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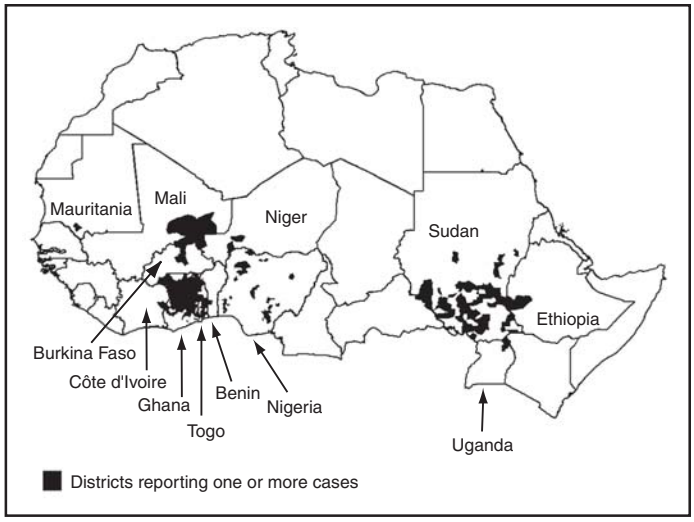
Progress Toward Global Eradication of Dracunculiasis, January–June 2003

In 1986, when the World Health Assembly adopted a resolution calling for the eradication of dracunculiasis (Guinea worm disease), an estimated 3.5 million persons in 20 countries had the disease, and approximately 120 million persons were at risk for infection (*1,2*). By the end of 2002, annual incidence of the disease had been reduced >98%; seven countries in which dracunculiasis formerly was endemic (Cameroon, Chad, India, Kenya, Pakistan, Senegal, and Yemen) were free of the disease, and four countries (Central African Republic, Ethiopia, Mauritania, and Uganda) reported <100 cases each. During 1993–2002, the number of villages outside Sudan that reported cases decreased from approximately 23,000 to 2,022. This report describes the status of the global Dracunculiasis Eradication Program (DEP)* as of June 2003. The data indicate that incidence of the disease outside Ghana and Sudan has declined substantially since June 2002. Continuing efforts in all countries in which the disease is endemic, intensified efforts in Ghana, and an end to the ongoing war in Sudan are required for the eradication of dracunculiasis.

To conduct surveillance, village–based health-care workers (usually volunteers) search for infected persons (those with skin lesions and emerging Guinea worms) in each village with endemic disease and complete a register that serves as a basis for monthly zonal, district-, regional-, and national-level reports. In 2002, a total of 54,648 cases were reported in 6,255 villages in 12 African countries (*3*); 4,233 (68%) of those villages were in Sudan, which reported 41,493 (76%) cases. Outside Sudan, 573 villages reported five or more cases each. The World Health Organization (WHO) is investigating whether dracunculiasis is endemic in Central African Republic, which reported no cases in 2002 or during January–June 2003 (*3*) but which during previous years had reported cases imported from other countries and presumed indigenous cases.

During January–June 2003, a total of 15,688 cases were reported in 12 African countries (Figure), including 8,477

FIGURE. Distribution of cases of dracunculiasis (Guinea worm disease) — East and West Africa, January–June 2003*



* Provisional data as of June 30, 2003.

* Major program partners include the ministries of health in 20 countries in which dracunculiasis is or was endemic, The Carter Center, United Nations Children's Fund (UNICEF), World Health Organization, Bill and Melinda Gates Foundation, other bilateral and private donors, U.S. Peace Corps, and CDC.

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(54%) from Sudan and 5,436 (35%) from Ghana (Table), compared with 23,116 total cases reported during January–June 2002, including 16,871 (73%) from Sudan and 3,115 (13%) from Ghana.

In West Africa, the disease is most endemic in Ghana, which had 75% of cases reported outside Sudan. During January–June 2003, Ghana reported 5,436 cases, 75% more than during the same period in 2002; 5,242 (96%) of these cases occurred in 15 (14%) of 110 districts. This increase reflects improved surveillance in these mostly contiguous northern districts. In mid-2002, with the help of increased technical assistance, Ghana enhanced its surveillance, investigations, and interventions. Since then, approximately 6,000 more village-based personnel have been mobilized, and all interventions have been improved in the 15 districts in which the disease burden is greatest.

