

November Is American Diabetes Month

Diabetes is the leading cause of end-stage renal disease (ESRD), nontraumatic lower-extremity amputations (LEAs), and new cases of blindness among adults in the United States, and a major cause of heart disease and stroke (1). However, persons with diabetes, together with their support network, can take steps to control the disease and minimize the risk for complications (1).

Although rates of diabetes-related complications (e.g., ESRD and LEAs) have declined (2), the number of persons in the United States with diabetes is projected to double or triple by 2050 if current trends in diabetes prevalence continue (3). However, among adults at risk for type 2 diabetes, weight loss and physical activity can prevent or delay its onset (4).

CDC and state and territorial diabetes prevention and control programs are working with public and private partners to improve outcomes for persons with diabetes and to reduce the incidence of type 2 diabetes. CDC's National Diabetes Prevention Program is supporting the nationwide implementation of community-based lifestyle programs, beginning in 17 U.S. communities (4). Resources on family history and gestational diabetes are available at <http://www.yourdiabetesinfo.org>, and information about diabetes is available at <http://www.cdc.gov/diabetes>.

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Incidence of End-Stage Renal Disease Attributed to Diabetes Among Persons With Diagnosed Diabetes — United States and Puerto Rico, 1996–2007

During 2007, approximately 110,000 persons in the United States and Puerto Rico began treatment for end-stage renal disease (ESRD) (i.e., kidney failure requiring dialysis or transplantation) (1). Diabetes is the leading cause of ESRD in the United States, accounting for 44% of new cases in 2007 (1). Although the number of persons initiating treatment for kidney failure each year who have diabetes listed as a primary cause (ESRD-D) has increased since 1996 (1,2), ESRD-D incidence among persons with diagnosed diabetes has declined since 1996 (3). To determine whether this decline occurred in every U.S. region and in every state, CDC analyzed 1996–2007 data from the U.S. Renal Data System (USRDS) and the Behavioral Risk Factor Surveillance System (BRFSS). During the period, the age-adjusted rate of ESRD-D among persons with diagnosed diabetes declined 35% overall, from 304.5 to 199.1 per 100,000 persons with diagnosed diabetes, and declined in all U.S. regions and in most states. No state showed a significant increase in the age-adjusted ESRD-D rate. Continued awareness of risk factors for kidney failure and interventions to improve diabetes care are needed to sustain and improve these trends.

USRDS collects, analyzes, and distributes ESRD clinical and claims data to the Centers for Medicare and Medicaid Services (CMS) (1). Health-care providers are required by law to complete the CMS Medical Evidence Report for each new patient with ESRD. USRDS collects demographic data and

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ESRD-related information (e.g., date patients were first treated, diagnosed primary cause of renal failure). The USRDS Renal Data Extraction and Referencing System, an online data querying application, was used to determine the number of persons initiating ESRD treatment (i.e., dialysis or transplantation) with diabetes listed as a primary cause in each state, the District of Columbia (DC), and Puerto Rico for each of the years during 1996–2007. Throughout the period, the proportion of new ESRD cases that were ESRD-D ranged from 43% to 45% (1). Incidence of ESRD-D was calculated at a state/territorial and U.S. census region level by dividing the number of persons with a new diagnosis of ESRD-D in the geographic unit (determined by their initiation of treatment) by the estimated number of persons with diagnosed diabetes in the geographic unit. The number of persons aged ≥ 18 years with diagnosed diabetes was estimated from BRFSS, which conducts state-based, random-digit-dialed telephone surveys in the 50 states, DC, Puerto Rico, and other U.S. territories. In 2007, the median BRFSS response rate was 50.6% (range: 26.9%–65.4%) for the 50 states and DC and 70.4% for Puerto Rico.

Respondents were classified as having diagnosed diabetes if they answered “yes” to the question “Has a doctor ever told you that you have diabetes?” Women who were told that they had diabetes only during pregnancy were classified as not having diabetes. BRFSS data were weighted to represent the noninstitutionalized U.S. population. Data were analyzed using statistical software to estimate standard errors and calculate 95% confidence intervals (CIs). Incidence was age adjusted directly to the 2000 U.S. standard population, and weighted least squares regression was used for state and regional-level trend analyses. Linear and quadratic terms were included in the models, and results were considered significant if $p < 0.05$. Nonsignificant quadratic terms were dropped from the models. Significant terms indicated a trend (i.e., linear or nonlinear) in the data over time.

During 1996–2007, the total number of adults aged ≥ 18 years in the United States and Puerto Rico who began treatment for ESRD-D each year increased significantly, from 32,716 (state range: 32–3,719) to 48,712 (state range: 37–6,059) (test for trend, $p < 0.001$) (Table, Figure 1). More recently, the number of ESRD-D cases appears to be leveling off (Figure 1). During 2007,

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TABLE. Number and age-adjusted rate* of persons aged ≥18 years with diagnosed diabetes who began treatment for end-stage renal disease attributed to diabetes, and trend analysis, by U.S. census region and state — United States and Puerto Rico, 1996–2007

Region/State	1996			2007			Linear trend 1996–2007†
	No.	Rate	(95% CI‡)	No.	Rate	(95% CI)	p value
Midwest	7,179	302.0	(269.4–334.7)	9,796	194.2	(184.1–204.4)	<0.001
Illinois	1,486	283.1	(218.5–347.6)	1,974	177.3	(154.2–200.4)	0.02
Indiana	647	343.3	(218.5–468.1)	959	233.4	(187.9–279.0)	0.005
Iowa	254	328.4	(237.9–418.9)	313	166.6	(139.1–194.0)	0.01
Kansas	234	341.1	(213.3–468.9)	308	159.1	(137.4–180.7)	<0.001
Michigan	1,279	300.9	(221.7–380.0)	1,628	197.8	(173.5–222.1)	0.005
Minnesota	352	209.0	(173.3–244.8)	498	167.0	(133.5–200.4)	0.02
Missouri	653	502.6	(243.1–762.2)	917	206.6	(170.4–242.9)	0.006
Nebraska	156	241.9	(172.3–311.5)	233	182.4	(153.0–211.8)	0.03
North Dakota	50	457.1¶	(184.4–729.8)	90	216.9	(178.6–255.1)	0.87
Ohio	1,514	309.0	(222.4–395.7)	2,134	202.6	(183.5–221.7)	0.02
South Dakota	90	461.3	(320.2–602.4)	100	249.6	(205.8–293.5)	0.007
Wisconsin	464	385.8	(203.4–568.2)	642	232.8	(183.0–282.6)	0.12
Northeast	5,972	303.2	(266.2–340.1)	8,302	182.6	(170.3–194.9)	0.002
Connecticut	330	217.5	(159.6–275.4)	409	160.9	(137.0–184.8)	0.03
Maine	73	184.6	(117.7–251.5)	119	108.3	(94.1–122.5)	0.003
Massachusetts	574	200.8	(135.8–265.8)	686	139.2	(128.3–150.0)	<0.001
New Hampshire	58	347.5¶	(92.7–602.3)	103	108.1	(90.0–126.2)	0.002
New Jersey	1,072	336.9	(258.6–415.2)	1,585	193.8	(169.1–218.6)	0.03
New York	2,189	442.0	(306.9–577.1)	3,094	202.2	(172.8–231.6)	0.01
Pennsylvania	1,540	269.9	(204.7–335.1)	2,148	197.1	(162.6–231.6)	<0.001
Rhode Island	99	282.8	(192.9–372.8)	112	138.3	(114.2–162.4)	0.001
Vermont	37	182.7	(139.1–226.4)	46	126.5	(95.6–157.3)	0.16
South	12,687	344.9	(317.1–372.6)	19,517	199.1	(192.6–205.6)	<0.001
Alabama	602	234.8	(185.5–284.1)	899	212.2	(186.9–237.5)	0.12
Arkansas	305	400.8	(278.7–523.0)	427	186.6	(160.7–212.5)	0.01
Delaware	84	254.4	(193.0–315.9)	146	210.6	(176.7–244.4)	0.21
District of Columbia	162	518.5	(332.3–704.7)	131	269.6	(226.6–312.6)	0.04
Florida	1,742	264.3	(208.5–320.1)	2,872	194.4	(172.9–216.0)	0.006
Georgia	1,073	453.7	(326.6–580.8)	1,595	180.7	(163.0–198.4)	<0.001
Kentucky	411	357.0	(234.2–479.7)	690	190.9	(160.7–221.1)	<0.001
Louisiana	704	306.0	(226.7–385.3)	960	251.1	(218.3–284.0)	0.001
Maryland	733	348.2	(269.5–426.8)	891	207.6	(182.2–233.0)	0.003
Mississippi	454	372.3	(266.8–477.8)	563	199.5	(178.1–220.9)	0.006
North Carolina	1,039	544.4	(301.4–787.4)	1,548	223.2	(202.0–244.4)	<0.001
Oklahoma	383	538.4	(264.4–812.4)	638	201.7	(177.1–226.3)	0.004
South Carolina	591	373.7	(273.7–473.7)	836	230.3	(202.9–257.8)	0.01
Tennessee	615	255.9	(208.8–303.1)	1,035	146.4	(123.8–168.9)	<0.001
Texas	2,751	494.0	(343.7–644.3)	4,668	210.9	(197.0–224.7)	<0.001
Virginia	804	254.9	(192.7–317.1)	1,233	217.0	(185.4–248.5)	0.02
West Virginia	234	239.4	(188.1–290.8)	385	177.4	(157.4–197.4)	0.002
West	6,342	276.4	(242.1–310.7)	10,230	219.2	(200.9–237.5)	<0.001
Alaska	33	189.7	(105.7–273.8)	59	153.8	(117.1–190.5)	0.04
Arizona	642	516.4	(325.0–707.7)	1,052	225.5	(178.2–272.8)	<0.001
California	3,719	241.7	(198.2–285.3)	6,059	234.4	(200.0–268.8)	0.07
Colorado	331	403.9	(247.7–560.1)	441	177.2	(158.3–196.1)	0.002
Hawaii	235	421.8	(321.0–522.5)	368	450.0	(363.4–536.6)	0.98
Idaho	82	358.8	(235.0–482.5)	157	182.8	(152.4–213.3)	<0.001
Montana	65	309.9	(194.7–425.0)	79	177.2	(140.3–214.0)	0.001
Nevada	141	255.4	(179.0–331.8)	361	187.2	(152.8–221.6)	0.02
New Mexico	289	449.4	(290.8–607.9)	373	262.0	(226.0–298.0)	<0.001
Oregon	235	284.0	(189.4–378.7)	366	189.7	(146.7–232.6)	0.01
Utah	127	319.0	(217.7–420.3)	218	192.8	(144.9–240.6)	0.01
Washington	411	265.2	(206.4–323.9)	660	160.7	(147.8–173.6)	0.002
Wyoming	32	233.9	(176.4–291.4)	37	121.8	(100.8–142.9)	0.004
Puerto Rico	536	152.7	(127.5–177.9)	867	196.3	(166.5–226.2)	<0.001
Total	32,716	304.5	(288.8–320.3)	48,712	199.1	(193.9–204.2)	<0.001

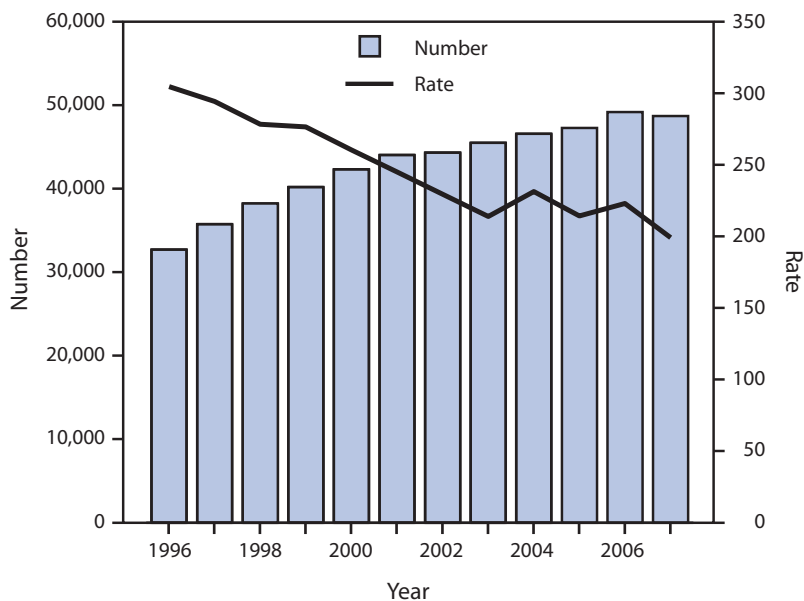
* Per 100,000 persons with diagnosed diabetes and age adjusted by the direct method to the 2000 U.S. standard population.

