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Wild Poliovirus Type 1 and Type 3 Importations — 15 Countries, Africa, 2008–2009

The Global Polio Eradication Initiative began in 1988; by 2006, indigenous transmission of wild poliovirus (WPV) type 2 infection had been interrupted globally, and indigenous transmission of type 1 and 3 (WPV1 and WPV3) infection had been interrupted in all but four countries worldwide (Afghanistan, India, Nigeria, and Pakistan) (*1*). Despite this success in controlling indigenous transmission, during 2002–2006, 20 previously polio-free countries* in Africa and Asia had importations of WPV1 originating from Nigeria (*2–4*), and three polio-free countries in Africa had WPV1 importations originating from India (*1*). By the end of 2007, control efforts in all countries except Angola, Chad, Democratic Republic of the Congo (DRC), Niger, and Sudan had stopped transmission of WPV1 caused by these importations. However, during 2008–2009, multiple importations of WPV from countries with ongoing transmission resumed in Africa. This report describes 32 WPV importations into 15 African countries, resulting in 96 polio cases during January 2008–March 2009 and persistent WPV transmission in five previously polio-free African countries (*5*). As with the 2002–2006 resurgence, all of the importations originated from Nigeria or India, but more rapid WPV identification and response resulted in substantially fewer polio cases than reported during 2002–2006. Sensitive surveillance and continued rapid response supplemental immunization activities (SIAs)† are key to limiting further WPV spread, interrupting the outbreaks, and allowing the polio prevention focus in Africa to return to eradicating polio in countries with persistent WPV transmission.

* Countries with no evidence of indigenous WPV transmission for ≥1 year and subsequent cases determined to be of external origin by genomic sequencing analysis.

† Mass campaigns conducted for a brief period (days to weeks), during which 1 dose of oral poliovirus vaccine is administered to all children aged <5 years, regardless of vaccination history.

WPV Importations, 2008–2009

Comprehensive genomic sequencing provided by the global polio laboratory network (*6*) allows tracing of the origins of virus importations and estimation of the duration of circulation in a chain of transmission.§ An importation event is defined as detection of one or more polio cases in a country resulting from WPV transmission that genetic analysis shows to have first circulated in another country. An outbreak associated with an importation event is defined as two or more polio cases caused by WPV genetically related to the identified imported WPV case with earliest onset.

During January 2008–March 2009, 32 importations of WPV1 and WPV3 resulted in 96 polio cases in 15 African countries (Figure, Table 1). Of these, 29 WPV importations originated from Nigeria, with WPVs either imported directly or after transmission through another country, resulting in

§ The sequence of the complete VP1 coding region is determined by using automated cycle-sequencing procedures described previously (*7*) and by comparing the resulting sequences with those in a database of all recent poliovirus isolates. The origins of virus importation are then derived via phylogenetic analysis.

INSIDE

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68 polio cases. Three WPV importations originated from India, either imported directly or after transmission through another country, resulting in 28 cases. As of March 24, 2009, multiple outbreaks resulting from importations were ongoing. Three regions of Africa were affected by importations during 2008–2009: West Central Africa, the Horn of Africa, and South Central Africa.

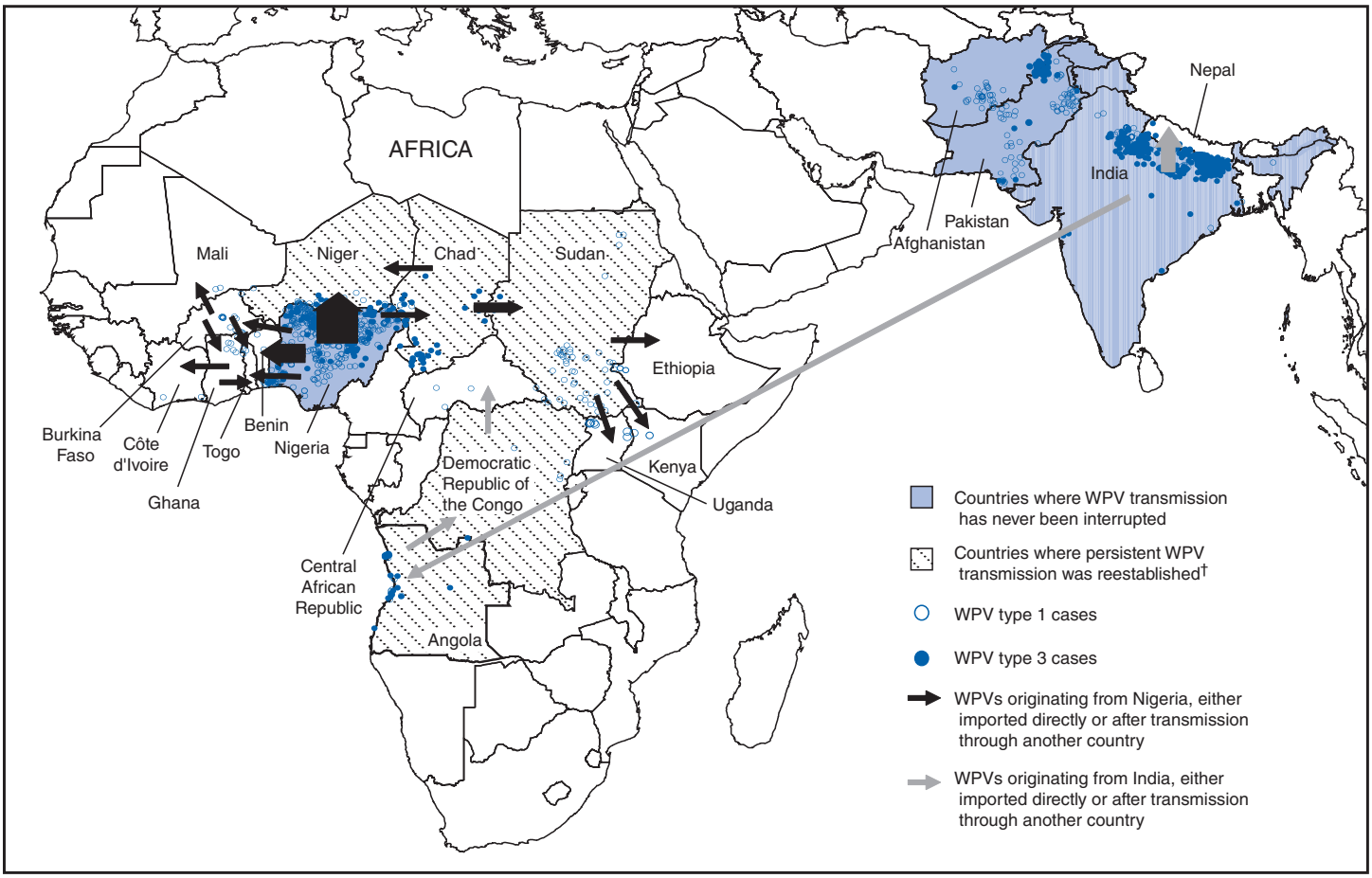
West Central Africa. During 2008–2009, increased circulation of WPV1 in Nigeria resulted in WPV1 importations into eight countries. WPV1 was imported directly from Nigeria or indirectly through neighboring countries into Benin, Burkina Faso, Chad, Côte d'Ivoire, Ghana, Mali, Niger, and Togo (Figure, Table 1). The number of reported polio cases to date resulting from a single importation event in West Central Africa during 2008–2009 ranged from one to seven (Table 1). Niger reported five WPV1 and five WPV3 importation events originating from Nigeria; of these, subsequent spread within Niger was identified for three events. One WPV1 importation into Chad from Nigeria occurred in 2008. In addition, persistent circulation of WPV imported into Chad and Niger from Nigeria before 2008 was detected during 2008–2009 (Table 2).

The Horn of Africa. During 2008, two WPV3 importations into western Sudan occurred. The WPV3 in both cases originated from Nigeria and transmitted through Chad, and resulted in two isolated polio cases with no evidence of further spread (Table 1). Other cases occurred in the Horn of Africa during 2008 that were traceable to previous importations. In 2003, a WPV1 importation event originating in Nigeria caused an outbreak of 51 polio cases in Chad. Transmission was then imported to Sudan in mid-2004, resulting in 147 polio cases in that country during 2004–2005.[¶] Subsequent related transmission occurred in seven other countries (Eritrea, Ethiopia, Indonesia, Kenya, Saudi Arabia, Somalia, and Yemen) (*2–4*). The Sudan outbreak subsided, and no additional related WPV1 polio cases attributable to the 2004 importation into Sudan were detected until April 2008, after which 53 additional cases were detected: three cases in Ethiopia, two in northern Kenya, five in Uganda (Table 1), and 43 in Sudan itself (Table 2). Since 2004, a total of 190 polio cases in Sudan have resulted from the 2004 importation (Table 2), despite multiple SIAs.

South Central Africa. Two WPV1 importation events and one WPV3 event in Angola, all originating from India, resulted in WPV transmission during 2008–2009. An outbreak in Angola that followed WPV1 importation in 2005 ended in 2007 with 19 confirmed cases but led to 58 cases in DRC

[¶] In Sudan during 2004–2005, transmission of another chain of WPV1 accounted for five additional polio cases, and a previously undetected lineage of WPV3 accounted for three other polio cases.

FIGURE. Wild poliovirus (WPV) cases and importation routes* — worldwide, 2008–2009



* Importation routes (not each importation event) indicated by arrows. Width of arrow corresponds to number of importation events. Genomic sequencing analysis identified Nigeria as the country of WPV origin in 29 importation events, and India in three events. Importations across the Pakistan-Afghanistan border are not included. Data as of March 24, 2009.

† Countries with no evidence of indigenous WPV transmission for ≥1 year, subsequent cases determined to be of external origin, and reestablished transmission of WPV for ≥12 months.

during 2006–2008** and three cases in the Central African Republic in 2008 (Table 1). A second WPV1 importation into Angola originating from northern India was associated with 15 polio cases in Angola during April 2007–February 2009 (Table 2). A WPV3 importation, also originating from northern India, resulted in 24 polio cases in Angola and one case in DRC in 2008 (Figure, Table 1).

Vaccination Coverage

Vaccination histories of children aged 6–59 months with acute flaccid paralysis (AFP) for which specimen testing has not indicated WPV infection (i.e., nonpolio AFP [NPAFP]) have been used as a surrogate estimate of oral polio vaccine (OPV) coverage with ≥3 total OPV doses of the overall target population. The median percentage of coverage for children aged 6–59 months with NPAFP in countries affected by importations was 74% in 2008 (range: 54%–90%) (Table 1) (*2*).

Timeliness of Detection and Response

In the 15 countries with 32 importation events during 2008–2009, the median interval from onset of paralysis in the first identified case to laboratory confirmation of polio was 31.5 days (range: 10–61 days) (Table 1), substantially lower than the median of 51 days reported during 2002–2005 polio resurgence (*2*). Similarly, the median interval from laboratory confirmation to first large-scale vaccination response was 27.5 days (range: 1–91), lower than the median of 37 days reported during 2002–2005 (*2*). Response SIAs in Africa in 2008 were synchronized among 12 countries. After detection in 2009 of new polio cases in Kenya and Uganda, synchronized SIAs for these and neighboring countries were conducted in March and are planned again for April and May.

** Eighteen polio cases resulted from three separate WPV1 importations into DRC from Angola during 2006–2007. A fourth importation of WPV1 into DRC resulted in 40 cases during December 2006–August 2008 (Table 2).

TABLE 1. Importations of wild poliovirus (WPV) type 1 and type 3 into 15 previously polio-free* countries — Africa, 2008–2009

Region/Country	Importation event† by WPV type	Onset date of first polio case	Onset date of most recent polio case	Most recent country of WPV circulation by genomic sequencing	No. of polio cases to date	Interval from onset date of first case to date of confirmation (days)	Interval from confirmation to first large-scale vaccination response (days)§	Estimated OPV3 coverage during 2007 (%)¶	Surrogate OPV coverage of overall target population during 2008 (%)**
West Central Africa									
Benin	WPV1	3/19/2008	—	Nigeria	1	35	26	64	53
	WPV1	6/30/2008	—	Nigeria	1	37	2	—	—
	WPV1	11/3/2008	2/11/2009	Nigeria	6	43	73	—	—
	WPV3	12/1/2008	—	Nigeria	1	30	58		
Burkina Faso	WPV1	6/6/2008	—	Nigeria	1	49	91	99	64
	WPV1	11/4/2008	1/15/2009	Togo	4	42	45	—	—
	WPV1	11/16/2008	1/25/2009	Benin	6	31	44	—	—
Chad	WPV1	11/18/2008	—	Nigeria	1	45	62	36	45
Côte d'Ivoire	WPV1	12/24/2008	2/11/2009	Ghana	2	35	30	75	24
Ghana	WPV1	9/15/2008	—	Burkina Faso	1	29	2	94	41
	WPV1	9/20/2008	11/8/2008	Nigeria	7	25	1	—	—
Mali	WPV1	8/30/2008	1/4//2009	Burkina Faso	2	61	28	62	53
Niger	WPV1	1/23/2008	—	Nigeria	1	24	7	55	68
	WPV1	1/5/2008	—	Nigeria	1	23	26	—	—
	WPV1	2/25/2008	4/12/2008	Nigeria	2	37	38	—	—
	WPV1	4/11/2008	—	Nigeria	1	35	28	—	—
	WPV1	5/20/2008	—	Nigeria	1	45	14	—	—
	WPV3	10/10/2008	—	Nigeria	1	20	27	—	—
	WPV3	12/6/2008	2/17/2009	Nigeria	3	53	30	—	—
	WPV3	12/10/2008	1/5/2009	Nigeria	3	30	49	—	—
	WPV3	1/3/2009	—	Nigeria	1	41	14	—	—
	WPV3	2/2/2009	—	Chad	1	30	23	—	—
Togo	WPV1	10/16/2008	2/3/2009	Burkina Faso	6	24	34	78	47
	WPV1	1/26/2009	2/3/2009	Ghana	2	22	10	—	—
Horn of Africa									
Ethiopia	WPV1	4/4/2008	4/27/2008	Sudan	3	32	29	71	25
Kenya	WPV1	2/7/2009	2/8/2009	Sudan	2	10	19	76	28
Sudan	WPV3	7/6/2008	—	Chad	1	24	26	84	83††
	WPV3	12/16/2008	—	Chad	1	30	32	—	—
Uganda	WPV1	1/28/2009	2/18/2009	Sudan	5	34	5	59	35
South Central Africa									
Angola	WPV3	3/19/2008	11/17/2008	India	24	26	32	83	31
CAR§§	WPV1	4/6/2008	12/30/2008	DRC¶¶	3	15	15	47	34
DRC	WPV3	10/18/2008	—	Angola	1	41	20	87	39

* Countries with no evidence of indigenous WPV transmission for ≥1 year and subsequent cases determined to be of external origin by genomic sequencing analysis.
† Detection of one or more polio cases resulting from WPV determined to be of external origin. Data as of March 24, 2009.
§ Where ≥25% of children were targeted for vaccination.
¶ World Health Organization/UNICEF estimate of vaccination coverage with 3 doses of live, attenuated oral polio vaccine (OPV3) by age 12 months, on the basis of country reports and most recent survey data.
** The percentage of children aged 6–59 months with nonpolio acute flaccid paralysis (specimen testing does not indicate WPV infection) who have received ≥3 doses of OPV; these national data might mask vaccination coverage weaknesses at subnational levels.
†† For Southern Sudan, 74%.
§§ Central African Republic.
¶¶ Democratic Republic of the Congo.

Persistent Transmission After Importation

Five previously polio-free countries (Angola, Chad, DRC, Niger, and Sudan) had WPV importation events before 2008 that resulted in persistent transmission for ≥12 months, extending into the period 2008–2009 (Table 2). As an indicator of weaker routine and SIA vaccination in these five countries, the median proportion of children aged 6–59 months with NPAFP and a vaccination history of ≥3 total OPV doses during 2008 was 64%, compared with 75% for all other countries with cases following importation during 2008–2009. Among these five countries, Angola, Chad, and Sudan have been the source of multiple WPV importations to neighboring countries and also have reported polio cases in their own countries since November 2008. Deficiencies in AFP surveillance†† and SIA

†† AFP surveillance quality is monitored by performance indicators that suggest the ease by which any WPV transmission will be detected. The current World Health Organization (WHO) targets are a NPAFP detection rate of >2 cases per 100,000 population aged <15 years and adequate stool specimen collection from >80% of AFP cases, in which two specimens are collected >24 hours apart, both within 14 days of paralysis onset, and shipped on ice or frozen ice packs to a WHO-accredited laboratory, arriving in good condition. National data might mask surveillance system weaknesses at subnational levels.

TABLE 2. Pre-2008 importations of wild poliovirus (WPV) type 1 and type 3 with persistent transmission periods (≥12 months) — five previously polio-free* countries, Africa, 2008–2009

Region/Country	Importation event† by WPV type	Onset date of first polio case	Onset date of most recent polio case	Most recent country of WPV circulation by genomic sequencing	No. of resulting polio cases to date (no. during 2008–2009)	Nonpolio acute flaccid paralysis (NFAFP) rate per 100,000 population aged <15 years, 2008§	% adequate specimen collection, 2008¶	Longest period between detected WPV cases (mos)	No. of SIAs** conducted since WPV confirmation
West Central Africa									
Chad	WPV1	5/18/2007	8/13/2008	Nigeria	6 (1)	3.8	84	15	7
	WPV3††	11/15/2007	12/26/2008	Nigeria	28 (26)			3	5
Niger	WPV1	3/5/2007	4/2/2008	Nigeria	8 (2)	4.9	84	6	8
Horn of Africa									
Sudan	WPV1	5/20/2004	2/25/2009	Chad	190 (43)	2.8	94	36	>20
South Central Africa									
Angola	WPV1	4/25/2007	2/4/2009	India	15 (5)	3.7	94	6	12
DRC§§	WPV1	12/17/2006	8/5/2008	Angola	40 (4)	6.0	88	3	10

* Countries with no evidence of indigenous WPV transmission for ≥1 year and subsequent cases determined to be of external origin by genomic sequencing analysis.
† Detection of one or more polio cases resulting from WPV determined to be of external origin. Data as of March 24, 2009.
§ The current World Health Organization (WHO) operational target rate is >2 cases per 100,000 population aged <15 years; these national data might mask vaccination coverage weaknesses at subnational levels.
¶ The WHO target is adequate stool specimen collection from >80% of NFAFP cases, in which two specimens are collected >24 hours apart, both within 14 days of paralysis onset, and shipped on ice or frozen ice packs to a WHO-accredited laboratory, arriving in good condition; these national data might mask vaccination coverage weaknesses at subnational levels.
** Supplementary immunization activities. These are mass campaigns conducted for a brief period (days to weeks), during which 1 dose of oral poliovirus vaccine is administered to all children aged <5 years, regardless of vaccination history.
†† An additional WPV3 importation event occurred in Chad with origin in Nigeria and transmission of nearly 12 months, resulting in 11 polio cases, with onset of the first case on November 27, 2007, and onset of the most recent case on November 18, 2008.
§§ Democratic Republic of the Congo.

implementation in certain subnational areas noted in technical reviews have not been corrected in the three countries. Efforts are under way to strengthen AFP surveillance and to enhance SIA implementation in these countries through examination of operations by technical advisory committees, improved oversight by international consultants, and strengthened planning and supervision of SIA and routine vaccination delivery.