During January–June 2003, among 10 other countries with endemic disease, the number of reported cases declined 45%, compared with a reduction of 35% during the same reporting period in 2002 (*4*); the number of cases declined 44% in Nigeria, the country with the third-highest number of cases, and 60% in Benin, 63% in Burkina Faso, and 76% in Côte d'Ivoire. A total of 42 cases were exported from one country to another, including 18 from Sudan, 14 from Ghana, four from Togo, four from Niger, and one each from Mali and Nigeria.

Nomadic Tuareg populations in the shared border areas of Burkina Faso, Mali, and Niger have endemic dracunculiasis infection and pose special challenges to programs in those countries. During January–June 2003, these three countries intensified interventions (e.g., distribution of more cloth filters and more extensive health education in communities in which the disease is endemic) and increased their coordination. In Togo, which reported 20% fewer cases during January–June 2003 than during the same period in 2002, the number of cases in two northern regions adjacent to areas of northern Ghana in which disease is highly endemic increased 100% (from 88 cases to 176). Togo is intensifying interventions in these regions, including voluntary isolation of patients in health-care facilities during their illness.

Sudan's DEP is intervening in approximately 6,000 villages, primarily in the southern part of the country, where the civil war has prevented access to many areas in which disease is endemic. During January–June 2003, the eight affected northern states reported one indigenous case and five imported cases from southern Sudan, compared with three indigenous and nine imported cases during the same period in 2002. In the 3,613 villages in which Sudan's DEP intervened in 2001 and to which it still had access in 2002, dracunculiasis incidence declined 53% (from 45,761 cases to 21,321); however, newly accessed villages accounted for 49% of the cases reported in

TABLE. Number of indigenous dracunculiasis cases*, percentage of cases contained†, and number and percentage of villages with endemic disease§, by country and intervention, January–June 2003¶

Country	No. indigenous cases reported	% cases contained	Reported no. villages with endemic disease	% villages with endemic disease				
				Reporting monthly	With filters in all households	Using Abate®	With ≥1 source of safe water	Provided health education
Sudan	8,477	46	4,416	64	68	1	56	76
Ghana	5,436	61	1,443	87	100	52	52	100
Nigeria	1,109	72	584	100	99	26	66	100
Togo	419	79	214	100	68	6	57	100
Burkina Faso	93	48	134	97	76	44	85	97
Côte d'Ivoire	39	49	29	97	100	59	98	97
Mali**	23	92	190	62	92	2	36	87
Benin	18	100	32	100	78	78	100	100
Ethiopia	12	100	12	100	75	50	50	100
Uganda	12	85	20	100	69	35	72	100
Niger	8	100	77	100	100	4	21	100
Mauritania	1	100	18	100	96	0	77	100

* The first occurrence in a person, during the calendar year, of a skin lesion with a Guinea worm protruding through that lesion.
† A case of dracunculiasis is classified as contained if three conditions are met: 1) the infected person is detected within 24 hours of the emergence of the Guinea worm through the skin, 2) actions (i.e., occlusive bandages, counseling, and care of the patient until the worm is pulled out) are taken to prevent the person from contaminating sources of drinking water, and 3) these two conditions are confirmed by a supervisor within 7 days of occurrence.
§ As of month of last report.
¶ Data provisional as of June 30, 2003.
** Interventions for Ansongo, Gao, and Gurma Rharous districts.

2002. In anticipation of persons who were displaced internally returning to their homes after a peace agreement, Sudan's DEP has educated approximately 210,000 (34%) of the estimated 700,000 Sudanese in camps inside the country, and DEPs in Ethiopia, Kenya, and Uganda are doing the same for Sudanese refugees in camps there.

Reported by: *The Carter Center, Atlanta, Georgia. World Health Organization Collaborating Center for Research, Training, and Eradication of Dracunculiasis, Div of Parasitic Diseases, National Center for Infectious Diseases, CDC.*

Editorial Note: Dracunculiasis is a parasitic infection caused by *Dracunculus medinensis*. Persons become infected by drinking water from ponds contaminated by copepods (water fleas) that contain immature forms of the parasite; 1 year after entering the infected person, adult worms approximately 1 meter (40 inches) in length emerge through skin lesions, usually on the lower limbs, which frequently develop severe secondary bacterial infections. No effective treatment or vaccine for the disease exists, and infected persons do not become immune to future infections by the parasite. However, dracunculiasis can be prevented by 1) filtering drinking water through a finely woven cloth, 2) treating contaminated water with the larvicide Abate® (temephos), 3) educating persons to avoid entering water sources when Guinea worms are emerging from their bodies, and 4) providing clean water from bore-hole or hand-dug wells (*5*).

