programs\* covering

tobacco-dependence treatments — United States, 1998–2007

**SOURCE:** 2007 State Medicaid Tobacco-Dependence Treatment Survey, Center for Health and Public Policy Studies, University of California, Berkelev.

\* Of 51 Medicaid programs.

have coverage for all FDA-approved pharmacotherapies and three forms of tobacco-use cessation counseling, whereas FFS Medicaid enrollees in Alabama, Connecticut, Georgia, Missouri, Nebraska, and Tennessee have coverage for none.

Coverage not only varies among different Medicaid programs but also can differ among enrollees within the same Medicaid program, depending on their enrollment in either Medicaid FFS or a Medicaid MCO. In the 12 states where Medicaid MCOs were not required to cover the same benefits as Medicaid FFS, the coverage among the Medicaid populations in the state might differ. The survey did not examine differences between FFS and individual MCO programs; therefore, some states might be voluntarily providing the same FFS Medicaid coverage for tobacco-dependence treatments to certain Medicaid MCO enrollees. Differences in benefits between programs must be taken into account when assessing the overall progress toward the *Healthy People 2010* objective.

The findings in this report are subject to at least three limitations. First, although all but four states provided some supporting documentation regarding covered tobacco-dependence benefits, only 62% of the documentation was complete for all covered treatments. Lack of documentation for any selfreported data increases the likelihood of reporting errors. Second, updates for certain Medicaid programs described in this report might differ from previous survey years; therefore, comparison with previous survey results could differ over time (5,6). In most cases, these differences have resulted from particular states reporting data on Medicaid MCO's voluntary coverage of tobacco-dependence treatments and not on FFS Medicaid coverage policies. Finally, these data represent coverage policies in 2007 and might not reflect current coverage policies in effect in some states.

The 2008 update to the Public Health Service's *Clinical Practice Guideline* urges all insurers, including Medicaid, to provide comprehensive coverage of effective treatments (both counseling and medication) (2). The *Guideline* also notes that without insurance coverage, clinicians likely will not assess

TABLE 2. State Medicaid managed-care organizations (MCOs)\* required coverage of tobacco-dependence treatments (TDTs) — United States, 2007

Required MCO coverage	States	No.	(%)
Cover all the same TDTs compared with fee-for-service (FFS	S) California, District of Columbia, Florida, Hawaii, Illinois, Indiana, Maryland, Massachusetts, Minnesota, Ohio, South Carolina, Vermont, Wisconsin	13	(40.6)
Cover some of the same TDTs compared with FFS		4	(12.5)
Same pharmacotherapy but no counseling requirements	Pennsylvania		
Same counseling but no pharmacotherapy requirements	Michigan		
General requirements but not required to cover specific TDTs	Nevada, New Mexico		
MCOs cover more TDTs compared with FFS	Rhode Island, New York <sup>†</sup>	2	(6.3)
MCOs not required to cover TDTs		13	(40.6)
TDT coverage in FFS	Colorado, Kansas, Kentucky, New Jersey, Oregon,§ Virginia		. ,
No TDT coverage in FFS	Alabama, Arizona, Connecticut, Georgia, Missouri, Nebraska, Washington		
Total		32	(100.0)

**SOURCE:** 2007 State Medicaid Tobacco-Dependence Treatment Survey, Center for Health and Public Policy Studies, University of California, Berkeley. \* Of 51 Medicaid programs, 13 programs (Alaska, Arkansas, Idaho, Louisiana, Maine, Mississippi, Montana, New Hampshire, North Carolina, North Dakota, Oklahoma, South Dakota, and Wyoming) did not contract with MCOs, and six programs (Delaware, Iowa, Tennessee, Texas, Utah, and West Virginia) "carved out" pharmacotherapy from MCO contracts (i.e., medical services separated from a contract and paid under a different arrangement). Of these six states, only Iowa covered counseling in the fee-for-service population, and Iowa's MCOs were not required to cover counseling.

<sup>†</sup> New York carved out pharmacotherapy but requires group counseling coverage in MCO contracts (and does not cover group counseling in FFS). <sup>§</sup> Oregon did not require that MCOs cover TDTs; however, all MCOs covered the treatments covered under FFS.

#### What is already known on this topic?

Low-income populations, such as Medicaid enrollees, continue to smoke at substantially higher rates than the general population (33% versus 20%), and a *Healthy People* 2010 objective calls for expanding coverage for nicotine dependency treatment to all 51 Medicaid programs.

#### What is added by this report?

This 2007 survey of all 51 Medicaid programs found that although 43 (84%) programs offered coverage for some form of tobacco-dependence treatment to Medicaid enrollees, only six states covered all of the effective pharmacotherapies and individual and group counseling and only two states reported access to tobacco-dependence treatments without any limitations or restrictions.

#### What are the implications for public health practice?

Because access to comprehensive tobacco-dependence treatments has been shown to increase quit rates, providing coverage for these treatments to all Medicaid enrollees would reduce smoking in the Medicaid population.

and treat tobacco use consistently. Although 43 Medicaid programs cover some form of tobacco-dependence treatment in their FFS populations, all but two states (New Mexico and New Jersey) place restrictions on this coverage through co-payments, stepped-care requirements, enrollment in counseling to obtain medication, limitations on number of treatment courses, and not covering combined treatments. To improve cessation rates in low-income populations, Medicaid programs should remove these barriers and improve access to tobacco-dependence treatments (*2,9,10*).

#### References

- 1. Pleis JR, Lucas JW. Summary health statistics for U.S. adults: National Health Interview Survey, 2007. Vital Health Stat 2009;10(240).
- Fiore MC, Jaen CR, Baker TB, et al. Treating tobacco use and dependence: 2008 update. Clinical practice guideline. Rockville, MD: US Department of Health and Human Services, Public Health Service; 2008. Available at http://www.surgeongeneral.gov/tobacco/index.html. Accessed October 29, 2009.
- 3. Partnership for Prevention. A call for ACTTION (access to cessation treatment for tobacco in our nation): an action plan to address the lack of access to tobacco-use treatment. Washington, DC: Partnership for Prevention; 2008. Available at http://www.acttiontoquit.org. Accessed October 29, 2009.
- 4. US Department of Health and Human Services. Objective 27-8b: increase insurance coverage of evidence-based treatment for nicotine dependency. In: Healthy People 2010 (conference ed, in 2 vols). Washington, DC: US Department of Health and Human Services; 2000. Available at http://www.healthypeople.gov/document/html/ objectives/27-08.htm. Accessed October 29, 2009.
- CDC. State Medicaid coverage for tobacco-dependence treatments— United States, 2006. MMWR 2008;57:117–22.
- Schauffler HH, Barker DC, Orleans CT. Medicaid coverage for tobaccodependence treatments. Health Affairs 2001;20:298–303.
- 7. Armour BS, Finkelstein EA, Fiebelkorn IC. State-level Medicaid expenditures attributable to smoking. Prev Chronic Dis 2009;6:A84.

- Maciosek MV, Coffield AB, Edwards NM, Flottemesch TJ, Goodman MJ, Solberg LI. Priorities among effective clinical preventive services: results of a systematic review and analysis. Am J Prev Med 2006;31:52–61.
- 9. Bonnie RJ, Stratton K, Wallace RB, eds.; Committee on Reducing Tobacco Use: Strategies, Barriers, and Consequences. Ending the tobacco problem: a blueprint for the nation. Washington, DC: National Academies Press; 2007.
- Zaza S, Briss PA, Harris KW, eds. Tobacco. In: The guide to community preventive services: what works to promote health? New York, NY: Oxford University Press; 2005. Available at http://www.thecommunityguide.org/tobacco/default.htm. Accessed October 29, 2009.

## Human Vaccinia Infection After Contact with a Raccoon Rabies Vaccine Bait — Pennsylvania, 2009

Since 2003, the U.S. Department of Agriculture's Wildlife Services has coordinated a multistate oral rabies vaccination (ORV) program for wildlife in a 15-state zone extending from Maine to Alabama and in Texas. The program seeks to enhance local control and prevent the spread of epizootic rabies among raccoons and, in Texas, among gray foxes and coyotes. The program uses baits containing liquid vaccinia-rabies glycoprotein (V-RG) recombinant virus vaccine. Because contact with ruptured baits can produce vaccinia virus infection in certain persons, surveillance for human and domestic animal contact with the baits is conducted, relying largely on reports from persons who find baits and call telephone numbers printed on them. In August 2009, during the autumn baiting campaign in western Pennsylvania, a woman aged 35 years who was taking immunosuppressive medication for inflammatory bowel disease contacted the Pennsylvania Department of Health (PADOH) after handling a ruptured bait, which had leaked liquid rabies vaccine onto a patch of abraded skin on her right hand. The patient subsequently developed vaccinia virus infection and was treated with human vaccinia immune globulin intravenous (VIGIV) and an investigational antiviral agent. This report describes this case, which was the second case of human vaccinia infection related to the ORV program. Public health agencies should educate the public, and particularly pet owners, regarding potential hazards associated with handling wildlife rabies vaccine baits and should provide guidance for persons exposed to this vaccine.

The ORV program uses an orally delivered animal vaccine, Raboral V-RG (Merial, Inc., Athens, Georgia) (1). This vaccine consists of a partially attenuated recombinant vaccinia virus (Copenhagen strain) with a gene encoding for rabies virus glycoprotein (2). Persons with immunosuppressive conditions or exfoliative dermatologic conditions are at greater risk for

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complications (e.g., progressive vaccinia or eczema vaccinatum) when exposed to the vaccinia virus contained in Raboral V-RG vaccine. Currently, 15 states distribute ORV baits for raccoons, and Texas distributes baits for gray foxes and coyotes. The V-RG vaccine is delivered via a bait made from a fishmeal block (or a dog food block for coyotes) encasing a sealed plastic packet containing approximately 2 mL of vaccine (Figure 1) (1). During August-September 2009, ORV bait distribution was conducted in nonresidential areas by airplane and in rural communities by hand, in parts of western Pennsylvania, Ohio, and West Virginia.

#### **Case Report**

In early August 2009, a woman aged 35 years was picking blackberries in a rural area of Pennsylvania where ORV baits recently had been distributed. Her dog picked up a bait in his mouth and punctured the bait with his teeth. After the dog dropped the bait, the woman picked it up, and V-RG vaccine dripped from the bait onto her right hand and wrist, including sites that had been abraded by blackberry thorns. Approximately 30 minutes passed before the woman was able to wash her hands. She telephoned the ORV helpline number printed on the bait, and her call was referred to PADOH. The woman had a history of inflammatory bowel disease, for which she was taking multiple immunosuppressive medications. These medications included a suppressor of T and B cell proliferation (taken daily) and a tumor necrosis factor-alpha (TNF-alpha) blocker (taken once every 6 weeks, with the last dose on July 13); she had no smallpox vaccination scar and reported no history of smallpox vaccination.

On day 1 after her exposure to the V-RG vaccine, her physician obtained a baseline serum specimen for analysis of rabies virus neutralizing antibody (by direct virus neutralization) and orthopoxirus (vaccinia) immunoglobulin IgG and immunoglobulin IgM antibodies (by enzyme-linked immunosorbent assay). In addition, photos were taken of her right hand abrasions, and she was instructed to watch for signs of infection in her hand. On day 4, she reported several red papules on her right hand. She visited a local hospital emergency department, where scrapings of the papules were obtained and submitted to the PADOH Bureau of Laboratories. The woman was discharged from the emergency department and advised to stop taking her immunosuppressant medications.

On day 5, a real-time polymerase chain reaction (PCR) assay of the scrapings tested positive for nonvariola *Orthopoxvirus* DNA. Subsequent testing performed at CDC confirmed the presence of vaccinia virus DNA and rabies virus G protein DNA in papule material and serologic evidence of rabies virus FIGURE 1. Rabies vaccine delivered to raccoons via a bait consisting of a fishmeal block (left) encasing a sealed plastic packet containing the vaccine (right) — Pennsylvania, 2009



Photo/U.S. Department of Agriculture Wildlife Services

neutralizing antibodies. Neither *Orthopoxvirus* IgG nor IgM antibodies were detected.

On day 6, the papules had increased in number and size, and the patient was hospitalized. Physical examination on admission showed multiple papules on erythematous bases on the patient's right hand, wrist, and arm, including three that appeared to be early vesicles. Because of the patient's immune suppression and concerns about progressive vaccinia, she was administered a single dose (6,000 IU/kg) of VIGIV (Cangene Corporation, Winnipeg, Canada) provided by CDC. Contact precautions were utilized while the patient was hospitalized.

On day 9, she had 26 classic vaccinia virus lesions, including one on a site on her right arm that might not have been in contact with the vaccine initially. The patient was afebrile and not experiencing symptoms related to her inflammatory bowel disease. However, on day 11, she experienced myalgia and headache; she had pronounced redness and edema in her right hand (Figure 2), accompanied by right axillary adenopathy. The patient remained afebrile, but was taking an antipyretic pain medication. At that time, her physician decided that to prevent exacerbation of her inflammatory bowel disease the patient soon would need to restart her immunosuppressive medications. On day 12, in an attempt to reduce viral replication and prevent progressive vaccinia, a second 6,000 IU/kg dose of VIGIV was administered along with the investigational antiviral agent, ST-246 (SIGA Technologies, Corvalis, Oregon). The ST-246 was administered orally for 14 days after a compassionate use authorization was approved by the Food and Drug Administration.