† Using weighted least squares regression for states and regions. Linear and quadratic terms were included in the models, and results were considered significant if p<0.05. Nonsignificant quadratic terms were dropped from the models. Quadratic trends were significant for the Northeast region (p=0.02), and for Florida (p=0.03), Idaho (p=0.001), Indiana (p=0.01), Iowa (p=0.03), Missouri (p=0.02), New York (p=0.03), Oregon (p=0.03), Puerto Rico (p=0.001), South Dakota (p=0.02), and Washington (p=0.008). Significant terms indicated a decreasing trend (i.e., linear or nonlinear) in the data over time.

‡ Confidence interval.

¶ Adjusted relative standard error >30%: New Hampshire (30.4%) and North Dakota (37.1%).

FIGURE 1. Number and age-adjusted rate* of persons aged ≥ 18 years with diagnosed diabetes who began treatment for end-stage renal disease attributed to diabetes — United States and Puerto Rico, 1996–2007



* Per 100,000 persons with diagnosed diabetes and age adjusted by the direct method to the 2000 U.S. standard population.

approximately 40% of the new ESRD-D cases occurred in the South, and approximately 20% occurred in each of the other three U.S. census regions (Table).^{*} However, the rate of ESRD-D among persons with diagnosed diabetes in 2007 was significantly higher in the West (219.2 per 100,000) compared with the Northeast (182.6 per 100,000). During 1996–2007, the age-adjusted ESRD-D incidence in persons with diagnosed diabetes decreased 35%, from 304.5 per 100,000 (state range: 152.7–544.4) to 199.1 per 100,000 (state range: 108.1–450.0) ($p < 0.001$) (Table, Figure 1). Incidence declined significantly in all U.S. regions (Figure 2). Estimated age-adjusted ESRD-D incidence declined in most states, but the trend was not significant in every state (Table). The age-adjusted ESRD-D incidence in Puerto Rico increased significantly from 1996 to 2003 ($p < 0.001$), and decreased, but not significantly, from 2003 to 2007 ($p = 0.30$).

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

Reported by

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Editorial Note

ESRD is a costly and disabling condition that can result in premature death (1). During 1996–2007, the number of ESRD-D cases increased, as did the number of persons with diagnosed diabetes (2). However, during this period, the rate of increase in the number of persons with diagnosed diabetes was greater than the rate of increase in the number of ESRD-D cases. Thus, among persons with diagnosed diabetes, the age-adjusted ESRD-D rate decreased during the period by 35%, from 304.5 to 199.1 per 100,000 persons with diagnosed diabetes. The age-adjusted ESRD-D incidence also declined in all U.S. regions and in most states. Consistent with this finding, similar declining trends have been seen for other diabetes-related complications, such as lower-extremity amputation and visual impairment (2). Reasons for this decline in ESRD-D incidence cannot be determined from surveillance data but might include reductions in risk factors for kidney failure (e.g., hyperglycemia and hypertension) (4,5) or better treatment of kidney disease, including the use of new pharmacologic agents (e.g., angiotensin-converting enzyme inhibitors [ACEIs] or angiotensin-receptor blockers [ARBs]) that slow the decline in kidney function and thus delay ESRD-D (1,6). In 2007, nearly 80% of persons aged 20–64 years with diabetes and chronic kidney disease used ACEIs or ARBs (1).

Although age-adjusted ESRD-D incidence in the United States has declined, the number of newly diagnosed cases has increased, and that trend likely will continue as the U.S. population ages and as the number of persons with diabetes increases (2). Furthermore, control of ESRD risk factors remains suboptimal (7,8), and strategies are needed to sustain declines in ESRD-D incidence to reduce the future ESRD burden. In addition to diabetes and hypertension, risk factors for kidney disease include cardiovascular disease, obesity, elevated cholesterol, increasing age, and a family history of kidney disease (1). Effective interventions to improve control of blood sugar, hypertension, and lipid levels might slow the progression of kidney disease (6), and effective community-based approaches to prevent obesity and

What is already known on this topic?

The incidence of end-stage renal disease attributed to diabetes (ESRD-D) in the U.S. population with diagnosed diabetes has declined since 1996.

What is added by this report?

The decline in incidence of ESRD-D during 1996–2007 was confirmed in all U.S. regions and most states.

What are the implications for public health practice?

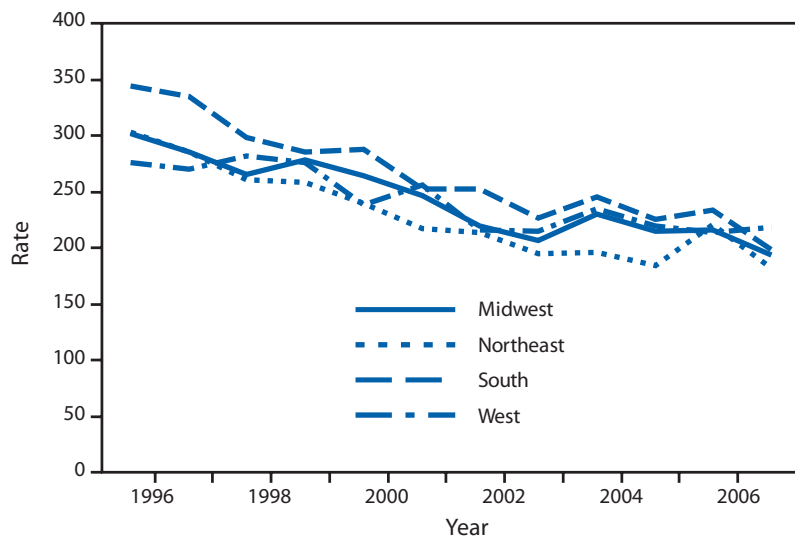
Continued awareness and interventions to reduce the prevalence of risk factors for kidney failure and to improve diabetes care are needed to sustain the widespread decrease in ESRD-D incidence.

increase physical activity might reduce the incidence of type 2 diabetes (9).

The findings in this report are subject to at least three limitations. First, data were collected for patients whose ESRD treatment was reported to CMS and do not include patients who died before receiving treatment or persons who refused treatment and thus were not reported to CMS. Under the ESRD entitlement program, persons initiating treatment for ESRD in the United States and Puerto Rico are entitled to receive Medicare benefits from CMS (1). Second, changes in incidence of diagnosed ESRD-D might have been caused by factors other than a true change in disease incidence. These factors might include access to or acceptance of ESRD treatment or changes in treatment and care practices. Furthermore, changes in physician reporting of the primary cause of kidney failure could affect incidence, and revised diagnostic criteria for diabetes in 1997 might have led to a greater number of persons being detected with diabetes earlier in the disease process (10). Finally, the estimated population with diagnosed diabetes is likely to be an underestimate because BRFSS is a telephone survey that excludes the institutionalized population, active duty military personnel, and persons with cellular telephones, and because prevalence is based on self-report.

Continued awareness and interventions to reduce the prevalence of risk factors for kidney failure and to improve diabetes care are needed to sustain the decrease in ESRD-D incidence. CDC and state and territorial diabetes prevention and control programs have been working with public and private partners to reduce the incidence of type 2 diabetes and to improve outcomes for persons with diabetes. CDC's new National Diabetes Prevention Program is supporting the nationwide implementation of community-based

FIGURE 2. Age-adjusted rate* of treatment initiation for end-stage renal disease attributed to diabetes among persons aged ≥ 18 years with diagnosed diabetes, by U.S. census region[†] — United States, 1996–2007



* Per 100,000 persons with diagnosed diabetes and age adjusted by the direct method to the 2000 U.S. standard population.

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

lifestyle programs to prevent or delay the onset of type 2 diabetes among persons at high risk (9). In partnership with YMCA USA, UnitedHealth Group, Indiana University, University of Pittsburgh, and Emory University, CDC is beginning this new program in 17 communities throughout the United States. The National Diabetes Education Program (NDEP), sponsored by CDC and the National Institutes of Health, works with partners at the federal, state, and local levels to improve the treatment and outcomes for persons with diabetes, promote early diagnosis, and prevent or delay the onset of type 2 diabetes. NDEP conducts national, multicultural campaigns to educate persons with diabetes, their families, and health-care providers about the importance of controlling blood glucose, blood pressure, and cholesterol to improve health outcomes and lower the risk for complications (including kidney disease), and to promote behaviors to prevent or delay the onset of type 2 diabetes among persons at risk.[†] To assess progress in diabetes prevention and control, CDC's National Diabetes

[†] Additional information is available at <http://ndep.nih.gov/about-ndep/index.aspx>.

Surveillance System monitors the incidence of diabetes and the health and well being of the population with diabetes (2). In addition, CDC soon will establish a Chronic Kidney Disease Surveillance System to monitor the burden of chronic kidney disease in the United States and evaluate prevention strategies.[§]

[§] Additional information is available at <http://www.cdc.gov/diabetes/projects/kidney.htm>.

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Global Routine Vaccination Coverage, 2009

The widespread use of vaccines has greatly improved global public health, preventing millions of childhood hospitalizations and deaths each year. Vaccination of children also is projected to avert adult deaths through the prevention of hepatitis B (HepB) virus–related chronic liver disease and liver cancer (1) and human papilloma virus–related cervical cancer (2). When the World Health Organization (WHO) began the Expanded Programme on Immunization in 1974, <5% of the world's children had been fully vaccinated with bacille Calmette–Guérin (BCG), diphtheria–tetanus–pertussis (DTP) vaccine, oral poliovirus vaccine, and measles-containing vaccine (MCV) during the first year of life (3). Since then, increased vaccination coverage has resulted in substantial reductions in morbidity and mortality, including a >99% decline in polio incidence since 1988 (4), with eradication on the horizon, and a 78% decline in measles-associated mortality from 2000 to 2008 (5). With the introduction of *Haemophilus influenzae* type b (Hib) vaccine, HepB vaccine, pneumococcal conjugate vaccine (PCV), and rotavirus vaccine into many countries' routine vaccination schedules, further reductions in morbidity and mortality are expected. However, based on an annual global birth cohort of approximately 130 million, an estimated 23 million infants worldwide still do not receive the benefits of routine vaccination (i.e., 3 doses of DTP during the first year of life). The Global Immunization Vision and Strategy (GIVS), developed in 2005 by WHO and UNICEF, assists countries in strengthening immunization programs and vaccinating more persons. GIVS aims to achieve 90% national 3-dose DTP (DTP3) coverage by age 12 months in all countries, and 80% coverage in every district or equivalent administrative unit by 2010 (and to sustain these levels through 2015 [6]). This report summarizes global routine vaccination coverage during 2000–2009 and progress toward achieving GIVS goals.

Methods for Estimating Routine Vaccination Coverage

Routine vaccination coverage levels indicate recent immunization program performance and population immunity. Coverage usually is assessed based on the percentage of children who received a specified number of doses of a recommended vaccine during

the first year of life. This is in contrast to mass vaccination campaigns or other supplemental vaccine activities that do not record vaccine doses administered. Vaccination coverage is estimated using a number of methods. Administrative vaccination coverage is calculated by dividing vaccine doses reported to have been administered to the target population by the total estimated target population. Aggregated administrative data are analyzed at the national level, and national coverage data are reported annually to WHO and UNICEF on the Joint Reporting Form on Immunization (JRF), a standard questionnaire that was developed in 1998 and is sent to all 193 WHO member states.* Vaccination coverage estimates are then reported on the WHO website.†

In many countries, household vaccination coverage surveys are conducted to validate administratively reported data. A representative sample of households is selected, and vaccination coverage is determined by examining the child's immunization card or by parental recall. WHO and UNICEF systematically review data from sources including government JRF reports, published and unpublished reports, coverage surveys, and consultation with local experts, to derive annual estimates of national coverage with recommended vaccines‡ (7). DTP3 coverage by age 12 months is the agreed-upon indicator of immunization program performance. In addition to DTP3, coverage with the first MCV dose (MCV1) is an indicator used to monitor progress toward the fourth Millennium Development Goal of reducing mortality among children aged <5 years by two thirds (from 1990 levels) by 2015.§

Estimated Routine Vaccination Coverage, 2009

Estimated global DTP3 coverage in the 193 WHO member states increased from 74% in 2000 to 82% in 2009, reflecting the vaccination of 107.1 million

* Additional information available at http://www.who.int/entity/immunization_monitoring/routine/WHO_UNICEF_JRF_10_EN.xls.

† Additional information available at http://apps.who.int/immunization_monitoring/en/globalsummary/timeseries/tswucoveragedtp3.htm.

‡ Estimates include BCG, first and third doses of DTP, third dose of polio vaccine (inactivated poliovirus vaccine or oral poliovirus vaccine), third dose of Hib vaccine, third dose of HepB vaccine, and first dose of MCV.