DEPs continue to make progress toward dracunculiasis eradication in all countries with endemic disease other than Sudan and Ghana. In 2003, for the first time, Benin, Côte d'Ivoire, and Niger appear likely to report <100 indigenous cases. Benin (with 18 indigenous cases), Côte d'Ivoire (39 cases), Mauritania (one case), and Uganda (12 cases) appear close to interrupting transmission of the disease. However, armed conflict is delaying eradication in Côte d'Ivoire, Ethiopia, and Uganda. In Ghana, a substantial reduction in the number of cases is expected as a result of efforts begun in 2002. In Sudan, the ongoing civil war remains the greatest obstacle to eradicating dracunculiasis (*6*). Negotiating an end to the war is essential for progress toward disease eradication to be achieved.

In those countries in which the incidence of endemic dracunculiasis has declined substantially, the most formidable obstacles to disease eradication are apathy and complacency. To help address these obstacles, the Carter Center is beginning a media campaign to publicize the DEP campaign's accomplishments and the remaining challenges for key audiences in countries in which the disease is endemic and the international community. More information about the eradication campaign is available at http://www.cartercenter.org and http://www.cdc.gov/ncidod/dpd/parasites/guineaworm.

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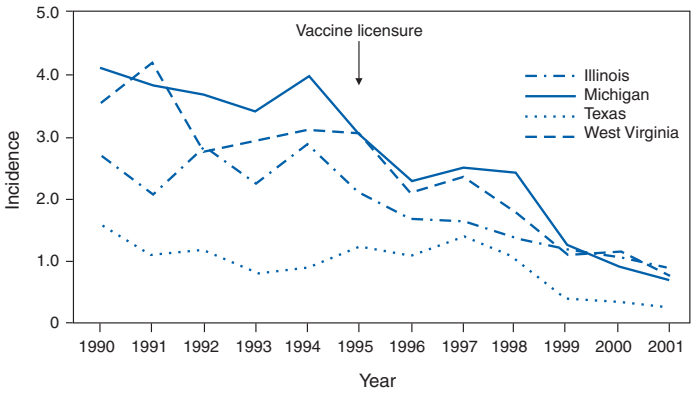
Decline in Annual Incidence of Varicella — Selected States, 1990–2001

Varicella (chickenpox) is a common, highly infectious, and vaccine-preventable disease. Before the introduction of the live attenuated varicella vaccine in 1995, approximately 4 million cases of varicella occurred annually in the United States, resulting in approximately 11,000 hospitalizations and 100 deaths (*1–3*). In 1996, the Advisory Committee on Immunization Practices (ACIP) recommended routine vaccination of all children at age 12–18 months, catch-up vaccination of all susceptible children before age 13 years, and vaccination of susceptible persons with close contact to persons at high risk for serious complications (*4*). In 1999, ACIP updated these recommendations to include vaccination requirements for child care and school entry and for postexposure; ACIP also strengthened recommendations for vaccination of susceptible adults and indicated that varicella vaccine should be considered for outbreak control (*5*). Changes in the national annual reported incidence of varicella disease during 1972–1997 have been reported previously (*6*). This report summarizes trends in the annual reported incidence of varicella disease in selected states during 1990–2001. The findings underscore the continued need to improve varicella surveillance to monitor the impact of the varicella vaccination program and assess any changes in varicella transmission and disease.

CDC reviewed all varicella cases in states with adequate and consistent reporting to the National Notifiable Disease Surveillance System (NNDSS) during 1990–2001; reporting was considered adequate if states reported cases equivalent to ≥5% of their birth cohort before 1995 and consistent if their reporting methods did not change throughout the study period. Annual state population estimates were obtained from the U.S. Census Bureau, and vaccination coverage rates were obtained from the National Immunization Survey (*7*). State-specific annual incidence was calculated by using all cases reported for each year divided by the state's total population.