FIGURE 2. Female patient aged 35 years exhibits vaccinia virus lesions and pronounced redness and edema on her right hand on day 11 after contact with an animal rabies vaccine bait — Pennsylvania, 2009



Photo/C. Encarnacion, MD

On day 13, the patient began receiving phased reintroduction of her immunosuppressive medications. She was discharged on day 19. By day 28, all scabs from her lesions had separated and her underlying inflammatory bowel disease condition was stable. The patient remained *Orthopoxvirus* IgM negative throughout her illness.

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Editorial Note: The patient described in this report is only the second person documented with human vaccinia infection associated with the ORV baiting program, and the first infected person taking immunosuppressive medications. The one previous documented human vaccinia infection occurred in September 2000 in a pregnant woman aged 28 years with eczema who was bitten while pulling a ruptured bait from her dog's mouth (2). The patient in the current report was of particular concern for three reasons. First, she was immunosuppressed from medications to treat her inflammatory bowel disorder. Second, she had fresh abrasions and prolonged contact with V-RG vaccine (approximately 30 minutes) before washing her hands. Third, she did not exhibit features of a normal immune response for a person previously naive for Orthopoxvirus infection (i.e., an IgM antibody response was not detected.) Careful monitoring and prompt diagnostic evaluation allowed for timely medical interventions, and the vaccinia virus infection resolved. Although her treatment with 2 doses of VIGIV and ST-246 might have contributed to her recovery, the role of these agents is difficult to assess.

Since 1990, approximately 100 million doses of Raboral V-RG animal vaccine have been distributed in the United States by depositing baits by airplane or by hand in areas with dense populations of target wildlife species (e.g., raccoons in the eastern United States). Human or domestic animal contact with ORV baits has been reported rarely. In 2008, among 16 states where 10,339,969 baits were placed, 291 vaccine-related telephone calls involving human or domestic animal contact (2.8 per 100,000 baits) were reported by public health authorities (*3*).

The ORV packets containing the V-RG vaccine are durable and typically do not leak unless punctured. Both documented instances of human vaccinia virus infections caused by V-RG occurred after baits were found and punctured by dogs. Humans interacting with domestic animals (typically dogs, but occasionally cats) that find and eat baits are one of the most common sources of potential vaccine exposures (4). The Pennsylvania case described in this report underscores the importance of continuing to alert the public, particularly pet owners, during baiting season to the possibility of pets finding and ingesting baits, or carrying them into the home. Raboral V-RG has been tested for safety in dogs. Owners should not attempt to remove baits from a dog's mouth. Gloves or plastic bags should be used to pick up and examine baits if necessary and additional baits that might be picked up by dogs or other pets should be removed from the immediate area. Interviews with all persons who contact the ORV program helpline printed on the baits can enable early identification of persons at high risk for vaccinia virus infection. All callers should be asked about the nature of their contact with the bait and should be counseled to report any skin lesions. Persons with eye exposure should irrigate the eye with clean water for 15 minutes and should be referred promptly for an ophthalmologic examination. In the event of a documented infection, care should be taken to avoid transmission of the virus to household and other contacts of the patient (5).

Persons with a history of atopic dermatitis or other active exfoliative skin conditions and those with immune deficiencies or immunosuppressive conditions are at greater risk for adverse outcomes (e.g., eczema vaccinatum and progressive vaccinia) after infections with nonhighly attenuated variants of vaccinia virus (6), including Raboral V-RG (7). Health-care practitioners should collect specimens promptly from the earliest signs of rash and small papules and submit them to an approved laboratory for testing for vaccinia virus by real-time PCR. Most state health department laboratories and

Cases of human vaccinia virus infection after contact with oral rabies vaccination (ORV) program baits are rare, but pose serious risks to persons with a history of eczema, immune deficiencies, or immunosuppressive conditions.

#### What is added by this report?

This report describes the second documented case in 9 years of human vaccinia virus infection related to a multistate ORV program and reinforces the need to educate the public, particularly pet owners, regarding potential hazards associated with handling wildlife rabies vaccine baits.

#### What are the implications for public health practice?

Public health agencies should educate persons to call the telephone number printed on any ORV bait they touch, and health-care practitioners should test such persons for vaccinia promptly if they develop signs of the disease.

others participating in the Laboratory Response Network are equipped to test clinical specimens for the presence of nonvariola *Orthopoxvirus* DNA.

#### References

- US Department of Agriculture Animal and Plant Health Inspection Service. Wildlife Services: National Rabies Management Program. Oral rabies vaccination. Washington, DC: USDA; 2009. Available at http://www.aphis.usda.gov/ws/rabies/vaccine.html. Accessed October 30, 2009.
- 2. Rupprecht CE, Blass L, Smith K, et al. Human infection due to recombinant vaccinia-rabies glycoprotein virus. N Engl J Med 2001;345:582–6.
- Roess AA, Rea N, Dato V, Rupprecht Č; ORV Surveillance Network. National surveillance for human and pet contact with oral rabies vaccine (ORV) baits, 2008. Presented at: XX International Conference on Rabies in the Americas, Quebec City, Canada, October 17–23, 2009.
- McGuill MW, Kreindel SM, DeMaria A, et al. Human contact with bait containing vaccine for control of rabies in wildlife. J Am Vet Med Assoc 1998;213:1413–7.
- 5. Sepkowitz KA. How contagious is vaccinia? N Eng J Med 2003;348:439-46.
- CDC. Vaccinia (smallpox) vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2001;50(No. RR-10).
- Hanlon CA, Niezgoda M, Shankar V, Niu HS, Koprowski H, Rupprecht CE. A recombinant vaccinia-rabies virus in the immunocompromised host: oral innocuity, progressive parenteral infection, and therapeutics. Vaccine 1997;15:140–8.

### Human Rabies – Missouri, 2008

On November 24, 2008, the Missouri State Public Health Laboratory notified CDC of suspected rabies in a man aged 55 years from Missouri. The man had been bitten by a bat 4–6 weeks before symptom onset and had not sought medical care at the time of the bite. After visiting two emergency departments (EDs) with symptoms consistent with rabies, he was hospitalized on November 23 and treated using the Milwaukee protocol (1). On November 26, infection with a rabies virus variant associated with silver-haired bats was confirmed. The patient died on November 30. This report summarizes the patient's treatment and clinical course. The report highlights the importance of raising public awareness of rabies, particularly the risk for rabies after bat and other wildlife exposures. Health-care providers should maintain a high clinical suspicion for rabies in patients with a recent animal bite history and unexplained encephalitis.

#### **Case Report**

On November 19, a man in Missouri aged 55 years experienced pruritus on his left ear that spread to his left face and arm. On November 21, he began experiencing mild chest pain and went to a local ED. He was evaluated by electrocardiogram and cardiac enzymes; findings were negative for acute myocardial infarction. He was discharged with instructions to return if symptoms worsened. On November 22, the patient returned to the ED with panic attacks and anxiety associated with swallowing water. He reported that he had been bitten by a bat on the left earlobe 4–6 weeks earlier. He was treated with rabies post-exposure prophylaxis (PEP) consisting of 15.4 mL of rabies immune globulin and 1 mL of rabies human diploid cell vaccine, administered a tetanus-diphtheria vaccine booster, and released.

The next day, on November 23, the man visited a second ED because of continuing chest pain and new numbness of the left ear and face. He also reported difficulty in swallowing water. He told the ED physician that he had been bitten on the left ear by a bat and that he had received rabies PEP the previous day. He also reported a history of chronic neck and back pain that occasionally featured numbness. The physician told the patient that the PEP he had received was appropriate, but that it might not be helpful if it was administered late in the course of rabies disease. Before releasing him from the ED, the physician advised the patient that he should seek medical attention if his symptoms progressed.

Later the same day, the patient returned to the ED complaining of dehydration. ED staff members observed that he became anxious when he tried to drink fluids offered to him. The next day, on November 24, he was transferred to a tertiary-care facility. The differential diagnoses on admission included rabies and other causes of infectious meningitis and encephalitis. A lumbar puncture yielded cerebrospinal fluid (CSF) with glucose of 78 mg/dL (normal = 50–80 ng/dL), protein 39 mg/dL (normal = 15–45 mg/dL), six red blood cells/mm<sup>3</sup> (normal = 0), and one white blood cell /mm<sup>3</sup> (normal = 0–3 cells/mm<sup>3</sup>); differential showed lymphocytic predominance of 68%, 26% monocytes, and 6% neutrophils. Complete blood cell count, metabolic panel, drug screen, and computerized tomography scan of the head were unremarkable. Serum, CSF, nuchal skin biopsy, and saliva were collected and submitted on November 24 to CDC, where a rabies diagnosis was confirmed on November 26. Viral antigen and RNA were detected by CDC in the skin biopsy by direct fluorescent antibody testing and reverse transcription—polymerase chain reaction (RT-PCR), respectively. Viral RNA also was detected in the patient's saliva by RT-PCR. Serum was positive for neutralizing antibodies against rabies by rapid fluorescent focus inhibition test (RFFIT), and CSF was negative by RFFIT and indirect fluorescent antibody. Rabies viral RNA amplified by RT-PCR was typed as a variant common to silver-haired bats (*Lasionycteris noctivagans*).

On November 25, the patient began rabies treatment using the Milwaukee protocol (1), which included coma induction and administration of amantadine. On the following day, he became bradycardic and hypotensive and was administered atropine and dopamine. On November 28, the dopamine was replaced with norepinephrine for persistent hypotension and bradycardia. The patient received diuretics because of signs of increased intracranial pressure. On November 29, his hypotension worsened, he developed oliguric acute renal failure with lactic acidosis and was placed on dialysis. When signs of increased intracranial pressure herniation were detected on November 30, the family elected to withdraw life support, and the patient died shortly thereafter. Autopsy confirmed the suspected cerebellar tonsillar herniation and moderate bilateral uncal herniation. On histological examination, multiple neurons had eosinophilic cytoplasmic inclusion bodies, particularly in specimens from the hippocampi, nucleus basalis, and Purkinje cells.

#### **Public Health Investigation**

On November 23, the Texas County Health Department (TCHD) was notified of a suspected rabies patient and informed the Missouri Department of Health and Senior Services on November 24. After CDC confirmed on November 26 that the patient had rabies, TCHD initiated interviews with family, friends, and hospital personnel to clarify the patient's exposure history and determine whether any contacts of the patient required rabies PEP according to Advisory Committee on Immunization Practices (ACIP) criteria. The family described an encounter with a bat that had occurred at their home approximately 4–6 weeks before onset of symptoms. Family members reported that they saw the bat in the rafters of the front porch for several days before it flew into the house. The patient caught the bat and allowed it to crawl up his arm and neck, and it bit him on the left ear. At the time of the bite, he mentioned to his family the possibility of rabies transmission from bats, but did not report the incident to public health authorities or seek medical evaluation. Instead, the patient, an avid outdoorsman who had kept many wild animals as pets, left the bat unrestrained in the house for 2 days. When the bat appeared to be well after that period, he released it outside.

Four family members and friends were identified who might have been exposed to saliva from the patient or the bat. All four received rabies PEP beginning on November 26. Among approximately 40 health-care workers who had administered care to the patient in the EDs and at the tertiary-care facility, only one was deemed to meet the ACIP guidelines for PEP, because that person had not worn gloves when examining the patient's mouth. The patient owned a dog and cat, which might have been bitten by the bat. The dog, which had been vaccinated against rabies, received a rabies vaccine booster and was placed under a 45-day home quarantine. The cat, which had never been vaccinated against rabies, was immunized and placed under 6-month quarantine at a local veterinary facility. Neither the animals nor the humans who received PEP in connection with this case have developed any signs or symptoms of rabies infection.

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Editorial Note: The death described in this report illustrates the importance of promptly seeking medical evaluation after any potential bat exposure (i.e., any direct contact between a human and a bat) regardless of the health of the bat. Rabies is preventable if rabies immune globulin and vaccine are administered soon after an exposure (4). Bat exposures are of special concern because of the higher risk associated with bat exposures and because the wounds they inflict often are minor and easily overlooked. For bat contacts, even finding a bat in the same room might qualify as a potential exposure if the person might be unaware that a bite or direct contact had occurred (e.g., a deeply sleeping person awakens to find a bat in the room, an adult sees a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person), although such situations should not be considered exposures if rabies can be ruled out by diagnostic testing of the bat, or circumstances suggest it is unlikely that an exposure took place (4).

Once symptoms begin, rabies has no standard treatment and is nearly always fatal. The Milwaukee protocol is an experimental treatment for rabies that was first used in 2004 as therapy

#### What is already known on this topic?

Although rabies is a fatal disease that has no known cure, it is preventable with timely and proper administration of rabies postexposure prophylaxis.

#### What is added by this report?

In November 2008, a Missouri man aged 55 years died from rabies after handling and being bitten by a bat, and not seeking medical care.