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Editorial Note: During January 2008 to March 2009, four countries in Africa (Angola, Chad, Nigeria, and Sudan) were the source of repeated WPV importation into other countries on the continent. In Angola, Chad, and Sudan, indigenous WPV circulation appeared interrupted before 2002, but ongoing transmission was reestablished during 2004–2008 after WPV importation (*2*). In Angola, Chad, Nigeria, and Sudan, health infrastructure is weak, routine vaccination coverage in certain areas is low, and multiple SIAs have failed to reach a substantial proportion of children in critical locales because of inadequate planning and implementation. Angola, Chad, and Sudan all have experienced civil war in recent years; Chad and Sudan continued to have civil unrest during 2008–2009.

Nigeria has been the major reservoir of both WPV1 and WPV3 circulation for further spread in Africa during 2008–2009 and of WPV1 during 2002–2006 (*2–4*). Indigenous WPV transmission has never been interrupted in Nigeria. Chronically weak routine vaccination and SIA implementation were compounded during 2003–2004 by a decrease in vaccine acceptance and an increase in WPV transmission; during that period, misconceptions about the safety of OPV led to loss of public confidence and suspension of SIAs in some northern states (*8*). The continuing polio prevention challenge in Nigeria is being addressed through a reinvigorated federal government effort to engage local community leadership and enhanced state and local government oversight of SIA implementation (*8*).

During 2005–2008, Angola received WPV importations on three occasions from India and was the source of polio cases in the DRC during 2006–2008, the Central African Republic in 2008, and Namibia in 2006 (*1,9*). The exact modes of WPV transmission from India to Angola have not yet been identified, but studies are under way to determine what travel factors might be associated. Although WPV3 is less commonly associated with importation events than WPV1 (which is more likely to cause paralytic disease and have a wide geographic spread), both long-distance importation of WPV3 and transmission across country borders occurred in Africa during 2008–2009.

The outbreaks associated with WPV importations during 2008–2009 have tended to be smaller than those observed during 2002–2005, when 47 importation events originating from Nigeria affected 16 countries in Africa and resulted in 1,335 polio cases (*2*). The fewer number of polio cases resulting from the more recent importations likely can be attributed to more timely laboratory confirmation (*2*), more rapid initiation of SIAs, and improved coverage with OPV in the targeted population. A surrogate indicator of OPV coverage is the percentage

of children aged 6–59 months with NPAFP who have received ≥3 total doses of OPV; in the 15 countries affected by WPV importation during 2008–2009, the median was 74%, (range: 54%–90%) in 2008 compared with 55% (range: 31%–83%) for these same countries in 2004. Critical to early recognition of WPV importation and timely response is a sensitive AFP surveillance system that meets WHO performance criteria at the lowest subnational level.

Early recognition and response to WPV transmission limit the size of affected areas within a country, and enable more rapid control of an outbreak (*10*). SIAs are planned to continue in these affected countries and neighboring areas in 2009. WPV importations from reservoir countries into polio-free areas will continue to occur until transmission is interrupted globally. The risk for importation is greatest for countries adjacent to those countries where WPV transmission continues; however, globalized transportation and international migration pose a risk for WPV reintroduction for all countries. Recent findings of WPV in sewage samples in Switzerland and Egypt, where no polio cases have been detected since 1984 and 2004, respectively, confirm that long-distance importations can occur and that high levels of vaccination coverage limit local transmission (*5,6*). All polio-free countries are advised to maintain sensitive, efficient AFP surveillance systems in all areas to detect importations rapidly and to maintain sufficient levels of immunity against polioviruses through routine vaccination programs or, where necessary, SIAs. National authorities should prepare and update plans for timely, large-scale, high-quality response SIAs should importations occur (*10*).

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Chlamydia Screening Among Sexually Active Young Female Enrollees of Health Plans — United States, 2000–2007

Chlamydia trachomatis infection is the most common bacterial sexually transmitted disease (STD) in the United States, with more than 2.8 million new cases estimated to occur each year (*1*). During 2007, approximately 1.1 million cases of chlamydia were reported to CDC; more than half of these were in females aged 15–25 years (*2*). Untreated chlamydia can progress to pelvic inflammatory disease (PID), infertility, ectopic pregnancy, and chronic pelvic pain. In 1989, the U.S. Preventive Services Task Force (USPSTF) recommended routine chlamydia screening of sexually active young women (*3*).* To evaluate the rates of chlamydia screening among sexually active young females, CDC analyzed data reported by commercial and Medicaid health plans to the Healthcare Effectiveness Data and Information Set (HEDIS) during 2000–2007. The percentage of enrolled sexually active females who were screened for chlamydia was estimated for each of 41 states that had at least five health plans reporting HEDIS chlamydia screening data and for four U.S. geographic regions. Nationally, the annual screening rate increased from 25.3% in 2000 to 43.6% in 2006, and then decreased slightly to 41.6% in 2007. The regional rate of chlamydia screening in 2007 was highest in the Northeast (45.5%) and lowest in the South (37.3%). Increased screening by health-care providers is necessary to reduce the burden of chlamydial infection in the United States.

The National Committee for Quality Assurance (NCQA), a private not-for-profit organization, monitors the quality of U.S. health plans using data that are submitted voluntarily to HEDIS by health plans annually.† HEDIS is used by 90.0% of U.S. health plans to evaluate the quality of health-care services and benchmark performance. During 2000–2007, commercial plans and Medicaid plans reported health services data to HEDIS, including annual chlamydia screening. These health plans were a subset of all health plans in the United States and represented 44.3% (89.5 million of the U.S. population) of commercial enrollees and 24.9% (9.8 million) of Medicaid enrollees in 2007. The 99.3 million enrollees represented 41.1% of the private and Medicaid insured U.S. population (241.5 million) in 2007. The number of health plans reporting

* Current USPSTF recommendations for screening for chlamydial infections are available at http://www.ahrq.gov/clinic/uspstf07/chlamydia/chlamydiars.htm#summary.

† Additional information about HEDIS and NCQA quality measurement programs is available at http://www.ncqa.org/tabid/59/default.aspx.

data to HEDIS increased substantially from 2006 to 2007, from approximately 500 plans to approximately 800. All health plans that submit chlamydia screening data provide screening as a benefit to enrollees, although they might require a copayment for the service.

HEDIS has included annual chlamydia screening rates since 1999. Annual chlamydia screening rates were measured among sexually active females aged 16–25 years using medical claims, health-care visit data, and pharmacy data submitted by the health plans to NCQA. For the HEDIS measure, sexually active females were defined as those who had a claim or visit for pregnancy; contraception; STD diagnosis, screening, or treatment; or cervical cancer screening. A woman was counted as having a test if she had a claim or health-care visit for any chlamydia test. Mean chlamydia screening rates were calculated by dividing the total number of enrollees screened by the total number of sexually active enrollees for each region and each state. Only states with at least five health plans reporting chlamydia screening data to NCQA for a measurement year were included in this report.

In 2007, chlamydia screening data were analyzed for 583 health plans with 2.8 million sexually active, continuously enrolled females. Among sexually active female enrollees aged 16–25 years (aged 16–26 years during 2000–2002) in commercial and Medicaid health plans in the United States, the annual chlamydia screening rate increased from 25.3% in 2000 to 41.6% in 2007 (Table).

Increases in the screening rate were observed through 2006 for enrollees in both commercial and Medicaid plans (Figure), and for enrollees in all four U.S. regions (Table). Screening rates were stable from 2006 to 2007 for the Northeast and most states. The highest regional rate of chlamydia screening in 2007 was in the Northeast (45.5%) and the lowest was in the South (37.3%). Screening increased most in New Jersey (167.1%, from 15.2% screened in 2000 to 40.6% in 2007). Screening decreased in several states from 2006 to 2007, and decreased most in Alabama (26.4%, from 31.4% screened in 2006 to 23.1% in 2007). In 2007, Hawaii had the highest chlamydia screening rate (57.8%), and Utah had the lowest (20.8%).

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Editorial Note: From 2000 to 2007, annual chlamydia screening rates generally increased among sexually active females aged 16–25 years accessing care and enrolled in U.S. commercial and Medicaid health plans that reported chlamydia screening data. Although the rate of screening had increased during the preceding 7 years, it decreased from 2006 to 2007 nationally and for some states. Further monitoring of screening rates is needed to determine whether the decreased screening rate observed during 2007 represents a true decrease or might reflect changes in the mix of plans and plan types included in the HEDIS chlamydia screening dataset as a result of the substantial increase in participating plans. State and national screening rates can be affected by changes in the mix of plans included in the chlamydia screening dataset.

A recent nationally representative study of chlamydia screening at visits to hospital outpatient clinics also found low chlamydia screening rates in the United States, with 48.0% of young females screened for chlamydia during a visit to a gynecology clinic for a Papanicolaou (Pap) test (*4*). In the current report, chlamydia screening rates were substantially lower than other women's health services measured by HEDIS, including Pap tests to screen for cervical cancer (73.9% among enrollees in commercial and Medicaid plans in 2007).

Chlamydia screening and treatment of young women can preserve reproductive health by preventing PID and potential infertility, ectopic pregnancy, and chronic pelvic pain. Barriers to provider screening include 1) lack of reimbursement for the time required to conduct screening tests and to counsel patients, 2) lack of awareness that patients are sexually active and at risk for STDs, and 3) lack of knowledge that chlamydia screening can be performed without a pelvic examination (*4,5*). Barriers to patient use of screening include 1) inability to pay the copayment of a screening test, and 2) lack of knowledge of the asymptomatic nature, high prevalence, and possible adverse long-term reproductive effects of chlamydial infection (*6*).

In addition to potential variations caused by the substantial increase in participating plans, the findings in this report are subject to at least three other limitations. First, the findings cannot be generalized to all women in the United States nor to all women enrolled in commercial or Medicaid plans because the data reported to NCQA were from a subset of all health plans and only from a proportion of states. Second, assessment of time trends was limited for those states without data available for the entire evaluation period. Finally, HEDIS estimates might overestimate or underestimate the actual chlamydia screening rate among health plan enrollees. Overestimation likely occurred because the method used to estimate the screening rate excluded a substantial percentage of sexually active enrollees who might not have claims or health-care visits for pregnancy, contraception, STDs, or cervical cancer screening (*7*). Underestimation might occur if chlamydia tests were actually performed but not captured in the claims data.

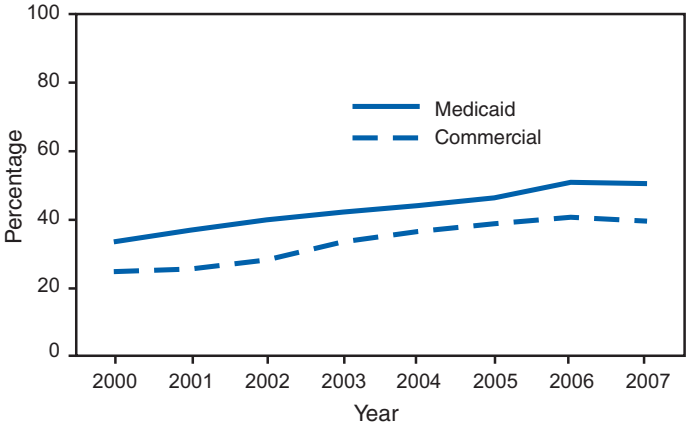
TABLE. Percentage of sexually active female enrollees aged 16–25 years* who were screened for *Chlamydia trachomatis* infection, by region, state, and year — Healthcare Effectiveness Data and Information Set, United States, 2000–2007

Region/State	No. of health plans reporting in 2007	No. of sexually active enrollees in 2007†	Year								% change from 2000–2007
			2000	2001	2002	2003	2004	2005	2006	2007	
United States	**583**	**2,809,100**	**25.3**	**26.7**	**29.8**	**35.5**	**38.3**	**41.2**	**43.6**	**41.6**	**64.4**
Midwest	**158**	**567,400**	**23.0**	**24.5**	**28.1**	**32.3**	**34.1**	**37.2**	**39.0**	**38.5**	**67.4**
Iowa	8	16,700	20.1	20.2	—	—	—	—	—	30.8	53.2
Illinois	22	94,700	16.2	15.0	18.8	22.3	25.3	28.5	30.2	28.3	74.7
Indiana	17	40,500	19.0	19.9	22.2	28.0	30.4	35.3	37.1	36.4	91.6
Kansas	14	37,600	17.3	16.5	22.7	22.6	24.2	30.0	30.3	32.2	86.1
Michigan	24	92,600	30.6	29.3	33.4	38.9	40.6	43.9	45.6	46.4	51.6
Minnesota	17	70,400	19.1	21.5	26.4	29.2	29.8	36.4	40.3	43.1	125.7
Missouri	14	26,600	—	46.1	45.2	50.6	51.7	51.2	50.2	45.7	—
Ohio	21	129,400	25.7	30.1	35.0	35.8	36.0	34.3	35.4	38.7	50.6
Wisconsin	21	58,900	32.6	33.4	29.8	33.0	35.4	35.8	40.6	41.3	26.7
Northeast	**116**	**711,500**	**22.5**	**23.6**	**27.6**	**34.3**	**36.5**	**40.9**	**43.4**	**45.5**	**102.2**
Connecticut	15	58,200	23.1	27.1	32.6	37.6	39.7	43.0	46.5	47.3	104.8
Massachusetts	17	102,600	20.9	25.9	34.3	40.0	44.5	47.6	51.4	53.4	155.5
Maine	7	31,800	27.6	25.2	28.6	37.3	—	—	—	48.1	74.3
New Hampshire	5	12,400	—	—	—	—	—	—	—	45.9	—
New Jersey	18	118,900	15.2	16.2	16.6	26.4	31.9	36.0	38.7	40.6	167.1
New York	33	223,800	26.4	27.8	31.4	38.3	40.0	44.6	47.4	47.8	81.1
Pennsylvania	21	163,700	19.7	18.9	24.3	29.7	30.4	35.6	38.0	39.8	102.0
South	**173**	**803,900**	**25.1**	**25.8**	**26.9**	**33.1**	**35.6**	**37.3**	**40.0**	**37.3**	**48.6**
Alabama	5	5,700	—	—	—	—	—	29.3	31.4	23.1	—
Arkansas	6	12,500	—	—	—	—	—	—	—	26.2	—
Delaware	11	23,900	21.1	23.4	29.0	32.1	33.4	38.2	37.5	41.7	97.6
Florida	26	134,500	24.7	20.3	19.3	27.8	29.8	35.6	37.7	38.6	56.3
Georgia	12	79,700	31.1	31.7	34.5	39.8	39.4	41.2	44.1	38.0	22.2
Kentucky	7	23,000	—	—	—	32.9	—	—	—	36.1	—
Louisiana	7	18,400	—	—	—	—	—	—	—	28.5	—
Maryland	19	88,700	36.9	39.8	41.1	44.7	49.2	48.9	50.7	49.1	33.1
North Carolina	8	32,200	20.1	21.8	21.6	—	28.0	31.8	35.1	34.7	72.6
Oklahoma	6	7,100	10.6	13.6	15.4	—	—	—	—	25.3	138.7
South Carolina	5	15,400	—	—	—	—	—	—	—	29.8	—
Tennessee	19	114,000	19.3	—	20.3	—	41.9	47.9	43.6	38.0	96.9
Texas	25	152,600	20.9	18.9	24.7	28.8	32.2	34.6	36.1	34.4	64.6
Virginia	11	89,800	25.2	31.3	30.3	31.5	32.0	39.1	43.2	33.8	34.1
West Virginia	6	6,400	—	—	—	—	—	—	—	32.5	—
West	**136**	**726,300**	**30.8**	**32.6**	**35.9**	**40.4**	**45.5**	**49.0**	**49.6**	**45.0**	**46.1**
Arizona	12	59,300	23.3	16.5	26.0	34.7	39.2	41.0	42.7	41.4	77.7
California	43	448,800	32.2	35.5	38.7	41.9	47.3	51.2	53.1	48.6	50.9
Colorado	18	45,100	27.6	26.3	29.6	36.5	43.9	45.2	43.0	43.4	57.3
Hawaii	5	8,200	—	—	—	—	—	—	—	57.8	—
Idaho	7	42,100	—	—	—	—	—	—	26.8	29.0	—
New Mexico	13	30,100	33.4	32.8	30.5	31.4	32.8	36.3	46.1	46.9	40.4
Nevada	6	9,400	—	31.4	—	42.2	37.4	46.0	50.1	50.2	—
Oregon	9	35,500	34.5	38.9	—	—	—	—	46.5	35.8	3.8
Utah	8	7,900	—	13.8	15.1	16.8	19.4	21.3	—	20.8	—
Washington	15	39,900	17.9	31.3	29.7	39.5	40.0	44.9	47.7	36.2	102.2

* 16–26 years during 2000–2002.
† Rounded to 100s.

Chlamydia screening has been ranked by the National Committee on Prevention Priorities as a top priority service, based on its clinically preventable burden, its cost-effectiveness, and its low current use rate (*8*). Increased public and provider awareness of the high prevalence of chlamydia in young women, and its preventable sequelae, should lead to increased chlamydia screening of these women. However, education campaigns alone are not sufficient to encourage physicians to increase rates of chlamydia screening (*5*). The findings in this report highlight the need for simple and effective interventions to increase access and use of chlamydia screening services. Structural interventions have been shown to increase screening rates. For example, the obstetrics and gynecology department of a large managed care organization increased its chlamydia

FIGURE. Percentage of sexually active female enrollees aged 16–25 years* who were screened for *Chlamydia trachomatis* infection, by health plan type and year — Healthcare Effectiveness Data and Information Set, United States, 2000–2007



* 16–26 years during 2000–2002.

screening rate simply by placing an endocervical swab alongside a Pap test in the examination room (*6*).

Although this report examined chlamydia screening rates among participants in health plans who were insured and accessed care, 18.4% of females aged 16–20 years and 28.2% aged 21–25 years were uninsured in 2007.§ Uninsured women are less likely to access care and less likely to have resources to pay for chlamydia screening (*9*). Steps must be taken to increase screening among insured women who access care, but addressing the burden of chlamydia among uninsured women also is a public health priority because uninsured women have higher rates of infection (*10*).

§ Additional information available at http://www.census.gov/hhes/www/cpstc/cps_table_creator.html.