During 1990–2001, four states (Illinois, Michigan, Texas, and West Virginia) had adequate and consistent reporting levels. Reporting levels ranged from 6% in Texas to 25% in Michigan. During 1990–1994, the average reported incidence of varicella in all four states remained stable, ranging from 1.1 cases per 1,000 population in Texas to 3.8 in Michigan (Figure). Starting in 1999, varicella incidence declined steadily, with the average for 1999–2001 ranging from 0.3 in Texas to 1.0 in Illinois. For all four states, the lowest reported incidence occurred in 2001, ranging from 0.3 in Texas to 0.9 in Illinois. Compared with the average incidence for 1990–1994, reduction in varicella disease in 2001 ranged from 67% in Illinois to 82% in Michigan. This decrease in incidence corresponded with the steady increase in vaccination coverage (Table). In 2001, vaccination coverage for children aged 19–35 months reached 57% in Illinois, 73% in West Virginia, 77% in Michigan, and 84% in Texas. States with higher vaccination coverage (Michigan, Texas, and West Virginia) implemented child care and/or school entry requirements in 2000, and Illinois implemented such requirements in 2002.

FIGURE. Varicella incidence*, by year — Illinois, Michigan, Texas, and West Virginia, 1990–2001



* Per 1,000 population.

Reported by: *A Ali, MD, D Path, MPH, Immunization Svcs Div; H Nguyen, MPH, A Jumaan, PhD, J Zhang, PhD, P Spradling, MD, J Seward, MBBS, Epidemiology and Surveillance Div, National Immunization Program, CDC.*

Editorial Note: The findings in this report suggest that the steady decline in reported varicella incidence during 1999–2001 resulted from the increased use of varicella vaccine and not a decrease in reporting. These findings are consistent with data from three active surveillance sites at which individual cases are investigated (Antelope Valley, California; West Philadelphia, Pennsylvania; and Travis County, Texas). During 1995–2000, incidence of varicella for all age groups in these three sites declined substantially (range: 76%–87%), corresponding with the high average vaccination coverage of 80% (*8*).

The availability of a safe and effective varicella vaccine has reduced the impact of the disease substantially. High vaccination coverage levels among all age groups are necessary to ensure that persons do not reach adolescence or adulthood without having immunity to varicella. At the start of the 2002 school year, 33 states had implemented child care or school entry requirements for varicella (CDC, unpublished data, 2003), and five more states implemented such requirements in September 2003.

The existing national varicella surveillance system is not adequate to monitor the incidence of varicella disease or to

TABLE. Percentage of children aged 19–35 months who received varicella vaccine, by year and state — National Immunization Survey, Illinois, Michigan, Texas, and West Virginia, 1996–2001

State	1996	1997	1998	1999	2000	2001
Illinois	6.9	20.1	25.8	43.6	47.9	57.0
Michigan	8.3	15.7	29.6	43.5	69.6	76.6
Texas	8.8	23.8	44.1	58.9	73.6	83.5
West Virginia	6.9	20.0	42.5	51.3	59.9	73.0

assess the impact of the vaccination program. In 2001, disease incidence was reported by 22 states and the District of Columbia; however, only four states had adequate and consistent reporting for the study period. The Council of State and Territorial Epidemiologists has recommended that by 2005, states establish or enhance varicella surveillance programs that provide individual case reporting (*9*). To enhance their surveillance programs, states should collect key variables, including vaccination history, age at disease onset, and severity of disease. Collecting these data will enable states to detect changes in varicella epidemiology, which will be valuable in targeting vaccination programs, assessing the need for a change in vaccine policy, and further reducing the varicella disease burden. In addition, as circulation of the varicella-zoster virus decreases with the decline in incidence, laboratory confirmation of disease will become more important. CDC and the Association of Public Health Laboratories have upgraded the diagnostic capability of national and state laboratories to support varicella disease diagnosis and enhance national and state surveillance.

Acknowledgments

This report is based on data contributed by M Dworkin, MD, Illinois Dept of Public Health. M Boulton, MD, Michigan Dept of Health. D Perrotta, PhD, Texas Dept of Health. L Haddy, MS, West Virginia Dept of Health and Human Resources.

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Wound Botulism Among Black Tar Heroin Users — Washington, 2003

During August 22–26, 2003, four injection-drug users (IDUs) in Yakima County, Washington, sought medical care at the same hospital with complaints of several days of weakness, drooping eyelids, blurred vision, and difficulty speaking and swallowing. All four were regular, nonintravenous injectors of black tar heroin (BTH), and one also snorted BTH. This report summarizes the investigation of these cases, which implicated wound botulism (WB) as the cause of illness.