#### What are the implications for public health practice?

Public education should emphasize avoiding exposure to bats and other potentially rabies-infected wildlife, and the importance of proper wound care and seeking prompt medical attention after potential exposures from such animals.

in a Wisconsin patient who recovered from the disease (1). Subsequent attempts to treat rabies patients have been unsuccessful in North America (5,6); however, initial recovery was noted in one patient in Equatorial Guinea, whose subsequent death was attributed to malnutrition rather than rabies (7).

The case described in this report is the first case of human rabies in Missouri since 1959. During 2000-2008, a total of 27 human rabies cases were reported in the United States and Puerto Rico, including six cases acquired overseas. Among the 21 domestically acquired cases, 19 (90%) were associated with bat variants of the rabies virus. In Missouri, principal reservoirs of rabies are bats and skunks (8). The bat that exposed the patient in this report should have been submitted for testing. All bats or wild terrestrial carnivores implicated in a possible rabies exposure should be euthanized and tested for rabies. Testing ensures that rabies PEP can be administered in time to prevent disease, if needed, or that unnecessary PEP can be avoided. The public should be educated that wild animals often mask outward signs of rabies illness, and that observation, as used in this case, is not a recommended method to rule out rabies. Health-care providers should include rabies in the differential diagnosis of any patient with a recent animal bite history and unexplained encephalitis, and laboratory diagnosis should be pursued promptly.

Five contacts of the patient in this report received PEP. Of these five persons, only one was a health-care worker. A review of human rabies cases during 1980–1996 found that a median of 54 contacts (range: 4–179) received PEP per case (3). According to indications for rabies PEP described by ACIP (4), few if any health-care workers in facilities that consistently use standard infection-control measures would be expected to require PEP.

Public education remains an important part of rabies prevention. Persons who are unvaccinated against rabies or lack appropriate training should be warned against handling bats (4). Campaigns aimed at elevating rabies awareness also should address misconceptions and attitudes that can lead to a lack of timely responsiveness to rabies virus exposures.

#### **Acknowledgments**

This report is based, in part, on contributions by staff members of the Texas County Health Dept, Houston, Missouri; and J Blanton, MPH, and A Vellasco, PhD, Rabies Laboratory, CDC.

#### References

- 1. Willoughby RE Jr, Tieves KS, Hoffman GM, et al. Survival after treatment of rabies with induction of coma. N Engl J Med 2005;352:2508–14.
- 2. Wilde H. Failures of post-exposure rabies prophylaxis. Vaccine 2007;25:7605–9.
- 3. Noah DL, Drenzek CL, Smith JS, et al. Epidemiology of human rabies in the United States, 1980 to 1996. Ann Intern Med 1998;128:922–30.
- CDC. Human rabies prevention—United States, 2008: recommendations of the Advisory Committee on Immunization Practices. MMWR 2008;57(No. RR-3).
- 5. CDC. Human rabies—Alberta, Canada, 2007. MMWR 2008;57;197-200.
- 6. CDC. Human rabies—Indiana and California, 2006. MMWR 2007;56:361-5.
- 7. Rubin J, David D, Willoughby RE, et al. Applying the Milwaukee protocol to treat canine rabies in Equatorial Guinea. Scand J Infect Dis 2009;41:372–5.
- Blanton JD, Robertson K, Palmer D, Rupprecht CE. Rabies surveillance in the United States during 2008. J Am Vet Med Assoc 2009;235:676–89.

#### Announcement

#### Vision Health Initiative Website

CDC has created a new Vision Health Initiative website with information regarding vision and eye health, projects with diverse stakeholders, journal publications and reports, and vision health–related resources for professionals and consumers. The website includes an interactive map displaying state-specific vision and eye health statistics. With this tool, states that use the Behavioral Risk Factor Surveillance System visual impairment and access to eye care module can produce reports and presentations with data specific to their states. The website can be accessed at http://www.cdc.gov/visionhealth.

In 2004, approximately 3.3 million persons aged  $\geq$ 40 years had blindness or visual impairment; this number is predicted to double by 2030 because of increases in diabetes and other chronic diseases and aging of the U.S. population (1). With early detection and treatment, half of all blindness can be prevented or reversed (2).

#### References

- 1. Prevent Blindness America. Vision problems in the U.S. 2008 update to the fourth edition. Available at http://www.preventblindness.org/vpus. Accessed October 29, 2009.
- Sommer A, Tielsch JM, Katz J, et al. Racial differences in the causespecific prevalence of blindness in east Baltimore. N Engl J Med 1991;325:1412–7.

#### Announcement

#### Application Deadline for The CDC Experience Applied Epidemiology Fellowship – December 4, 2009

The CDC Experience is a 1-year fellowship in applied epidemiology for third- and fourth-year medical students. Nine competitively selected fellows spend 10–12 months at CDC in Atlanta, Georgia, where they conduct epidemiologic analyses in areas of public health that interest them. The fellowship provides opportunities to enhance skills in research and analytic thinking, written and oral scientific presentations, and the practices of preventive medicine and public health.

Through this training, fellows acquire practical tools for approaching population-based health problems. Graduates of The CDC Experience have an appreciation of the role of epidemiology in medicine and health and are able to apply their knowledge and skills to enhance their clinical acumen and help improve the quality of the U.S. health-care system.

Information on applying for The CDC Experience is available at http://www.cdc.gov/cdcexperiencefellowship. Applications for the class of 2010–11 must be submitted by December 4, 2009. Questions can be addressed to Virginia Watson, program coordinator, by e-mail (VWatson1@cdc.gov).

#### Announcement

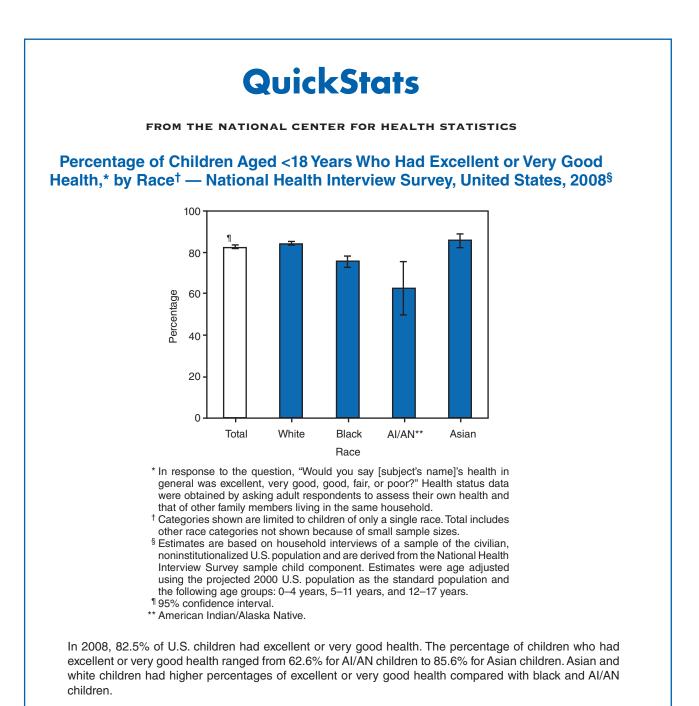
#### First Global Ministerial Conference on Road Safety – November 19–20, 2009

The number of persons worldwide who die in road traffic crashes each year is estimated at 1.3 million, accounting for more than 3,000 deaths each day. Ninety percent of these road traffic deaths occur in low- and middle-income countries, where the \$65 billion in costs attributed to these deaths exceeds the total amount these countries receive in development assistance (1).

During November 19–20, 2009, the government of the Russian Federation will host the First Global Ministerial Conference on Road Safety. The goal of this meeting is to draw attention to the growing problem of road traffic crashes worldwide and the need for immediate and sustained action. The Ministerial Conference represents a historic opportunity for ministers of health, transport, education, and foreign affairs to come together with the world's leading road safety experts to focus on this critical public health issue. Additional information regarding the conference is available at http://www.who.int/roadsafety/ministerial\_conference/en/index.html.

#### Reference

1. World Health Organization. Global status report on road safety: time for action. Geneva, Switzerland, World Health Organization; 2009. Available at http://www.who.int/violence\_injury\_prevention/road\_safety\_status/2009. Accessed October 30, 2009.



SOURCE: National Health Interview Survey, 2008 data. Available at http://www.cdc.gov/nchs/nhis.htm.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending October 31, 2009 (43rd week)\*

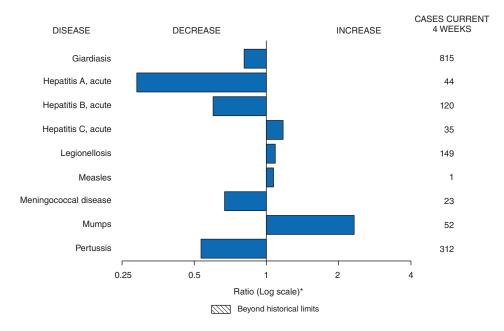
	Current	Cum	5-year weekly			ases revious	eporteo years	1	States reporting cases
Disease	week	2009	average <sup>†</sup>	2008	2007	2006	2005	2004	during current week (No.)
Anthrax	_	_	_	_	1	1	_	_	
Botulism:									
foodborne	_	12	0	17	32	20	19	16	
infant	_	41	2	109	85	97	85	87	
other (wound and unspecified) Brucellosis	1	18 82	0 2	19 80	27 131	48 121	31 120	30 114	VA (1)
Chancroid	_	21	1	25	23	33	17	30	
Cholera	_	8	Ö	5	7	9	8	6	
Cyclosporiasis§	_	113	1	139	93	137	543	160	
Diphtheria	—	_	—	—	_	_	_	—	
Domestic arboviral diseases <sup>§</sup> , <sup>¶</sup> :		00		~~~		07	00	110	
California serogroup	_	33 4	1 0	62 4	55 4	67 8	80 21	112 6	
eastern equine Powassan	_	4	0	4	4	0	1	1	
St. Louis	_	8	õ	13	9	10	13	12	
western equine	_	_	_	_	_	_	_	_	
Ehrlichiosis/Anaplasmosis <sup>§</sup> ,**:									
Ehrlichia chaffeensis	10	664	12	1,137	828	578	506	338	NY (1), OH (1), MN (1), MO (1), VA (2), NC (2), TN (2)
Ehrlichia ewingii	_	6	0	9	_	_	_	_	
Anaplasma phagocytophilum	10	529	13	1,026	834	646	786	537	NY (2), MN (7), VA (1)
undetermined	—	103	3	180	337	231	112	59	
Haemophilus influenzae, <sup>††</sup> invasive disease (age <5 yrs):									
serotype b	_	22	1	30	22	29	9	19	
nonserotype b	_	155	3	244	199	175	135	135	
unknown serotype	6	192	2	163	180	179	217	177	NY (3), OH (1), MO (1), NM (1)
Hansen disease§	—	51	2	80	101	66	87	105	
Hantavirus pulmonary syndrome§	_	10	0	18	32	40	26	24	<b>0.1</b> (1)
Hemolytic uremic syndrome, postdiarrheal§	1	167 1,637	5 15	330	292	288	221 652	200 720	CA(1)
Hepatitis C viral, acute HIV infection, pediatric (age <13 years) <sup>§§</sup>	13	1,037	3	878	845	766	380	436	PA (2), MI (1), MN (2), FL (2), TN (3), TX (1), CA (2
Influenza-associated pediatric mortality <sup>§</sup> , <sup>¶</sup>	18	210	0	90	77	43	45	_	NY (1), IN (1), VA (1), LA (2), CA (8), MS (1), OK (1), TX (2), WV (1)
Listeriosis	10	612	19	759	808	884	896	753	NY (4), KY (1), CA (5)
Measles***	_	59	0	140	43	55	66	37	
Meningococcal disease, invasive <sup>†††</sup> :									
A, C, Y, and W-135	1	208	4	330	325	318	297	_	TX (1)
serogroup B other serogroup	_	112 22	2 1	188 38	167 35	193 32	156 27	_	
unknown serogroup	3	364	10	616	550	651	765	_	TX (1), CA (2)
Mumps	24	386	11	454	800		314	258	NY (6), NYC (17), FL (1)
Novel influenza A virus infections	_	§§§	_	2	4	Ń	N	Ν	
Plague	—	7	0	3	7	17	8	3	
Poliomyelitis, paralytic	—	_	—	_	_		1		
Polio virus infection, nonparalytic <sup>§</sup> Psittacosis <sup>§</sup>	_	7	0	8	12	N 21	N 16	N 12	
Q fever total <sup>§,¶¶¶</sup> :	2	73	2	8 124	171	169	136	70	
acute	2	62	1	110		- 100	- 100		OH (1), CA (1)
chronic	_	11	0	14	_	_	_	_	
Rabies, human	—	1	0	2	1	3	2	7	
Rubella****	_	4	0	16	12	11	11	10	
Rubella, congenital syndrome SARS-CoV <sup>§</sup> , <sup>††††</sup>	_	1	_	_	_	1	1	_	
SARS-Cov <sup>®</sup> ,	_	_	_	_	_	_	_	_	
Streptococcal toxic-shock syndrome <sup>§</sup>	_	115	2	157	132	125	129	132	
Syphilis, congenital (age <1 yr)	_	178	7	434	430	349	329	353	
Tetanus	_	10	1	19	28	41	27	34	
Toxic-shock syndrome (staphylococcal)§	1	67	1	71	92	101	90	95	PA (1)
Trichinellosis	_	12	0	39	5	15	16	5	
Tularemia Turphaid favor		68	2	123	137	95	154	134	CA(2)
Typhoid fever Vancomycin-intermediate <i>Staphylococcus aureus</i> §	2 1	292 62	6 1	449 63	434 37	353 6	324 2	322	CA (2) NY (1)
Vancomycin-resistant Staphylococcus aureus <sup>§</sup>	_	02	0		2	1	3	1	
Vibriosis (noncholera <i>Vibrio</i> species infections) <sup>§</sup>	14	499	7	492	549	N	Ň	Ň	VA (1), FL (3), WA (5), CA (5)
Yellow fever	_	_	_	_	_	_	_	_	

See Table I footnotes on next page.

# TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending October 31, 2009 (43rd week)\*

- -: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts.
- \* Incidence data for reporting year 2009 is provisional, whereas data for 2004 through 2008 are finalized.
- <sup>†</sup> Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. The total sum of incident cases is then divided by 25 weeks. Additional information is available at http://www.cdc.gov/epo/dphsi/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 domestic arboviral diseases and
- influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
- \*\* The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).
- <sup>††</sup> Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
- <sup>§§</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.
- <sup>111</sup> Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Since April 26, 2009, a total of 129 influenza-associated pediatric deaths associated with 2009 pandemic influenza A (H1N1) virus infection have been reported. Since August 30, 2009, a total of 85 influenza-associated pediatric deaths occurring during the 2009–10 influenza season have been reported. A total of 124 influenza-associated pediatric death occurring during the 2008-09 influenza season have been reported.
- \*\*\* No measles cases were reported for the current week.
- <sup>†††</sup> Data for meningococcal disease (all serogroups) are available in Table II.
- §§§ CDC discontinued reporting of individual confirmed and probable cases of novel influenza A (H1N1) viruses infections on July 24, 2009. CDC will report the total number of novel influenza A (H1N1) hospitalizations and deaths weekly on the CDC H1N1 influenza website (http://www.cdc.gov/h1n1flu).
- In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
- \*\*\*\* No rubella cases were reported for the current week.
- titt Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

# FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals October 31, 2009, with historical data



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

# Notifiable Disease Data Team and 122 Cities Mortality Data Team Patsy A. Hall Deborah A. Adams Rosaline Dhara Willie J. Anderson Michael S. Wodajo Jose Aponte Pearl C. Sharp Lenee Blanton Lenee Blanton

(43rd week)*			Chlamyd	ia†			Coccid	iodomy	cosis			Crvi	otosporid	iosis	
		Prev					Previ	,					/ious		
	Current	52 w	eeks	Cum	Cum	Current	52 we	eks	Cum	Cum	Current	52 v	veek	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States	11,243 549	22,267 756	25,700 1,655	921,504 32,733	981,546 30,519	46	180 0	472 1	9,021 1	5,267 1	61	123 6	369 41	5,708 364	7,507 355
New England Connecticut	226	222	1,306	9,630	9,307	Ν	0	0	Ň	Ň	_	0	34	34	41
Maine <sup>§</sup> Massachusetts	192	47 357	75 945	1,915 15,735	2,114 14,027	N N	0 0	0 0	N N	N N	_	0 2	4 15	39 150	42 154
New Hampshire	_	38	61	1,362	1,720	_	0	1	1	1	_	1	5	61	54
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	102 29	69 22	244 64	3,109 982	2,379 972	N	0 0	0 0	N	N	_	0 1	8 7	15 65	7 57
Mid. Atlantic	2,839	2,976	6,734	127,944	121,603	_	0	0	_	_	7	13	35	657	647
New Jersey New York (Upstate)	940	388 584	838 4,563	16,651 26,459	18,594 22,758	N N	0 0	0 0	N N	N N	3	0 3	2 12	8 192	38 233
New York City	1,247	1,139	3,130	49,548	45,936	N	0	0	N	Ν	_	1	8	65	95
Pennsylvania E.N. Central	652 904	827 3,426	1,001 4,080	35,286 140,406	34,315 159,802	N 1	0 0	0 4	N 30	N 38	4 4	8 26	19 54	392 1,222	281 1,918
Illinois	303	1,084	1,376	43,338	48,900	N	0	0	N	N	-	2	8	122	191
Indiana Michigan	191 369	418 865	713 1,332	18,676 37,463	17,796 37,514	N	0 0	0 3	N 16	N 29	1	4 5	17 11	175 226	169 236
Ohio	41	803	1,177	27,315	38,108	1	0	2	14	9	3	7	16	328	622
Wisconsin W.N. Central	68	333 1,318	494 1,684	13,614 54.080	17,484 55,644	N	0 0	0 1	N 8	N 2	8	8 18	22 62	371 902	700 859
Iowa	_	185	256	7,808	7,517	Ν	0	ò	Ň	N	_	3	13	180	260
Kansas Minnesota	2 1	143 255	555 342	6,731 10,493	7,686 11,865	<u>N</u>	0 0	0 0	N	<u>N</u>	6	1 5	6 34	61 301	77 188
Missouri Nebraska <sup>§</sup>	65	511 103	646 219	21,157 4,431	20,285 4,433	N	0 0	1 0	8 N	2 N	_2	3 2	12 9	156 101	159 100
North Dakota		31	75	1,323	1,469	N	0	0	N	N	_	0	10	11	6
South Dakota	_	56	80	2,137	2,389	N	0	0	N	N	—	2	10	92	69
S. Atlantic Delaware	2,444 105	3,916 86	5,448 180	163,180 3,944	201,994 3,061	_	0 0	1 1	5 1	4 1	12	21 0	45 2	908 8	861 11
District of Columbia Florida	664	125 1,421	226 1.666	5,440 60.606	5,738 59.132	N	0 0	0 0	N	N	 10	0 8	1 24	2 387	13 389
Georgia	3	746	1,909	25,678	34,697	N	0	0	N	Ν	1	6	23	298	213
Maryland <sup>§</sup> North Carolina	316	422 0	772 1,193	17,323	19,506 29,384	N	0 0	1 0	4 N	3 N	_	1 0	5 9	35 58	38 60
South Carolina§	474	540	1,421	20,879	22,003	N	0	0	N	Ν	1	1	7	46	45
Virginia <sup>§</sup> West Virginia	767 115	609 70	926 101	26,261 3,049	25,795 2,678	N N	0 0	0 0	N N	N N	_	1 0	7 2	60 14	69 23
E.S. Central	1,346	1,738	2,210	75,312	70,697		0	0			8	3	10	186	150
Alabama <sup>ş</sup> Kentucky	96 471	467 243	626 458	19,508 10,633	20,668 9,964	N N	0 0	0 0	N N	N N	3	1 1	5 4	51 55	64 30
Mississippi Tennessee§	294 485	457 582	840 809	19,960 25,211	16,984 23,081	N N	0 0	0 0	N N	N N	5	0 1	3 4	12 68	16 40
W.S. Central	485 374	2,831	5,455	119,149	123,820		0	1	1	3	3	11	271	433	1,840
Arkansas§	_	272	417	11,532	11,879	Ν	Ő	0	Ň	N	1	1	5	45 29	79 56
Louisiana Oklahoma	149 225	392 175	1,134 2,729	16,267 11,496	18,305 10,993	N	0 0	1 0	1 N	3 N	1	0 2	6 11	29 110	116
Texas§	_	1,975	2,522	79,854	82,643	N	0	0	N	N	1	7	258	249	1,589
Mountain Arizona	480 58	1,433 460	2,145 736	58,537 18,525	61,236 20,533	1 1	133 131	369 365	6,985 6,897	3,556 3,469	3	9 1	26 3	453 27	524 81
Colorado Idaho <sup>§</sup>	155	372 67	727 313	13,859 2,900	14,564 3,000	N N	0 0	0 0	N	N	2	2 1	10 7	120 76	99 60
Montana§	_	56	88	2,402	2,543	N	Õ	0	N	N	1	1	4	49	41
Nevada <sup>§</sup> New Mexico <sup>§</sup>	99 111	170 181	477 540	8,147 7,476	7,929 6,400	_	1 0	4 2	51 9	46 29	_	0 2	2 7	21 111	16 165
Utah	22	94	176	3,568	4,979	—	0	2	27	10	—	0	3	30	39
Wyoming <sup>§</sup> Pacific	35 2,239	34 3,568	97 4,683	1,660 150,163	1,288 156,231	 44	0 42	1 172	1 1,991	2 1,663	 16	0 13	2 25	19 583	23 353
Alaska	· _	94	199	3,210	3,881	N	0	0	N	Ń	_	0	1	6	3
California Hawaii	1,584	2,715 118	3,593 147	116,841 4,772	121,473 4,920	44 N	42 0	172 0	1,991 N	1,663 N	13	7 0	20 1	350 1	210 2
Oregon <sup>§</sup> Washington	389 266	198 399	631 571	8,061 17,279	8,252 17,705	N N	0 0	0 0	N N	N N	3	3 1	8 9	154 72	56 82
American Samoa	200	399 0	0		73	N	0	0	N	N	N	0	9	N	02 N
C.N.M.I. Guam	_	- 1	8	_	115	_	0	0	_	_	_	0	0	_	_
Puerto Rico	246	132	332	6,141	5,882	Ν	0	0	Ν	Ν	Ν	0	0	N	Ν
U.S. Virgin Islands	_	9	17	290	542	_	0	0	_	_	_	0	0	_	_

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting year 2009 is provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly. † Chlamydia refers to genital infections caused by *Chlamydia trachomatis*. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

			Giardias	is				Gonorrhe	ea		па		s <i>influenz</i> s, all sero		ve
			vious veeks	_	_	_		vious veeks	_	_	_		/ious /eeks	_	_
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	195	323	497	14,487	15,363	2,490	5,309	6,918	219,247	276,983	22	60	124	2,414	2,277
New England	7	29	64	1,364	1,406	78	94	301	4,069	4,331	_	3	16	158	138
Connecticut Maine <sup>§</sup>	1 3	6 3	15 13	247 180	279 155	50	46 2	275 9	1,957 111	2,155 80	_	0 0	12 2	43 17	33 14
Massachusetts	_	12	36	580	586	16	39	112	1,596	1,711	_	2	5	78	66
New Hampshire Rhode Island <sup>§</sup>	_	2 1	11 6	144 44	139 78	11	2 6	6 19	86 281	84 273	_	0	2 7	10 6	9 8
Vermont§	3	3	14	169	169	1	1	4	38	28	_	Ō	1	4	8
Mid. Atlantic	36	63	104	2,686	2,871	481	585	1,138	25,948	27,085	8	11	25	494	428
New Jersey New York (Upstate)	27	7 24	17 81	215 1,117	438 996	110	87 109	122 664	3,502 4,931	4,405 5,067	6	2 3	7 20	93 127	74 127
New York City	1	16	24	672	721	244	212	577	9,323	8,492		2	11	86	72
Pennsylvania E.N. Central	8 13	15 45	33 70	682 1,931	716 2,298	127 315	188 1.081	255 1,436	8,192 43.646	9,121 57,164	2 5	4 12	10 28	188 508	155 376
Illinois	13	45	18	379	613	128	331	451	13,279	17,004		3	20	126	123
Indiana Michigan	N 4	0 12	11 21	N 533	N 508	42 130	142 276	252 496	6,011 12,320	7,204 14,242	1	1 0	22 3	58 19	64 19
Ohio	9	16	28	685	742	15	251	430	8,614	13,568	4	2	6	86	114
Wisconsin	—	8	19	334	435	_	87	140	3,422	5,146	_	3	20	219	56
W.N. Central lowa	13 1	24 6	141 15	1,254 251	1,719 278	24	282 32	373 53	11,724 1,287	14,050 1,331	3	3 0	15 0	136	170 2
Kansas	_	2	11	96	144	2	44	83	1,889	1,888	_	0	2	13	17
Minnesota Missouri	6	0 8	104 30	250 421	590 403	_	42 128	63 173	1,722 5,343	2,568 6,684	1 2	0 1	10 4	48 46	54 61
Nebraska§	6	3	9	151	171	22	24	55	1,144	1,198		Ó	4	23	25
North Dakota South Dakota	_	0 1	16 7	23 62	15 118	_	2 6	14 20	82 257	102 279	_	0 0	4 0	6	11
S. Atlantic	50	73	109	3,096	2,432	697	1,149	1,956	47,172	70,724	2	14	31	594	578
Delaware	_	0	3	22	36	23	<sup>′</sup> 18	37	809	881	—	0	1	3	6
District of Columbia Florida	43	0 38	5 59	19 1,614	57 1,039	255	50 411	88 486	2,153 17,546	2,151 19,606	1	0 4	1 10	1 192	7 150
Georgia	_	11	67	749	569	1	251	876	8,681	12,970	1	3	9	131	119
Maryland§ North Carolina	N	5 0	11 0	222 N	232 N	99	114 0	197 470	4,732	5,261 12,717	_	1 0	6 17	78 61	83 63
South Carolina§	1	2	8	85	101	149	167	412	6,625	8,022	_	1	5	53	52
Virginia <sup>§</sup> West Virginia	6	8 1	31 5	344 41	334 64	164 6	147 10	308 23	6,212 414	8,503 613	_	1 0	6 3	48 27	77 21
E.S. Central	3	8	22	327	420	418	506	687	21,710	25,478	_	3	9	132	117
Alabama§	_	3	11	151	241	53	138	202	5,572	8,153	—	1	4	32	19
Kentucky Mississippi	N N	0 0	0 0	N N	N N	136 94	72 143	135 252	3,134 6,218	3,825 6,096	_	0	5 1	19 4	6 13
Tennessee§	3	4	18	176	179	135	160	230	6,786	7,404	—	2	6	77	79
W.S. Central Arkansas <sup>§</sup>	11 6	8 2	22 9	361 125	373 124	121	843 82	1,423 134	34,702 3,543	42,431 3,877	1	2 0	22 2	91 13	100 12
Louisiana	_	2	8	96	124	44	131	420	5,203	7,810	_	0	1	12	9
Oklahoma Texas <sup>§</sup>	5 N	3 0	18 0	140 N	127 N	77	66 555	612 696	3,915 22,041	4,040 26,704	1	1 0	20 1	64 2	70 9
Mountain	10	26	61	1,277	1,364	55	171	234	6,853	9,735	3	5	11	200	245
Arizona	_	3	9	163	117	20	53	88	2,188	2,854	—	1	7	67	92
Colorado Idaho <sup>§</sup>	5 5	8 3	26 10	399 155	476 167	3	49 2	106 13	1,933 79	3,127 135	1	1	6 1	61 3	47 12
Montana§	_	2	11	117	79		1	5	60	105	_	Ō	1	1	3
Nevada <sup>§</sup> New Mexico <sup>§</sup>	_	2 2	11 8	95 94	100 95	13 18	29 24	93 52	1,439 933	1,844 1,135	1	0	2 3	16 22	16 38
Utah	—	6	12	203	292	—	3	11	157	426	1	1	2	27	34
Wyoming§	-	1	4	51	38	1	1	5	64	109	_	0	1	3	3
Pacific Alaska	52	51 2	130 7	2,191 94	2,480 90	301	541 15	764 24	23,423 550	25,985 452	_	2 0	8 3	101 15	125 18
California	37	34	56	1,432	1,627	232	457	657	19,734	21,343	_	0	4	25	41
Hawaii Oregon <sup>§</sup>	6	0 7	2 18	14 330	40 393	39	11 20	24 42	504 814	521 1,010	_	0 1	3 3	23 35	16 48
Washington	9	7	74	321	330	30	43	71	1,821	2,659	—	0	2	3	2
American Samoa C.N.M.I.	_	0	0	_	_	_	0	0	_	3	_	0	0	_	_
Guam	_	0	0	_	_	_	0	1	_	72	_	0	0	_	_
Puerto Rico	—	2	10	101	191	6	4	24	200	230		0	1	3	1
U.S. Virgin Islands	_	0	0	—	—	_	2	7	80	106	N	0	0	N	N