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Adult Blood Lead Epidemiology and Surveillance — United States, 2005–2007

Overexposure to inorganic lead continues to be an important health problem worldwide. Furthermore, recent research has caused increased concerns about the toxicity of lead at low doses (*1,2*). Lead can cause acute and chronic adverse effects in multiple organ systems, ranging from subclinical changes in function to symptomatic, life-threatening intoxication. Since 1992, CDC's state-based Adult Blood Lead Epidemiology and Surveillance (ABLES) program has tracked laboratory-reported elevated blood lead levels (BLLs) in U.S. adults. The vast majority (95%) of reported elevated BLLs have been work related. One of the *Healthy People 2010* national public health objectives is to reduce to zero the prevalence of BLLs ≥25 μg/dL among adults (objective 20-7) (*3*). ABLES surveillance results through 2004 have been published previously (*4–6*). This report summarizes results for the period 2005–2007. An overall decline in national rates of elevated BLLs among state residents plus nonresidents from 14.0 in 1994 to 7.8 in 2007 has been observed. The national rate of state resident adults with BLLs ≥25 μg/dL was 7.2 per 100,000 employed adults in 2005 and 7.4 in 2006 and 2007. Industry subsectors with the highest numbers of lead-exposed workers were manufacturing of storage batteries, mining of lead and zinc ores, and painting and paper hanging. The most common nonoccupational exposures were shooting firearms; remodeling, renovating, or painting; retained bullets (gunshot wounds); and eating food containing lead. These findings indicate a need for increased preventive interventions to promote healthier workplaces and help move toward the *Healthy People 2010* objective.

ABLES reporting benchmarks include BLLs ≥25 μg/dL and BLLs ≥40 μg/dL. State ABLES programs collect data on adult BLLs from laboratories and health-care providers through mandatory reporting requirements. ABLES states then intervene

to prevent lead overexposures in worksites where elevated exposures occur. These interventions include 1) conducting follow-up interviews with physicians, employers, and workers; 2) investigating work sites; 3) providing technical assistance; 4) providing Occupational Safety and Health Administration (OSHA) referrals for consultation and enforcement; and 5) developing and disseminating educational materials and outreach programs.

A unique identifier is assigned to each person to account for multiple BLL reports. For BLLs ≥25 μg/dL, follow-up by telephone generally is conducted to ensure completeness of information on the industry where the person works, exposure source (occupational or nonoccupational), and other variables. The industry where the person worked is coded using the 1987 Standard Industrial Classification (SIC) or the 2002 North American Industry Classification System (NAICS). BLL reporting requirements vary among ABLES states, ranging from the reporting of all BLLs to BLLs ≥40 μg/dL.* Most ABLES states submit data on all BLLs to CDC's National Institute for Occupational Safety and Health (NIOSH), including reports from persons whose BLLs fall below the state reporting requirement.

For this report, adults were considered to be all persons aged ≥16 years. For adults with more than one BLL result in a given year, only the highest BLL was included in this report. Elevated BLLs were defined as blood lead concentrations ≥25μg/dL. Rate numerators were "state resident" adults with elevated BLLs (adults residing in the reporting state) or "state residents plus nonresidents" adults with elevated BLLs (all adults reported by a state). Denominators were the annual employed population aged ≥16 years for the period 2005–2007 from the Current Population Survey.† To calculate yearly state prevalence rates, the numbers of adults with elevated BLLs from each state were divided by the state's annual employed population. The combined state numerators and denominators for each year were then used to calculate the national prevalence rate.§

Data were provided by 37 states in 2005, 38 states in 2006, and 38 states in 2007.¶ Overall, national rates of elevated BLLs declined from 14.0 per 100,000 employed adults in 1994 to 7.8 in 2007 (Figure 1). ABLES states reported 8,902, 9,562, and 9,871 state resident adults with elevated BLLs in 2005, 2006, and 2007, respectively. The national rate per 100,000 state resident adults with elevated BLLs declined 4%, from 7.5 in 2004 to 7.2 in 2005, but increased 3%, from 7.2 in 2005 to 7.4 in 2006 and 2007. State annual prevalence for 2005 ranged from 0.5 (Hawaii) to 34.0 (Kansas); for 2006, from 0.2 (Montana) to 32.3 (Pennsylvania); and for 2007, from 0.8 (New Mexico) to 36.4 (Missouri). Prevalence rates in 2007 were <10 in 29 states and ≥20 in six states (Figure 2).

Rates per 100,000 state resident adults with BLLs ≥40 μg/dL, a second ABLES reporting benchmark, were 1.2 in 2004 and 2005, 1.1 in 2006, and 1.2 in 2007. In 2005, prevalence rates ranged from 0.1 (Arizona and New Mexico) to 9.5 (Alabama). In 2006, prevalence rates ranged from 0.2 (Arizona) to 7.5 (Alabama). In 2007, prevalence rates ranged from 0.1 (Oklahoma) to 9.1 (Alabama).

Data on industry and exposure source were submitted by 33 states (7,492 state resident adults) in 2005, 35 states (8,230 state resident adults) in 2006, and 35 states (8,246 state resident adults) in 2007.** For this analysis, adults exposed to both occupational and nonoccupational sources (17 in 2005, 24 in 2006, and 11 in 2007) were considered exposed at work only. Exposures at work accounted for 5,861 (78.2%), 6,643 (80.7%), and 6,463 (76.7%) elevated BLLs in 2005, 2006, and 2007, respectively. The majority of adults with elevated BLLs were employed in three large industry sectors: manufacturing (64.8% in 2005 and 71.8% in 2006 and 2007), construction (15.2% in 2005, 12.6% in 2006, and 11.4% in 2007), and mining (9.4% in 2005, 9.5% in 2006, and 10.5% in 2007). Specific industry subsectors with the highest numbers were manufacturing of storage batteries, mining of lead and zinc ores, and painting and paper hanging (Table). Nonoccupational exposures accounted for 330 (4.4%), 380 (4.6%), and 350 (4.2%) adults in 2005, 2006, and 2007, respectively. Among these, the most common exposures were shooting firearms; remodeling, renovating, or painting; retained bullets (gunshot wounds); and eating food containing lead (Table).

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* Information on reporting requirements by state is available at http://www.cdc.gov/niosh/topics/ables/state-contacts.html.

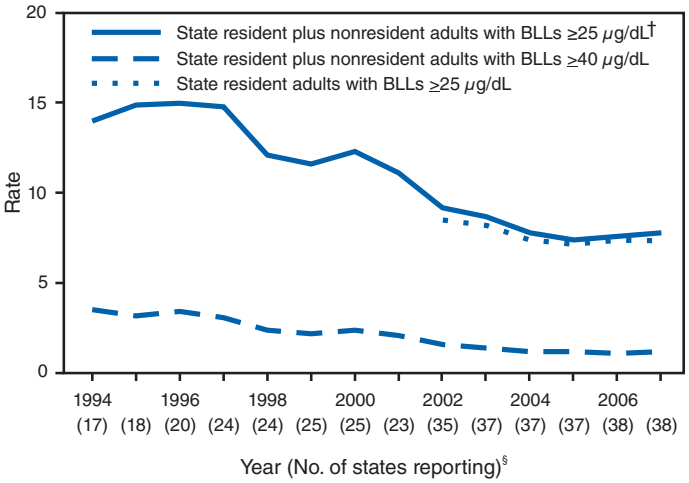
† Data extracted from http://www.bls.gov/data.

§ Information regarding interpretation of specific state ABLES data, definitions, and rate calculations is available at http://www.cdc.gov/niosh/topics/ables/ables.html.

¶ 38 states submitted data to ABLES in 2007: Alabama, Alaska, Arizona, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming. Tennessee data were not available for 2005. Louisiana data were not available for 2005 and 2006. Hawaii data were not available for 2007.

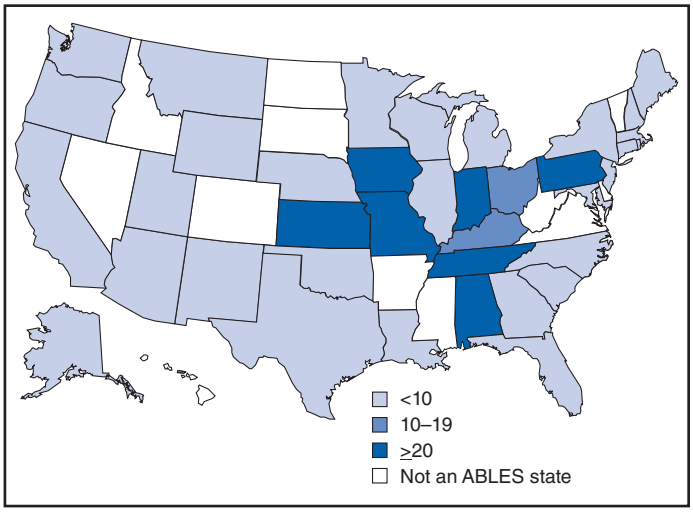
** States providing data on industry in 2007: Alaska, Arizona, California, Connecticut, Florida, Georgia, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming. Industry data were not available for Louisiana for 2005 and 2006, Rhode Island for 2005, and Tennessee for 2005. Hawaii data were not available for 2007.

FIGURE 1. National prevalence rates* of adults with elevated blood lead levels (BLLs), by year — Adult Blood Lead Epidemiology and Surveillance program, United States, 1994–2007



* Per 100,000 employed adults aged ≥16 years. Denominators for 2005–2007 extracted from 2008 U.S. Department of Labor, Bureau of labor Statistics Current Population Survey, available at http://www.bls.gov/data.
† State residents are adults residing in the reporting state. State residents plus nonresidents are all adults reported by a state.
§ 38 states submitted data in 2007: Alabama, Alaska, Arizona, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming. Tennessee data were not available for 2005. Louisiana data were not available for 2005 and 2006. Hawaii data were not available for 2007.

FIGURE 2. Annual state prevalence rate* categories for state resident adults† with elevated blood lead levels (≥25 µg/dL) — Adult Blood Lead Epidemiology and Surveillance (ABLES) program, United States, 2007§



* Per 100,000 employed adults aged ≥16 years. Denominators for 2005–2007 extracted from 2008 U.S. Department of Labor, Bureau of labor Statistics Current Population Survey, available at http://www.bls.gov/data.
† State residents are adults residing in the reporting state.
§ 38 states submitted data in 2007: Alabama, Alaska, Arizona, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming. Tennessee data were not available for 2005. Louisiana data were not available for 2005 and 2006. Hawaii data were not available for 2007.

Editorial Note: ABLES surveillance results indicate an overall decreasing trend in the national prevalence rate of elevated BLLs in adults since 1994 (Figure 1), with a slight increase in the 2006 and 2007 rates. Part of the overall decrease might be the result of a decline in the number of manufacturing jobs with potential for lead exposure over time, in addition to prevention measures that have been enacted since the early 1990s, including 1) improved interventions by ABLES states, worker-affiliated organizations, and federal programs (e.g., NIOSH's ABLES surveillance[††] and OSHA's National Emphasis Program to reduce lead exposure[§§]) and 2) measures implemented by industry (e.g., engineering controls, work practices, and respiratory protection). However, these rates might also reflect low employer compliance with testing and reporting requirements. A 2008 report using ABLES data found that only 29% of adults with BLLs requiring medical removal from work involving lead exposure received appropriate follow-up blood lead tests and met the eligibility criteria to return to their work (*7*). The slight increase in national rates in the ABLES data for 2006 and 2007 might have resulted from increased exposures at workplaces or improved testing and reporting. Changes in annual rates also might reflect increased or decreased surveillance activities by ABLES state programs.

ABLES data also indicate that excessive exposure to lead remains primarily an occupational health problem in the United States; 95% of adults with an identified exposure source were exposed at work. As in the past, during 2005–2007, these exposures occurred mainly in battery manufacturing, lead and zinc ores mining, and painting and paper hanging industry subsectors. The consistently higher proportions of adults with BLLs ≥40 µg/dL among those with BLLs ≥25 µg/dL observed in the painting and paper hanging, special trade contractors, and nonferrous foundries industries from 2005 through 2007 (Table 1) likely reflect higher lead exposures in these industries.

OSHA lead standards require removing a worker from lead exposure when the whole-blood lead concentrations ≥50 µg/dL for construction workers or ≥60 µg/dL for general industry workers, and permit return to work when their BLLs is ≤40 µg/dL (*8,9*). The current CDC/NIOSH surveillance case

†† Information available at http://www.cdc.gov/niosh/topics/ables/ables.html.
§§ Information available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=directives&p_id=2572.

TABLE. Number and percentage of resident adults with elevated blood lead levels (BLLs), by industry subsector and nonoccupational source of exposure — Adult Blood Lead Epidemiology and Surveillance (ABLES) program, United States, 2005–2007

	2005 (33 states)				2006 (35 states)				2007 (34 states)			
	BLLs ≥25 μg/dL		BLLs ≥40 μg/dL		BLLs ≥25 μg/dL		BLLs ≥40 μg/dL		BLLs ≥25 μg/dL		BLLs ≥40 μg/dL	
Exposure type	No.	(%)†	No.	(%)§	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Occupational (Industry subsector [SIC and NAICS codes]*)												
Manufacturing, storage batteries (SIC 3691, NAICS 335911)	1,916	(32.7)	90	(4.7)	2,636	(39.7)	179	(6.8)	2,524	(39.1)	207	(8.2)
Metal mining, lead and zinc ores (SIC 1031, NAICS 212231)	542	(9.2)	71	(13.1)	625	(9.4)	109	(17.4)	672	(10.4)	127	(18.9)
Construction, painting and paper Hanging (SIC 1721, NAICS 237310 part, 238320 part)	527	(9.0)	144	(27.3)	495	(7.5)	130	(26.3)	399	(6.2)	117	(29.3)
Manufacturing, primary batteries (dry and wet) (SIC 3692, NAICS 335912)	187	(3.2)	22	(11.8)	597	(9.0)	92	(15.4)	573	(8.9)	126	(22.0)
Manufacturing, secondary smelting and refining of nonferrous metals (SIC 3341, NAICS 331314 part, 331423 part, 331492 part)	355	(6.1)	51	(14.4)	370	(5.6)	37	(10.0)	447	(6.9)	60	(13.4)
Manufacturing, primary smelting and refining of nonferrous metals (SIC 3339, NAICS 33419)	134	(2.3)	19	(14.2)	129	(1.9)	24	(18.6)	128	(2.0)	21	(16.4)
Construction, special trade contractors NEC¶ (SIC 1799, various NAICS codes in construction and services)	135	(2.3)	34	(25.2)	93	(1.4)	23	(24.7)	96	(1.5)	20	(20.8)
Manufacturing, copper foundries (SIC 3366, NAICS 331525)	125	(2.1)	16	(12.8)	112	(1.7)	18	(16.1)	78	(1.2)	11	(14.1)
Construction, bridge, tunnel, and elevated highway construction (SIC 1622, NAICS 237310 part, 237990 part)	67	(1.1)	9	(13.4)	87	(1.3)	12	(13.8)	34	(0.5)	5	(14.7)
Manufacturing, nonferrous foundries, except aluminum and copper (SIC 3369, NAICS 331528)	60	(1.0)	13	(21.7)	53	(0.8)	9	(17.0)	75	(1.2)	20	(26.7)
Manufacturing, rolling, drawing, and extruding of nonferrous metals (SIC 3356, NAICS 331491)	65	(1.1)	3	(4.6)	54	(0.8)	7	(13.0)	56	(0.9)	14	(25.0)
Services, automotive repair shops NEC (SIC 7539, NAICS 811118, 811198 part)	79	(1.3)	15	(19.0)	41	(0.6)	5	(12.2)	50	(0.8)	9	(18.0)
Manufacturing, steel works, blast furnaces (including coke ovens), and rolling mills (SIC 3312, NAICS 331111 part, 331221 part)	63	(1.1)	6	(9.5)	26	(0.4)	2	(7.7)	64	(1.0)	5	(7.8)
Other industries and unavailable information on industry**	1,606	(27.4)	302	(18.8)	1,325	(19.9)	207	(15.6)	1,267	(19.6)	215	(17.0)
Total exposed at work	**5,861**	**(100.0)**	**795**	**(13.6)**	**6,643**	**(100.0)**	**854**	**(12.9)**	**6,463**	**(100.0)**	**957**	**(14.8)**
Nonoccupational												
Shooting firearms (target shooting)	98	(29.7)	25	(25.5)	129	(33.9)	29	(22.5)	120	(34.3)	19	(15.8)
Remodeling/Renovation/Painting	58	(17.6)	15	(25.9)	49	(12.9)	9	(18.4)	51	(14.6)	15	(29.4)
Retained bullets (gunshot wounds)	17	(5.2)	4	(23.5)	30	(7.9)	15	(50.0)	35	(10.0)	10	(28.6)
Eating food containing lead	21	(6.4)	9	(42.9)	29	(7.6)	10	(34.5)	21	(6.0)	5	(23.8)
Casting (e.g., bullets and fishing weights)	14	(4.2)	5	(35.7)	13	(3.4)	4	(30.8)	20	(5.7)	6	(30.0)
Pica (i.e., the eating of nonfood items)	21	(6.4)	8	(38.1)	15	(3.9)	5	(33.3)	10	(2.9)	3	(30.0)
Complementary and alternative medicines	8	(2.4)	7	(87.5)	13	(3.4)	9	(69.2)	10	(2.9)	6	(60.0)
Retired††	11	(3.3)	2	(18.2)	3	(0.8)	2	(66.7)	8	(2.3)	1	(12.5)
Ceramics	—	—	—	—	—	—	—	—	3	(0.9)	2	(66.7)
Stained glass	3	(0.9)		—	—	—	—	—	—	—	—	—
Eating from leaded cookware	3	(0.9)	1	(33.3)	—	—	—	—	—	—	—	—
Drinking liquids containing lead (e.g., moonshine)	—	—	—	—	—	—	—	—	2	(0.6)	1	(50.0)
Other nonoccupational exposure	3	(0.9)	2	(66.7)	3	(0.8)	2	(66.7)	6	(1.7)	2	(33.3)
Unavailable nonoccupational source of exposure	73	(22.1)	19	(26.0)	96	(25.3)	27	(28.1)	64	(18.3)	15	(23.4)
Total exposed at places other than work	**330**	**(100.0)**	**97**	**(29.4)**	**380**	**(100.0)**	**112**	**(29.5)**	**350**	**(100.0)**	**85**	**(24.3)**

* Standard Industry Classification and North American Industry Classification System. Correspondence tables between 2002 NAICS and 1987 SIC are available from the U.S. Census Bureau at http://www.census.gov/epcd/naics02/index.html.
† Percentage of the total cases reported per year.
§ Percentage cases with elevated BLLs in each industry or nonoccupational exposure source.
¶ Not elsewhere classified.
** Information on industry was unavailable for 265 adults with BLLs ≥25 μg/dL and for three adults with BLLs ≥40 μg/dL in 2005; and in 88 adults with BLLs ≥25 μg/dL in 2006.
†† These adults might have been former lead workers. Available data show that two adults (BLLs 32 μg/dL and 34 μg/dL) retired from a radiator repair shop, one retired from the police (BLL 39 μg/dL), and one retired from a tire manufacturing industry (BLL 37 μg/dL).

definition for elevated BLLs in adults is BLL ≥25 μg/dL. Recent research has consistently demonstrated the toxicity of lead from chronic dose exposures <30 μg/dL. Low-dose lead exposure can result in adverse effects in multiple organ systems, including effects in neurologic, cardiovascular, reproductive, and renal function (*1*,*2*).