Of the four patients, two were men; the patients had a median age of 38 years (range: 31–50 years). Two patients were married and used drugs at the same time and in the same setting as the third patient; however, they did not share injection equipment with the third patient. The fourth patient had no social connection with the other three. All four purchased BTH from the same dealer. No meals or gatherings were attended by all of the patients, and no single common food item had been eaten recently, including no home canned or vacuum-packed foods. On examination, all had cranial nerve palsies, including ptosis, ophthalmoplegia, dysarthria, and diminished or absent gag reflex, and upper extremity weakness, clear sensorium, and no sensory deficits. Three had infected wounds from drug injections. In two patients who went simultaneously to an emergency department, botulism was suspected immediately by the admitting physician, who alerted public health officials promptly and sought antitoxin. Antitoxin was administered within 14–24 hours of admission for all patients. Wound care and treatment with intravenous ampicillin/sulbactam was initiated within 12 hours for the three patients with wounds.

Two patients, both subcutaneous IDUs, progressed to respiratory failure despite antitoxin administration and continue to require mechanical ventilation. One is improving in strength and might progress to extubation. The other probably will require long-term ventilatory support. The third and fourth patients, both intramuscular IDUs with milder presentations, were discharged with minimal residual weakness 17 and 9 days after admission, respectively.

At the Washington State Public Health Laboratories, botulinum toxin type A was detected by mouse bioassay in serum specimens obtained from the first two patients, but not from serum of the third and fourth patients. Toxin assays and anaerobic stool cultures from all patients failed to

demonstrate botulinum toxin or *Clostridium* growth, respectively. Anaerobic culture of a wound specimen from the third patient is pending, and a nasal aspirate from the fourth patient was negative. Injection paraphernalia and a sample of BTH have been submitted to CDC for further testing for toxigenic *Clostridium* bacteria.

Local and state public health officials have notified healthcare providers and acute-care facilities to increase suspicion of WB in IDUs and have emphasized the importance of prompt recognition of WB, early antitoxin administration, and appropriate wound treatment (*1*). Outreach staff are working through a needle exchange and other venues to inform IDUs about the outbreak, the need to seek immediate care if affected, and the ongoing risks for using BTH.

Reported by: *C Spitters, MD, Yakima Health District; J Moran, MD, Yakima Valley Farmworkers Clinic; D Kruse, MD, Yakama Indian Health Clinic, Toppenish; N Barg, MD, Yakima; M Leslie, DVM, J Hofmann, MD, Washington State Dept of Health. M Moore, MD, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; G Macgregor-Skinner, BVSc, EIS Officer, CDC.*

Editorial Note: Clinical findings, laboratory results, and epidemiologic features of this outbreak reflect previous descriptions of WB in IDUs (*2–4*). BTH might be contaminated during the "cutting" process through incorporation of spore-laden adulterants such as dirt or boot polish (*3,4*). Heating the drug does not inactivate clostridial spores, and safe injection practices that protect against bloodborne infection do not reduce the risk for WB. In January 2002, a cluster of seven cases of necrotizing fasciitis occurred among IDUs in Yakima County (*5*). The route of injection was reported as subcutaneous in three of the patients, two of whom died. *Clostridia spp.* were identified in specimens from these three cases; in one case, subtyping was carried out, and the isolate was identified as *Clostridium sordelii*. These persons were in the same IDU network as those in the current botulism outbreak.

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The following persons assisted with the investigation and reporting of this outbreak: J Ricking, MD, Yakima Valley Farmworkers Clinic, Toppenish; C Whittlesey, MD, Wapato; C Contreras, J Vargas, B Andrews, D Flodin-Hursh, P Benitez, M Patnode, D Klukan, MSPH, Yakima Health District; R Graham, Indian Health Svc, Toppenish; M McDowell, Washington State Dept of Health; J Jones, MD, Northwest Portland Area Indian Health Board, Portland.