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting year 2009 is provisional. † Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### **MMWR**

<u> </u>				Hepat	itis (viral,	acute), by	type†	1							
			Α					В					gionellosi	is	
	Current	Prev 52 w	eeks	Cum	Cum	Current	52 w	vious veeks	Cum	Cum	Current	52 v	/ious /eeks	Cum	Cum
Reporting area	week	Med	Max	2009	2008	week	Med	Max	2009	2008	week	Med	Max	2009	2008
United States	13	35 2	89	1,526 82	2,199 117	37	64 1	197 4	2,541 34	3,150 70	38	51 3	149 16	2,546 142	2,630 183
New England Connecticut	_	0	5 2	18	26	_	Ó	3	11	25	_	1	5	48	37
Maine <sup>§</sup> Massachusetts	_	0 1	2 4	1 47	12 54	_	0 0	2 1	12 8	10 21	_	0 1	3 9	8 59	9 77
New Hampshire	_	0	1	7	11	_	Ō	1	3	8	_	0	2	9	24
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	_	0	1	7 2	12 2	_	0 0	0 1	_	4	_	0 0	12 1	11 7	31 5
Mid. Atlantic	1	5	11	210	272	2	5	17	251	368	7	15	68	960	894
New Jersey New York (Upstate)	1	1	5 3	44 42	68 57	1	1	6 11	61 47	102 54	5	2 5	13 29	141 308	127 296
New York City	_	2	5	66	92	_	1	4	53	82	_	2	20	188	119
Pennsylvania	—	1	6	58	55	1	2	7	90	130	2	6	25	323	352
E.N. Central Illinois	_	4 1	18 12	213 93	294 99	_2	7 1	21 6	309 58	434 164	5	9 1	33 10	482 77	578 102
Indiana	—	0	4	15	19	—	1	18	50	34	—	1	5	29	45
Michigan Ohio	_	1 1	5 3	57 34	106 41	2	2 1	8 13	102 73	119 103	5	2 4	11 17	121 250	155 241
Wisconsin	_	0	4	14	29	—	0	4	26	14	—	0	1	5	35
W.N. Central lowa	_2	2 0	16 3	104 31	228 105	3	3 0	16 3	140 26	70 19		2 0	7 2	85 19	123 19
Kansas	_	0	1	7	14	_	0	2	5	6	_	0	1	3	2
Minnesota Missouri	2	0	12 3	17 27	36 29	3	0 1	11 5	26 63	10 28	4	0 1	3 4	12 38	17 63
Nebraska§	_	0	3	19	40	—	0	2	18	6	—	0	2	11	20
North Dakota South Dakota	_	0 0	2 1	3	4	_	0 0	1 1	2	1	_	0 0	3 1	1	2
S. Atlantic	7	7	14	346	342	11	16	32	746	782	9	10	18	436	414
Delaware District of Columbia	U	0	1 0	3 U	7 U	U U	0 0	1 0	U U	U U	_	0 0	5 2	16 8	11 15
Florida	5	4	9	159	126	6	6	11	244	275	7	3	10	154	119
Georgia Maryland <sup>§</sup>	_	1 0	3 4	47 36	49 40	1	3 1	9 5	120 59	150 70	_	1 2	5 10	43 110	34 119
North Carolina	—	0	3	25	58	_	2	19	148	71	—	0	6	39	31
South Carolina§ Virginia§	2	1	4 2	44 29	15 42	1 3	1 2	4 10	42 77	58 88	2	0 1	1 5	8 50	10 49
West Virginia	—	0	1	3	5	_	0	19	56	70	_	0	2	8	26
E.S. Central Alabama <sup>§</sup>	_	1 0	4 2	36 9	70 11	4	7 2	11 7	266 72	331 91	_2	2 0	12 2	112 12	101 15
Kentucky	_	0	1	8	27	2	2	7	70	77	1	1	3	44	48
Mississippi Tennessee <sup>§</sup>	_	0	2 2	11 8	4 28	2	1 2	2 6	27 97	41 122	1	0 1	2 9	4 52	1 37
W.S. Central	_	3	43	117	205	9	10	99	406	599	7	1	21	67	75
Arkansas <sup>§</sup> Louisiana	—	0	1	8 3	7 11	_	1 1	5 4	43 33	56 78	_	0 0	1 2	7 4	13 9
Oklahoma	_	0	6	3	7	2	2	17	82	89	1	0	6	4	4
Texas§	_	3	37	103	180	7	6	76	248	376	6	1	19	52	49
Mountain Arizona	_	3 2	8 6	136 64	189 94	_	3 1	6 3	109 38	176 66	_	2 1	8 4	103 40	76 17
Colorado Idaho <sup>§</sup>	—	0 0	5	41 3	34 17	_	0 0	2	20 10	30 8	_	0 0	2 1	11 4	11 3
Montana§	_	0	1	6	1	_	0	2 0	_	2	_	0	2	4 5	4
Nevada <sup>§</sup> New Mexico <sup>§</sup>	_	0	2 1	10 6	11 16	_	0 0	3 2	27 5	42 10	_	0 0	2 2	11 8	9 9
Utah	_	0	1	4	13	_	0	1	5	13	_	0	4	20	23
Wyoming§	_	0	1	2	3	_	0	2	4	5	_	0	2	4	
Pacific Alaska	3	6 0	17 1	282 3	482 4	6	6 0	36 1	280 2	320 10	4	3 0	12 1	159 1	186 1
California	3	5	16	226	395	4	4	28	203	223	2	3	9	123	145
Hawaii Oregon§	_	0 0	1 2	5 15	16 24	_	0 0	1 4	4 34	7 39	_	0 0	1 2	1 12	8 16
Washington	—	0	4	33	43	2	0	8	37	41	2	0	4	22	16
American Samoa C.N.M.I.	_	0	0	_	_	_	0	0	_	_	N	0	0	N	N
Guam	—	0	0		_	—	0	0			—	0	0	_	_
Puerto Rico U.S. Virgin Islands	_	0 0	2 0	18	22	_	0 0	5 0	18	46	_	0 0	0	_	_
		· ·					v					<u> </u>	· · ·		

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 31, 2009, and October 25, 2008 (43rd week)\*

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

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

		L	yme disea	se				Malaria			Me		cal diseas		/e'
			vious veeks					vious veeks					/ious /eeks		
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008
United States	230	438	1,821	25,196	28,928	8	22	44	971	1,030	4	16	48	706	982
New England	13	70	417	4,990	10,533	—	1	5	38	48	—	0	4	26	29
Connecticut Maine <sup>§</sup>	12	0 10	50 76	787	3,602 696	_	0 0	4	5 2	10 1	_	0 0	1	2 4	1 5
Massachusetts	_	23	282	2,789	4,283	_	0	3	22	27	_	0	3	12	18
New Hampshire Rhode Island <sup>§</sup>	_	11 0	82 78	898 188	1,478 121	_	0 0	1	3 4	4 2	_	0 0	1	3 4	4 1
Vermont§	1	4	38	328	353	_	0	1	2	4	_	0	1	4	_
Mid. Atlantic	156	249	1,401	14,559	11,436	_	6	13	243	281	_	2	6	74	109
New Jersey New York (Upstate)	70	35 79	322 1,368	3,536 3,638	3,179 4,098	_	0 1	1 10	1 41	62 28	_	0 0	2 2	8 18	14 27
New York City		3	23	184	719	_	3	11	157	155	_	0	2	13	24
Pennsylvania	86	55	627	7,201	3,440	—	1	4	44	36	—	1	4	35	44
E.N. Central Illinois	1	17 1	206	1,977 115	2,181 103	1	3 1	10	129 51	133 68	—	3 1	9 6	120 30	173 67
Indiana	_	1	11 6	53	39	_	0	4 3	15	5	_	0	3	28	23
Michigan	_	1	10	93	79	1	0	3	25	14	—	0	5	18	31
Ohio Wisconsin	1	0 14	5 189	49 1,667	42 1,918	_	0	6 1	31 7	28 18	_	1 0	3 2	34 10	33 19
W.N. Central	15	4	336	214	831	1	1	8	56	64	_	1	9	58	85
lowa	_	1	14	83	104	—	0	1	10	11	_	Ó	1	7	18
Kansas Minnesota	 15	0 0	2 326	14 90	15 692	1	0	1 8	4 24	9 23	—	0	2 4	8 11	5 22
Missouri	15	0	2	10	6	_	0	2	24 11	13	_	0	4	22	22
Nebraska§	—	0	3	16	11	—	0	1	6	8	—	0	1	7	11
North Dakota South Dakota	_	0 0	10 1	1	3	_	0	0 1	1	_	_	0 0	3 1	1 2	3 3
S. Atlantic	40	63	222	3,176	3,652	1	6	17	284	250	_	2	9	126	139
Delaware	4	12	64	846	687	_	0	1	4	2	_	0	1	3	2
District of Columbia Florida	 13	0 1	5 9	19 96	64 69	_	0 2	2 7	5 82	4 49	_	0 1	0 4	46	47
Georgia	1	ò	6	46	34	1	1	5	62	50	_	ò	2	25	16
Maryland <sup>§</sup>	—	26	118	1,460	1,923	—	1	5	58	69	_	0	1	8	16
North Carolina South Carolina <sup>§</sup>	_	0 0	14 3	56 28	30 23	_	0 0	5 1	21 4	24 9	_	0	5 1	18 11	12 20
Virginia§	22	11	61	483	702	—	1	5	46	41	—	0	1	10	21
West Virginia	_	0	33	142	120	_	0	1	2	2	_	0	2	5	5
E.S. Central Alabama <sup>§</sup>	_	0 0	2 1	27 2	43 9	_	0 0	3 3	26 7	17 4	_	0 0	3 1	25 7	45 8
Kentucky	_	0	1	1	5	_	0	2	9	4	_	0	1	4	7
Mississippi Tennessee <sup>§</sup>	_	0 0	0 2	24	1 28	_	0 0	1 3	1 9	1 8	_	0 0	1	3 11	10 20
W.S. Central	_	1	21	24 40	20 99	_	1	10	42	72	2	1	12	70	101
Arkansas§	_	Ó	0	40	_	_	Ó	1	4		_	Ö	2	8	13
Louisiana Oklahoma	_	0 0	0 2	_	3	_	0	1 2	3 2	3 2	_	0 0	3 3	11 11	22 12
Texas <sup>§</sup>	_	1	21	40	96	_	1	2	33	67	2	1	9	40	54
Mountain	_	1	13	48	47	_	0	5	26	32	_	1	4	55	54
Arizona	—	0	2	5	8	—	0	2	8	14	_	0	2	13	9
Colorado Idaho <sup>§</sup>	_	0 0	1 2	6 11	3 9	_	0	3 1	8 1	4 3	_	0	2 1	18 7	11 5
Montana§	—	0	13	3	4	—	0	3	5		—	Ö	2	4	4
Nevada <sup>§</sup> New Mexico <sup>§</sup>	_	0 0	2 1	12 5	11 8	_	0	1 0	_	4 3	_	0 0	2 1	4 3	7 8
Utah	_	Ő	1	4	2	_	ŏ	2	4	4	_	ŏ	1	2	8
Wyoming§	—	0	1	2	2	—	0	0	—	_	—	0	2	4	2
Pacific Alaska	5	3 0	13 1	165 2	106 6	_5	3 0	9 1	127 2	133 5	_2	3 0	14 2	152 6	247 8
California	5	2	10	138	60	4	2	6	2 94	97	2	2	2 8	102	8 179
Hawaii	Ň	0	0	N	N	—	0	1	1	3	—	0	1	4	5
Oregon <sup>§</sup> Washington	_	0 0	3 12	15 10	30 10	1	0 0	2 3	11 19	4 24	_	0 0	6 6	27 13	31 24
American Samoa	N	0	0	N	N	_	0	0			_	0	0		
C.N.M.I.		_	—	_		_	_	_	_	_	_	_	_	_	_
Guam Puerto Rico	N	0 0	0 0	N	N	_	0 0	0 1	3	3 2	_	0 0	0	_	3
	IN	0	0	IN	IN	_	0	1	3	2	_	0	0	_	3