§ Additional information available at <http://www.un.org/millenniumgoals/childhealth.shtml>.

infants with 3 doses of DTP vaccine in 2009 (14.6 million more than in 2000). Changes in coverage varied by geographic region, and the overall increase mainly was attributed to improvements in vaccination coverage in the African (+16%), Eastern Mediterranean (+12%), and Western Pacific (+10%) WHO regions (Figure 1). National DTP3 coverage of $\geq 90\%$ was reported by 122 (63%) countries, but only 48 (25%) reported $\geq 80\%$ coverage in all districts, and only 55% of low-income countries are on track to achieve 90% coverage by 2015 (UNICEF, unpublished data, 2010). During 2007–2009, 149 (77%) countries had sustained DTP3 coverage of $\geq 80\%$ (Figure 1); however, coverage in 2009 was $< 80\%$ in 36 (19%) countries, and six countries failed to achieve 50% DTP3 coverage. Among the 23.2 million children worldwide who did not receive 3 doses of DTP vaccine during the first year of life in 2009, 70% live in 10 countries, with approximately half in India (37%) and Nigeria (14%) (Figure 2).

From 2000 to 2009, estimated global MCV1 coverage increased from 71% to 82%, and 136 (70%)

countries added a second MCV dose to their routine vaccination schedules. Three-dose coverage with HepB vaccine (HepB3) increased from 30% to 70% during this period, and 3-dose coverage with Hib vaccine (Hib3) increased from 13% to 38%. In countries where Hib vaccine had been introduced, Hib3 coverage was similar to DTP3 coverage; however, a commensurate increase in global coverage did not occur because several large countries (e.g., China, India, Indonesia, and Nigeria) had not yet introduced Hib vaccine (Figure 3).

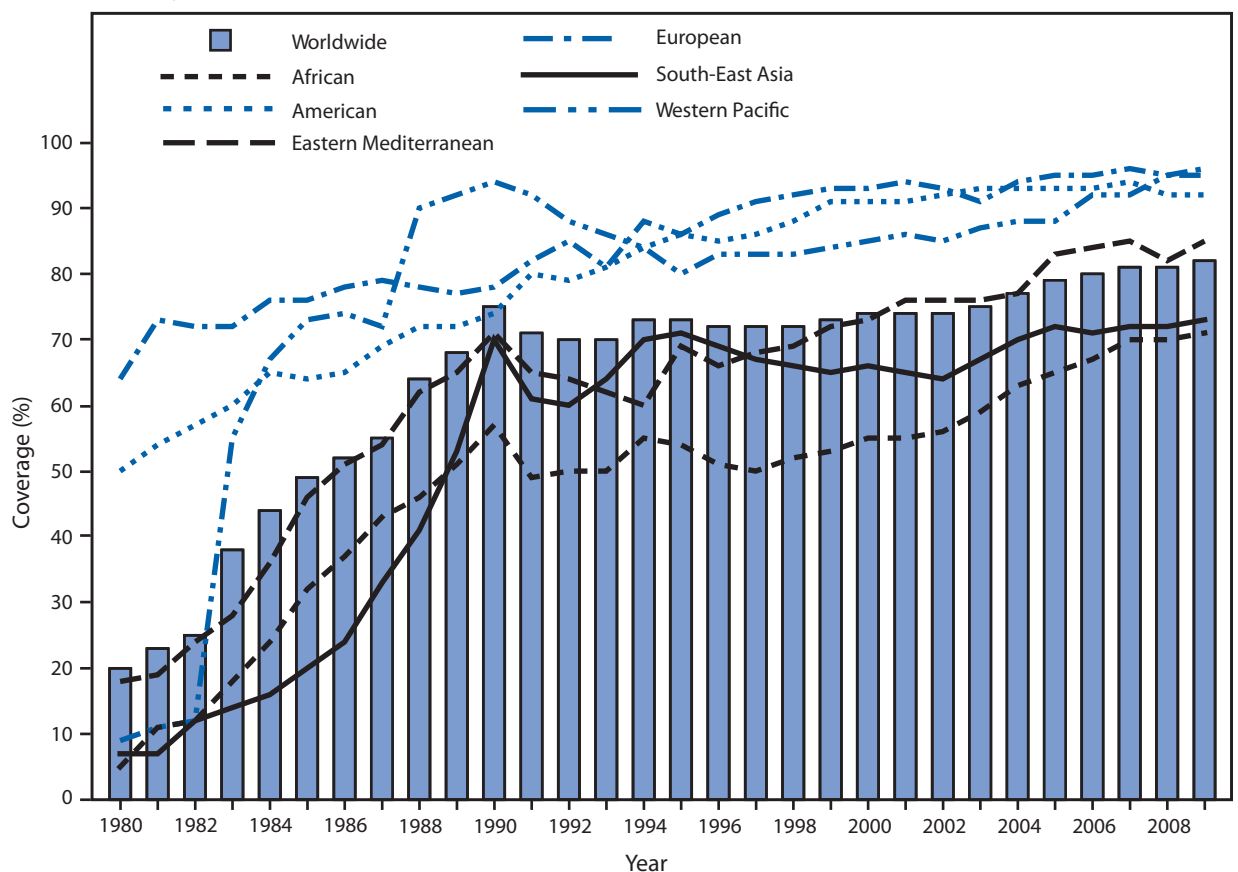
Reported by

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Editorial Note

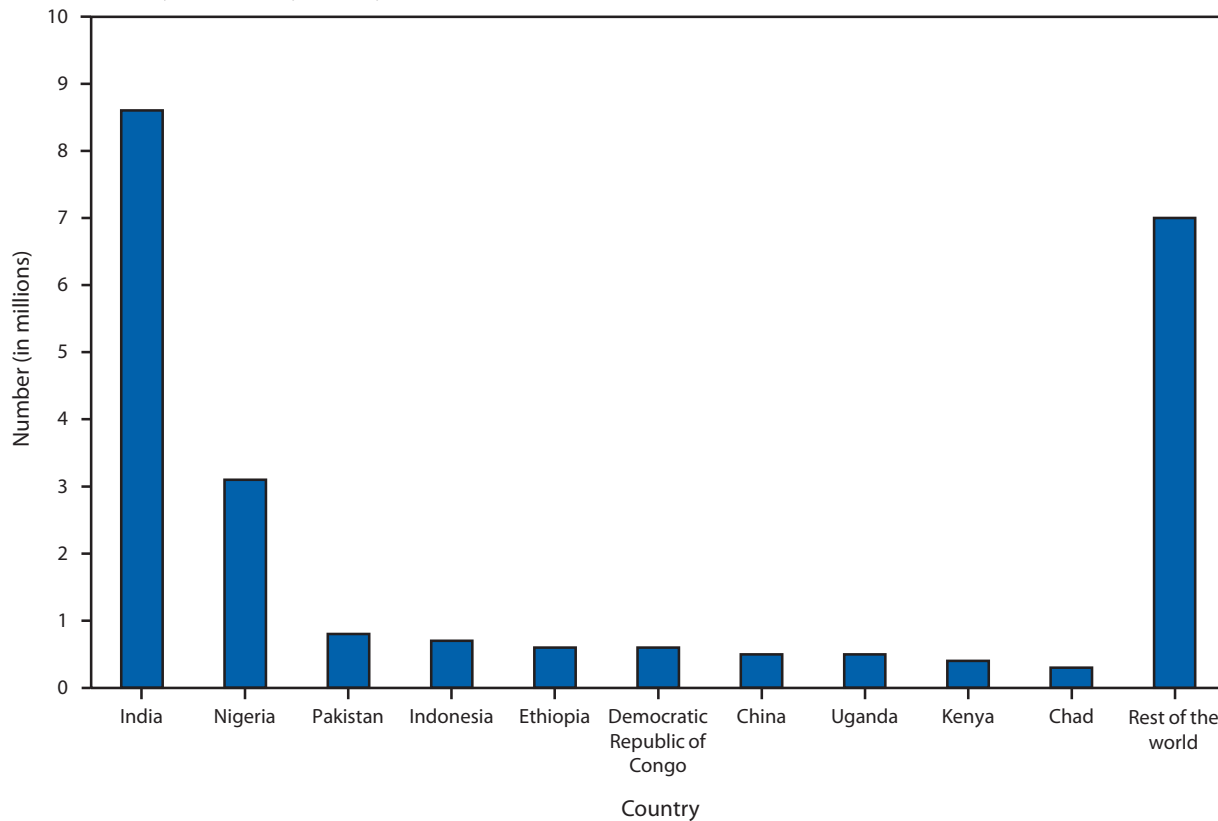
In 2009, more children than ever benefitted from vaccination worldwide. However, the global increase

FIGURE 1. Estimated coverage with 3 doses of diphtheria-tetanus-pertussis vaccine among children during the first year of life, worldwide and by World Health Organization region, 1980–2009



Source: World Health Organization.

FIGURE 2. Estimated number (in millions) of children who had not received 3 doses of diphtheria-tetanus-pertussis vaccine during the first year of life, by country — worldwide, 2009



Source: World Health Organization.

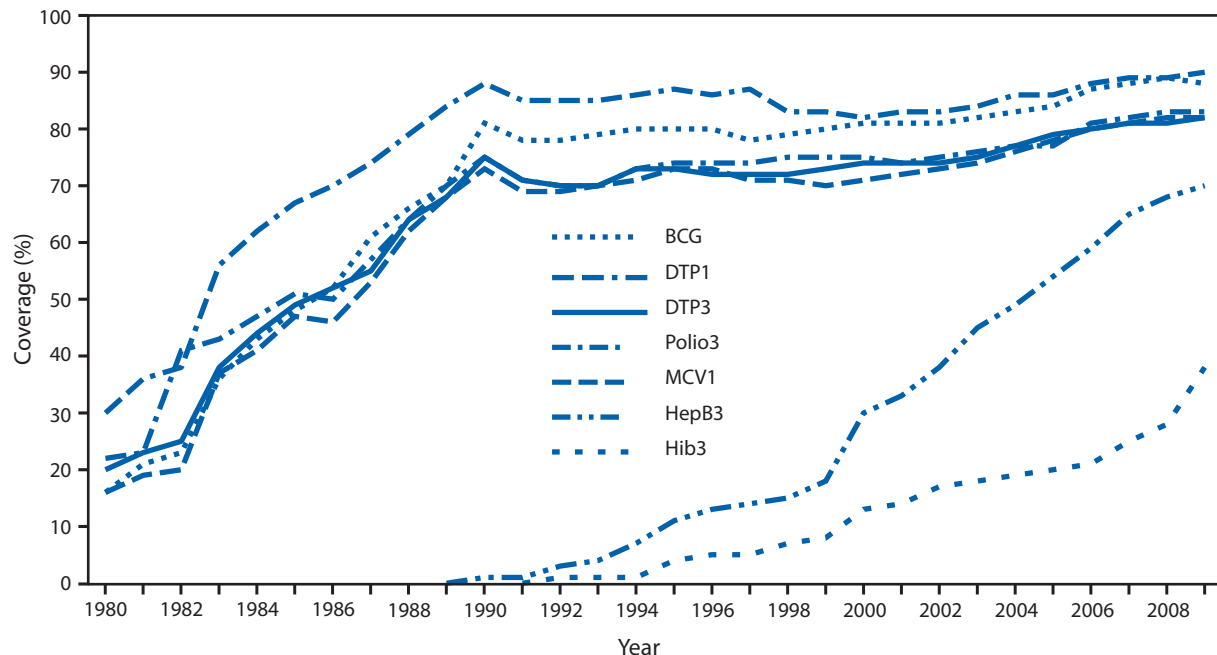
in vaccination coverage can obscure regional and local deficits in access to health services resulting from weak health systems, poor planning and resource management, limited outreach, inadequate supervision, and ineffective use of data. A recent review of published literature found that immunization program weaknesses were the leading reasons that children did not complete the DTP3 vaccination series (CDC, unpublished data, 2010). Countries such as Nigeria and India, home to approximately half the world's children who are not fully protected with 3 doses of DTP, will need to establish efficient, effective vaccination services that reach underserved populations to achieve vaccination targets.

In 2005, WHO and UNICEF created GIVS to guide countries in expanding the breadth and scope of vaccination and in using vaccination infrastructure to provide other essential health interventions (e.g., vitamin A, antihelminthics, and insecticide-treated bed nets) (6). In 2002, WHO, UNICEF, and other partners developed the Reaching Every District (RED) approach (8) to remove common

obstacles to vaccination and build district-level capacity. Components of the RED approach include effective planning and management of resources, outreach to underserved communities, providing supportive supervision and training, linking health services with communities, and promoting the use of district-level data for decision making. By 2009, 164 (85%) countries reported implementing at least one RED component, and 111 (58%) reported implementing at least four components. Periodic Intensification of Routine Immunization (PIRI)** activities, such as Child Health Days and Immunization Weeks, are being used increasingly to supplement routine vaccination services, raise coverage, and reduce the number of children who do not complete the vaccination series. In 2009, a total of 109 (56%) countries reported using at least one supplemental vaccination delivery strategy.