CDC is making efforts to reduce occupational lead exposures through collaborations with state ABLES programs (by providing technical support and funding for surveillance); with worker-affiliated organizations (e.g., NIOSH cooperated with the Center for Construction Research and Training, formerly known as The Center to Protect Workers' Rights [CPWR], in analyzing lead exposures in the construction industry); and with OSHA. One of OSHA's National Emphasis Programs aims to reduce workplace lead exposure among all U.S. workers, and ABLES data are provided periodically to OSHA to help better target this program.

The findings in this report are subject to at least one limitation. The number of adults with elevated BLLs reported to ABLES likely is underreported because some employers might not provide BLL testing to all lead-exposed workers as required by OSHA regulations and because some laboratories might not report all tests as required by state regulations (*10*); these factors likely vary across the 38 participating ABLES states.

To further prevent workplace lead exposures and help move toward the *Healthy People 2010* objective, the following efforts need to be strengthened, particularly in industries with higher exposures: 1) worker protection programs developed and maintained by employers¶¶; 2) government efforts, such as state ABLES programs, the OSHA National Emphasis Program to reduce lead exposure, and the NIOSH ABLES program; 3) research and interventions by worker-affiliated organizations, such as the Center for Construction Research and Training; and 4) education of the public to prevent nonoccupational exposures.

Acknowledgments

This report is based, in part, contributions by ABLES state coordinators and by J Li, Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.

¶¶ Elements of worker protection programs should include 1) hazard determination, including exposure assessment; 2) engineering and work practice controls; 3) respiratory protection; 4) protective clothing and equipment; 5) housekeeping; 6) hygiene facilities and practices; 7) medical surveillance and provisions for medical removal; 8) training; 9) signs; and 10) recordkeeping. Additional information available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=fact_sheets&p_id=161.

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Update: Influenza Activity — United States, September 28, 2008–April 4, 2009, and Composition of the 2009–10 Influenza Vaccine

This report summarizes U.S. influenza activity* from September 28, 2008, the start of the 2008–09 influenza season, through April 4, 2009, and reports on the 2009–10 influenza vaccine strain selection. Low levels of influenza activity were reported from October through early January. Activity increased from mid-January and peaked in mid-February. Influenza A (H1N1) viruses have predominated overall this

* The CDC influenza surveillance system collects five categories of information from nine data sources: 1) viral surveillance (World Health Organization collaborating U.S. laboratories, the National Respiratory and Enteric Virus Surveillance System, and novel influenza A virus case reporting), 2) outpatient illness surveillance (U.S. Outpatient ILI Surveillance Network), 3) mortality (122 Cities Mortality Reporting System and influenza-associated pediatric mortality reports), 4) hospitalizations (Emerging Infections Program and New Vaccine Surveillance Network), and 5) summary of geographic spread of influenza (state and territorial epidemiologist reports).

season, but influenza B viruses have been isolated more frequently than influenza A viruses since mid-March. Widespread oseltamivir resistance was detected among circulating influenza A (H1N1) viruses and a high level of adamantane resistance was identified among influenza A (H3N2) viruses.

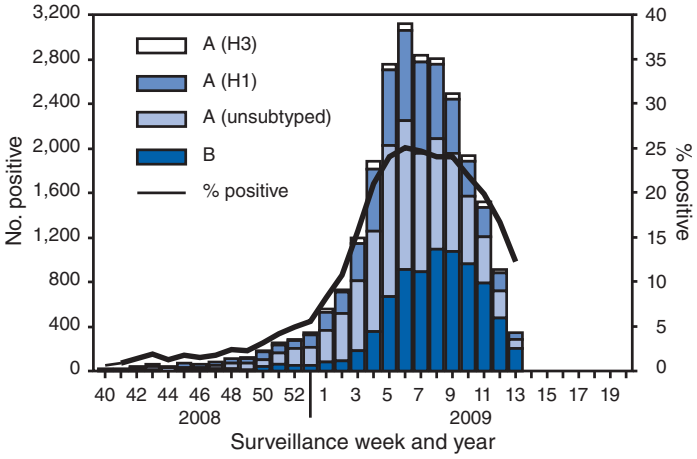
Viral Surveillance

From September 28, 2008, to April 4, 2009, World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories in the United States tested 173,397 respiratory specimens for influenza viruses, 24,793 (14.3%) of which were positive (Figure 1). Of these, 16,686 (67.3%) were positive for influenza A viruses, and 8,107 (32.7%) were positive for influenza B viruses. Of the 16,686 specimens positive for influenza A viruses, 6,735 (40.4%) were subtyped by real-time reverse transcription–polymerase chain reaction or by virus culture; 6,049 (89.8%) of these were influenza A (H1N1) viruses, and 686 (10.2%) were influenza A (H3N2) viruses. The percentage of specimens testing positive for influenza first exceeded the seasonal threshold of 10% during the week ending January 17, 2009, and peaked at 25.0% during the week ending February 14, 2009. For the week ending April 4, 2009, 12.3% of specimens tested for influenza were positive. The relative proportion of influenza B viruses increased during February and March, and since the week ending March 14, 2009, >50% of the positive influenza specimens have been influenza B.

Antigenic Characterization

WHO collaborating laboratories in the United States are requested to submit a subset of their influenza virus isolates to CDC for further antigenic characterization. CDC has antigenically characterized 945 influenza viruses collected by U.S. laboratories during the 2008–09 season, including 594 influenza A (H1N1), 88 influenza A (H3N2), and 263 influenza B viruses. All 594 influenza A (H1N1) viruses are related to the influenza A (H1N1) component of the 2008–09 influenza vaccine (A/Brisbane/59/2007). All 88 influenza A (H3N2) viruses are related to the influenza A (H3N2) vaccine component (A/Brisbane/10/2007). Influenza B viruses currently circulating can be divided into two distinct lineages represented by the B/Yamagata/16/88 and B/Victoria/02/87 viruses. Among the 263 influenza B viruses tested, 50 (19.0%) belong to the B/Yamagata lineage and are related to the vaccine strain (B/Florida/04/2006); the remaining 213 (81.0%) belong to the B/Victoria lineage and are not related to the vaccine strain.

FIGURE 1. Number (N = 24,793) and percentage of respiratory specimens testing positive for influenza reported by World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories, by type, and surveillance week — United States, September 28, 2008–April 4, 2009



Composition of the 2009–10 Influenza Vaccine

WHO recommended that the 2009–10 Northern Hemisphere trivalent influenza vaccine contain A/Brisbane/59/2007-like (H1N1), A/Brisbane/10/2007-like (H3N2), and B/Brisbane/60/2008-like (B/Victoria lineage) viruses. The Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee recommended these same vaccine strains be included in the 2009–10 influenza vaccine for the United States (*1*). Only the influenza B component represents a change from the 2008–09 vaccine formulation. These recommendations were based on antigenic and genetic analyses of recently isolated influenza viruses, epidemiologic data, post-vaccination serologic studies in humans, and the availability of candidate vaccine strains and reagents.

Antiviral Resistance of Influenza Virus Isolates

CDC conducts surveillance for resistance of circulating influenza viruses to licensed influenza antiviral medications: adamantanes (amantadine and rimantadine) and neuraminidase inhibitors (zanamivir and oseltamivir). Since October 1, 2008, of the 699 influenza A (H1N1) viruses from 44 states tested for neuraminidase inhibitor resistance, 694 (99.3%) were resistant to oseltamivir; all were sensitive to zanamivir (Table). All 103 influenza A (H3N2) and all 274 influenza B viruses tested were sensitive to oseltamivir and zanamivir. Three influenza A (H1N1) viruses (0.4%) and all 100 (100%) influenza A (H3N2) viruses tested were resistant to adamantanes

TABLE. Number and percentage of influenza viruses tested for resistance to influenza antiviral medications, by virus type — United States, October 1, 2008–April 4, 2009

Virus	No. of isolates tested	Resistant to oseltamivir*		No. of isolates tested	Resistant to adamantanes	
		No.	(%)		No.	(%)
Influenza A (H1N1)	699	694	(99.3)	683	3	(0.4)
Influenza A (H3N2)	103	0	(0)	100	100	(100)
Influenza B	274	0	(0)	—†	—	—

* None of the tested isolates were resistant to zanamivir.
† The adamantanes (amantadine and rimantadine) are not effective against influenza B viruses.

(amantadine and rimantadine). The adamantanes are not effective against influenza B viruses. None of the influenza A (H1N1) viruses tested were resistant to both oseltamivir and adamantanes.

Novel Influenza A Viruses

A case of human infection with a novel influenza A virus was reported by the Iowa Department of Public Health during the week ending February 28, 2009. A male aged 3 years was infected with a swine influenza A (H1N1) virus. An investigation revealed that the child had close contact with ill pigs. The child has fully recovered from the illness, and no additional cases were identified among the child's contacts or other persons exposed to the ill pigs. This is the third human infection with swine influenza virus identified in the United States this influenza season. None of the cases were related to occupation. The other two human infections with swine influenza identified during the 2008–09 influenza season occurred in a person aged 14 years from Texas and a person aged 19 years from South Dakota (*2,3*).

State-Specific Activity Levels

During the week ending April 4, 2009, widespread influenza activity† was reported by four states (Alabama, New York, Virginia, and Washington). Regional influenza activity was reported by 18 states (Alaska, Arizona, California, Colorado, Connecticut, Hawaii, Idaho, Kentucky, Montana, Nevada, New Hampshire, New Jersey, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, and Tennessee). Local influenza activity was reported by 20 states, sporadic activity was reported by the District of Columbia and seven states, and one state did not report Regional influenza activity was reported for the first time this season during the week ending December 20, 2008 (by Massachusetts and New Jersey), and widespread activity was reported for the first time during the week ending January 10, 2009 (by Virginia). To date this season, regional or widespread influenza activity has been reported during at least 1 week by 49 states.

Outpatient Illness Surveillance

Since September 28, 2008, the weekly percentage of outpatient visits for influenza-like illness (ILI)§ reported by approximately 1,500 U.S. health-care providers in 50 states, New York City, Chicago, the District of Columbia, and the U.S. Virgin Islands that comprise the U.S. Outpatient ILI Surveillance Network (ILINet), has ranged from 0.9% during the week ending October 4, 2008, to 3.7% for the week ending February 14, 2009. For the week ending April 4, 2009, the weekly percentage of outpatient visits for ILI was 1.6% (Figure 2). This is below the national baseline of 2.4%.¶ One of the nine surveillance regions (Mountain) reported an ILI percentage above its region-specific baseline.

Pneumonia- and Influenza-Related Mortality

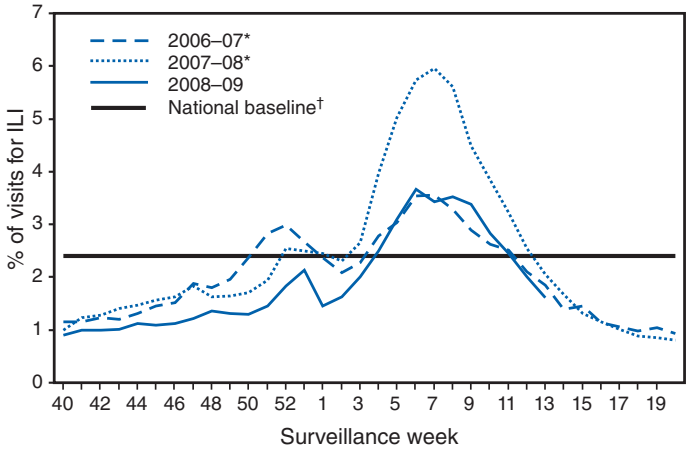
For the week ending April 4, 2009, pneumonia and influenza was reported as an underlying or contributing cause of death for 7.4% of all deaths reported through the 122 Cities Mortality Reporting System. This is below the epidemic threshold of 7.8% for that week. Since September 28, 2008, the weekly percentage of deaths attributed to pneumonia and influenza

† Levels of activity are 1) no activity; 2) sporadic: isolated laboratory-confirmed influenza cases or a laboratory-confirmed outbreak in one institution, with no increase in influenza-like illness (ILI) activity; 3) local: increased ILI, or at least two institutional outbreaks (ILI or laboratory-confirmed influenza) in one region with recent laboratory evidence of influenza in that region; virus activity no greater than sporadic in other regions; 4) regional: increased ILI activity or institutional outbreaks (ILI or laboratory-confirmed influenza) in at least two but less than half of the regions in the state with recent laboratory evidence of influenza in those regions; and 5) widespread: increased ILI activity or institutional outbreaks (ILI or laboratory-confirmed influenza) in at least half the regions in the state with recent laboratory evidence of influenza in the state.

§ Defined as a temperature of ≥100.0°F (≥37.8°C), oral or equivalent, and cough and/or sore throat, in the absence of a known cause other than influenza.

¶ The national and regional baselines are the mean percentage of visits for ILI during noninfluenza weeks for the previous three seasons plus two standard deviations. A noninfluenza week is a week during which <10% of specimens tested positive for influenza. National and regional percentages of patient visits for ILI are weighted on the basis of state population. Use of the national baseline for regional data is not appropriate.

FIGURE 2. Percentage of visits for influenza-like illness (ILI) reported by U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), by surveillance week — United States, September 28, 2008–April 4, 2009 and 2006–07 and 2007–08 influenza seasons



* The 2006–07 and 2007–08 seasons did not have a week 53; therefore the week 53 data point for those seasons is an average of weeks 52 and 1.

† The national and regional baselines are the mean percentage of visits for ILI during noninfluenza weeks for the previous three seasons plus two standard deviations. A noninfluenza week is a week during which <10% of specimens tested positive for influenza. National and regional percentages of patient visits for ILI are weighted on the basis of state population. Use of the national baseline for regional data is not appropriate.

ranged from 6.1% to 7.6%, and remained below the epidemic threshold.**

Influenza-Associated Hospitalizations

Hospitalizations associated with laboratory-confirmed influenza infections are monitored by two population-based surveillance networks, the New Vaccine Surveillance Network (NVSN) and the Emerging Infections Program (EIP).††

From October 12, 2008, to March 21, 2009, the preliminary laboratory-confirmed influenza-associated hospitalization rate for children aged 0–4 years in the NVSN was 1.46 per 10,000.

From October 1, 2008, to March 28, 2009, preliminary rates of laboratory-confirmed influenza-associated hospitalization reported by the EIP for children aged 0–4 years and 5–17 years were 2.8 and 0.5 per 10,000, respectively (Figure 3). For adults aged 18–49 years, 50–64 years, and ≥65 years, the rates were 0.3, 0.4, and 1.0 per 10,000, respectively. Differences in the rate estimates between the NVSN and the EIP systems likely result from the different case-finding methods and the different populations monitored.

Influenza-Associated Pediatric Mortality

Since September 28, 2008, CDC has received 45 reports of influenza-associated pediatric deaths that occurred during the current season. Of the 27 decedents who had specimens collected for bacterial culture from normally sterile sites, 12 (44.4%) were positive; *Staphylococcus aureus* was identified in eight of the 12 children. Three of the *S. aureus* isolates were sensitive to methicillin, and five were methicillin resistant. Among the 12 children with bacterial coinfections, all were aged ≥5 years, and 10 (83.3%) were aged ≥12 years. An increase in the number of influenza-associated pediatric deaths with *S. aureus* coinfections was first recognized during the 2006–07 influenza season (*4*).

Of the 36 decedents aged >6 months for whom patient vaccination status was known, five (13.9%) had been vaccinated against influenza according to 2008 Advisory Committee on Immunization Practices recommendations (*5*). These data are provisional and subject to change as more information becomes available.

Reported by: *WHO Collaborating Center for Surveillance, Epidemiology, and Control of Influenza. P Peebles, L Brammer, MPH, S Epperson, MPH, L Blanton, MPH, R Dhara, MPH, T Wallis, MS, L Finelli, DrPH, L Gubareva, PhD, J Bresee, MD, A Klimov, PhD, N Cox, PhD, Influenza Div, National Center for Immunization and Respiratory Diseases, CDC.*

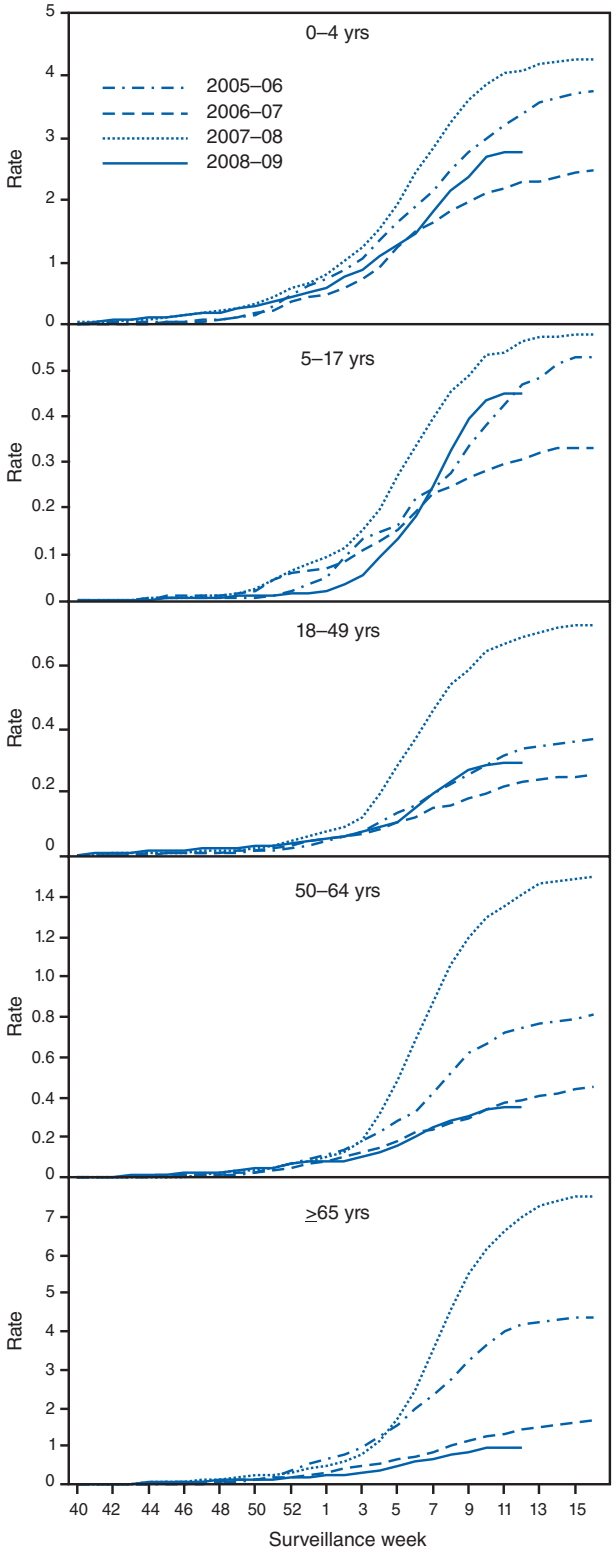
Editorial Note: From September 28, 2008, through early January 2009, the United States experienced low levels of influenza activity. Activity increased in mid-January, peaked in mid-February, and remained high until mid-March. Since mid-March, influenza levels have been decreasing nationally.