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(43rd week)*			Pertussis	 5			Ra	bies, anin	nal		R	ocky Mou	intain spo	tted feve	r
			vious					ious					vious		
Reporting area	Current week	52 v	veeks Max	Cum 2009	Cum 2008	Current week	52 w	еекs Max	Cum 2009	Cum 2008	Current week	52 w	eeks Max	Cum 2009	Cum 2008
United States	78	282	1,697	11,452	8,190	29	65	140	3,125	3,644	6	28	179	1,252	2,043
New England Connecticut	_	12 0	27 4	514 31	848 48	5 4	6 2 1	24 22	294 130	355 173	_	0 0 0	2 0	10 	4
Maine <sup>†</sup> Massachusetts	_	1 7	10 1 <u>9</u>	73 307	33 660	_	0	4	47	48		0	2 1	5 4	1
New Hampshire Rhode Island <sup>†</sup> Vermont <sup>†</sup>	_	1 0 0	7 7 1	65 28 10	27 69 11	— — 1	0 1 1	7 6 4	26 42 49	42 31 61		0 0 0	0 2 1	1	1 1 
Mid. Atlantic	12	22	64	933	931	10	12	23	527	800	_	1	29	62	116
New Jersey New York (Upstate)	10	4	12 41	150 195	182 357	9	0 8	0 22	389	433	_	0	2 29	12	78 14
New York City Pennsylvania	2	0 13	21 33	73 515	65 327	1	0 2	3 17	20 118	16 351	_	0 0	4 2	28 22	11 13
E.N. Central Illinois	23	64 13	238 45	2,509 526	1,337 311	1 1	2 1	19 9	213 85	242 100	_	1 1	6 6	81 47	140 103
Indiana	6	5 11	158 36	248 670	78 222	_	0 1	6 6	21 62	9 73	_	0 0	3 2	12 6	6
Michigan Ohio Wissersia	17	22	57	946	587	_	Ó	5	45	60	_	0	4	16	28
Wisconsin W.N. Central	8	3 35 5	12 872 14	119 1,452 165	139 814 152	N 2	0 7 0	0 18 3	N 313 24	N 275 27	1	0 3 0	0 27 2	305 5	420 8
lowa Kansas	_	4	9	142	58	_	1	6	60	59	_	0	1	2	—
Minnesota Missouri	6	0 20	808 51	165 806	201 246	2	0 1	11 5	56 65	53 59	1	0 3	1 26	2 284	391
Nebraska† North Dakota	2	3 0	32 24	130 17	102 1	_	1 0	6 9	77 4	32 24	_	0 0	2 1	12	18
South Dakota S. Atlantic	— 11	0 31	5 71	27 1,386	54 786	6	0 23	4 111	27 1,340	21 1,446	1	0 10	0 40	407	3 768
Delaware	—	0	2	12	15	—	0	0	1,340	1,440	—	0	3	16	31
District of Columbia Florida	6	0 10	2 32	2 479	4 239	_	0	0 95	140	138		0	0	6	6 13
Georgia Maryland <sup>†</sup>	1	3 2	11 8	170 98	83 122	_	0 7	72 15	334 328	338 371	1	0 1	7 3	43 30	76 76
North Carolina South Carolina <sup>†</sup>	3	0 4	65 18	223 215	79 102	<u>N</u>	2 0	4 0		N	_	4 0	36 5	240 18	375 52
Virginia <sup>†</sup> West Virginia	1	3 0	24 5	159 28	131 11	6	10 2	23 6	436 102	527 72	_	1 0	8 1	50 4	131 8
E.S. Central Alabama <sup>†</sup>	5	15 4	33 19	650 253	292 39	1	1 0	7 0	82	164	_2	4 1	16 7	241 57	314 85
Kentucky Mississippi	4	6 1	15 4	198 48	89 88	1	1 0	4 1	44 4	41 6	_	0	1	1	1 10
Tennessee <sup>†</sup>	1	3	14	151	76	_	0	4	34	117	2	3	14	176	218
W.S. Central Arkansas <sup>†</sup>	12 7	63 6	389 38	2,459 243	1,322 88	_	0 0	13 10	64 33	82 44	_2	1 0	161 61	124 58	237 44
Louisiana Oklahoma	_	2 0	8 45	90 42	72 32	_	0 0	0 13	30	 36	2	0 0	1 98	2 51	6 143
Texas <sup>†</sup>	5	52	304	2,084	1,130	_	0	1	1	2	_	0	6	13	44
Mountain Arizona	2	18 3	32 10	743 171	713 200	1 N	2 0	6 0	81 N	96 N	_	Ō	3 1	21 5	41 14
Colorado Idaho†	1	5 1	12 5	208 65	130 26	_	0	0		11	_	0	1	1	1
Montana <sup>†</sup> Nevada <sup>†</sup>	1	0 0	6 6	46 24	77 26	_	0 0	4 1	25 6	12 12	_	0 0	2 1	8 1	3 3
New Mexico <sup>†</sup> Utah	_	1 4	10 19	55 154	54 183	1	0 0	2 1	20 9	26 14	_	0 0	1 1	1	4 5
Wyoming <sup>†</sup>		0	5	20	17		0	4	21	21		0	1	3	10
Pacific Alaska	5	22 1	67 21	806 36	1,147 188	3	4	12 2	211 11	184 13	N	0	1	1 N	3 N
California Hawaii	_	7 0	19 3	287 24	451 11	3	4	12 0	185	159	N	0	1 0	1 N	N
Oregon <sup>†</sup> Washington	5	3 6	17 58	220 239	152 345	_	0 0	3 0	15	12	_	0 0	0 0	_	3
American Samoa C.N.M.I.	_	0	0	_	_	<u>N</u>	0	0	<u>N</u>	<u>N</u>	<u>N</u>	0	0	<u>N</u>	N
Guam Puerto Rico	_	0 0	0 1		_	_	0 1	0 3	 35	 55	N N	0 0	0 0	N N	N N
U.S. Virgin Islands	_	0	0	_		Ν	0	0	N	N	N	0	0	Ν	Ν

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		S	almonello	sis		Shig	ja toxin-pi	oducing	E. coli (S1	EC)†		ş	Shigellosis	5	
			vious				Prev						vious		
Reporting area	Current week	Med	veeks Max	Cum 2009	Cum 2008	Current week	52 w	еекs Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008
United States	618	912	2,323	36,814	40,154	45	88	255	3,625	4,346	109	313	1,268	12,238	16,753
New England	_	32 0	385 360	1,798	1,973 491	2	3 0	62 62	210 62	227 47	_	4 0	38 33	291 33	199 40
Connecticut Maine <sup>§</sup>	_	2	7	360 110	131	_	0	3	16	19	_	0	2	5	19
Massachusetts New Hampshire	_	21 3	48 42	942 224	1,046 126	1	1	6 3	75 32	100 25	_	3 0	26 4	210 17	121 5
Rhode Island§	_	2	11	108	95 84		0 0	1	1 24	8	_	0	7	21	11
Vermont <sup>§</sup> Mid. Atlantic	40	1 94	5 161	54 4,036	84 4,939	7	6	3 21	24 306	28 408	7	0 57	2 84	5 2,309	3 2,061
New Jersey New York (Upstate)	29	12 23	30 66	458 1,127	1,126 1,168	7	1 3	4 9	32 131	120 150	1	12 4	27 23	480 184	745 512
New York City	1	19	43	989	1,131	_	1	5	51	47	3	9	17	382	637
Pennsylvania E.N. Central	10 27	29 90	63 148	1,462 3,938	1,514 4,381	2	1 13	8 24	92 581	91 775	3 7	25 52	63 132	1,263 2,063	167 3,329
Illinois		25	49	1,079	1,295	_	2	10	124	129		10	25	432	846
Indiana Michigan	_	6 18	50 33	291 806	518 815	_	1 3	7 8	61 135	78 193	1	1 5	21 24	52 189	540 127
Ohio Wisconsin	27	28 12	52 29	1,254 508	1,096 657	_2	3 2	11 11	119 142	173 202	6	25 8	80 25	1,002 388	1,335 481
W.N. Central	19	51	109	2,225	2,422	1	11	37	636	726	13	18	48	826	759
lowa Kansas	_2	8 6	16 18	345 269	361 407	_	2 0	14 4	141 33	193 47	_	1 3	12 11	49 159	136 49
Minnesota	5 5	11 12	51 34	512 571	618 656	1	2	19 10	205 111	164 138	 13	2 7	10 40	73 510	267 188
Missouri Nebraska <sup>§</sup>	7	5	41	307	207	_	2	6	81	136		0	3	26	10
North Dakota South Dakota	_	0 2	30 22	65 156	40 133	_	0 0	28 12	6 59	2 46	_	0 0	9 1	5 4	33 76
S. Atlantic	288	262	442	10,645	10,199	6	13	30	547	703	21	45	85	1,902	2,61 <u>1</u>
Delaware District of Columbia	2	2 0	9 5	116 22	136 55	_	0 0	2 1	12 1	11 6	1	1 0	8 2	107 6	7 18
Florida Georgia	199 37	115 39	279 96	5,207 1,966	4,186 1,951	5	3 1	7 4	145 58	123 80	3 8	9 13	24 30	389 542	700 944
Maryland§	6	16 18	29	634	718	_	2	6	80 82	117 86	_	6	19	310 275	84
North Carolina South Carolina§	35	15	92 45	895 779	1,109 975	_	2 0	21 3	26	39	6 2	6 3	27 12	97	173 490
Virginia <sup>§</sup> West Virginia	9	20 4	88 23	843 183	900 169	1	3 0	16 5	117 26	209 32	1	5 0	59 3	168 8	166 29
E.S. Central	23	54	113	2,444	3,014	3	4	12	179	248	5	15	49	671	1,635
Alabama <sup>§</sup> Kentucky	7	14 9	32 18	607 399	843 400	_	0 1	4 4	37 59	59 88	2	3 2	11 25	109 180	356 241
Mississippi Tennessee <sup>§</sup>	5 11	14 15	45 33	757 681	965 806	3	0 2	1 10	6 77	4 97	3	1 9	4 36	42 340	290 748
W.S. Central	102	103	1,333	4,024	5,863	1	5	139	212	329	27	52	967	2,148	3,738
Arkansas <sup>§</sup> Louisiana	14	12 10	25 43	547 599	673 987	1	1 0	4	36	52 8	1	7 2	16 13	268 108	479 569
Oklahoma Texas <sup>§</sup>	9 79	14 56	102 1,204	545 2,333	699 3,504	_	0 3	82 55	28 148	44 225	7 19	5 36	61 889	243 1,529	144 2,546
Mountain	14	55	131	2,455	2,832	3	11	26	486	535	4	23	49	986	945
Arizona Colorado	1 6	19 13	49 33	845 535	944 599	1	1 3	4 13	58 144	57 178	1 2	16 2	41 11	713 89	464 104
Idaho§	4	3	10	154	153	1	2	7	85	122	1	0	2	9	13
Montana <sup>§</sup> Nevada <sup>§</sup>	3	2 4	7 13	93 217	101 196	_	0 0	7 4	32 31	31 15	_	0 1	5 7	13 65	6 203
New Mexico <sup>§</sup> Utah	_	5 6	28 15	279 263	477 293		1 2	3 10	31 92	47 74	_	1 0	11 3	79 16	119 31
Wyoming§	_	1	8	69	69	_	ō	2	13	11	_	0	1	2	5
Pacific Alaska	105	128 1	537 6	5,249 59	4,531 46	20	10 0	31 0	468	395 6	25	26 0	66 1	1,042 2	1,476 1
California Hawaii	90 1	96 5	516 13	3,989 211	3,306 221	9 2	5 0	15 2	223 8	185 13	25	20 0	65 4	853 31	1,262 39
Oregon <sup>§</sup>	4	8	17	341	362	_	1	11	69	59	_	1	3	31	86
Washington American Samoa	10	11 0	85 1	649	596 2	9	2 0	17 0	168	132	_	2 1	11 2	125 3	88 1
C.N.M.I.	_	0	-	=	 13	_	-0	0	_	_	_	-	1		
Guam Puerto Rico	3	8	40	356	629	_	0	0	_	_	_	0	2	8	14 28
U.S. Virgin Islands	—	0	0	_		—	0	0	—	_	_	0	0		_