** Vaccination activities that share some characteristics of vaccination campaigns, while promoting the goal of raising routine vaccination coverage, rather than focusing primarily on accelerated disease-control activities.

FIGURE 3. Estimated vaccination coverage among children by age 12 months, by vaccine dose — worldwide, 1980–2009



Abbreviations: BCG = bacille Calmette-Guérin; DTP1 = 1 dose of diphtheria-tetanus-pertussis vaccine; DTP3 = 3 doses of diphtheria-tetanus-pertussis vaccine; Polio3 = 3 doses of polio vaccine; MCV1 = 1 dose of measles-containing vaccine; HepB3 = 3 doses of hepatitis B vaccine; Hib3 = 3 doses of *Haemophilus influenzae* type b (Hib) vaccine.

Source: World Health Organization.

Administrative data, although timely, are imperfect. Underreporting of vaccine doses will result in underestimation of coverage; alternatively, if children outside the target age group are vaccinated and included in the numerator, or if outdated census data that underestimate the target population are used in the denominator, coverage might be overestimated. As an alternative to administrative data, surveys can estimate coverage even if the size of the target population is not known, but they are retrospective and cannot provide timely information to immunization program managers. Survey data also might be adversely affected if interviewer training and supervision are inconsistent or if caretaker recall is unreliable (9).

Despite the extraordinary progress made toward reducing vaccine-preventable diseases during the past decade, the immunization agenda is unfinished. Increasing and expanding access to new and underutilized vaccines (e.g., PCV, Hib vaccine, and rotavirus vaccine) has the potential to greatly reduce pneumonia and diarrhea, the two leading causes of death among children aged <5 years in the developing world. As of June 2010, Hib vaccine has been introduced in 164 countries; however, because several large countries have not yet introduced the vaccine, it is only available to 48% of the 2010 global birth

cohort. Rotavirus vaccine has been introduced in 23 countries, representing 11% of the birth cohort, and PCV is available in 56 countries, representing 11% of the birth cohort.

One of the greatest challenges facing immunization programs is ensuring continued funding for vaccination of children in some of the poorest and most remote places on earth. Introducing new vaccines in low-income countries presents additional funding challenges. In 2000, the GAVI Alliance, a global health partnership representing private and public stakeholders, was established to improve vaccination services in poor countries^{††} and to improve coverage with new and underutilized vaccines. Since 2000, \$2.2 billion has been disbursed to approximately 70 countries to support vaccination services, injection safety, new vaccine introduction, and the strengthening of health service systems. Nonetheless, if the GIVS goal for global coverage is to be met, strategies known to be effective must be prioritized and implemented in all countries.

^{††} Additional information available at http://www.gavialliance.org/media_centre/press_releases/2000_01_31_en_press_release.php.

What is already known on this topic?

Since implementation of the Expanded Programme on Immunization in 1974, widespread use of vaccines has substantially reduced morbidity and mortality worldwide. In 2005, the World Health Organization and UNICEF developed the Global Immunization Vision and Strategy (GIVS), with the goal of protecting more persons against more diseases by increasing vaccination coverage, introducing new vaccines, and linking vaccination with provision of other health services.

What is added by this report?

During the past decade, global coverage of children with 3 doses of diphtheria-tetanus-pertussis (DTP) vaccine during the first year of life has reached 82%. However, substantial regional variations in coverage exist; approximately 23 million children (half of whom live in India and Nigeria) did not receive 3 doses of DTP vaccine during the first year of life, and many low-income countries will not reach 2010 vaccination targets.

What are the implications for public health practice?

Ensuring ongoing funding for existing vaccines, as well as the introduction of new and underutilized vaccines (e.g., *Haemophilus influenzae* type b, pneumococcal conjugate, and rotavirus vaccines) that have the potential to reduce childhood morbidity and mortality through prevention of many cases of pneumonia and diarrhea, will be a challenge in the next decade. To achieve GIVS goals, it is critical to strengthen immunization systems and prioritize and implement effective strategies in all countries.

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Rapid Diagnostic Tests for Malaria — Haiti, 2010

Plasmodium falciparum malaria is endemic to Haiti and remains a major concern for residents, including displaced persons, and emergency responders in the aftermath of the January 12, 2010 earthquake (1). Microscopy has been the only test approved in the national policy for the diagnosis and management of malaria in Haiti; however, the use of microscopy often has been limited by lack of equipment or trained personnel. In contrast, malaria rapid diagnostic tests (RDTs) require less equipment or training to use. To assist in the timely diagnosis and treatment of malaria in Haiti, the Ministry of Public Health and Population (MSPP), in collaboration with CDC, conducted a field assessment that guided the decision to approve the use of RDTs. This data-driven policy change greatly expands the opportunities for accurate malaria diagnosis across the country, allows for improved clinical management of febrile patients, and will improve the quality of malaria surveillance in Haiti.

The selection of diagnostic tests for malaria for a country's national policy depends on multiple factors including the availability of health facility and laboratory infrastructure, financial resources, skilled personnel, and local epidemiology of the disease. For these reasons, national policies might differ in their recommended first-line diagnostic test. In the United States, both microscopy and RDTs are recommended, and at minimum, either test should be available at health-care facilities for malaria diagnosis; the only approved RDT in the United States, however, is BinaxNOW Malaria (Inverness Medical, Princeton, New Jersey). In addition, polymerase chain reaction can be used for malaria diagnosis and is most useful for species confirmation.

Until now, official MSPP policy for laboratory diagnosis of malaria has been to rely exclusively on microscopy. RDTs had not been incorporated into the MSPP malaria control strategy because of concerns that these newer tools, when compared with microscopy, were not sufficiently sensitive and would be difficult to sustain in some settings in Haiti. After the earthquake, with the acute need for clinical services and malaria diagnostics and the presence of international nongovernmental organizations assisting with the response, MSPP allowed the use of RDTs for 90 days (January 12–April 12, 2010). No specific RDT brands were endorsed for temporary use.

During 2 weeks in April, MSPP and CDC compared the performance of expert microscopy with the performance of two brands of RDTs introduced temporarily in Haiti for malaria diagnosis. Four health facilities were included in the assessment. Of these, two sites where local health workers were trained to use one brand of RDT demonstrated acceptable sensitivity (100% and 84.2%) and specificity (91.4% and 94.0%). The third site, using the other brand of RDT, showed poor sensitivity (51.6%) but adequate specificity (94.4%). Shortly before the assessment, the World Health Organization issued RDT procurement recommendations based on previously published rigorous performance evaluations, and this latter RDT brand was not listed at that time as a preferred test for low transmission settings (2). The fourth site did not submit enough samples for comparison.

The in-country data demonstrated that at least one of the two brands of RDTs could perform adequately in Haiti, and these findings correlated with the published evaluations. Based on this experience, MSPP has adopted use of RDTs as part of the national strategy at the following health facilities: 1) health centers and clinics without microscopy capacity; and 2) departmental hospitals, community referral hospitals, and specialty hospitals during laboratory off-hours or if microscopy is not available. The use of RDTs is not permitted in teaching hospitals because these facilities are required to have microscopy capacity in Haiti.

As of July 2010, three brands of RDTs for the diagnosis of *P. falciparum* malaria have been approved by MSPP for use in Haiti: First Response Malaria Ag HRP2 (Premier Medical Corporation Ltd., Watchung, New Jersey), CareStart Malaria HRP2 (Pf) (Access Bio, Inc., Monmouth Junction, New Jersey), and SD Bioline Malaria Ag Pf (Standard Diagnostics, Inc., Yongin, Korea). Although in-country data from the RDT field assessment demonstrated that some RDTs could perform comparably to microscopy, the selection of these three brands was based on previously published laboratory evaluations (3,4). The main criterion used by MSPP for the approved RDTs was a detection rate* of $\geq 97\%$ for *P. falciparum*

*A sample is considered detected only if all RDTs from two lots read by the first technician, at minimum specified reading time, are positive. Wild type *P. falciparum* samples at a concentration of 200 parasites/ μ L were used for laboratory testing.

at low parasite densities. The RDT that performed with adequate sensitivity in the field assessment had a detection rate exceeding this threshold and was included as one of the approved tests. Clinicians in Haiti, international emergency responders, and health officials should be aware of this change in policy, which now recommends the use of any of these three RDTs for the diagnosis of malaria in the specified health-care settings.

Reported by

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Notes from the Field

***Vibrio mimicus* Infection from Consuming Crayfish — Spokane, Washington, June 2010**

On June 24, 2010, the Spokane (Washington) Regional Health District (SRHD) was notified of two hospitalized patients under intensive care with severe dehydration whose stool specimens yielded *Vibrio mimicus*. CDC was asked to assist with the environmental and epidemiologic investigation. Investigators learned that both persons had consumed crayfish on June 20, 2010. The previous day, live crayfish obtained from an online seafood company had been boiled and served warm at a party. The chef reported that the boiled crayfish were served out of a cooler that had contained live crayfish, and the cooler had not been cleaned before being used to serve the cooked crayfish. After the party, the remaining crayfish were refrigerated overnight in different containers and served cold as leftovers the following evening on June 20.

Questionnaires were administered to 21 (95%) of 22 persons who had attended either the party on June 19 or the meal of leftovers on June 20. A case was defined as an illness in any person who had attended the party or the meal and experienced acute, watery diarrhea during June 19–25. Four cases were identified. Consuming leftover crayfish was associated with illness. Of eight persons who consumed leftover crayfish, four (50%) became ill compared with zero of the 13 persons who did not consume leftover crayfish (relative risk = 14; Fisher's exact test p value = 0.007). No other food items or environmental exposures were associated with illness. *V. mimicus* was isolated from cultures of stool specimens, and genes encoding cholera toxin were identified by polymerase chain reaction (PCR) in all three ill persons who submitted specimens. Two persons were hospitalized in an intensive-care unit with severe dehydration, metabolic acidosis, and acute renal failure. The two patients received intravenous fluid rehydration, bicarbonate infusions, and antibiotics; they recovered fully. The other two persons had mild, self-limited diarrheal illness. Frozen leftover crayfish samples submitted to the Food and Drug Administration (FDA) on July 21 for testing did not yield *V. mimicus* by culture, nor were cholera toxin genes detected using PCR.

V. mimicus has been recognized as a cause of gastroenteritis transmitted by raw oysters, fish, turtle eggs, prawns, squid, and crayfish (1). *V. mimicus*, when carrying genes that encode cholera toxin, can cause severe watery diarrhea. Consumers and physicians should be aware that improperly handled marine and aquatic animal products can be a source of *V. mimicus* infections. Consumers should avoid cross-contamination of cooked seafood and other foods with raw seafood and juices from raw seafood and should follow FDA recommendations for selecting seafood and preparing it safely (3).

Reported by

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Announcement

National Epilepsy Awareness Month — November 2010

November is National Epilepsy Awareness Month. Epilepsy, which affects approximately 2 million persons in the United States, is characterized by recurrent, unprovoked seizures (1). Delayed recognition of these seizures and subsequent inadequate treatment increases the risk for additional seizures, disability, decreased health-related quality of life, and, in rare instances, death (2–4). Although epilepsy can occur at any age, the condition is more likely to begin among children aged <2 years and adults aged >65 years (5). The number of cases among older adults is increasing as the U.S. population ages (3). A multistate study by CDC indicated that approximately 1% of adults have active epilepsy, and many might not be receiving the best available medical care (1).

“Get Seizure Smart,” this year’s theme for National Epilepsy Awareness Month, focuses on the importance of seizure recognition and first aid. During the month of November, the Epilepsy Foundation will launch an interactive website (<http://www.getseizuresmart.org>) that will provide educational materials and other resources to support this effort.

Many persons do not know how to respond appropriately to a person having a seizure. For example, although many law enforcement and emergency response personnel are able to respond successfully to readily recognizable forms of seizures and intervene appropriately, some might not recognize seizures in persons they encounter who appear to be confused, unable to communicate, or exhibit behaviors inappropriate to time and place (6). Such persons might not obey directives and might become involuntarily combative, resulting in inappropriate arrest, possible injury, and, in some cases, death (7,8).