Preliminary data from the U.S. virologic surveillance networks (WHO and NREVSS collaborating laboratories), the percentage of deaths attributable to pneumonia and influenza, and the percentage of outpatient visits for ILI suggest that this season has been less severe than the 2007–08 season and is more similar to the 2005–06 and 2006–07 seasons. The

** The seasonal baseline proportion of pneumonia and influenza deaths is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from pneumonia and influenza that were reported by the 122 Cities Mortality Reporting System during the preceding 5 years. The epidemic threshold is 1.645 standard deviations above the seasonal baseline.

†† NVSN conducts surveillance in Monroe County, New York; Hamilton County, Ohio; and Davidson County, Tennessee. NVSN provides population-based estimates of laboratory-confirmed influenza hospitalization rates in children aged <5 years admitted to NVSN hospitals with fever or respiratory symptoms. Children are prospectively enrolled, and respiratory samples are collected and tested by viral culture and reverse transcription–polymerase chain reaction (RT-PCR). EIP currently conducts surveillance for laboratory-confirmed, influenza-related hospitalizations in 61 counties and Baltimore, Maryland. The EIP catchment area includes 13 metropolitan areas: San Francisco, California; Denver, Colorado; New Haven, Connecticut; Atlanta, Georgia; Baltimore, Maryland; Minneapolis/St. Paul, Minnesota; Albuquerque, New Mexico; Las Cruces, New Mexico; Santa Fe, New Mexico; Albany, New York; Rochester, New York; Portland, Oregon; and Nashville, Tennessee. Hospital laboratory, admission, and discharge databases, and infection-control logs are reviewed to identify persons with a positive influenza test (i.e., viral culture, direct fluorescent antibody assays, RT-PCR, serology, or a commercial rapid antigen test) from testing conducted as part of their routine care.

FIGURE 3. Cumulative laboratory-confirmed influenza hospitalization rates,* by age group† and surveillance week — Emerging Infections Program, United States, October 1, 2008–March 28, 2009, and preceding three influenza seasons



* Per 10,000 population.
† Scales differ among age groups.

percentage of specimens tested for influenza that were positive peaked at 25.0% during the week ending February 14, 2009, compared with 31.6% in 2007–08, 27.7% in 2006–07, and 22.6% in 2005–06. To date during this season, the percentage of deaths attributable to pneumonia and influenza peaked at 7.6% and has not exceeded the epidemic threshold. By comparison, pneumonia and influenza mortality peaked at 9.1%, 7.9%, and 7.8% during the 2007–08, 2006–07, and 2005–06 seasons, respectively. The epidemic threshold for pneumonia and influenza deaths was exceeded for 9 consecutive weeks during the 2007–08 season and for only 1 week during both the 2005–06 and 2006–07 seasons. The percentage of outpatient visits for ILI peaked at 3.7% this season, compared with 6.0% in 2007–08, 3.6% in 2006–07, and 3.1% in 2005–06.

During this influenza season, a high level of resistance to the antiviral drug oseltamivir was detected among circulating influenza A (H1N1) viruses. Since October 1, 2008, 99.3% of influenza A (H1N1) viruses tested were resistant to oseltamivir. To date, influenza A has accounted for 67.3% of all influenza viruses identified, and influenza A (H1N1) has accounted for 89.8% of the influenza A viruses that were subtyped. No oseltamivir resistance has been detected among influenza A (H3N2) or B viruses currently circulating in the United States; however, all the influenza A (H3N2) viruses tested were resistant to adamantanes. The adamantanes are not effective against influenza B viruses. None of the influenza A (H1N1) viruses tested were resistant to both oseltamivir and the adamantanes, and all influenza viruses tested this season have been susceptible to zanamivir. CDC issued interim guidelines for the use of influenza antiviral medications on December 19, 2008. Health-care providers should review their local surveillance data if available to determine which types (A or B) and subtypes of influenza A (H1N1 or H3N2) are most prominent in their community and consider using diagnostic tests to distinguish influenza A from influenza B. When an influenza A (H1N1) virus infection or exposure is suspected, zanamivir is the preferred medication; combination therapy of oseltamivir and rimantidine is an acceptable alternative (*6*).

Since early February, the relative proportion of influenza B viruses has been increasing each week, and more than half of influenza viruses identified since the week ending March 14, 2009, were influenza B. Approximately 80% of influenza B viruses tested have not been related to the influenza B vaccine strain. However, all influenza B viruses this season have been susceptible to oseltamivir and zanamivir. Health-care providers should be aware of these recent increases in influenza B viruses and of the differences in antiviral resistance patterns compared with influenza A (H1N1) viruses. When an influenza B infection or exposure is detected, treatment with oseltamivir or zanamivir is recommended. However, when the type or

subtype is unknown, zanamivir is the preferred medication; combination therapy of oseltamivir and rimantidine also is acceptable (*6*).

To date this season, the cumulative laboratory-confirmed, influenza-associated hospitalization rate reported by EIP among persons aged ≥50 years has been lower than rates reported for the previous three seasons, but most similar to the 2006–07 season. Historically, excess mortality has been lower in seasons during which influenza A (H1N1) or influenza B predominated than during seasons in which influenza A (H3N2) has predominated (*7*). During the current and 2006–07 seasons, influenza A (H1N1) has been the prominent virus subtype circulating, which could partly explain the lower influenza-associated hospitalization rates among persons aged ≥50 years observed during these two seasons.

Vaccination remains the best method for preventing influenza virus infection and its complications. Influenza vaccination can prevent influenza infections from strains that are sensitive or resistant to antiviral medications. Thus far this season, all the influenza A viruses that have been characterized, including oseltamivir-resistant (H1N1) viruses, are antigenically related to the components in the vaccine. However, approximately 80% of influenza B viruses tested are from a distinct lineage that is not related to the vaccine strain. Limited or no protection is expected when the vaccine and circulating virus strains are from different lineages (*8,9*). The composition of the 2009–10 influenza vaccine includes the same influenza A (H1N1 and H3N2) components, and a change in the influenza B component from the Yamagata to the Victoria lineage.

Influenza surveillance reports for the United States are posted weekly online at http://www.cdc.gov/flu/weekly/fluactivity.htm during the influenza season from October to mid-May. Additional information regarding influenza viruses, influenza surveillance, the influenza vaccine, and avian influenza is available at http://www.cdc.gov/flu.

Acknowledgments

This report is based, in part, on data contributed by participating state and territorial health departments and state public health laboratories, World Health Organization collaborating laboratories, National Respiratory and Enteric Virus Surveillance System collaborating laboratories, the U.S. Outpatient ILI Surveillance Network, the Emerging Infections Program, the New Vaccine Surveillance Network, the Influenza Associated Pediatric Mortality Surveillance System, and the 122 Cities Mortality Reporting System.

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FDA Approval of Expanded Age Indication for a Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine

On December 4, 2008, the Food and Drug Administration (FDA) approved an expanded age indication for the tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine (Tdap) Boostrix (GlaxoSmithKline Biologicals, Rixensart, Belgium). Boostrix is now licensed for use in persons aged 10–64 years as a single-dose booster immunization; the vaccine initially was licensed for persons aged 10–18 years. This announcement summarizes the indications for use of Boostrix. Complete recommendations of the Advisory Committee on Immunization Practices (ACIP) for Tdap vaccines have been described previously (*1–3*).

On October 23, 2008, ACIP was presented data on the safety and immunogenicity of Boostrix in adults aged 19–64 years and notified of the impending expanded age indication for Boostrix. Guidance for the use of Boostrix is the same as for Adacel (Sanofi Pasteur, Toronto, Canada), another Tdap vaccine licensed for use in adults.

Data were reviewed by ACIP from two clinical trials conducted among U.S. adults aged 19–64 years. In both trials, the safety and reactogenicity profiles of Boostrix generally were similar to those of Adacel. For diphtheria and tetanus, immune responses to Boostrix were noninferior. Pertussis antibody concentrations for pertussis toxoid (PT), filamentous hemagglutinin (FHA), and pertactin in the first clinical trial were noninferior to those of infants after a primary diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccination

series with Infanrix (GlaxoSmithKline Biologicals, Rixensart, Belgium) in a clinical trial in which efficacy of DTaP also was demonstrated (*4*–*6*). Boostrix contains the same three pertussis antigens as Infanrix but in reduced quantities.

Coadministration with influenza vaccine was evaluated in the second trial. In this trial, seroresponse to concomitantly or separately administered Boostrix and influenza vaccine Fluarix (GlaxoSmithKline Biologicals, Rixensart, Belgium) were noninferior for diphtheria, tetanus, PT, and influenza. Noninferiority criteria were marginally exceeded for FHA and pertactin responses; however, serologic correlates of protection for pertussis have not been established. Antibody levels in both groups exceeded those observed in infants after primary DTaP vaccination, in trials in which efficacy of DTaP against pertussis disease was subsequently demonstrated. Decreased immune response to Tdap pertussis antigens when coadministered with influenza vaccine has been reported previously for other U.S.-licensed Tdap vaccines (*7*).

Indications and Guidance for Use

For prevention of tetanus, diphtheria, and pertussis, adolescents and adults are recommended to receive a one-time booster dose of Tdap. Adolescents aged 11–18 years who have completed the recommended childhood diphtheria and tetanus toxoids and pertussis vaccine (DTP)/DTaP vaccination series should receive a single dose of Tdap instead of tetanus and diphtheria toxoids (Td) vaccine, preferably at a preventive care visit at age 11 or 12 years (*1*). For adults aged 19–64 years who previously have not received a dose of Tdap, a single dose of Tdap should replace a single decennial Td booster dose (*2*).

Boostrix is now indicated for use as a single-dose booster immunization in persons aged 10–64 years. The recommended interval between 2 doses of Td-containing vaccines in adolescents and adults is at least 5 years because of concern over increased reactogenicity (*1,2*); however, data are available suggesting that intervals as short as approximately 2 years are safe (*8*). An interval <5 years between Td and Tdap may be used if increased risk for acquiring pertussis (e.g., during outbreaks or periods of increased pertussis activity in the community, or among health-care workers) exists (*1,2*). The safety and effectiveness of Tdap have not been established in pregnant women, nursing mothers, and children aged <10 years. Current doses in stock can be used for persons aged 10–64 years.

References

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Notice to Readers

Availability of Provisional Tuberculosis and HIV/AIDS Data in Quarterly Table IV

CDC is in the process of 1) implementing Public Health Information Network tuberculosis (TB) case notification message standards, which will simplify reporting of TB cases, and 2) upgrading the national surveillance data management system for human immunodeficiency virus/acquired immunodeficiency syndrome. As a result, the quarterly Table IV scheduled for this issue of *MMWR* is not being published.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending April 11, 2009 (14th week)*

Disease	Current week	Cum 2009	5-year weekly average†	Total cases reported for previous years 2008	2007	2006	2005	2004	States reporting cases during current week (No.)
Anthrax	—	—	—	—	1	1	—	—	
Botulism:									
foodborne	—	5	0	17	32	20	19	16	
infant	1	14	2	105	85	97	85	87	PA (1)
other (wound and unspecified)	—	7	1	19	27	48	31	30	
Brucellosis	1	14	2	78	131	121	120	114	NE (1)
Chancroid	1	13	1	29	23	33	17	30	VA (1)
Cholera	—	1	0	3	7	9	8	6	
Cyclosporiasis§	—	25	2	137	93	137	543	160	
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases§,¶:									
California serogroup	—	—	0	62	55	67	80	112	
eastern equine	—	—	—	4	4	8	21	6	
Powassan	—	—	—	2	7	1	1	1	
St. Louis	—	—	0	13	9	10	13	12	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,**:									
Ehrlichia chaffeensis	3	34	2	917	828	578	506	338	MO (1), MD (1), CA (1)
Ehrlichia ewingii	—	—	—	8	—	—	—	—	
Anaplasma phagocytophilum	1	12	3	662	834	646	786	537	NC (1)
undetermined	—	5	1	70	337	231	112	59	
Haemophilus influenzae,††									
invasive disease (age <5 yrs):									
serotype b	—	10	0	25	22	29	9	19	
nonserotype b	2	61	3	174	199	175	135	135	SC (1), WA (1)
unknown serotype	2	53	4	176	180	179	217	177	FL (1), WA (1)
Hansen disease§	—	15	2	78	101	66	87	105	
Hantavirus pulmonary syndrome§	—	1	0	18	32	40	26	24	
Hemolytic uremic syndrome, postdiarrheal§	1	30	3	269	292	288	221	200	CA (1)
Hepatitis C viral, acute	11	188	15	863	845	766	652	720	PA (1), OH (1), MI (1), IA (2), MO (1), NC (2), KY (1), CO (1), OR (1)
HIV infection, pediatric (age <13 years)§§	—	—	3	—	—	—	380	436	
Influenza-associated pediatric mortality§,¶¶	8	54	2	88	77	43	45	—	PA (2), MI (2), DE (1), TN (1), TX (2)
Listeriosis	4	120	11	752	808	884	896	753	NY (1), MO (1), TN (1), AL (1)
Measles***	1	14	2	138	43	55	66	37	PA (1)
Meningococcal disease, invasive†††:									
A, C, Y, and W-135	1	86	7	328	325	318	297	—	FL (1)
serogroup B	—	46	3	180	167	193	156	—	
other serogroup	—	6	1	30	35	32	27	—	
unknown serogroup	11	137	17	613	550	651	765	—	NY (1), OH (1), FL (2), CO (1), AZ (2), CA (4)
Mumps	4	83	91	436	800	6,584	314	258	NY (1), AZ (1), WA (2)
Novel influenza A virus infections	—	1	—	2	4	N	N	N	
Plague	—	—	—	1	7	17	8	3	
Poliomyelitis, paralytic	—	—	—	—	—	—	1	—	
Polio virus infection, nonparalytic§	—	—	—	—	—	N	N	N	
Psittacosis§	—	5	0	9	12	21	16	12	
Q fever total§,§§§:	—	11	2	101	171	169	136	70	
acute	—	8	1	90	—	—	—	—	
chronic	—	3	—	11	—	—	—	—	
Rabies, human	—	—	—	1	1	3	2	7	
Rubella¶¶¶	—	—	0	18	12	11	11	10	
Rubella, congenital syndrome	—	1	0	—	—	1	1	—	
SARS-CoV§,****	—	—	—	—	—	—	—	—	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	—	48	5	149	132	125	129	132	
Syphilis, congenital (age <1 yr)	—	44	7	348	430	349	329	353	
Tetanus	—	4	0	19	28	41	27	34	
Toxic-shock syndrome (staphylococcal)§	2	19	1	73	92	101	90	95	NV (1), CA (1)
Trichinellosis	—	7	0	37	5	15	16	5	
Tularemia	1	6	0	118	137	95	154	134	OH (1)
Typhoid fever	3	92	6	441	434	353	324	322	CT (1), MD (1), FL (1)
Vancomycin-intermediate *Staphylococcus aureus*§	—	14	0	46	37	6	2	—	
Vancomycin-resistant *Staphylococcus aureus*§	—	—	0	—	2	1	3	1	
Vibriosis (noncholera *Vibrio* species infections)§	3	38	2	487	549	N	N	N	FL (1), WA (1), CA (1)
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 April 11, 2009 (14th week)*

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

* Incidence data for reporting year 2008 and 2009 are provisional, whereas data for 2004, 2005, 2006, and 2007 are finalized.

† Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf.

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

¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.

** The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).

†† Data for *H. influenzae* (all ages, all serotypes) are available in Table II.

§§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.

¶¶ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. Fifty-three influenza-associated pediatric deaths occurring during the 2008-09 influenza season have been reported.

*** The one measles case reported for the current week was imported.

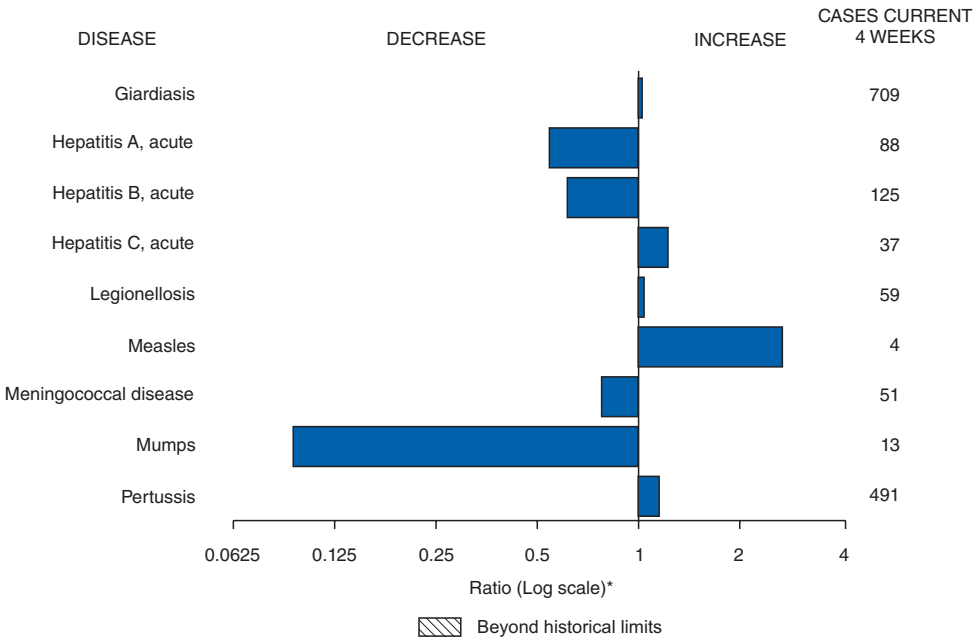
††† Data for meningococcal disease (all serogroups) are available in Table II.

§§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.

¶¶¶ No rubella cases were reported for the current week.

**** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals April 11, 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.