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 \* Incidence data for reporting year 2009 is provisional.
 † Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
 § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

		Streptococcal	diseases inv	asive, group A		Streptococc	us pneumonia	ae, invasive di Age <5 years	isease, nondru	g resistant <sup>†</sup>
		Prev	ious	usive, group A			Prev	• •		
Reporting area	Current week	52 w Med	eeks Max	Cum 2009	Cum 2008	Current week	52 w Med	eeks Max	Cum 2009	Cum 2008
United States	23	102	239	4,281	4,584	20	35	122	1,389	1,468
New England		5	28	249	327	_	1	12	50	73
Connecticut	—	0	21	63	91	_	Ó	11	_	_
Maine <sup>§</sup> Massachusetts	_	0 2	2 10	16 107	24 152	_	0 1	1 4	5 30	1 51
New Hampshire	_	0	4	34	24	_	0	2	10	11
Rhode Island <sup>§</sup>	—	0	2	11	23	—	0	1	1	10
Vermont§	_	0	3	18	13	—	0	1	4	—
Mid. Atlantic New Jersey	4	20 3	43 7	858 118	911 162	6	4	33 4	203 37	182 56
New York (Upstate)	2	7	25	281	286	5	2	17	99	83
New York City	_	4	12	162	169	1	0	31	67	43
Pennsylvania	2	6	18	297	294	N	0	2	N	N
E.N. Central	_	17	42	777	855	3	5	18	212	270
Illinois Indiana	_	5 2	12 23	219 123	226 115	_	0	5 13	23 31	79 29
Michigan	_	3	11	124	156	2	1	5	56	64
Ohio	—	4	13	191	233	1	1	6	62	50
Wisconsin	_	2	11	120	125	_	1	3	40	48
W.N. Central lowa	_	6 0	37 0	347	335	2	2 0	11 0	125	86
Kansas	_	Ő	5	37	35	Ν	Ő	1	Ν	Ν
Minnesota	_	0	34	161	154	2	0	10	74	28
Missouri Nebraska <sup>§</sup>	—	1	8 3	74 39	81 36	_	0	4	30 11	33 7
North Dakota	_	0	4	15	8	_	0	3	4	9
South Dakota	—	Ō	3	21	21	—	Ō	2	6	9
S. Atlantic	7	22	49	981	955	3	6	18	253	281
Delaware	—	0 0	1 3	10	7	N	0	0	N	
District of Columbia Florida	2	6	12	12 238	14 219	1	1	6	58	N 54
Georgia	1	5	13	237	213	_	2	6	63	79
Maryland <sup>§</sup>	_	3	12	163	163		1	7	63	49
North Carolina South Carolina <sup>§</sup>	2 2	1	12 5	86 63	125 62	N 2	0 1	0 6	N 39	N 51
Virginia <sup>§</sup>		3	9	137	117		0	4	18	39
West Virginia	_	1	4	35	35	_	0	3	12	9
E.S. Central		3	10	159	161		2	7	80	77
Alabama <sup>§</sup> Kentucky	<u>N</u>	0 1	0 5	N 32	N 34	N N	0 0	0 0	N N	N N
Mississippi	N	0	0	N	N N		0	2	18	9
Tennessee§	—	3	9	127	127	—	1	6	62	68
W.S. Central	7	8	79	383	419	2	5	46	244	233
Arkansas§	_	0	3 3	17	11 17	—	0	4 3	22	12
Louisiana Oklahoma	1	3	20	11 121	93	_	1	7	13 52	12 58
Texas <sup>§</sup>	6	5	59	234	298	2	3	34	157	151
Mountain	5	10	22	385	481	4	4	16	193	223
Arizona	3	3	7 7	128	171	4	2 0	10 4	96	97
Colorado Idaho§	2	3 0	2	120 10	120 14	4	0	4	40 7	51 5
Montana§	Ň	0	0	N	N	Ν	0	ō	Ň	N
Nevada§	—	0	1	5	11	—	0	1		3
New Mexico <sup>§</sup> Utah	_	2 1	7 6	69 52	112 47	_	0 0	4 5	20 30	31 34
Wyoming§	_	Ó	1	1	6	_	õ	0	_	2
Pacific	_	3	9	142	140	_	0	4	29	43
Alaska	<u> </u>	1	4	31	32		Ō	3	22	26
California Hawaii	N	0 3	0 8	N 111	N 108	N	0	0 2	N 7	N 17
Oregon <sup>§</sup>	N	0	0	N	N	N	0	0	Ň	N N
Washington	N	0	Ō	N	N	N	0	Ō	N	N
American Samoa	—	0	0	—	30	Ν	0	0	Ν	Ν
C.N.M.I. Guam	—	0	0	—	_	_		0	—	—
Guam Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	_	0	0	_	_	N	0	0	N	N

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

 U: Unavailable. —: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
 \* Incidence data for reporting year 2009 is provisional.
 \* Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available. (NNDSS event code 11717). § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### **MMWR**

<u> </u>		S	treptococ	cus pneur	noniae, ir	vasive dis	ease, dru	g resistan	t†						
			All ages				Aç	ged <5 yea	irs		Sy	philis, pr	imary an	d seconda	ary
		Prev 52 w	ious					vious veeks					vious veeks		
Reporting area	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	Cum 2009	Cum 2008	Current week	Med	Max	. Cum 2009	Cum 2008
United States	23	60	276	2,264	2,505	1	8	21	354	410	100	261	452	10,623	10,722
New England	_	1	48	47	59	_	0	5	3	10	4	5	15	263	261
Connecticut Maine <sup>§</sup>	_	0	48 2	14	7 17	_	0	5 1	1	2	_	1 0	5 1	48 2	25 10
Massachusetts	_	0	1	3	_	_	0	1	2	_	4	4	10	188	186
New Hampshire Rhode Island <sup>§</sup>	_	0 0	3 6	5 13	21	_	0 0	0 1	_	6	_	0 0	2 5	13 12	17 15
Vermont§	_	0	2	12	14	_	0	0	_	2	_	0	2	_	8
Mid. Atlantic New Jersev	3	3 0	14 0	145	260	_	0	3 0	21	22	22	35 4	50 13	1,522 180	1,408 181
New York (Upstate)	1	1	10	65	56	_	0	2	10	6	1	2	8	98	115
New York City Pennsylvania	2	0 1	4 8	5 75	107 97	_	0	2 2	11	1 15	16 5	22 7	40 13	943 301	889 223
E.N. Central	8	11	41	511	512	_	1	7	71	71	26	22	43	907	1,039
Illinois Indiana	N	0 3	0 32	N 175	N 172	N	0	0 6	N 25	N 23	20 3	7 2	29 10	299 129	438 111
Michigan	_	0	2	23	18	—	0	1	3	2	3	4	18	201	157
Ohio Wisconsin	8	7 0	18 0	313	322	_	1 0	4 0	43	46	_	6 1	18 4	248 30	281 52
W.N. Central	1	2	161	101	172	_	0	3	21	35	_	6	11	238	347
lowa Kansas	_	0	0 5	38	65	_	0	0 2	13	5	_	0	2 3	18 26	15 26
Minnesota		Ó	156	_	25	_	Ō	3	—	25	_	1	6	41	92
Missouri Nebraska <sup>ş</sup>	1	1 0	5 1	49 2	74	_	0 0	1 0	6	_2	_	3 0	7 3	133 16	201 13
North Dakota	_	0	3	10	2	_	0	0	_	_	_	0	1	3	_
South Dakota S. Atlantic	 10	0 26	2 53	2 1,082	6 1,048	1	0 4	2 14	2 172	3 192	22	0 63	1 262	1 2,661	2,343
Delaware	_	0	2	<sup>′</sup> 18	່ 3	_	0	2	3	_		0	3	25	13
District of Columbia Florida	N 9	0 15	0 36	N 638	N 590	N 1	0 2	0 13	N 104	N 116	1	3 19	8 32	144 820	118 864
Georgia	1	8	25	329	360	—	1	5	57	63	8	14	227	633	551
Maryland <sup>§</sup> North Carolina	N	0 0	1 0	4 N	4 N	N	0 0	0 0	N	1 N	2 8	6 9	16 21	238 444	276 230
South Carolina <sup>§</sup> Virginia <sup>§</sup>	N	0 0	0 0	N	N	N	0 0	0 0	N	N	1 2	2 7	6 15	95 258	68 213
West Virginia		2	13	93	91		0	2	8	12		0	2	258	10
E.S. Central	1	4	25	209	265		0	3	31	51	15	23	36	960	919
Alabama <sup>ş</sup> Kentucky	N 1	0 1	0 5	N 62	N 65	N	0 0	0 2	N 8	N 11	5 1	8 1	18 10	366 55	374 75
Mississippi Tennessee§	_	0 2	3 23	4 143	34 166	_	0 0	1 3	3 20	11 29	9	5 8	18 15	186 353	128 342
W.S. Central	_	2	6	77	79	_	0	3	15	12	5 1	46	80	1,887	1,883
Arkansas <sup>§</sup>	_	1	5	45	13	_	0	3	10	3	—	4	35	201	140
Louisiana Oklahoma	N	1 0	5 0	32 N	66 N	N	0 0	1 0	5 N	9 N	1	7 1	40 7	304 54	563 63
Texas§	_	0	0	_	_	—	0	0	_	_	_	32	51	1,328	1,117
Mountain Arizona	_	2 0	7 0	89	108	_	0 0	2 0	18	15	2	8 3	18 9	347 145	514 267
Colorado		0	Õ		_		0	Õ			_	1	4	68	119
Idaho <sup>ş</sup> Montana <sup>ş</sup>		0 0	1		N	<u>N</u>	0 0	1 0	<u>N</u>		_	0 0	2 7	3	4
Nevada <sup>§</sup> New Mexico <sup>§</sup>	_	1 0	4 1	34 1	49	_	0 0	2 0	7	5	2	1 1	10 5	85 43	69 34
Utah	_	1	5	44	58	_	0	2	9	10		0	2	_	18
Wyoming§	—	0	2	10	1	—	0	1	2	_	_	0	1	3	3
Pacific Alaska	_	0 0	1 0	3	2	_	0 0	1 0	_2	_2	8	45 0	68 0	1,838	2,008 1
California Hawaii	N	0	0	N 3	N 2	N	0	0	N 2	N 2	5	40 0	61 3	1,661 25	1,816 18
Oregon§	N	0	Ó	N	N	Ν	0	Ó	N	N	2	0	4	34	19
Washington	N	0	0	N	N	N	0	0	N	N	1	3	7	118	154
American Samoa C.N.M.I.	<u>N</u>			N	N	N	0		<u>N</u>	<u>N</u>	_	0	0	_	_
Guam Puerto Rico		0 0	0 0	—	_	_	0 0	0 0	—	—	4	0 3	0 17	188	125
U.S. Virgin Islands	_	0	0	_	_	_	0	0	_	_	4	0	0	188	120

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 31, 2009, and October 25, 2008 (43rd week)\*