The Epilepsy Foundation, in partnership with CDC, is continuing a national education and outreach program to educate and train law enforcement officers, police cadets, and emergency response personnel to increase their recognition of seizures and to protect the safety and rights of persons having seizures, while also ensuring the safety of first responders. The centerpiece of this effort is the First Responders Training Program, consisting of two modules. The first, the Law Enforcement Training

Curriculum, has reached approximately 55,000 law enforcement personnel through class and train-the-trainer sessions. It is available online (<http://www.train.org>) through the Public Health Foundation training network. The second, a module designed specifically for fire and emergency medical service personnel, is undergoing pilot testing by Epilepsy Foundation affiliates. It includes a facilitator’s guide, a participant manual, and a video, *A Guide to Seizure Management for Emergency Medical Responders*, all of which is available online at the same web address (<http://www.train.org>).

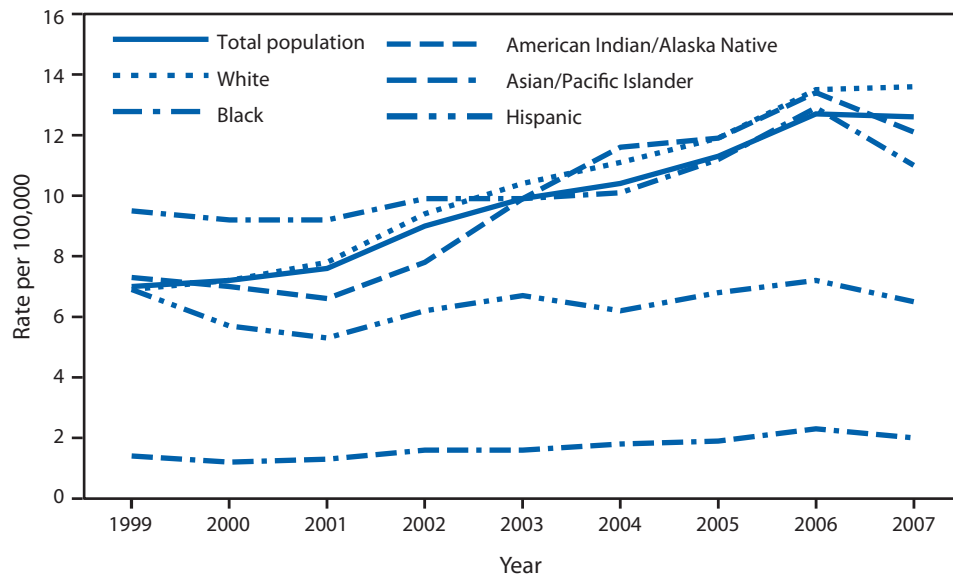
Additional information about epilepsy and the national program is available from the Epilepsy Foundation by telephone (800-332-1000) or online (<http://www.epilepsyfoundation.org>). Information in Spanish is available online (<http://www.fundacionparalaepilepsia.org>) or by telephone (866-748-8008).

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QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Rates of Drug-Induced Deaths,* by Race/Ethnicity[†] —
United States, 1999–2007

* Age-adjusted rates for drug-induced deaths per 100,000 U.S. standard population (based on *International Classification of Diseases, 10th Revision* [ICD-10] codes D52.1, D59.0, D59.2, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11.0–F11.5, F11.7–F11.9, F12.0–F12.5, F12.7–F12.9, F13.0–F13.5, F13.7–F13.9, F14.0–F14.5, F14.7–F14.9, F15.0–F15.5, F15.7–F15.9, F16.0–F16.5, F16.7–F16.9, F17.0, F17.3–F17.5, F17.7–F17.9, F18.0–F18.5, F18.7–F18.9, F19.0–F19.5, F19.7–F19.9, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2–J70.4, K85.3, L10.5, L27.0–L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R50.2, R78.1–R78.5, X40–X44, X60–X64, X85, and Y10–Y14). Drug-induced deaths include deaths from poisoning, drug dependence, and conditions resulting from acute or chronic exposure to drugs. Drug-induced deaths exclude deaths from adverse events caused by drugs in therapeutic use (ICD-10 codes Y40–59), deaths indirectly related to drug use (e.g., motor vehicle crashes), and newborn deaths associated with the mother's drug use.

[†] Race and Hispanic ethnicity are reported separately on the death certificate. Persons of Hispanic ethnicity might be of any race. Hispanic decedents also are counted among the races shown.

During 1999–2007, age-adjusted rates for drug-induced deaths generally increased for each race group. The rate increased by 80.0% for the total population, 97.1% for the white population, 15.8% for the black population, 65.8% for American Indians/Alaska Natives, and 42.9% for Asians/Pacific Islanders. However, for the Hispanic population the rate was more stable, with a decline of 5.8%. During this period, Asians/Pacific Islanders had substantially lower rates than all other groups.

Source: Xu J, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: final data for 2007. *Natl Vital Stat Rep* 2010;58(19). Available at http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf.

Notifiable Diseases and Mortality Tables

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending October 23, 2010 (42nd week)*

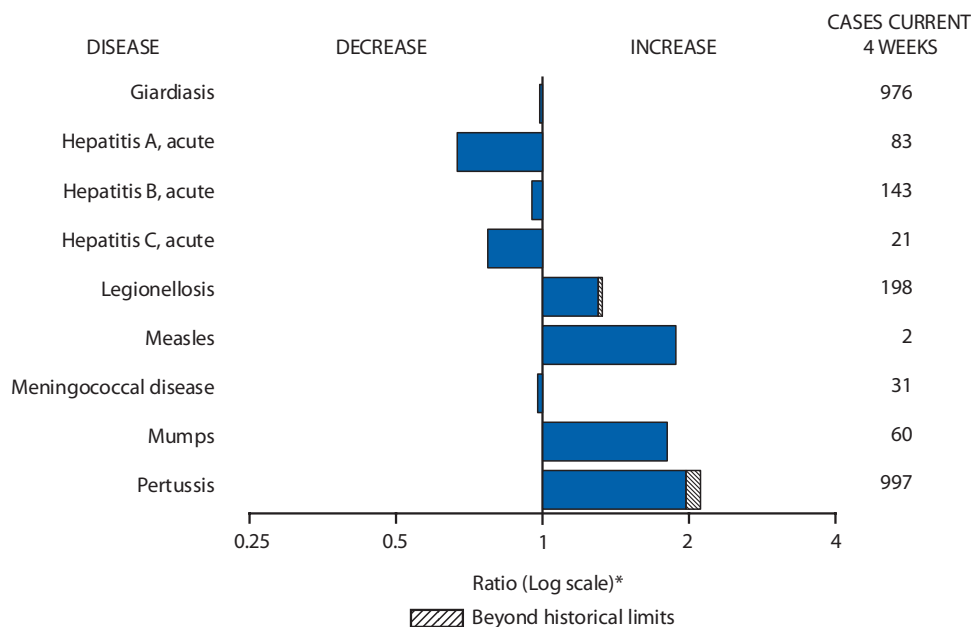
Disease	Current week	Cum 2010	5-year weekly average [†]	Total cases reported for previous years					States reporting cases during current week (No.)
				2009	2008	2007	2006	2005	
Anthrax	—	—	—	1	—	1	1	—	
Botulism, total	2	83	3	118	145	144	165	135	
foodborne	—	6	1	10	17	32	20	19	
infant	1	58	2	83	109	85	97	85	PA (1)
other (wound and unspecified)	1	19	1	25	19	27	48	31	WA (1)
Brucellosis	—	98	2	115	80	131	121	120	
Chancroid	—	32	0	28	25	23	33	17	
Cholera	—	5	0	10	5	7	9	8	
Cyclosporiasis [§]	2	149	1	141	139	93	137	543	FL (1), TN (1)
Diphtheria	—	—	—	—	—	—	—	—	
Domestic arboviral diseases ^{§,¶} :									
California serogroup virus disease	—	55	1	55	62	55	67	80	
Eastern equine encephalitis virus disease	—	10	0	4	4	4	8	21	
Powassan virus disease	—	5	0	6	2	7	1	1	
St. Louis encephalitis virus disease	—	6	0	12	13	9	10	13	
Western equine encephalitis virus disease	—	—	—	—	—	—	—	—	
<i>Haemophilus influenzae</i> , ** invasive disease (age <5 yrs):									
serotype b	—	13	0	35	30	22	29	9	
nonsertotype b	—	137	3	236	244	199	175	135	
unknown serotype	17	199	3	178	163	180	179	217	PA (1), FL (2), CA (14)
Hansen disease [§]	—	35	2	103	80	101	66	87	
Hantavirus pulmonary syndrome [§]	—	16	0	20	18	32	40	26	
Hemolytic uremic syndrome, postdiarrheal [§]	5	174	6	242	330	292	288	221	MD (1), TN (2), CA (2)
HIV infection, pediatric (age <13 yrs) ^{††}	—	—	2	—	—	—	—	380	
Influenza-associated pediatric mortality ^{§,§§}	—	56	4	358	90	77	43	45	
Listeriosis	6	631	20	851	759	808	884	896	OH (1), MD (1), NC (1), FL (1), OK (1), WA (1)
Measles ^{¶¶}	—	56	0	71	140	43	55	66	
Meningococcal disease, invasive ^{***} :									
A, C, Y, and W-135	2	192	5	301	330	325	318	297	VA (1), CO (1)
serogroup B	2	89	2	174	188	167	193	156	WA (2)
other serogroup	—	7	0	23	38	35	32	27	
unknown serogroup	4	305	9	482	616	550	651	765	NY (1), MO (1), VA (1), CA (1)
Mumps	8	2,430	18	1,991	454	800	6,584	314	NY (1), OH (4), TX (2), HI (1)
Novel influenza A virus infections ^{†††}	—	1	0	43,774	2	4	NN	NN	
Plague	—	2	0	8	3	7	17	8	
Poliomyelitis, paralytic	—	—	—	1	—	—	—	1	
Polio virus Infection, nonparalytic [§]	—	—	—	—	—	—	NN	NN	
Psittacosis [§]	—	4	0	9	8	12	21	16	
Q fever, total ^{§,§§§}	—	97	2	114	120	171	169	136	
acute	—	74	1	94	106	—	—	—	
chronic	—	23	0	20	14	—	—	—	
Rabies, human	—	1	0	4	2	1	3	2	
Rubella ^{¶¶¶}	—	6	0	3	16	12	11	11	
Rubella, congenital syndrome	—	—	—	2	—	—	1	1	
SARS-CoV ^{§,****}	—	—	—	—	—	—	—	—	
Smallpox [§]	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome [§]	1	136	1	161	157	132	125	129	VT (1)
Syphilis, congenital (age <1 yr) ^{††††}	—	165	8	423	431	430	349	329	
Tetanus	—	6	1	18	19	28	41	27	
Toxic-shock syndrome (staphylococcal) [§]	—	58	1	74	71	92	101	90	
Trichinellosis	—	3	0	13	39	5	15	16	
Tularemia	—	83	2	93	123	137	95	154	
Typhoid fever	6	323	7	397	449	434	353	324	NY (1), PA (1), VA (1), NC (1), WA (1), CA (1)
Vancomycin-intermediate <i>Staphylococcus aureus</i> [§]	—	70	1	78	63	37	6	2	
Vancomycin-resistant <i>Staphylococcus aureus</i> [§]	—	1	0	1	—	2	1	3	
Vibriosis (noncholera <i>Vibrio</i> species infections) [§]	15	655	10	789	588	549	NN	NN	ME (1), MD (1), VA (3), GA (1), FL (3), WA (2), CA (4)
Viral hemorrhagic fever ^{§§§§}	—	1	—	NN	NN	NN	NN	NN	
Yellow fever	—	—	—	—	—	—	—	—	

See Table I footnotes on next page.