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TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Chlamydia†					Coccidiodomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 week		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	11,298	21,847	25,374	274,240	300,959	113	56	231	1,974	607	80	106	473	984	998
New England	730	746	1,656	10,574	9,325	—	0	0	—	1	3	5	23	61	102
Connecticut	90	224	1,306	2,880	2,158	N	0	0	N	N	—	0	7	7	41
Maine§	47	48	72	714	720	N	0	0	N	N	1	0	6	5	4
Massachusetts	541	326	954	5,666	4,736	N	0	0	N	N	1	2	13	29	29
New Hampshire	4	36	63	290	567	—	0	0	—	1	—	1	4	9	14
Rhode Island§	48	53	208	741	834	—	0	0	—	—	—	0	3	1	2
Vermont§	—	21	53	283	310	N	0	0	N	N	1	1	7	10	12
Mid. Atlantic	2,449	2,854	6,807	40,214	37,134	—	0	0	—	—	8	13	35	117	131
New Jersey	—	398	762	4,102	6,244	N	0	0	N	N	—	0	4	—	12
New York (Upstate)	668	565	4,554	8,178	6,603	N	0	0	N	N	3	4	17	38	28
New York City	1,203	1,107	3,389	16,841	12,644	N	0	0	N	N	—	1	8	18	26
Pennsylvania	578	797	1,074	11,093	11,643	N	0	0	N	N	5	5	15	61	65
E.N. Central	1,279	3,327	4,294	36,541	51,186	—	1	3	8	14	16	25	125	219	220
Illinois	—	1,056	1,315	9,268	15,394	N	0	0	N	N	—	2	13	14	25
Indiana	369	378	713	5,704	5,683	N	0	0	N	N	—	3	13	25	21
Michigan	691	834	1,225	12,584	12,078	—	0	3	2	11	1	5	13	49	45
Ohio	58	797	1,346	4,959	12,311	—	0	2	6	3	14	6	59	72	56
Wisconsin	161	289	439	4,026	5,720	N	0	0	N	N	1	9	46	59	73
W.N. Central	694	1,323	1,550	17,065	17,787	—	0	1	1	—	13	16	68	130	134
Iowa	—	182	256	2,445	2,359	N	0	0	N	N	2	4	30	28	36
Kansas	210	185	401	2,634	2,363	N	0	0	N	N	2	1	8	19	12
Minnesota	—	267	310	2,696	4,005	—	0	0	—	—	5	4	14	23	32
Missouri	347	491	576	7,048	6,499	—	0	1	1	—	3	3	13	28	20
Nebraska§	88	101	254	1,277	1,306	N	0	0	N	N	1	2	8	15	20
North Dakota	—	28	60	156	521	N	0	0	N	N	—	0	2	1	1
South Dakota	49	57	85	809	734	N	0	0	N	N	—	1	9	16	13
S. Atlantic	2,518	3,840	4,973	46,451	54,320	—	0	1	4	2	21	18	47	216	180
Delaware	46	70	163	1,306	942	—	0	1	1	—	—	0	1	—	4
District of Columbia	—	129	229	1,894	1,797	—	0	0	—	—	—	0	2	—	2
Florida	1,187	1,401	1,571	19,860	18,073	N	0	0	N	N	10	8	35	74	83
Georgia	1	611	1,274	3,111	9,520	N	0	0	N	N	4	5	13	89	55
Maryland§	548	434	692	5,622	5,861	—	0	1	3	2	2	1	4	9	3
North Carolina	—	0	460	—	2,352	N	0	0	N	N	—	0	16	26	9
South Carolina§	—	527	917	6,259	7,533	N	0	0	N	N	5	1	4	10	8
Virginia§	712	616	908	7,366	7,293	N	0	0	N	N	—	1	4	6	9
West Virginia	24	64	102	1,033	949	N	0	0	N	N	—	0	3	2	7
E.S. Central	614	1,679	2,152	23,102	21,584	—	0	0	—	—	3	3	9	29	31
Alabama§	—	467	553	5,134	6,808	N	0	0	N	N	2	1	6	7	15
Kentucky	48	253	380	3,197	2,772	N	0	0	N	N	1	1	4	8	4
Mississippi	—	419	841	6,456	4,542	N	0	0	N	N	—	0	2	4	3
Tennessee§	566	545	797	8,315	7,462	N	0	0	N	N	—	1	5	10	9
W.S. Central	367	2,862	3,959	35,954	38,780	—	0	1	—	1	—	8	256	37	45
Arkansas§	304	275	392	4,128	3,895	N	0	0	N	N	—	1	7	3	3
Louisiana	—	434	1,090	4,563	4,844	—	0	1	—	1	—	1	5	5	9
Oklahoma	63	184	407	1,602	3,361	N	0	0	N	N	—	1	16	10	11
Texas§	—	1,931	2,496	25,661	26,680	N	0	0	N	N	—	5	250	19	22
Mountain	558	1,261	1,985	14,789	19,615	75	2	148	1,365	35	9	7	34	71	76
Arizona	173	475	645	5,009	6,313	74	0	147	1,338	—	—	0	2	7	—
Colorado	—	144	588	1,518	4,775	N	0	0	N	N	6	1	12	23	19
Idaho§	85	67	314	918	1,101	N	0	0	N	N	1	1	5	9	15
Montana§	51	59	87	818	844	N	0	0	N	N	2	0	3	6	10
Nevada§	115	175	415	2,854	2,729	1	1	7	21	16	—	0	4	6	3
New Mexico§	109	150	455	2,125	1,941	—	0	2	1	11	—	2	23	13	14
Utah	1	101	252	973	1,609	—	0	1	5	8	—	0	6	1	9
Wyoming§	24	33	97	574	303	—	0	1	—	—	—	0	2	6	6
Pacific	2,089	3,665	4,461	49,550	51,228	38	37	172	596	554	7	8	30	104	79
Alaska	115	88	200	1,218	1,234	N	0	0	N	N	—	0	1	1	1
California	1,272	2,874	3,318	38,210	39,509	38	37	172	596	554	4	5	14	58	52
Hawaii	30	112	248	1,372	1,531	N	0	0	N	N	—	0	1	—	1
Oregon§	224	185	631	2,597	2,887	N	0	0	N	N	2	1	5	36	14
Washington	448	405	557	6,153	6,067	N	0	0	N	N	1	1	17	9	11
American Samoa	—	0	14	—	42	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	5	24	—	34	—	0	0	—	—	—	0	0	—	—
Puerto Rico	154	140	333	2,132	1,450	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	1	9	22	41	201	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.
† Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Giardiasis					Gonorrhea					*Haemophilus influenzae*, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	203	313	632	3,576	3,794	2,327	5,829	6,842	62,951	84,769	41	47	109	718	854
New England	9	28	65	292	349	89	100	301	1,327	1,263	—	3	17	45	46
Connecticut	—	6	14	60	81	15	50	275	560	455	—	0	11	10	1
Maine§	—	4	12	49	32	9	2	7	43	24	—	0	2	5	5
Massachusetts	8	11	27	117	154	57	38	113	596	653	—	1	5	26	31
New Hampshire	—	3	11	21	28	2	2	6	30	27	—	0	2	2	5
Rhode Island§	—	1	8	11	21	6	5	16	87	94	—	0	7	1	1
Vermont§	1	3	15	34	33	—	1	3	11	10	—	0	3	1	3
Mid. Atlantic	28	61	118	621	747	424	608	1,149	7,775	8,249	8	10	25	132	160
New Jersey	—	8	20	—	132	—	87	144	839	1,591	—	1	7	10	29
New York (Upstate)	18	23	76	283	233	119	116	666	1,495	1,498	5	3	20	42	38
New York City	1	15	30	173	203	214	208	584	3,053	2,124	—	2	4	16	31
Pennsylvania	9	16	46	165	179	91	200	267	2,388	3,036	3	4	10	64	62
E.N. Central	29	49	88	498	575	380	1,175	1,579	11,267	18,353	3	7	18	76	146
Illinois	—	11	32	62	154	—	364	480	2,670	5,104	—	2	7	20	48
Indiana	N	0	7	N	N	130	146	254	1,890	2,343	—	1	13	10	31
Michigan	2	12	22	131	122	179	312	657	4,057	4,538	—	1	2	7	7
Ohio	23	17	31	210	213	26	264	531	1,518	4,683	2	2	6	32	49
Wisconsin	4	9	20	95	86	45	78	141	1,132	1,685	1	0	2	7	11
W.N. Central	54	26	143	319	369	144	315	391	3,694	4,493	3	3	14	50	62
Iowa	3	6	18	63	68	—	28	53	327	415	—	0	1	—	1
Kansas	5	3	11	34	26	34	45	83	652	565	1	0	4	7	6
Minnesota	43	0	106	45	115	—	54	78	438	914	—	0	10	11	11
Missouri	3	8	22	122	95	85	146	193	1,807	2,124	2	1	4	21	32
Nebraska§	—	4	10	34	41	20	27	50	364	372	—	0	2	8	8
North Dakota	—	0	4	3	8	—	2	7	6	33	—	0	3	3	4
South Dakota	—	2	11	18	16	5	8	20	100	70	—	0	0	—	—
S. Atlantic	37	60	108	876	588	656	1,277	1,722	12,892	18,957	14	12	24	217	243
Delaware	—	1	3	5	11	9	17	35	223	329	—	0	2	1	2
District of Columbia	—	0	5	—	10	—	57	101	774	568	—	0	2	—	4
Florida	31	31	57	497	273	329	428	518	5,671	6,343	8	4	9	84	57
Georgia	—	9	63	186	136	2	237	484	1,013	3,564	3	2	9	49	58
Maryland§	5	5	10	62	51	132	114	210	1,491	1,656	2	1	5	29	44
North Carolina	N	0	0	N	N	—	0	203	—	1,269	—	1	6	19	23
South Carolina§	1	2	9	28	29	—	175	325	1,852	2,694	1	1	7	13	16
Virginia§	—	8	31	87	60	180	181	321	1,719	2,304	—	1	5	11	31
West Virginia	—	1	5	11	18	4	12	26	149	230	—	0	3	11	8
E.S. Central	4	8	22	76	107	168	549	771	6,798	7,847	3	3	6	41	51
Alabama§	2	4	12	40	61	—	174	216	1,607	2,786	2	0	2	11	6
Kentucky	N	0	0	N	N	16	88	153	914	1,060	—	0	2	2	4
Mississippi	N	0	0	N	N	—	143	253	1,984	1,763	—	0	1	—	8
Tennessee§	2	4	13	36	46	152	165	301	2,293	2,238	1	2	5	28	33
W.S. Central	3	7	21	65	64	93	952	1,300	10,217	13,578	3	2	17	30	37
Arkansas§	—	2	8	17	26	75	84	167	1,186	1,284	—	0	2	3	1
Louisiana	—	2	10	27	24	1	165	410	1,520	2,462	—	0	1	4	3
Oklahoma	3	3	11	21	14	17	69	142	570	1,300	3	1	16	23	29
Texas§	N	0	0	N	N	—	605	728	6,941	8,532	—	0	1	—	4
Mountain	16	27	62	272	320	83	195	339	1,684	3,033	4	4	10	88	70
Arizona	4	3	8	44	30	27	63	84	567	962	1	0	6	36	—
Colorado	7	10	27	89	111	—	55	101	205	774	1	1	5	22	25
Idaho§	3	3	14	28	34	3	3	13	27	55	—	0	4	1	1
Montana§	—	2	9	24	21	—	2	6	24	26	—	0	1	1	1
Nevada§	1	1	8	13	29	17	34	129	528	710	1	0	2	8	6
New Mexico§	—	1	8	16	30	34	23	48	262	332	—	1	2	9	16
Utah	1	7	18	44	55	—	6	19	52	159	1	0	2	11	21
Wyoming§	—	0	3	14	10	2	2	9	19	15	—	0	2	—	—
Pacific	23	56	152	557	675	290	577	672	7,297	8,996	3	2	6	39	39
Alaska	1	2	10	18	21	14	12	24	192	131	—	0	2	3	4
California	15	35	59	404	488	213	476	575	5,958	7,369	—	0	3	7	13
Hawaii	—	0	4	2	8	8	12	21	147	155	—	0	2	11	5
Oregon§	1	7	18	73	117	11	23	48	304	394	1	1	4	15	17
Washington	6	8	99	60	41	44	55	82	696	947	2	0	2	3	—
American Samoa	—	0	0	—	—	—	0	1	—	2	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	1	15	—	18	—	0	0	—	—
Puerto Rico	—	3	15	25	36	3	5	22	51	65	—	0	1	—	—
U.S. Virgin Islands	—	0	0	—	—	—	2	6	12	33	N	0	0	N	N