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

Christian Commonwealth of Northern Mariana Islands.
 U: Unavailable. —: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
 \* Incidence data for reporting year 2009 is provisional.
 † Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).
 § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

										st Nile vi	rus disease				
			ella (chick	enpox)				euroinvasi	ve			Nonn	euroinvas	sive§	
			vious					vious					vious		
Reporting area	Current week	Med	veeks Max	Cum 2009	Cum 2008	Current week	Med	eeks Max	Cum 2009	Cum 2008	Current week	Med	veeks Max	Cum 2009	Cum 2008
United States	99	432	1,035	14,632	24,358		1	42	325	677		1	39	264	664
New England	1	8	46	285	1,395	_	0	0	_	7	_	0	0	_	3
Connecticut Maine <sup>¶</sup>	_	0 0	21 12		721 218	_	0 0	0 0	_	5	_	0 0	0 0	_	3
Massachusetts	_	0	2	2	210	_	0	Ő	_	1	_	0	0	_	_
New Hampshire	1	4 0	11	167	216	_	0	0	—	_	—	0	0	—	—
Rhode Island <sup>¶</sup> Vermont <sup>¶</sup>	_	1	1 17	4 43	240	_	0	0 0	_	1	_	0 0	0	_	_
Mid. Atlantic	20	36	57	1,303	1,986	_	0	2	7	48	_	0	1	1	20
New Jersey New York (Upstate)	N N	0 0	0	N N	N N	_	0	1	2 3	4 24	_	0 0	0 1	1	4 7
New York City		0	0	_		_	0	1	2	8	_	0	Ó	_	7
Pennsylvania	20	36	57	1,303	1,986	_	0	0	—	12	—	0	0		2
E.N. Central Illinois	50 4	154 32	254 73	5,250 1,304	6,160 1,072	_	0 0	3 2	7 4	44 12	_	0 0	3 0	3	20 8
Indiana	_	5	30	341	1,072	_	0	1	2	3	_	0	1	1	1
Michigan	25	45	87	1,534	2,505	_	0	0	_	11	_	0	0	_	6
Ohio Wisconsin	21	38 10	91 55	1,645 426	1,881 702	_	0 0	0 1	1	14 4	_	0 0	2 0	2	1 4
W.N. Central	2	15	114	751	1,034	_	0	5	24	51	_	0	8	58	132
lowa	Ν	0	0 22	N	N 374	_	0 0	0	4	3	—	0 0	1 2	5 6	3
Kansas Minnesota	_	4 0	22	183	374	_	0	1	4	14 2	_	0	2	2	16 8
Missouri	2	9	51	511	614	—	0	2	3	12	—	0	0	—	3
Nebraska <sup>¶</sup> North Dakota	N	0 0	0 108	N 57	N	_	0 0	2 0	10	7 2	_	0 0	6 1	31 1	39 35
South Dakota	_	0	4		46	_	0	3	6	11	_	ŏ	2	13	28
S. Atlantic	21	40	146	1,675	4,017	_	0	3	9	20	_	0	1	3	20
Delaware District of Columbia	_	0 0	2 3	8 9	43 21	_	0 0	0	_	4	_	0 0	0	_	1 4
Florida	10	24	67	1,039	1,364	_	ŏ	1	2	3	_	ŏ	1	1	_
Georgia Maryland¶	N N	0 0	0	N N	N N	_	0 0	1 0	4	4 6	_	0 0	0	2	4 8
North Carolina	N	0	0	N	N	_	0	0	_	2	_	0	0		0 1
South Carolina <sup>¶</sup>	—	0	54	154	750	—	0	2	3	—	—	0	0	—	1
Virginia <sup>¶</sup> West Virginia	11	0 9	119 32	28 437	1,252 587	_	0 0	0 0	_	1	_	0 0	0	_	1
E.S. Central	_	10	28	377	986	_	Ő	6	35	48	_	0	4	24	57
Alabama <sup>¶</sup>		10	28	372	973	_	0	0	_	11	—	0	0	—	7
Kentucky Mississippi	N	0 0	0 2	N 5	N 13	_	0	1 5	3 29	3 22	_	0 0	0 4	20	43
Tennessee <sup>¶</sup>	Ν	Õ	ō	Ň	Ň	_	Õ	1	3	12	_	õ	1	4	7
W.S. Central	—	92	747	3,822	6,901	—	0	16	97	67	—	0	5	27	62
Arkansas¶ Louisiana	_	1	30 7	115 76	627 68	_	0 0	1 2	4 7	7 16	_	0 0	0 4	6	2 31
Oklahoma	Ν	0	0	Ň	N	_	0	2	6	4	_	0	2	2	5
Texas <sup>¶</sup>		88	721	3,631	6,206	_	0	13	80	40	_	0	3	19	24
Mountain Arizona	5	29 0	83 0	1,084	1,766	_	0 0	9 4	65 12	102 61	_	0 0	15 2	88 6	184 52
Colorado	5	12	44	449	711	—	0	7	32	17	—	0	14	59	54
Idaho¶ Montana¶	N	0 1	0 20	N 105	N 262	_	0 0	1	2 2	4	_	0 0	2	6 2	35 5
Nevada¶	Ν	Ó	0	N	N	_	0	2	7	9	_	0	i	5	7
New Mexico <sup>¶</sup> Utah	—	2 11	20 32	134 396	190 593	_	0 0	2 0	6	5 6	_	0 0	1 0	2	3 20
Wyoming <sup>¶</sup>	_	0	1	- 390	10	_	0	1	4		_	0	2	8	20
Pacific	_	2	7	85	113	_	0	11	81	290	_	0	11	60	166
Alaska California		1 0	6 0	52	55	_	0	0 7	55	285	_	0	0 6	43	152
Hawaii	_	1	4	33	58	_	0	0	- 55	200	_	0	0	_	_
Oregon¶	N	0	0	N	N	—	0	1	1	3	—	0	3	6	13
Washington American Samoa	N N	0 0	0	N N	N N		0 0	6 0	25	2	_	0 0	3 0	11	1
C.N.M.I.		_		N	—	_	—		_	_	_	—		_	_
Guam		0	1		62	—	0	0	—	—	—	0	0	—	—
Puerto Rico U.S. Virgin Islands	4	8 0	26 0	394	505	_	0 0	0	_	_	_	0 0	0 0	_	_
		-	-				0	0				U	0		

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

U: Unavailable. —: No reported cases. N: Not reportable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting year 2009 is provisional. Data for HIV/AIDS, AIDS, and TB, when available, 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/epo/dphsi/phs/infdis.htm. <sup>1</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### TABLE III. Deaths in 122 U.S. cities,\* week ending October 31, 2009 (43rd week)

	All causes, by age (years)						· (	,	All causes, by age (years)						
Reporting area	All Ages	≥65	45–64	25–44	1–24	<1	P&I <sup>†</sup> Total	Reporting area	All Ages	≥65	45–64	25–44	1–24	<1	P&I <sup>†</sup> Total
New England	506	347	102	34	11	11	60	S. Atlantic	1,359	825	326	152	26	30	85
Boston, MA	129	79	36	11	—	3	14	Atlanta, GA	147	85	44	4	3	11	5
Bridgeport, CT	29	19	7	2	1	—	2	Baltimore, MD	145	68	46	25	4	2	12
Cambridge, MA	17	13	3	_	—	—	3	Charlotte, NC	99	66	19	9	1	4	12
Fall River, MA	30	23	2	5	_	_	5	Jacksonville, FL	152	99	37	13	2	1	11
Hartford, CT	54	35	13	3	3 1	3	6	Miami, FL	335	193	56	76	5 1	5	13
Lowell, MA Lynn, MA	17 5	13 2	3	3	I	_	2	Norfolk, VA Richmond, VA	35 55	23 31	10 18	3	3	1	5 4
New Bedford, MA	16	12	1	3	_	_	3	Savannah, GA	55 54	34	16	1	1	2	4 6
New Haven, CT	18	13	5	_	_	_	8	St. Petersburg, FL	61	43	13	2	2	1	5
Providence, RI	68	48	11	5	2	2	4	Tampa, FL	213	144	49	13	4	3	11
Somerville, MA	_	_	_	_	_	_	_	Washington, D.C.	45	29	12	4	_	_	_
Springfield, MA	26	16	4	3	3	_	3	Wilmington, DE	18	10	6	2	_	_	1
Waterbury, CT	16	9	7	_	_	—	1	E.S. Central	961	610	258	61	18	14	77
Worcester, MA	81	65	10	2	1	3	9	Birmingham, AL	167	98	55	11	3	—	11
Mid. Atlantic	1,983	1,419	391	99	28	44	101	Chattanooga, TN	94	63	26	4		1	4
Albany, NY	59	45	8	3	1	2	5	Knoxville, TN	117	79	27	7	4	_	11
Allentown, PA	12	9	2	1	_	_	1	Lexington, KY	65	39	18	4		4	4
Buffalo, NY	64 32	44 22	11 7	3 1	3 1	3 1	2	Memphis, TN	185 147	115 97	47 35	15 10	7 2	1 3	11 18
Camden, NJ Elizabeth, NJ	32 13	12		1			_	Mobile, AL Montgomery, AL	29	97 17	35	3	2	3	18
Erie, PA	50	43	7	_	_	_	5	Nashville, TN	157	102	43	7	2	3	13
Jersey City, NJ	27	18	9	_	_	_	2	W.S. Central	1,263	783	307	105	43	23	99
New York City, NY	1,051	746	212	67	11	15	37	Austin, TX	79	45	20	13	1		15
Newark, NJ	43	26	11	3	_	3	2	Baton Rouge, LA	U	U	U	U	U	U	U
Paterson, NJ	6	5	1	_	_	_	_	Corpus Christi, TX	44	32	10	1	1	_	6
Philadelphia, PA	264	159	67	15	7	14	15	Dallas, TX	195	104	61	18	6	5	19
Pittsburgh, PA§	42	33	8	—	—	1	5	El Paso, TX	89	67	16	4	2	—	1
Reading, PA	27	23	2	1	1	_	3	Fort Worth, TX	U	U	U	U	U	U	U
Rochester, NY	137	112	19	2	3	1	15	Houston, TX	345	199	88	32	17	8	21
Schenectady, NY	25	19	5	1		_	2 3	Little Rock, AR	70 U	47	17	3 U	2 U	1 U	5 U
Scranton, PA Syracuse, NY	29 57	24 44	5 12	_	1	_	3	New Orleans, LA San Antonio, TX	260	U 157	U 59	28	9	7	22
Trenton, NJ	19	13	2	1	_	3	1	Shreveport, LA	200	20	- 59 9	20	9	1	
Utica, NY	10	6	3	_	_	1	_	Tulsa, OK	150	112	27	6	4	1	10
Yonkers, NY	16	16	_	_	_	_	1	Mountain	1,028	651	233	91	29	23	91
E.N. Central	1,645	1,111	364	101	35	34	108	Albuquerque, NM	136	94	25	14	2	1	14
Akron, OH	58	<sup>′</sup> 38	16	2	_	2	5	Boise, ID	46	31	6	5	1	3	4
Canton, OH	41	25	14	1	_	1	1	Colorado Springs, CO	67	44	12	5	4	2	1
Chicago, IL	U	U	U	U	U	U	U	Denver, CO	86	48	26	6	2	4	9
Cincinnati, OH	81	56	12	5	2	6	4	Las Vegas, NV	244	154	63	23	3	1	24
Cleveland, OH	228	163	45	14	4	2	14	Ogden, UT	27	16	6	3	_	2	2
Columbus, OH	203	132	44	13	7	7	21	Phoenix, AZ	155	88	37	18	5	6	13
Dayton, OH	125	93	23	7	2	_	14	Pueblo, CO	45	33	11	1		3	6
Detroit, MI Evansville, IN	157 50	95 41	39 8	15 1	6	2	4 3	Salt Lake City, UT Tucson, AZ	116 106	67 76	25 22	10 6	11 1	3	12 6
Fort Wayne, IN	63	41	0 14	5	_	_	3	Pacific	1,687	1,112	407	95	44	29	157
Gary, IN	13	5	6	1	1	_	1	Berkeley, CA	17	8	7	2	_		
Grand Rapids, MI	47	32	13	2	_	_	3	Fresno, CA	126	81	31	10	4	_	14
Indianapolis, IN	197	119	51	14	6	7	7	Glendale, CA	44	32	6	2	1	3	5
Lansing, MI	32	29	2	1	_	_	_	Honolulu, HI	65	48	9	4	1	3	6
Milwaukee, WI	79	52	18	5	1	3	7	Long Beach, CA	63	36	20	3	2	2	5
Peoria, IL	51	35	11	1	3	1	7	Los Angeles, CA	246	147	70	13	8	8	23
Rockford, IL	31	20	6	3	2	—	1	Pasadena, CA	21	15	6	—	_		1
South Bend, IN	29	22	6	1		_	2	Portland, OR	121	78	32	7	3	1	7
Toledo, OH	90	60	18	8	1	3	9	Sacramento, CA	188	123	50	7	4	4	20
Youngstown, OH	70	50	18	2		10	2	San Diego, CA	184	119	49	10	4	2	17
W.N. Central Des Moines. IA	704 138	472 107	158 26	44 2	14 2	16 1	50 10	San Francisco, CA San Jose, CA	95 183	65 129	23 33	3 10	2 9	2 2	17 17
Des Molnes, IA Duluth, MN	36	30	26	2	_	_	3	San Jose, CA Santa Cruz, CA	37	26	33	2	9		17 2
Kansas City, KS	36 27	30 18	4	2	_	1	3	Santa Cruz, CA Seattle, WA	125	26 84	9 29	∠ 8	3	1	2 4
Kansas City, MO	89	57	26	2	2	1	6	Spokane, WA	68	64 51	13	3	1	_	11
Lincoln, NE	35	26	20	1		_	3	Tacoma, WA	104	70	20	11	2	1	8
Minneapolis, MN	74	49	14	7	2	2	6	Total <sup>1</sup>	11,136	7,330	2,546	782	248	224	828
Omaha, NE	74	58	10	3	2	1	7		,	.,	_,010				520
St. Louis, MO	93	36	35	10	3	9	5								
St. Paul, MN	60	36	18	4	1	1	4								
Wichita, KS	78	55	11	10	2	_	6								

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

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

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