TABLE I. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending October 23, 2010 (42nd week)*

—: No reported cases. N: Not reportable. NN: Not Nationally Notifiable Cum: Cumulative year-to-date counts.
 * Incidence data for reporting year 2010 is provisional, whereas data for 2005 through 2009 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/ncphi/diss/nndss/phs/files/5yearweeklyaverage.pdf>.
 ‡ Not reportable in all states. Data from states where the condition is not reportable are excluded from this table except starting in 2007 for the domestic arboviral diseases, STD data, TB data, and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/ncphi/diss/nndss/phs/infdic.htm>.
 § Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
 ** Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
 †† Updated 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. Since April 26, 2009, a total of 286 influenza-associated pediatric deaths associated with 2009 influenza A (H1N1) virus infection have been reported. Since August 30, 2009, a total of 281 influenza-associated pediatric deaths occurring during the 2009–10 influenza season have been reported.
 ¶¶ No measles cases were reported for the current week.
 *** Data for meningococcal disease (all serogroups) are available in Table II.
 ††† CDC discontinued reporting of individual confirmed and probable cases of 2009 pandemic influenza A (H1N1) virus infections on July 24, 2009. During 2009, four cases of human infection with novel influenza A viruses, different from the 2009 pandemic influenza A (H1N1) strain, were reported to CDC. The one case of novel influenza A virus infection reported to CDC during 2010 was identified as swine influenza A (H3N2) virus and is unrelated to 2009 pandemic influenza A (H1N1) virus. Total case counts for 2009 were provided by the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD).
 †††† In 2009, 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.
 ††††† Updated weekly from reports to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.
 ††††† There was one case of viral hemorrhagic fever reported during week 12. The one case report was confirmed as lassa fever. See Table II for dengue hemorrhagic fever.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals October 23, 2010, 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 October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	<i>Chlamydia trachomatis</i> infection					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max		
United States	14,906	23,446	26,182	957,262	1,015,701	69	123	330	6,355	6,213
New England	856	744	1,396	32,054	32,356	—	7	73	377	398
Connecticut	320	214	736	7,953	9,408	—	0	67	67	38
Maine†	—	50	75	1,996	1,940	—	1	7	70	44
Massachusetts	411	400	653	16,406	15,280	—	2	8	120	154
New Hampshire	44	41	114	1,948	1,754	—	1	5	46	71
Rhode Island†	58	65	120	2,745	3,010	—	0	2	13	21
Vermont†	23	23	51	1,006	964	—	1	5	61	70
Mid. Atlantic	4,478	3,290	4,619	137,626	128,070	7	15	37	672	706
New Jersey	445	483	691	20,597	19,982	—	0	1	—	46
New York (Upstate)	752	679	2,530	27,692	25,210	4	3	16	179	187
New York City	2,740	1,207	2,142	51,330	47,579	—	1	5	72	72
Pennsylvania	541	894	1,092	38,007	35,299	3	9	26	421	401
E.N. Central	815	3,493	4,127	138,819	163,661	11	29	120	1,710	1,469
Illinois	23	785	1,225	28,238	50,080	—	3	20	216	137
Indiana	—	348	796	15,401	18,742	—	4	10	133	244
Michigan	492	900	1,420	38,755	37,620	1	5	18	274	238
Ohio	165	960	1,080	39,318	40,019	9	7	24	400	325
Wisconsin	135	415	504	17,107	17,200	1	9	55	687	525
W.N. Central	480	1,334	1,565	54,592	58,054	5	23	82	1,159	950
Iowa	8	188	265	8,058	7,891	—	4	23	292	180
Kansas	26	186	235	7,596	8,825	—	2	9	118	89
Minnesota	—	274	331	10,695	11,839	—	0	18	98	288
Missouri	282	498	599	20,430	21,201	2	4	30	333	161
Nebraska†	143	93	237	3,972	4,411	3	2	26	209	102
North Dakota	—	34	89	1,375	1,443	—	0	18	28	11
South Dakota	21	62	77	2,466	2,444	—	2	6	81	119
S. Atlantic	3,152	4,542	5,681	187,562	205,973	15	18	51	845	944
Delaware	68	85	220	3,555	3,839	—	0	2	7	8
District of Columbia	—	93	177	3,904	5,591	—	0	1	2	6
Florida	660	1,433	1,712	60,739	60,223	7	7	19	314	377
Georgia	346	376	1,229	16,638	33,240	2	5	31	249	293
Maryland†	—	459	1,031	18,571	18,211	1	1	3	31	36
North Carolina	548	785	1,562	33,479	34,148	3	1	12	69	97
South Carolina†	742	523	804	22,332	22,299	1	1	8	77	50
Virginia†	695	596	902	25,289	25,466	1	2	8	81	63
West Virginia	93	70	137	3,055	2,956	—	0	3	15	14
E.S. Central	944	1,735	2,415	71,461	76,264	2	4	19	259	189
Alabama†	—	495	748	20,782	21,812	—	2	11	120	57
Kentucky	204	288	642	12,103	10,162	1	1	6	71	53
Mississippi	458	384	780	15,528	19,655	1	0	3	18	16
Tennessee†	282	564	728	23,048	24,635	—	1	5	50	63
W.S. Central	1,306	2,954	4,578	126,671	133,832	8	8	39	362	480
Arkansas†	328	250	392	9,726	11,867	—	1	3	30	47
Louisiana	682	228	1,076	11,660	23,463	—	1	5	49	46
Oklahoma	223	258	1,374	12,518	11,858	3	1	8	74	108
Texas†	73	2,189	3,200	92,767	86,644	5	4	30	209	279
Mountain	959	1,525	1,904	61,253	64,760	8	10	28	466	488
Arizona	300	498	713	20,507	21,329	—	1	3	31	29
Colorado	211	372	617	14,372	15,718	4	2	8	115	124
Idaho†	109	72	200	3,280	2,863	—	2	6	81	79
Montana†	16	60	79	2,445	2,466	3	1	4	43	49
Nevada†	135	170	337	7,705	8,339	1	0	6	31	21
New Mexico†	116	173	453	6,386	7,433	—	2	11	98	130
Utah	65	119	176	4,981	5,019	—	1	4	54	36
Wyoming†	7	37	79	1,577	1,593	—	0	2	13	20
Pacific	1,916	3,646	5,350	147,224	152,731	13	12	28	505	589
Alaska	—	111	148	4,702	4,312	—	0	1	4	6
California	1,519	2,771	4,406	113,503	116,762	7	7	19	289	345
Hawaii	—	113	158	4,676	4,988	—	0	0	—	1
Oregon	127	208	468	8,884	8,921	1	3	13	143	165
Washington	270	387	497	15,459	17,748	5	1	8	69	72
Territories										
American Samoa	—	0	0	—	—	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	4	31	232	304	—	0	0	—	—
Puerto Rico	72	92	265	4,285	6,099	N	0	0	N	N
U.S. Virgin Islands	—	9	29	323	424	—	0	0	—	—

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

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

* Incidence data for reporting year 2010 is provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	Dengue Virus Infection									
	Dengue Fever [†]					Dengue Hemorrhagic Fever [‡]				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max			
United States	—	5	30	355	NN	—	0	1	4	NN
New England	—	0	2	4	NN	—	0	0	—	NN
Connecticut	—	0	0	—	NN	—	0	0	—	NN
Maine [¶]	—	0	2	3	NN	—	0	0	—	NN
Massachusetts	—	0	0	—	NN	—	0	0	—	NN
New Hampshire	—	0	0	—	NN	—	0	0	—	NN
Rhode Island [¶]	—	0	0	—	NN	—	0	0	—	NN
Vermont [¶]	—	0	1	1	NN	—	0	0	—	NN
Mid. Atlantic	—	0	9	74	NN	—	0	0	—	NN
New Jersey	—	0	0	—	NN	—	0	0	—	NN
New York (Upstate)	—	0	0	—	NN	—	0	0	—	NN
New York City	—	0	7	62	NN	—	0	0	—	NN
Pennsylvania	—	0	2	12	NN	—	0	0	—	NN
E.N. Central	—	0	5	37	NN	—	0	1	1	NN
Illinois	—	0	0	—	NN	—	0	0	—	NN
Indiana	—	0	2	10	NN	—	0	0	—	NN
Michigan	—	0	2	8	NN	—	0	0	—	NN
Ohio	—	0	2	14	NN	—	0	0	—	NN
Wisconsin	—	0	2	5	NN	—	0	1	1	NN
W.N. Central	—	0	2	17	NN	—	0	0	—	NN
Iowa	—	0	1	2	NN	—	0	0	—	NN
Kansas	—	0	1	1	NN	—	0	0	—	NN
Minnesota	—	0	2	13	NN	—	0	0	—	NN
Missouri	—	0	0	—	NN	—	0	0	—	NN
Nebraska [¶]	—	0	0	—	NN	—	0	0	—	NN
North Dakota	—	0	1	1	NN	—	0	0	—	NN
South Dakota	—	0	0	—	NN	—	0	0	—	NN
S. Atlantic	—	1	16	178	NN	—	0	1	2	NN
Delaware	—	0	0	—	NN	—	0	0	—	NN
District of Columbia	—	0	0	—	NN	—	0	0	—	NN
Florida	—	1	14	154	NN	—	0	1	2	NN
Georgia	—	0	2	9	NN	—	0	0	—	NN
Maryland [¶]	—	0	0	—	NN	—	0	0	—	NN
North Carolina	—	0	1	4	NN	—	0	0	—	NN
South Carolina [¶]	—	0	3	9	NN	—	0	0	—	NN
Virginia [¶]	—	0	0	—	NN	—	0	0	—	NN
West Virginia	—	0	1	2	NN	—	0	0	—	NN
E.S. Central	—	0	2	5	NN	—	0	0	—	NN
Alabama [¶]	—	0	2	2	NN	—	0	0	—	NN
Kentucky	—	0	1	1	NN	—	0	0	—	NN
Mississippi	—	0	1	1	NN	—	0	0	—	NN
Tennessee [¶]	—	0	1	1	NN	—	0	0	—	NN
W.S. Central	—	0	1	4	NN	—	0	1	1	NN
Arkansas [¶]	—	0	0	—	NN	—	0	1	1	NN
Louisiana	—	0	0	—	NN	—	0	0	—	NN
Oklahoma	—	0	1	4	NN	—	0	0	—	NN
Texas [¶]	—	0	0	—	NN	—	0	0	—	NN
Mountain	—	0	2	13	NN	—	0	0	—	NN
Arizona	—	0	1	4	NN	—	0	0	—	NN
Colorado	—	0	0	—	NN	—	0	0	—	NN
Idaho [¶]	—	0	1	2	NN	—	0	0	—	NN
Montana [¶]	—	0	1	2	NN	—	0	0	—	NN
Nevada [¶]	—	0	1	4	NN	—	0	0	—	NN
New Mexico [¶]	—	0	1	1	NN	—	0	0	—	NN
Utah	—	0	0	—	NN	—	0	0	—	NN
Wyoming [¶]	—	0	0	—	NN	—	0	0	—	NN
Pacific	—	0	5	23	NN	—	0	0	—	NN
Alaska	—	0	0	—	NN	—	0	0	—	NN
California	—	0	5	11	NN	—	0	0	—	NN
Hawaii	—	0	0	—	NN	—	0	0	—	NN
Oregon	—	0	0	—	NN	—	0	0	—	NN
Washington	—	0	2	12	NN	—	0	0	—	NN
Territories										
American Samoa	—	0	0	—	NN	—	0	0	—	NN
C.N.M.I.	—	—	—	—	NN	—	—	—	—	NN
Guam	—	0	0	—	NN	—	0	0	—	NN
Puerto Rico	—	94	534	8,405	NN	—	0	3	31	NN
U.S. Virgin Islands	—	0	0	—	NN	—	0	0	—	NN

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

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

* Incidence data for reporting year 2010 is provisional.