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Hepatitis (viral, acute), by type† A: Current week	A: Previous 52 weeks Med	A: Previous 52 weeks Max	A: Cum 2009	A: Cum 2008	B: Current week	B: Previous 52 weeks Med	B: Previous 52 weeks Max	B: Cum 2009	B: Cum 2008	Legionellosis: Current week	Legionellosis: Previous 52 weeks Med	Legionellosis: Previous 52 weeks Max	Legionellosis: Cum 2009	Legionellosis: Cum 2008
United States	22	41	74	438	667	24	71	147	821	938	17	51	149	371	493
New England	—	2	8	24	41	—	1	4	7	24	—	2	18	13	22
Connecticut	—	0	4	7	7	—	0	2	3	9	—	0	5	5	4
Maine§	—	0	5	1	3	—	0	2	3	4	—	0	2	—	1
Massachusetts	—	1	3	12	23	—	0	2	—	7	—	1	7	6	7
New Hampshire	—	0	2	1	1	—	0	2	1	2	—	0	5	—	4
Rhode Island§	—	0	2	3	7	—	0	1	—	1	—	0	14	1	3
Vermont§	—	0	1	—	—	—	0	1	—	1	—	0	1	1	3
Mid. Atlantic	3	5	12	52	95	1	7	17	58	131	6	15	59	95	105
New Jersey	—	1	5	5	22	—	1	5	3	45	—	2	14	6	13
New York (Upstate)	1	1	4	13	18	1	1	11	18	14	5	5	24	38	23
New York City	—	2	6	14	27	—	1	6	9	24	—	1	12	5	14
Pennsylvania	2	1	4	20	28	—	3	8	28	48	1	6	33	46	55
E.N. Central	1	6	16	51	97	2	9	18	98	125	2	8	41	67	128
Illinois	—	2	10	9	29	—	2	7	12	33	—	1	13	—	20
Indiana	—	0	4	3	5	1	1	7	13	9	—	1	6	6	9
Michigan	—	2	5	19	45	1	3	8	33	44	—	2	16	14	35
Ohio	1	1	4	15	9	—	2	14	40	33	2	3	18	44	60
Wisconsin	—	0	3	5	9	—	0	0	—	6	—	0	3	3	4
W.N. Central	—	3	15	23	79	2	2	15	46	17	—	2	8	4	24
Iowa	—	1	7	—	34	—	0	3	6	7	—	0	2	2	5
Kansas	—	0	3	2	5	—	0	3	—	3	—	0	1	1	1
Minnesota	—	0	12	5	9	—	0	11	6	—	—	0	4	—	2
Missouri	—	1	3	10	9	—	1	5	24	6	—	0	7	—	9
Nebraska§	—	0	5	6	21	2	0	3	9	1	—	0	3	—	6
North Dakota	—	0	1	—	—	—	0	1	—	—	—	0	1	1	—
South Dakota	—	0	1	—	1	—	0	1	1	—	—	0	1	—	1
S. Atlantic	10	7	16	120	89	9	19	34	292	243	5	9	22	94	94
Delaware	—	0	1	—	1	—	0	2	8	7	—	0	2	—	1
District of Columbia	U	0	0	U	U	U	0	0	U	U	—	0	2	—	3
Florida	6	3	8	65	41	3	7	11	95	87	3	3	7	43	40
Georgia	2	1	4	18	12	1	3	8	37	36	—	1	5	17	10
Maryland§	—	1	4	13	11	—	2	5	30	26	2	2	10	16	19
North Carolina	—	0	9	12	9	3	0	19	90	24	—	0	7	13	5
South Carolina§	2	0	3	7	2	—	1	4	4	24	—	0	2	1	2
Virginia§	—	1	6	5	10	1	2	10	13	23	—	1	5	4	11
West Virginia	—	0	1	—	3	1	1	6	15	16	—	0	3	—	3
E.S. Central	—	1	9	8	9	4	8	13	87	102	—	2	10	18	23
Alabama§	—	0	2	1	1	—	2	7	29	27	—	0	2	2	2
Kentucky	—	0	3	1	4	2	2	7	21	28	—	1	4	8	13
Mississippi	—	0	2	4	—	—	1	3	5	12	—	0	1	—	—
Tennessee§	—	0	6	2	4	2	3	8	32	35	—	0	5	8	8
W.S. Central	—	4	15	32	62	4	12	56	117	193	3	2	17	15	11
Arkansas§	—	0	1	1	1	—	0	4	2	10	—	0	2	—	—
Louisiana	—	0	2	2	4	—	1	4	9	24	—	0	2	1	1
Oklahoma	—	0	5	1	3	2	2	10	26	17	—	0	6	1	—
Texas§	—	4	11	28	54	2	8	45	80	142	3	1	16	13	10
Mountain	2	2	6	35	37	—	2	8	35	25	—	2	8	23	27
Arizona	—	0	6	18	—	—	0	3	14	—	—	0	2	8	7
Colorado	1	0	2	5	11	—	0	3	7	6	—	0	2	1	3
Idaho§	—	0	3	—	8	—	0	2	1	2	—	0	1	—	1
Montana§	—	0	1	2	—	—	0	1	—	—	—	0	2	4	2
Nevada§	1	0	3	5	2	—	1	3	6	12	—	0	2	5	4
New Mexico§	—	0	1	2	11	—	0	2	4	4	—	0	2	—	3
Utah	—	0	2	3	2	—	0	3	3	1	—	0	2	5	7
Wyoming§	—	0	0	—	3	—	0	1	—	—	—	0	0	—	—
Pacific	6	8	25	93	158	2	7	42	81	78	1	4	10	42	59
Alaska	—	0	1	2	1	—	0	1	1	2	—	0	1	2	—
California	2	7	25	72	125	2	5	28	64	56	1	3	8	33	50
Hawaii	—	0	2	2	3	—	0	1	1	3	—	0	1	1	2
Oregon§	—	0	2	6	12	—	1	3	8	9	—	0	2	3	4
Washington	4	0	7	11	17	—	1	14	7	8	—	0	4	3	3
American Samoa	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	4	6	7	—	0	5	1	14	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serotypes				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	77	530	1,689	1,619	2,217	8	24	49	220	191	12	18	42	275	429
New England	4	89	550	181	485	—	1	6	7	8	—	0	4	13	14
Connecticut	—	0	0	—	—	—	0	3	—	—	—	0	1	1	1
Maine§	3	5	73	32	37	—	0	0	—	1	—	0	1	1	1
Massachusetts	1	39	375	67	268	—	0	4	6	5	—	0	3	8	12
New Hampshire	—	17	143	55	75	—	0	2	—	1	—	0	1	1	—
Rhode Island§	—	0	74	5	98	—	0	1	—	1	—	0	1	1	—
Vermont§	—	4	41	22	7	—	0	1	1	—	—	0	1	1	—
Mid. Atlantic	52	270	1,395	825	1,097	—	5	16	42	48	1	2	5	23	47
New Jersey	—	36	220	171	319	—	1	4	—	7	—	0	1	1	8
New York (Upstate)	26	99	1,332	328	125	—	1	10	14	4	1	0	2	5	15
New York City	—	4	36	—	41	—	3	10	22	30	—	0	2	3	6
Pennsylvania	26	97	519	326	612	—	1	3	6	7	—	1	4	14	18
E.N. Central	3	11	147	29	74	1	3	7	27	37	1	3	8	47	70
Illinois	—	0	13	—	3	—	1	5	8	18	—	1	6	6	27
Indiana	—	0	8	1	—	—	0	2	5	1	—	0	4	10	10
Michigan	1	1	10	3	4	—	0	2	4	6	—	0	3	8	11
Ohio	—	0	6	2	3	1	0	2	10	11	1	1	4	17	14
Wisconsin	2	8	129	23	64	—	0	3	—	1	—	0	2	6	8
W.N. Central	10	9	236	33	9	—	1	10	6	6	—	2	7	22	40
Iowa	—	1	9	4	8	—	0	3	1	—	—	0	2	1	8
Kansas	—	0	4	2	1	—	0	2	1	—	—	0	2	6	1
Minnesota	10	6	226	26	—	—	0	8	1	1	—	0	4	5	15
Missouri	—	0	1	—	—	—	0	3	3	1	—	0	2	8	11
Nebraska§	—	0	2	—	—	—	0	1	—	4	—	0	1	2	4
North Dakota	—	0	10	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	1	1	—	—	0	0	—	—	—	0	1	—	1
S. Atlantic	6	75	224	488	493	4	6	15	93	48	3	3	9	53	56
Delaware	1	12	36	85	122	—	0	1	1	1	—	0	1	—	—
District of Columbia	—	2	11	—	27	—	0	2	—	—	—	0	0	—	—
Florida	1	1	6	13	7	3	1	7	28	14	3	1	4	27	22
Georgia	—	0	6	13	—	—	1	5	15	10	—	0	2	6	5
Maryland§	1	30	162	270	274	—	1	7	27	18	—	0	3	1	4
North Carolina	1	0	6	15	2	1	0	7	14	2	—	0	3	9	3
South Carolina§	—	0	2	3	4	—	0	1	1	1	—	0	2	5	10
Virginia§	2	15	61	80	51	—	1	3	6	2	—	0	2	4	11
West Virginia	—	1	11	9	6	—	0	1	1	—	—	0	1	1	1
E.S. Central	—	1	5	4	2	1	0	2	7	2	—	0	6	8	23
Alabama§	—	0	2	—	—	—	0	1	2	1	—	0	2	—	1
Kentucky	—	0	2	—	—	1	0	1	1	1	—	0	1	2	5
Mississippi	—	0	1	—	—	—	0	1	—	—	—	0	2	1	6
Tennessee§	—	0	3	4	2	—	0	2	4	—	—	0	3	5	11
W.S. Central	—	2	21	4	10	—	1	10	4	10	—	2	10	21	44
Arkansas§	—	0	0	—	—	—	0	0	—	—	—	0	2	4	5
Louisiana	—	0	1	—	—	—	0	1	—	—	—	0	3	7	14
Oklahoma	—	0	1	—	—	—	0	2	—	1	—	0	3	2	6
Texas§	—	2	21	4	10	—	1	10	4	9	—	1	9	8	19
Mountain	—	1	14	7	5	—	0	3	2	8	3	1	4	28	23
Arizona	—	0	2	1	2	—	0	2	—	2	2	0	2	8	2
Colorado	—	0	1	1	1	—	0	1	1	3	1	0	2	9	5
Idaho§	—	0	1	2	1	—	0	1	—	—	—	0	1	4	2
Montana§	—	0	14	1	—	—	0	0	—	—	—	0	1	2	1
Nevada§	—	0	2	2	—	—	0	1	—	3	—	0	1	2	5
New Mexico§	—	0	2	—	1	—	0	1	—	—	—	0	1	1	3
Utah	—	0	1	—	—	—	0	1	1	—	—	0	1	1	4
Wyoming§	—	0	1	—	—	—	0	0	—	—	—	0	1	1	1
Pacific	2	4	19	48	42	2	3	11	32	24	4	4	13	60	112
Alaska	—	0	2	1	—	—	0	2	1	—	—	0	2	2	—
California	2	3	8	41	36	2	2	8	22	18	4	2	8	32	92
Hawaii	N	0	0	N	N	—	0	1	1	1	—	0	1	1	1
Oregon§	—	1	3	6	6	—	0	2	4	3	—	1	7	19	10
Washington	—	0	12	—	—	—	0	7	4	2	—	0	5	6	9
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	2	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	—	—	0	1	—	2
U.S. Virgin Islands	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Data for meningococcal disease, invasive caused by serogroups A, C, Y, and W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	210	217	1,495	2,624	1,915	31	92	162	648	1,032	7	40	148	177	65
New England	—	16	34	128	278	7	8	21	73	72	—	0	2	1	1
Connecticut	—	0	4	—	22	5	3	17	31	37	—	0	0	—	—
Maine†	—	1	7	26	12	—	1	5	12	10	—	0	1	1	—
Massachusetts	—	12	30	81	216	—	0	0	—	—	—	0	1	—	1
New Hampshire	—	1	4	12	8	1	1	8	6	7	—	0	1	—	—
Rhode Island†	—	1	6	3	15	—	1	3	7	6	—	0	2	—	—
Vermont†	—	0	2	6	5	1	1	6	17	12	—	0	0	—	—
Mid. Atlantic	13	22	64	200	238	7	31	67	99	295	—	2	30	3	16
New Jersey	—	3	12	17	39	—	0	0	—	—	—	1	6	—	8
New York (Upstate)	7	6	41	47	62	7	9	20	79	86	—	0	29	—	—
New York City	3	0	20	20	29	—	0	2	—	7	—	0	2	3	5
Pennsylvania	3	9	34	116	108	—	21	52	20	202	—	0	2	—	3
E.N. Central	33	36	174	576	481	—	3	29	7	2	—	1	15	4	1
Illinois	—	12	45	119	44	—	1	21	2	1	—	1	11	1	1
Indiana	—	2	96	35	12	—	0	2	—	—	—	0	3	—	—
Michigan	2	8	21	145	48	—	1	9	5	—	—	0	1	1	—
Ohio	31	10	57	269	361	—	1	7	—	1	—	0	4	2	—
Wisconsin	—	2	7	8	16	N	0	0	N	N	—	0	1	—	—
W.N. Central	114	28	839	576	163	5	5	17	57	34	—	4	33	8	3
Iowa	—	4	21	34	26	—	0	5	6	3	—	0	2	—	—
Kansas	2	2	12	39	20	3	1	9	30	15	—	0	0	—	—
Minnesota	89	2	781	112	24	2	0	10	7	8	—	0	0	—	—
Missouri	22	10	51	330	77	—	1	8	6	—	—	4	32	8	3
Nebraska†	1	3	32	53	12	—	0	0	—	—	—	0	4	—	—
North Dakota	—	0	18	2	—	—	0	9	3	3	—	0	0	—	—
South Dakota	—	0	10	6	4	—	0	2	5	5	—	0	1	—	—
S. Atlantic	22	21	71	344	164	4	24	78	321	537	7	16	71	150	28
Delaware	—	0	3	4	2	—	0	0	—	—	—	0	5	1	1
District of Columbia	—	0	1	—	2	—	0	0	—	—	—	0	2	—	—
Florida	10	7	20	116	32	—	0	14	41	138	—	0	3	1	1
Georgia	—	2	9	6	9	—	0	47	88	99	—	1	8	5	4
Maryland†	1	2	9	21	26	—	7	17	65	119	—	1	7	10	7
North Carolina	6	0	65	125	40	N	2	4	N	N	6	9	55	119	11
South Carolina†	5	2	11	38	21	—	0	0	—	—	—	1	9	4	—
Virginia†	—	3	24	31	28	—	10	24	104	155	1	2	15	9	2
West Virginia	—	0	2	3	4	4	1	6	23	26	—	0	1	1	2
E.S. Central	3	10	33	154	63	2	3	7	19	39	—	4	23	7	7
Alabama†	2	1	5	29	17	—	0	0	—	—	—	1	8	4	4
Kentucky	—	4	15	77	8	2	1	4	19	4	—	0	1	—	—
Mississippi	—	2	5	17	26	—	0	1	—	1	—	0	3	1	1
Tennessee†	1	2	14	31	12	—	2	6	—	34	—	2	19	2	2
W.S. Central	—	33	276	264	134	5	1	11	11	13	—	2	41	3	6
Arkansas†	—	1	20	15	17	5	0	6	7	11	—	0	14	1	—
Louisiana	—	2	7	20	3	—	0	0	—	—	—	0	1	—	2
Oklahoma	—	0	29	9	2	—	0	10	4	1	—	0	26	1	—
Texas†	—	28	232	220	112	—	0	1	—	1	—	1	6	1	4
Mountain	11	12	29	226	210	—	2	9	30	12	—	1	3	1	3
Arizona	2	0	4	29	—	N	0	0	N	N	—	0	2	—	1
Colorado	4	3	12	69	55	—	0	0	—	—	—	0	1	—	—
Idaho†	5	1	5	22	7	—	0	0	—	—	—	0	1	—	—
Montana†	—	0	4	5	54	—	0	4	10	—	—	0	1	—	—
Nevada†	—	0	7	6	4	—	0	5	—	—	—	0	2	—	—
New Mexico†	—	1	10	22	17	—	0	3	10	10	—	0	1	—	1
Utah	—	4	19	72	69	—	0	6	—	—	—	0	1	1	1
Wyoming†	—	0	2	1	4	—	0	4	10	2	—	0	2	—	—
Pacific	14	24	81	156	184	1	4	13	31	28	—	0	1	—	—
Alaska	1	3	21	25	23	1	0	2	7	10	N	0	0	N	N
California	—	6	23	13	65	—	3	12	24	18	—	0	1	—	—
Hawaii	—	0	3	6	4	—	0	0	—	—	N	0	0	N	N
Oregon†	1	3	16	47	40	—	0	2	—	—	—	0	1	—	—
Washington	12	6	77	65	52	—	0	0	—	—	—	0	0	—	—
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	1	1	—	—	1	5	10	14	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

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U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Salmonellosis					Shiga toxin-producing *E. coli* (STEC)†					Shigellosis				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	318	971	2,158	7,323	7,402	16	81	218	564	873	148	432	815	3,628	3,556
New England	7	31	116	371	764	—	4	15	38	76	1	3	10	48	74
Connecticut	—	0	90	90	491	—	0	15	15	47	—	0	4	4	40
Maine§	—	2	8	21	28	—	0	3	—	2	—	0	6	2	1
Massachusetts	7	20	51	192	195	—	2	11	12	18	1	3	9	35	28
New Hampshire	—	3	10	31	21	—	1	3	9	6	—	0	1	1	1
Rhode Island§	—	2	9	25	18	—	0	3	—	1	—	0	1	4	3
Vermont§	—	1	7	12	11	—	0	6	2	2	—	0	2	2	1
Mid. Atlantic	33	105	203	778	903	2	8	27	41	304	19	54	96	643	385
New Jersey	—	21	55	59	224	—	2	12	3	31	—	19	38	197	88
New York (Upstate)	23	29	65	227	187	2	3	12	25	250	4	9	35	47	89
New York City	1	22	54	191	231	—	1	5	10	9	—	12	35	119	176
Pennsylvania	9	28	78	301	261	—	0	8	3	14	15	9	30	280	32
E.N. Central	19	98	194	854	850	1	11	75	69	91	36	83	128	766	739
Illinois	—	27	72	165	256	—	1	10	7	17	—	17	35	117	238
Indiana	—	8	53	49	68	—	1	14	9	4	—	6	39	16	218
Michigan	8	18	38	194	166	—	2	43	17	20	2	5	24	82	16
Ohio	11	27	65	301	213	1	3	17	20	20	30	42	80	462	189
Wisconsin	—	14	50	145	147	—	3	20	16	30	4	8	33	89	78
W.N. Central	21	53	148	592	464	3	12	59	70	66	9	14	39	118	211
Iowa	4	9	16	74	75	2	2	21	17	17	1	4	12	29	18
Kansas	5	7	29	63	45	—	1	7	5	4	6	2	5	45	2
Minnesota	10	11	69	130	129	—	2	21	19	10	—	4	25	15	36
Missouri	2	13	48	99	125	—	2	11	18	26	2	3	14	22	85
Nebraska§	—	5	41	147	54	1	2	30	10	5	—	0	3	5	—
North Dakota	—	0	10	9	8	—	0	1	—	—	—	0	3	1	19
South Dakota	—	3	22	70	28	—	1	4	1	4	—	0	5	1	51
S. Atlantic	88	250	455	2,015	1,817	4	13	51	131	130	19	55	100	543	803
Delaware	1	2	9	8	25	—	0	2	2	2	—	0	1	5	2
District of Columbia	—	0	4	—	13	—	0	1	—	3	—	0	3	—	5
Florida	54	97	174	846	911	2	2	10	42	43	10	12	34	120	267
Georgia	15	43	86	319	217	1	1	7	10	6	4	17	48	127	307
Maryland§	12	14	36	141	119	1	2	9	20	16	4	3	12	82	18
North Carolina	1	28	106	387	188	—	2	21	41	12	—	5	27	101	25
South Carolina§	5	18	55	143	165	—	0	3	3	13	1	7	32	46	156
Virginia§	—	20	89	143	131	—	3	27	12	27	—	5	59	57	21
West Virginia	—	3	8	28	48	—	0	3	1	8	—	0	3	5	2
E.S. Central	11	60	140	415	444	2	5	12	33	49	6	31	67	205	470
Alabama§	3	16	49	128	147	—	1	3	7	25	1	5	18	51	134
Kentucky	2	10	18	90	77	—	1	7	6	8	—	3	24	23	46
Mississippi	—	14	57	76	91	—	0	2	1	2	—	2	18	7	142
Tennessee§	6	15	62	121	129	2	2	6	19	14	5	19	48	124	148
W.S. Central	14	139	1,118	474	545	—	6	54	35	66	33	98	523	747	523
Arkansas§	4	11	40	79	70	—	1	3	5	9	2	11	27	58	60
Louisiana	—	17	50	65	99	—	0	1	—	1	—	10	26	42	108
Oklahoma	9	15	36	99	66	—	1	19	4	3	2	3	43	35	27
Texas§	1	93	1,057	231	310	—	5	48	26	53	29	65	463	612	328
Mountain	35	60	115	572	640	1	10	37	77	57	11	15	29	264	91
Arizona	6	21	44	216	168	—	0	4	8	—	11	0	20	189	—
Colorado	20	12	21	133	217	—	4	18	45	15	—	2	11	26	19
Idaho§	3	3	15	32	31	—	2	15	6	20	—	0	2	—	3
Montana§	—	2	8	28	15	—	0	3	2	7	—	0	2	2	—
Nevada§	3	3	14	51	56	1	0	3	2	3	—	3	13	22	50
New Mexico§	1	7	32	37	68	—	1	6	7	8	—	2	12	21	13
Utah	2	6	19	63	68	—	1	9	6	2	—	1	3	4	3
Wyoming§	—	1	4	12	17	—	0	1	1	2	—	0	1	—	3
Pacific	90	114	530	1,252	975	3	10	60	70	34	14	31	83	294	260
Alaska	2	1	4	12	13	—	0	1	—	1	—	0	1	2	—
California	69	84	516	941	764	2	6	39	53	25	13	27	75	236	219
Hawaii	2	5	15	70	49	—	0	2	1	2	—	1	3	5	11
Oregon§	2	7	20	92	71	—	1	8	—	3	—	1	10	17	14
Washington	15	13	155	137	78	1	2	44	16	3	1	2	28	34	16
American Samoa	—	0	1	—	1	—	0	0	—	—	—	0	2	3	1
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	2	—	4	—	0	0	—	—	—	0	3	—	5
Puerto Rico	1	14	40	70	133	—	0	0	—	—	—	0	4	1	4
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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* Incidence data for reporting year 2008 and 2009 are provisional.
† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Streptococcal diseases, invasive, group A					*Streptococcus pneumoniae*, invasive disease, nondrug resistant† Age <5 years				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max		
United States	75	97	208	1,711	1,857	23	33	90	524	551
New England	5	5	31	102	120	3	1	12	19	32
Connecticut	—	0	26	23	9	—	0	11	—	—
Maine§	—	0	3	6	11	—	0	1	—	1
Massachusetts	3	3	7	45	76	2	1	3	13	26
New Hampshire	—	0	4	15	12	1	0	1	4	5
Rhode Island§	—	0	8	4	6	—	0	2	—	—
Vermont§	2	0	3	9	6	—	0	1	2	—
Mid. Atlantic	11	18	36	304	406	6	4	25	64	70
New Jersey	—	2	9	2	82	—	1	4	10	22
New York (Upstate)	9	6	24	112	109	1	2	19	38	29
New York City	—	3	12	60	84	5	0	23	16	19
Pennsylvania	2	7	17	130	131	N	0	2	N	N
E.N. Central	12	15	39	309	395	2	6	11	76	112
Illinois	—	3	11	69	119	—	1	5	9	35
Indiana	—	2	19	42	49	—	0	5	6	12
Michigan	2	3	9	55	72	1	1	5	22	29
Ohio	8	4	14	107	99	1	1	5	29	19
Wisconsin	2	1	10	36	56	—	0	2	10	17
W.N. Central	5	5	37	147	147	2	2	11	45	36
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	1	0	8	21	20	N	0	1	N	N
Minnesota	—	0	34	52	55	—	0	9	15	13
Missouri	2	2	8	44	40	2	1	4	21	16
Nebraska§	2	1	3	20	16	—	0	1	2	2
North Dakota	—	0	2	2	7	—	0	3	3	1
South Dakota	—	0	2	8	9	—	0	2	4	4
S. Atlantic	18	21	45	391	392	6	6	14	107	123
Delaware	—	0	1	6	6	—	0	0	—	—
District of Columbia	—	0	4	—	8	N	0	0	N	N
Florida	9	6	12	101	86	4	1	3	24	19
Georgia	6	5	14	96	79	1	2	6	35	32
Maryland§	3	3	10	56	73	1	1	3	22	29
North Carolina	—	2	13	42	46	N	0	0	N	N
South Carolina§	—	1	5	27	27	—	1	6	21	20
Virginia§	—	3	9	52	52	—	0	3	1	20
West Virginia	—	0	3	11	15	—	0	2	4	3
E.S. Central	1	4	9	79	58	—	2	6	20	30
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	—	1	5	14	14	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	—	7
Tennessee§	1	3	8	65	44	—	2	6	20	23
W.S. Central	9	10	58	165	152	3	6	36	95	78
Arkansas§	—	0	2	6	2	—	0	3	9	3
Louisiana	—	0	2	5	8	—	0	3	12	3
Oklahoma	5	2	13	64	42	2	1	7	18	28
Texas§	4	6	45	90	100	1	4	27	56	44
Mountain	11	7	16	166	144	1	2	15	87	53
Arizona	5	0	5	45	—	1	0	9	49	—
Colorado	5	3	8	64	60	—	1	4	19	22
Idaho§	—	0	2	3	8	—	0	1	2	2
Montana§	N	0	0	N	N	N	0	0	N	N
Nevada§	1	0	1	3	5	—	0	1	—	1
New Mexico§	—	2	6	29	50	—	0	2	6	11
Utah	—	1	6	21	18	—	0	4	11	17
Wyoming§	—	0	1	1	3	—	0	1	—	—
Pacific	3	3	8	48	43	—	1	5	11	17
Alaska	2	0	4	7	10	—	0	4	8	10
California	N	0	0	N	N	N	0	0	N	N
Hawaii	1	3	8	41	33	—	0	2	3	7
Oregon§	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	—	0	8	—	12	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N