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

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

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	Ehrlichiosis/Anaplasmosis†														
	<i>Ehrlichia chaffeensis</i>					<i>Anaplasma phagocytophilum</i>					Undetermined				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max				Med	Max			
United States	5	10	181	523	840	5	11	309	633	796	—	2	35	92	155
New England	—	0	3	3	45	—	2	8	68	234	—	0	2	7	2
Connecticut	—	0	0	—	—	—	0	5	18	17	—	0	2	5	—
Maine [§]	—	0	1	2	3	—	0	2	14	12	—	0	0	—	—
Massachusetts	—	0	0	—	9	—	0	4	—	88	—	0	0	—	—
New Hampshire	—	0	1	1	4	—	0	3	12	16	—	0	1	2	1
Rhode Island [§]	—	0	2	—	28	—	0	7	24	101	—	0	0	—	1
Vermont [§]	—	0	0	—	1	—	0	0	—	—	—	0	0	—	—
Mid. Atlantic	—	1	15	43	172	4	3	17	171	274	—	0	2	4	44
New Jersey	—	0	3	—	94	—	0	2	1	65	—	0	0	—	—
New York (Upstate)	—	0	15	25	47	4	2	17	167	200	—	0	1	4	6
New York City	—	0	3	17	9	—	0	1	3	8	—	0	0	—	1
Pennsylvania	—	0	5	1	22	—	0	1	—	1	—	0	1	—	37
E.N. Central	—	0	4	29	82	—	2	37	313	260	—	1	6	57	66
Illinois	—	0	2	12	33	—	0	1	2	6	—	0	2	4	3
Indiana	—	0	0	—	—	—	0	0	—	—	—	0	3	29	36
Michigan	—	0	1	2	5	—	0	0	—	—	—	0	1	3	—
Ohio	—	0	3	6	12	—	0	1	2	1	—	0	0	—	2
Wisconsin	—	0	1	9	32	—	2	37	309	253	—	0	3	21	25
W.N. Central	—	1	13	115	148	—	0	261	10	7	—	0	30	11	16
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	1	6	6	—	0	0	—	1	—	0	0	—	—
Minnesota	—	0	6	—	1	—	0	261	—	3	—	0	30	—	3
Missouri	—	1	13	107	139	—	0	3	10	2	—	0	3	11	13
Nebraska [§]	—	0	1	2	2	—	0	0	—	1	—	0	0	—	—
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
S. Atlantic	5	4	19	230	235	—	1	7	51	15	—	0	1	6	2
Delaware	—	0	3	17	20	—	0	1	4	2	—	0	0	—	—
District of Columbia	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Florida	—	0	2	8	10	—	0	1	3	3	—	0	0	—	—
Georgia	—	0	4	19	18	—	0	1	1	1	—	0	1	1	—
Maryland [§]	—	0	3	22	37	—	0	2	12	3	—	0	1	2	—
North Carolina	5	1	13	96	60	—	0	4	19	3	—	0	0	—	—
South Carolina [§]	—	0	2	3	10	—	0	1	1	—	—	0	0	—	—
Virginia [§]	—	1	13	65	79	—	0	2	11	3	—	0	1	3	2
West Virginia	—	0	0	—	1	—	0	0	—	—	—	0	1	—	—
E.S. Central	—	1	10	82	125	—	0	2	17	3	—	0	1	6	24
Alabama [§]	—	0	3	10	7	—	0	2	7	1	—	0	0	—	—
Kentucky	—	0	2	14	10	—	0	0	—	—	—	0	0	—	—
Mississippi	—	0	1	3	6	—	0	1	1	—	—	0	0	—	—
Tennessee [§]	—	1	6	55	102	—	0	2	9	2	—	0	1	6	24
W.S. Central	—	0	141	20	30	1	0	23	3	1	—	0	1	1	—
Arkansas [§]	—	0	34	2	4	—	0	6	—	—	—	0	0	—	—
Louisiana	—	0	1	1	—	—	0	0	—	—	—	0	0	—	—
Oklahoma	—	0	105	14	24	—	0	16	2	1	—	0	0	—	—
Texas [§]	—	0	2	3	2	1	0	1	1	—	—	0	1	1	—
Mountain	—	0	0	—	—	—	0	0	—	—	—	0	0	—	1
Arizona	—	0	0	—	—	—	0	0	—	—	—	0	0	—	1
Colorado	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Idaho [§]	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Montana [§]	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Nevada [§]	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
New Mexico [§]	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Utah	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Wyoming [§]	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Pacific	—	0	1	1	3	—	0	0	—	2	—	0	1	—	—
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
California	—	0	1	1	3	—	0	0	—	2	—	0	1	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Territories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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

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

* Incidence data for reporting year 2010 is provisional.

† Cumulative total *E. ewingii* cases reported for year 2010 = 10.

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	Giardiasis					Gonorrhoea					Haemophilus influenzae, invasive† All ages, all serotypes				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	263	344	666	14,411	15,392	3,549	5,429	6,326	223,251	247,941	41	59	171	2,333	2,326
New England	10	31	53	1,216	1,456	91	103	196	4,257	3,961	2	3	21	132	156
Connecticut	—	5	13	236	246	14	42	169	1,794	1,908	2	0	15	30	42
Maine§	5	4	12	177	181	—	3	11	136	110	—	0	2	10	18
Massachusetts	—	12	20	463	626	58	45	81	1,910	1,552	—	2	8	65	75
New Hampshire	1	3	8	120	175	5	3	7	124	85	—	0	2	9	10
Rhode Island§	—	1	7	60	52	14	5	14	246	270	—	0	2	11	7
Vermont§	4	4	10	160	176	—	0	17	47	36	—	0	1	7	4
Mid-Atlantic	39	60	103	2,468	2,852	1,004	676	941	28,908	25,795	3	11	34	447	473
New Jersey	—	5	13	207	360	116	102	161	4,465	3,919	—	2	7	75	106
New York (Upstate)	23	22	84	922	1,086	154	103	422	4,563	4,752	—	3	20	118	119
New York City	5	16	33	727	698	549	228	394	10,021	8,955	—	2	6	86	59
Pennsylvania	11	14	25	612	708	185	229	347	9,859	8,169	3	3	9	168	189
E.N. Central	35	53	78	2,361	2,428	250	927	1,260	37,956	52,432	5	10	20	398	365
Illinois	—	12	24	483	527	12	185	380	6,571	16,645	—	3	9	118	137
Indiana	—	5	13	191	244	—	94	221	4,322	6,053	—	1	6	69	66
Michigan	3	13	23	564	554	134	243	471	10,651	12,340	1	0	4	27	18
Ohio	29	16	24	706	676	60	315	372	12,646	13,115	4	2	6	99	82
Wisconsin	3	8	29	417	427	44	93	155	3,766	4,279	—	2	5	85	62
W.N. Central	14	25	165	1,179	1,325	128	273	357	11,158	12,246	2	3	24	134	133
Iowa	4	5	11	238	249	2	32	52	1,366	1,357	—	0	1	1	—
Kansas	1	4	10	181	130	8	37	83	1,548	2,104	—	0	2	12	13
Minnesota	—	0	135	136	250	—	40	62	1,515	1,907	—	0	17	25	47
Missouri	7	8	25	349	437	72	124	172	5,356	5,366	1	1	6	67	46
Nebraska§	2	4	9	181	146	46	22	50	959	1,119	1	0	2	19	21
North Dakota	—	0	7	25	20	—	2	11	94	105	—	0	4	10	6
South Dakota	—	1	7	69	93	—	6	17	320	288	—	0	0	—	—
S. Atlantic	66	74	143	3,085	2,995	933	1,307	1,651	54,354	61,741	8	14	27	623	637
Delaware	—	0	5	25	22	19	18	48	815	786	—	0	1	5	3
District of Columbia	—	1	5	31	60	—	37	65	1,478	2,183	—	0	1	2	4
Florida	51	40	87	1,766	1,571	184	380	486	16,358	17,392	5	3	9	153	190
Georgia	—	11	51	485	612	116	138	421	5,671	11,344	2	3	9	143	127
Maryland§	4	5	11	216	230	—	132	237	5,346	4,959	—	1	6	55	76
North Carolina	N	0	0	N	N	221	258	596	11,264	11,629	1	2	9	106	78
South Carolina§	1	2	9	120	90	202	153	233	6,746	6,995	—	2	7	69	60
Virginia§	10	9	36	409	369	176	160	271	6,251	6,041	—	2	4	70	73
West Virginia	—	1	5	33	41	15	9	20	425	412	—	0	5	20	26
E.S. Central	1	5	15	207	343	266	479	698	19,380	22,002	1	3	12	140	139
Alabama§	—	4	9	153	166	—	145	217	6,002	6,243	—	0	3	21	34
Kentucky	N	0	0	N	N	58	76	156	3,156	2,998	1	0	2	29	19
Mississippi	N	0	0	N	N	139	109	216	4,395	6,124	—	0	2	10	7
Tennessee§	1	1	10	54	177	69	145	196	5,827	6,637	—	2	10	80	79
W.S. Central	—	8	16	308	425	380	782	1,283	34,208	39,193	1	2	20	107	99
Arkansas§	—	2	9	106	121	101	75	133	2,993	3,682	—	0	3	14	15
Louisiana	—	3	9	139	172	189	68	441	3,362	7,623	—	0	3	21	17
Oklahoma	—	2	7	63	132	73	79	359	3,685	3,765	1	1	15	64	63
Texas§	N	0	0	N	N	17	571	964	24,168	24,123	—	0	2	8	4
Mountain	28	30	49	1,323	1,387	86	179	262	7,252	7,615	1	5	15	239	203
Arizona	2	3	8	130	171	32	63	109	2,413	2,532	—	2	10	90	65
Colorado	18	13	27	569	404	15	53	94	2,156	2,297	1	1	5	67	59
Idaho§	2	4	9	171	168	5	2	6	96	82	—	0	2	14	3
Montana§	3	2	7	87	118	—	2	6	86	67	—	0	1	2	1
Nevada§	2	1	11	82	98	18	28	94	1,361	1,448	—	0	2	6	16
New Mexico§	—	2	5	76	106	15	20	41	854	873	—	1	5	35	27
Utah	—	4	11	175	265	1	6	15	258	256	—	0	4	19	29
Wyoming§	1	1	5	33	57	—	1	4	28	60	—	0	2	6	3
Pacific	70	53	133	2,264	2,181	411	594	809	25,778	22,956	18	2	9	113	121
Alaska	—	2	6	81	95	—	23	37	1,000	788	—	0	2	19	15
California	46	33	61	1,418	1,413	361	488	691	21,320	18,906	18	0	4	30	39
Hawaii	—	0	4	25	18	—	14	25	598	518	—	0	2	7	28
Oregon	3	9	24	398	340	13	19	43	794	872	—	1	5	53	36
Washington	21	8	75	342	315	37	50	69	2,066	1,872	—	0	4	4	3
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	2	3	—	0	4	28	19	—	0	0	—	—
Puerto Rico	—	1	8	57	141	10	5	14	238	200	—	0	1	1	4
U.S. Virgin Islands	—	0	0	—	—	—	2	7	78	103	—	0	0	—	—

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

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

* Incidence data for reporting year 2010 is provisional.

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

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

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	Hepatitis (viral, acute), by type														
	A					B					C				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max				Med	Max			
United States	24	30	69	1,230	1,629	41	62	204	2,491	2,656	5	15	44	654	597
New England	1	2	5	77	95	1	1	5	43	46	—	1	3	29	54
Connecticut	1	0	3	24	18	—	0	2	15	13	—	0	3	19	41
Maine†	—	0	1	7	1	1	0	2	12	12	—	0	1	—	2
Massachusetts	—	1	4	36	60	—	0	2	8	17	—	0	1	9	10
New Hampshire	—	0	1	2	7	—	0	2	6	4	N	0	0	N	N
Rhode Island†	—	0	4	8	7	U	0	0	U	U	U	0	0	U	U
Vermont†	—	0	0	—	2	—	0	1	2	—	—	0	1	1	1
Mid. Atlantic	1	4	10	167	232	2	5	10	233	278	1	2	6	95	83
New Jersey	—	0	3	12	60	1	1	5	57	83	—	0	2	21	5
New York (Upstate)	1	1	4	52	40	—	1	6	41	46	—	1	4	48	40
New York City	—	1	5	59	72	—	2	4	72	57	—	0	0	—	5
Pennsylvania	—	1	4	44	60	1	1	5	63	92	1	0	3	26	33
E.N. Central	1	4	8	172	249	1	9	17	378	360	—	2	10	100	72
Illinois	—	1	3	40	115	—	2	5	70	100	—	0	1	1	4
Indiana	—	0	2	15	16	—	1	5	47	58	—	0	2	21	15
Michigan	—	1	4	52	58	1	3	6	101	109	—	1	6	62	26
Ohio	1	0	5	41	34	—	2	6	80	73	—	0	1	9	24
Wisconsin	—	0	3	24	26	—	1	8	80	20	—	0	2	7	3
W.N. Central	—	1	13	65	95	—	2	15	95	117	—	0	11	16	18
Iowa	—	0	3	7	32	—	0	2	12	29	—	0	1	—	10
Kansas	—	0	3	11	7	—	0	2	6	6	—	0	1	1	1
Minnesota	—	0	12	14	15	—	0	13	7	20	—	0	9	6	3
Missouri	—	0	2	20	20	—	1	3	57	40	—	0	1	6	—
Nebraska†	—	0	4	12	18	—	0	2	12	19	—	0	1	3	2
North Dakota	—	0	1	—	—	—	0	0	—	—	—	0	1	—	1
South Dakota	—	0	1	1	3	—	0	1	1	3	—	0	0	—	1
S. Atlantic	4	8	14	288	353	9	17	40	720	730	—	4	8	138	136
Delaware	—	0	1	7	3	—	1	2	22	27	U	0	0	U	U
District of Columbia	—	0	1	1	1	—	0	1	3	10	—	0	1	2	1
Florida	1	3	7	114	149	3	6	12	246	235	—	1	6	44	35
Georgia	1	1	3	34	40	1	3	7	121	125	—	0	2	7	30
Maryland†	—	0	4	22	42	1	1	6	57	63	—	0	2	21	20
North Carolina	1	1	5	45	35	—	1	16	83	94	—	0	3	36	20
South Carolina†	—	0	3	22	51	—	1	4	48	43	—	0	1	1	1
Virginia†	1	1	6	41	29	2	1	14	79	77	—	0	2	11	8
West Virginia	—	0	2	2	3	2	0	14	61	56	—	0	5	16	21
E.S. Central	—	1	3	33	34	3	7	13	288	275	—	3	7	120	81
Alabama†	—	0	1	6	9	—	1	5	57	74	—	0	1	5	7
Kentucky	—	0	2	13	8	—	2	8	100	66	—	2	5	82	48
Mississippi	—	0	1	2	8	—	1	3	29	27	U	0	0	U	U
Tennessee†	—	0	2	12	9	3	2	8	102	108	—	1	4	33	26
W.S. Central	3	2	19	106	161	13	9	109	388	464	3	1	14	63	47
Arkansas†	—	0	3	—	8	—	0	4	32	54	—	0	0	—	2
Louisiana	—	0	2	7	5	—	1	4	40	59	—	0	1	7	7
Oklahoma	1	0	3	1	3	3	2	19	79	80	3	0	12	26	12
Texas†	2	2	18	98	145	10	5	87	237	271	—	1	3	30	26
Mountain	—	3	8	118	138	—	2	8	96	114	1	1	5	42	41
Arizona	—	1	5	56	58	—	0	2	25	39	U	0	0	U	U
Colorado	—	1	3	26	45	—	0	3	21	22	—	0	2	7	24
Idaho†	—	0	2	6	4	—	0	1	6	11	—	0	2	9	4
Montana†	—	0	1	4	6	—	0	1	1	1	1	0	0	1	1
Nevada†	—	0	2	12	11	—	0	3	33	27	—	0	1	4	3
New Mexico†	—	0	1	3	7	—	0	1	4	6	—	0	2	11	5
Utah	—	0	1	8	5	—	0	1	5	4	—	0	2	10	4
Wyoming†	—	0	3	3	2	—	0	1	1	4	—	0	0	—	—
Pacific	14	5	16	204	272	12	6	20	250	272	—	1	6	51	65
Alaska	—	0	1	1	2	—	0	1	3	2	U	0	2	U	U
California	14	4	15	167	216	11	4	17	173	194	—	0	4	20	36
Hawaii	—	0	2	3	8	—	0	1	1	5	U	0	0	U	U
Oregon	—	0	2	17	13	—	1	4	33	34	—	0	3	13	15
Washington	—	0	2	16	33	1	1	4	40	37	—	0	6	18	14
Territories															
American Samoa	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	6	16	4	—	1	6	35	50	—	0	6	28	42
Puerto Rico	—	0	1	12	21	—	0	2	16	29	—	0	0	—	—
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2010 is 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 October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	Legionellosis					Lyme disease					Malaria				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
		Med	Max				Med	Max				Med	Max		
United States	72	58	112	2,522	2,850	150	410	2,336	22,170	32,760	21	26	89	1,161	1,156
New England	6	3	13	172	173	16	121	423	6,181	11,296	—	1	4	57	53
Connecticut	6	0	4	38	48	—	41	200	2,218	3,797	—	0	1	1	5
Maine†	—	0	2	10	8	12	12	76	610	779	—	0	1	5	2
Massachusetts	—	1	7	77	85	—	36	161	1,876	4,884	—	1	3	37	34
New Hampshire	—	0	5	15	11	1	22	64	1,050	1,259	—	0	2	4	4
Rhode Island†	—	0	4	23	14	—	1	40	146	215	—	0	1	7	5
Vermont†	—	0	2	9	7	3	4	27	281	362	—	0	1	3	3
Mid. Atlantic	29	16	32	664	1,027	85	172	697	10,614	14,277	3	7	17	316	340
New Jersey	—	2	8	52	188	—	43	197	2,710	4,630	—	0	4	1	89
New York (Upstate)	19	5	19	236	306	61	54	577	2,522	3,466	1	1	6	64	41
New York City	—	2	9	113	205	—	2	17	67	945	—	4	14	203	164
Pennsylvania	10	6	16	263	328	24	74	374	5,315	5,236	2	1	3	48	46
E.N. Central	9	11	41	586	612	2	17	171	1,696	2,772	—	2	9	124	150
Illinois	—	1	15	118	108	—	1	16	107	134	—	1	7	44	64
Indiana	3	2	6	90	53	—	1	7	63	79	—	0	2	7	20
Michigan	1	3	20	143	138	—	1	14	83	94	—	0	4	27	25
Ohio	5	4	12	189	244	1	0	5	22	46	—	0	5	37	32
Wisconsin	—	1	11	46	69	1	14	148	1,421	2,419	—	0	1	9	9
W.N. Central	1	2	19	101	98	—	3	1,395	108	204	1	1	11	62	57
Iowa	—	0	2	13	20	—	1	10	75	104	1	0	2	11	10
Kansas	1	0	2	9	7	—	0	1	6	18	—	0	2	10	6
Minnesota	—	0	16	27	8	—	0	1,380	—	74	—	0	11	3	23
Missouri	—	0	4	31	50	—	0	1	1	3	—	0	3	20	10
Nebraska†	—	0	2	8	11	—	0	2	9	4	—	0	2	15	7
North Dakota	—	0	1	6	1	—	0	15	16	—	—	0	1	—	—
South Dakota	—	0	2	7	1	—	0	1	1	1	—	0	2	3	1
S. Atlantic	14	10	26	437	466	38	62	171	3,236	3,814	5	6	35	302	304
Delaware	—	0	3	14	17	—	11	31	542	882	—	0	1	2	4
District of Columbia	—	0	4	15	18	—	0	4	20	57	—	0	2	9	15
Florida	5	3	9	146	145	1	2	11	85	80	—	2	7	106	82
Georgia	1	1	4	39	49	—	0	2	8	38	—	0	2	3	62
Maryland†	3	2	8	98	121	18	26	96	1,418	1,814	2	1	18	72	61
North Carolina	1	0	7	48	51	1	1	9	77	89	—	0	13	45	25
South Carolina†	—	0	2	9	9	—	0	3	27	32	—	0	1	4	4
Virginia†	4	1	6	57	48	18	16	79	954	681	3	1	5	58	49
West Virginia	—	0	3	11	8	—	0	32	105	141	—	0	2	3	2
E.S. Central	3	2	10	107	118	—	1	4	39	32	—	0	3	26	29
Alabama†	1	0	2	15	15	—	0	1	2	2	—	0	1	6	8
Kentucky	—	0	4	23	44	—	0	1	4	1	—	0	3	6	9
Mississippi	—	0	3	9	4	—	0	0	—	—	—	0	2	2	3
Tennessee†	2	1	6	60	55	—	1	4	33	29	—	0	2	12	9
W.S. Central	3	3	14	113	94	2	2	44	85	178	2	1	31	75	57
Arkansas†	—	0	2	12	7	—	0	0	—	—	—	0	1	2	5
Louisiana	—	0	3	7	12	—	0	1	2	—	—	0	1	4	5
Oklahoma	1	0	4	12	3	—	0	2	—	—	—	0	1	5	1
Texas†	2	2	10	82	72	2	2	42	83	178	2	1	30	64	46
Mountain	1	3	10	128	112	—	0	3	19	51	4	1	3	53	44
Arizona	—	1	5	46	36	—	0	1	3	6	—	0	2	22	8
Colorado	—	0	5	27	19	—	0	1	2	1	3	0	2	18	25
Idaho†	1	0	1	6	5	—	0	2	6	14	1	0	1	3	2
Montana†	—	0	1	4	5	—	0	1	1	3	—	0	1	2	5
Nevada†	—	0	2	18	12	—	0	1	—	12	—	0	1	4	—
New Mexico†	—	0	2	6	9	—	0	2	5	5	—	0	1	1	—
Utah	—	0	3	16	22	—	0	1	2	8	—	0	1	3	4
Wyoming†	—	0	2	5	4	—	0	1	—	2	—	0	0	—	—
Pacific	6	5	19	214	150	7	4	11	192	136	6	3	19	146	122
Alaska	—	0	2	2	1	—	0	1	6	5	—	0	1	2	2
California	5	4	19	182	113	3	3	10	127	87	2	2	13	100	90
Hawaii	—	0	1	1	1	N	0	0	N	N	—	0	1	1	1
Oregon	—	0	3	11	15	—	1	4	46	34	2	0	1	12	11
Washington	1	0	4	18	20	4	0	3	13	10	2	0	5	31	18
Territories															
American Samoa	—	0	0	—	—	N	0	0	N	N	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	1	1	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	1	—	1	N	0	0	N	N	—	0	2	4	5
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

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U: Unavailable. —: No reported cases. N: Not reportable. NN: Not Nationally Notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.
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† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending October 23, 2010, and October 24, 2009 (42nd week)*

Reporting area	Spotted Fever Rickettsiosis (including RMSF) [†]									
	Confirmed					Probable				
	Current week	Previous 52 weeks		Cum 2010	Cum 2009	Current week	Previous 52 weeks		Cum 2010	Cum 2009
	Med	Max				Med	Max			
United States	—	2	12	137	137	7	18	421	1,283	1,182
New England	—	0	0	—	2	—	0	1	3	10
Connecticut	—	0	0	—	—	—	0	0	—	—
Maine [§]	—	0	0	—	—	—	0	1	2	5
Massachusetts	—	0	0	—	1	—	0	1	—	5
New Hampshire	—	0	0	—	—	—	0	1	1	—
Rhode Island [§]	—	0	0	—	—	—	0	0	—	—
Vermont [§]	—	0	0	—	1	—	0	0	—	—
Mid. Atlantic	—	0	2	15	11	—	1	4	50	89
New Jersey	—	0	0	—	2	—	0	2	—	57
New York (Upstate)	—	0	1	2	—	—	0	3	15	13
New York City	—	0	1	1	1	—	0	4	23	6
Pennsylvania	—	0	2	12	8	—	0	1	12	13
E.N. Central	—	0	1	4	9	—	1	9	88	79
Illinois	—	0	1	2	1	—	0	5	29	47
Indiana	—	0	1	2	3	—	0	5	43	10
Michigan	—	0	0	—	4	—	0	1	1	1
Ohio	—	0	0	—	—	—	0	2	14	17
Wisconsin	—	0	0	—	1	—	0	1	1	4
W.N. Central	—	0	4	17	18	2	3	21	284	248
Iowa	—	0	0	—	1	—	0	1	4	4
Kansas	—	0	1	2	1	—	0	0	—	—
Minnesota	—	0	1	—	1	—	0	1	—	1
Missouri	—	0	4	13	7	2	3	20	276	239
Nebraska [§]	—	0	1	2	8	—	0	1	3	4
North Dakota	—	0	0	—	—	—	0	1	1	—
South Dakota	—	0	0	—	—	—	0	0	—	—
S. Atlantic	—	1	9	67	64	—	7	60	434	355
Delaware	—	0	1	1	—	—	0	3	17	16
District of Columbia	—	0	0	—	—	—	0	1	—	—
Florida	—	0	1	3	—	—	0	2	11	5
Georgia	—	0	6	45	50	—	0	0	—	—
Maryland [§]	—	0	1	2	3	—	0	4	45	34
North Carolina	—	0	3	11	7	—	1	48	228	236
South Carolina [§]	—	0	1	1	3	—	0	2	16	15
Virginia [§]	—	0	2	4	1	—	1	11	117	47
West Virginia	—	0	0	—	—	—	0	0	—	2
E.S. Central	—	0	4	20	9	2	4	29	336	247
Alabama [§]	—	0	1	4	3	—	1	8	70	60
Kentucky	—	0	2	6	1	—	0	0	—	—
Mississippi	—	0	0	—	—	—	0	2	9	9
Tennessee [§]	—	0	4	10	5	2	3	20	257	178
W.S. Central	—	0	3	6	8	2	1	408	80	130
Arkansas [§]	—	0	2	2	—	—	0	110	37	67
Louisiana	—	0	0	—	—	—	0	1	2	2
Oklahoma	—	0	3	3	6	—	0	287	22	43
Texas [§]	—	0	1	1	2	2	0	11	19	18
Mountain	—	0	1	2	15	1	0	2	8	24
Arizona	—	0	1	—	9	1	0	1	2	12
Colorado	—	0	0	—	1	—	0	1	1	—
Idaho [§]	—	0	0	—	—	—	0	1	2	1
Montana [§]	—	0	1	2	4	—	0	1	1	6
Nevada [§]	—	0	0	—	—	—	0	0	—	1
New Mexico [§]	—	0	0	—	—	—	0	1	1	1
Utah	—	0	0	—	—	—	0	1	1	1
Wyoming [§]	—	0	0	—	1	—	0	0	—	2
Pacific	—	0	2	6	1	—	0	0	—	—
Alaska	N	0	0	N	N	N	0	0	N	N
California	—	0	2	5	1	—	0	0	—	—
Hawaii	N	0	0	N	N	N	0	0	N	N
Oregon	—	0	1	1	—	—	0	0	—	—
Washington	—	0	0	—	—	—	0	0	—	—
Territories										
American Samoa	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	N	0	0	N	N	N	0	0	N	N
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—

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

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

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