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* Incidence data for reporting year 2008 and 2009 are provisional.
† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDSS event code 11717).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	*Streptococcus pneumoniae*, invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages					Aged <5 years									
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	37	57	108	1,035	1,172	9	8	22	147	140	74	255	384	3,115	3,295
New England	1	1	48	19	19	—	0	5	1	1	3	5	15	92	79
Connecticut	—	0	48	—	—	—	0	5	—	—	—	1	5	21	3
Maine§	—	0	2	3	7	—	0	1	—	—	—	0	2	1	2
Massachusetts	—	0	1	1	—	—	0	1	1	—	3	4	11	59	64
New Hampshire	—	0	3	5	—	—	0	0	—	—	—	0	2	7	4
Rhode Island§	—	0	4	4	7	—	0	1	—	—	—	0	5	4	3
Vermont§	1	0	2	6	5	—	0	1	—	1	—	0	2	—	3
Mid. Atlantic	1	4	14	47	113	1	0	3	10	10	30	33	51	490	466
New Jersey	—	0	0	—	—	—	0	0	—	—	—	4	10	58	68
New York (Upstate)	1	1	8	19	20	1	0	2	6	2	2	2	8	26	29
New York City	—	1	5	1	45	—	0	0	—	—	27	23	37	328	281
Pennsylvania	—	1	10	27	48	—	0	1	4	8	1	5	11	78	88
E.N. Central	12	9	28	181	262	2	1	6	26	30	7	26	47	229	411
Illinois	N	0	0	N	N	N	0	0	N	N	—	5	14	36	124
Indiana	—	2	19	26	93	—	0	3	4	11	2	2	10	42	40
Michigan	—	0	3	9	7	—	0	1	—	1	5	4	18	67	50
Ohio	12	7	18	146	162	2	1	4	22	18	—	11	27	71	183
Wisconsin	—	0	0	—	—	—	0	0	—	—	—	1	4	13	14
W.N. Central	2	2	8	39	88	1	0	2	10	6	—	7	14	79	120
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	7	4
Kansas	1	1	4	13	39	1	0	2	8	2	—	0	3	3	7
Minnesota	—	0	0	—	—	—	0	0	—	—	—	2	6	16	30
Missouri	1	1	4	22	46	—	0	1	2	1	—	3	10	50	75
Nebraska§	—	0	0	—	—	—	0	0	—	—	—	0	2	3	4
North Dakota	—	0	2	4	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	—	3	—	0	0	—	3	—	0	1	—	—
S. Atlantic	13	22	51	533	476	2	4	14	68	66	10	59	197	714	571
Delaware	—	0	1	6	1	—	0	0	—	—	—	0	4	8	1
District of Columbia	N	0	0	N	N	N	0	0	N	N	—	3	9	46	29
Florida	12	14	36	344	251	2	3	13	49	36	6	20	37	279	229
Georgia	1	7	23	146	178	—	1	5	19	25	—	13	169	78	73
Maryland§	—	0	1	4	4	—	0	0	—	1	4	8	16	86	77
North Carolina	N	0	0	N	N	N	0	0	N	N	—	6	19	122	65
South Carolina§	—	0	0	—	—	—	0	0	—	—	—	2	6	19	21
Virginia§	N	0	0	N	N	N	0	0	N	N	—	5	16	75	75
West Virginia	—	1	7	33	42	—	0	2	—	4	—	0	1	1	1
E.S. Central	3	5	25	133	124	—	1	4	17	15	7	22	36	305	285
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	110	126
Kentucky	2	1	6	35	28	—	0	2	4	4	2	1	10	19	20
Mississippi	—	0	2	—	—	—	0	1	—	—	—	3	18	49	28
Tennessee§	1	3	22	98	96	—	0	3	13	11	5	8	19	127	111
W.S. Central	4	2	7	33	43	3	0	1	8	7	6	45	80	629	538
Arkansas§	4	0	5	20	6	3	0	1	5	2	6	4	35	77	24
Louisiana	—	1	6	13	37	—	0	1	3	5	—	11	33	128	119
Oklahoma	N	0	0	N	N	N	0	0	N	N	—	1	7	14	23
Texas§	—	0	0	—	—	—	0	0	—	—	—	28	40	410	372
Mountain	1	3	7	48	46	—	0	3	7	4	5	10	18	65	150
Arizona	—	0	0	—	—	—	0	0	—	—	—	5	13	19	83
Colorado	—	0	0	—	—	—	0	0	—	—	—	1	5	3	30
Idaho§	N	0	1	N	N	N	0	1	N	N	—	0	2	2	1
Montana§	—	0	1	—	—	—	0	0	—	—	—	0	7	—	—
Nevada§	1	1	4	20	21	—	0	1	3	1	4	1	7	29	22
New Mexico§	—	0	1	—	—	—	0	0	—	—	1	1	5	12	6
Utah	—	1	6	22	25	—	0	3	4	3	—	0	2	—	8
Wyoming§	—	0	2	6	—	—	0	0	—	—	—	0	1	—	—
Pacific	—	0	1	2	1	—	0	1	—	1	6	45	71	512	675
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
California	N	0	0	N	N	N	0	0	N	N	4	41	65	453	608
Hawaii	—	0	1	2	1	—	0	1	—	1	—	0	3	10	8
Oregon§	N	0	0	N	N	N	0	0	N	N	—	0	3	8	5
Washington	N	0	0	N	N	N	0	0	N	N	2	3	9	41	54
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	4	3	11	47	34
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).
§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 11, 2009, and April 5, 2008 (14th week)*

Reporting area	Varicella (chickenpox)					West Nile virus disease†									
						Neuroinvasive					Nonneuroinvasive§				
	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008	Current week	Previous 52 weeks		Cum 2009	Cum 2008
		Med	Max				Med	Max				Med	Max		
United States	217	438	1,015	4,996	9,571	—	1	75	—	2	—	1	77	—	4
New England	2	13	29	92	288	—	0	2	—	—	—	0	1	—	—
Connecticut	—	0	0	—	—	—	0	2	—	—	—	0	1	—	—
Maine¶	—	2	11	—	105	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	1	—	—	—	0	1	—	—	—	0	0	—	—
New Hampshire	2	4	12	64	102	—	0	0	—	—	—	0	0	—	—
Rhode Island¶	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
Vermont¶	—	4	17	28	81	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	31	42	83	498	809	—	0	8	—	—	—	0	4	—	—
New Jersey	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
New York (Upstate)	N	0	0	N	N	—	0	5	—	—	—	0	2	—	—
New York City	—	0	0	—	—	—	0	2	—	—	—	0	2	—	—
Pennsylvania	31	42	83	498	809	—	0	2	—	—	—	0	1	—	—
E.N. Central	104	145	312	2,209	2,115	—	0	8	—	—	—	0	3	—	—
Illinois	—	38	73	535	203	—	0	4	—	—	—	0	2	—	—
Indiana	—	0	7	34	—	—	0	1	—	—	—	0	1	—	—
Michigan	16	56	116	700	934	—	0	4	—	—	—	0	2	—	—
Ohio	87	44	106	847	867	—	0	3	—	—	—	0	1	—	—
Wisconsin	1	5	50	93	111	—	0	2	—	—	—	0	1	—	—
W.N. Central	24	22	72	429	440	—	0	6	—	1	—	0	21	—	—
Iowa	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
Kansas	12	5	22	102	223	—	0	2	—	1	—	0	3	—	—
Minnesota	—	0	0	—	—	—	0	2	—	—	—	0	4	—	—
Missouri	12	12	51	291	197	—	0	3	—	—	—	0	1	—	—
Nebraska¶	N	0	0	N	N	—	0	1	—	—	—	0	6	—	—
North Dakota	—	0	39	36	4	—	0	2	—	—	—	0	11	—	—
South Dakota	—	0	4	—	16	—	0	5	—	—	—	0	6	—	—
S. Atlantic	41	71	163	748	1,743	—	0	4	—	—	—	0	4	—	—
Delaware	—	1	5	2	7	—	0	0	—	—	—	0	1	—	—
District of Columbia	—	0	3	—	8	—	0	2	—	—	—	0	1	—	—
Florida	35	29	68	504	614	—	0	2	—	—	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Maryland¶	N	0	0	N	N	—	0	2	—	—	—	0	3	—	—
North Carolina	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
South Carolina¶	6	9	67	64	303	—	0	0	—	—	—	0	1	—	—
Virginia¶	—	15	60	28	552	—	0	0	—	—	—	0	1	—	—
West Virginia	—	11	32	150	259	—	0	1	—	—	—	0	0	—	—
E.S. Central	—	11	101	17	369	—	0	7	—	—	—	0	9	—	2
Alabama¶	—	11	101	16	363	—	0	3	—	—	—	0	2	—	—
Kentucky	N	0	0	N	N	—	0	1	—	—	—	0	0	—	—
Mississippi	—	0	1	1	6	—	0	4	—	—	—	0	8	—	1
Tennessee¶	N	0	0	N	N	—	0	2	—	—	—	0	3	—	1
W.S. Central	—	87	355	492	2,944	—	0	8	—	—	—	0	7	—	1
Arkansas¶	—	4	61	19	235	—	0	1	—	—	—	0	1	—	—
Louisiana	—	1	5	15	31	—	0	3	—	—	—	0	5	—	—
Oklahoma	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
Texas¶	—	75	345	458	2,678	—	0	6	—	—	—	0	4	—	1
Mountain	15	33	83	470	830	—	0	12	—	1	—	0	22	—	1
Arizona	—	0	0	—	—	—	0	10	—	1	—	0	8	—	—
Colorado	15	13	44	203	322	—	0	4	—	—	—	0	10	—	—
Idaho¶	N	0	0	N	N	—	0	1	—	—	—	0	6	—	1
Montana¶	—	4	27	70	124	—	0	0	—	—	—	0	2	—	—
Nevada¶	N	0	0	N	N	—	0	2	—	—	—	0	3	—	—
New Mexico¶	—	3	10	40	92	—	0	1	—	—	—	0	1	—	—
Utah	—	12	31	157	284	—	0	2	—	—	—	0	5	—	—
Wyoming¶	—	0	1	—	8	—	0	0	—	—	—	0	2	—	—
Pacific	—	3	8	41	33	—	0	38	—	—	—	0	23	—	—
Alaska	—	1	6	25	12	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	—	—	0	37	—	—	—	0	20	—	—
Hawaii	—	1	4	16	21	—	0	0	—	—	—	0	0	—	—
Oregon¶	N	0	0	N	N	—	0	2	—	—	—	0	4	—	—
Washington	N	0	0	N	N	—	0	1	—	—	—	0	1	—	—
American Samoa	N	0	0	N	N	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	1	17	—	21	—	0	0	—	—	—	0	0	—	—
Puerto Rico	2	9	29	89	166	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.
U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
* Incidence data for reporting year 2008 and 2009 are provisional.
† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.
§ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except starting in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm.
¶ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE III. Deaths in 122 U.S. cities,* week ending April 11, 2009 (14th week)

Reporting area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
New England	458	322	93	26	9	8	45
Boston, MA	138	78	38	10	6	6	14
Bridgeport, CT	22	17	3	1	—	1	2
Cambridge, MA	13	10	2	1	—	—	3
Fall River, MA	27	22	3	2	—	—	3
Hartford, CT	38	27	6	5	—	—	4
Lowell, MA	17	11	3	2	1	—	2
Lynn, MA	8	7	—	1	—	—	1
New Bedford, MA	23	19	4	—	—	—	2
New Haven, CT	U	U	U	U	U	U	U
Providence, RI	61	47	9	2	2	1	4
Somerville, MA	3	2	1	—	—	—	—
Springfield, MA	33	25	7	1	—	—	1
Waterbury, CT	22	17	5	—	—	—	4
Worcester, MA	53	40	12	1	—	—	5
Mid. Atlantic	1,792	1,265	367	99	24	37	95
Albany, NY	54	42	7	3	—	2	5
Allentown, PA	33	30	2	1	—	—	2
Buffalo, NY	72	49	17	6	—	—	5
Camden, NJ	22	10	8	2	—	2	—
Elizabeth, NJ	12	8	4	—	—	—	—
Erie, PA	44	36	6	1	—	1	5
Jersey City, NJ	25	16	6	2	1	—	2
New York City, NY	1,000	716	202	58	13	11	45
Newark, NJ	50	17	16	6	1	10	1
Paterson, NJ	11	9	1	—	1	—	4
Philadelphia, PA	152	93	38	9	2	10	7
Pittsburgh, PA§	30	21	8	1	—	—	5
Reading, PA	34	27	5	—	2	—	2
Rochester, NY	123	91	24	5	3	—	6
Schenectady, NY	14	11	2	—	1	—	—
Scranton, PA	30	24	3	3	—	—	—
Syracuse, NY	54	39	12	2	—	1	4
Trenton, NJ	U	U	U	U	U	U	U
Utica, NY	18	14	4	—	—	—	1
Yonkers, NY	14	12	2	—	—	—	1
E.N. Central	1,881	1,259	416	126	40	40	154
Akron, OH	51	36	7	2	3	3	1
Canton, OH	51	38	12	—	—	1	11
Chicago, IL	314	200	72	27	9	6	31
Cincinnati, OH	110	73	24	5	4	4	13
Cleveland, OH	192	145	30	13	2	2	11
Columbus, OH	207	128	50	20	5	4	13
Dayton, OH	132	98	24	8	1	1	13
Detroit, MI	121	49	45	15	8	4	5
Evansville, IN	40	28	10	2	—	—	2
Fort Wayne, IN	71	48	17	4	2	—	11
Gary, IN	11	5	4	2	—	—	—
Grand Rapids, MI	64	45	12	5	2	—	7
Indianapolis, IN	182	120	40	12	3	7	16
Lansing, MI	34	28	5	1	—	—	—
Milwaukee, WI	59	40	12	4	—	3	4
Peoria, IL	27	17	7	1	—	2	4
Rockford, IL	35	24	10	1	—	—	1
South Bend, IN	31	18	10	1	—	2	—
Toledo, OH	79	64	12	2	1	—	7
Youngstown, OH	70	55	13	1	—	1	4
W.N. Central	589	387	144	31	12	12	39
Des Moines, IA	78	65	8	3	1	1	3
Duluth, MN	27	23	3	1	—	—	1
Kansas City, KS	20	7	10	—	1	2	1
Kansas City, MO	82	47	23	7	3	1	4
Lincoln, NE	38	26	11	1	—	—	4
Minneapolis, MN	68	41	16	8	1	2	7
Omaha, NE	74	48	17	3	3	3	9
St. Louis, MO	88	55	25	4	1	2	2
St. Paul, MN	52	30	18	1	2	1	5
Wichita, KS	62	45	13	3	—	—	3
S. Atlantic	1,223	791	284	90	37	21	87
Atlanta, GA	159	107	32	11	4	5	8
Baltimore, MD	165	98	39	20	5	3	21
Charlotte, NC	98	70	20	6	2	—	9
Jacksonville, FL	146	87	40	13	5	1	8
Miami, FL	112	79	21	10	—	2	10
Norfolk, VA	51	34	9	1	5	2	1
Richmond, VA	67	41	17	6	2	1	5
Savannah, GA	69	44	15	4	3	3	6
St. Petersburg, FL	80	63	11	2	4	—	5
Tampa, FL	154	98	45	7	3	1	9
Washington, D.C.	111	62	32	10	4	3	4
Wilmington, DE	11	8	3	—	—	—	1
E.S. Central	929	604	220	56	22	27	81
Birmingham, AL	231	135	66	15	7	8	20
Chattanooga, TN	70	50	17	2	—	1	2
Knoxville, TN	86	68	15	1	—	2	13
Lexington, KY	60	36	18	3	2	1	3
Memphis, TN	173	112	38	14	4	5	18
Mobile, AL	87	58	23	2	2	2	6
Montgomery, AL	71	42	19	7	2	1	9
Nashville, TN	151	103	24	12	5	7	10
W.S. Central	1,267	841	296	70	27	33	78
Austin, TX	81	48	21	7	1	4	1
Baton Rouge, LA	53	44	7	2	—	—	—
Corpus Christi, TX	50	32	12	3	1	2	4
Dallas, TX	212	143	45	11	6	7	10
El Paso, TX	50	36	12	1	1	—	3
Fort Worth, TX	U	U	U	U	U	U	U
Houston, TX	303	192	73	22	6	10	21
Little Rock, AR	89	51	26	4	4	4	3
New Orleans, LA	U	U	U	U	U	U	U
San Antonio, TX	226	150	52	15	4	5	23
Shreveport, LA	68	41	22	1	3	1	6
Tulsa, OK	135	104	26	4	1	—	7
Mountain	1,142	770	249	70	35	17	78
Albuquerque, NM	121	75	27	10	8	1	10
Boise, ID	38	29	4	5	—	—	3
Colorado Springs, CO	75	44	15	8	5	3	1
Denver, CO	95	61	25	6	1	1	5
Las Vegas, NV	305	204	77	16	6	2	30
Ogden, UT	20	15	4	—	—	1	—
Phoenix, AZ	166	101	35	16	9	5	11
Pueblo, CO	38	26	11	—	1	—	2
Salt Lake City, UT	122	87	25	4	2	4	7
Tucson, AZ	162	128	26	5	3	—	9
Pacific	1,740	1,209	383	81	36	31	199
Berkeley, CA	15	9	5	—	—	1	3
Fresno, CA	128	89	24	6	6	3	14
Glendale, CA	39	36	2	—	—	1	14
Honolulu, HI	66	46	12	4	—	4	10
Long Beach, CA	73	51	13	7	1	1	11
Los Angeles, CA	266	174	62	19	9	2	29
Pasadena, CA	22	18	3	1	—	—	3
Portland, OR	146	108	24	8	3	3	11
Sacramento, CA	216	155	51	6	2	2	23
San Diego, CA	147	98	35	6	5	3	14
San Francisco, CA	114	82	26	2	2	2	11
San Jose, CA	215	155	46	8	1	5	32
Santa Cruz, CA	22	17	4	1	—	—	4
Seattle, WA	89	53	27	4	2	3	7
Spokane, WA	51	42	6	3	—	—	7
Tacoma, WA	131	76	43	6	5	1	6
Total¶	**11,021**	**7,448**	**2,452**	**649**	**242**	**226**	**856**

U: Unavailable. —:No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

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