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Knowledge, Attitudes, and Behaviors About West Nile Virus — Connecticut, 2002

Since West Nile virus (WNV) was first recognized in the United States in 1999, the geographic distribution has widened progressively, and the resulting human morbidity and mortality has increased (*1*). The cornerstones of WNV control and prevention are 1) surveillance with sustained and integrated mosquito control to detect the presence of WNV in areas where humans are at risk and 2) public education on the use of personal protective behaviors (PPBs) and peridomestic mosquito control to reduce the risk for mosquito bites (*2*). In Connecticut, strategies to improve public education and WNV-risk awareness consist of issuing graded warnings after assessing local surveillance findings during the transmission season. In 2002, three of the 17 Connecticut patients with confirmed WNV infection reported having used any PPBs. To assess knowledge, attitudes, and behaviors about WNV during the transmission season, the Connecticut Department of Public Health added questions about WNV to its Behavioral Risk Factor Surveillance System (BRFSS) survey conducted during August–November 2002. This report summarizes the results of that analysis, which indicate that general awareness of WNV and knowledge of elderly persons being at risk for more severe illness were high; however, awareness of local surveillance findings was poor, and belief in the local presence of WNV did not predict the use of PPBs. The findings underscore the need for continued public education about the risk for WNV infection and the use of PPBs and the need for regular systematic evaluations of knowledge, attitudes, and behaviors to refine and improve public health messages effectively.

BRFSS is a state-based, random-digit–dialed telephone survey of the noninstitutionalized, civilian population aged ≥18 years. The set of WNV questions included a question about knowledge of age groups at higher risk for severe illness; a question about how worried a person was about getting WNV; two questions about awareness of local dead bird or mosquito surveillance findings; four questions about PPBs to protect against mosquito bites during July and August, the months of

peak risk in Connecticut; and a question about how often a person spent >30 minutes outdoors in the evening during July and August. PPB questions included avoiding outdoor areas where mosquitoes are present, avoiding outdoor activities, wearing long-sleeved shirts and long pants, and using insect repellent on skin or clothes. Descriptive and analytic analyses were performed by using SAS version 8.2 and SUDAAN version 7.5. Data were adjusted to account for differing probabilities of selection and to match the state population of adults by age and sex.

A total of 1,791 interviews were completed; response rate was 61%. The median age of respondents was 47 years (range: 18–97 years); 21% were aged 50–65 years, 20% were aged ≥65 years, 52% were female, 82% were white, and 98% were English-speaking.

Overall, 1,617 (96%) respondents believed that elderly persons were more likely than others to have severe illness from WNV infection, and 1,249 (63%) believed the same to be true for infants. A total of 906 (56%) respondents were at least "a little" worried about getting WNV infection (10% "very" and 46% "a little"). A total of 19% of persons living in towns with positive WNV surveillance findings in 2002 were aware that WNV had been detected in their area.

To protect themselves from mosquitoes, 60% of respondents reported that they sometimes or always avoided outdoor areas with mosquitoes, 39% avoided outdoor activities, 51% wore long-sleeved shirts and long pants, and 57% used insect repellent on skin or clothes (Table 1). The majority (77%) of respondents sometimes or always used at least one PPB, and 45% always used at least one PPB; 59% sometimes or always used at least two PPBs, and 15% never used any PPBs.

Of the 291 persons aged ≥65 years who believed they were more likely to have severe illness, 61% always used at least one PPB, 68% sometimes or always used at least two, and 17% never used any.

Multivariable logistic regression analyses were used to examine four outcome variables, including sometimes or always using insect repellent, always using at least one PPB, sometimes or always using at least two PPBs, and never using any of the four PPBs (Table 2). Using insect repellent was significantly associated with being aged <50 years, being a little or very worried about getting WNV, and more often spending >30 minutes outdoors in the evenings. Always using at least one PPB was significantly associated with being female, being aged ≥65 years, having a lower annual income ($25,000–$75,000), and being a little or very worried about getting WNV. Sometimes or always using two or more PPBs also was significantly associated with being female and being a little or very worried about getting WNV. Never using PPBs was significantly associated with being male and not being worried about getting WNV.

Reported by: *ML Adams, L LoBianco, L Wilcox, JL Hadler, MD, Connecticut Dept of Public Health. KS Griffith, MD, EIS Officer, CDC.*

Editorial Note: The findings in this report document high awareness of WNV and knowledge of elderly persons being at risk for severe illness. Persons aged >50 years were more likely than persons aged 18–49 years to always use at least one PPB.

TABLE 1. Number and percentage of self-reported personal protective behaviors used to prevent mosquito bites, by behavior type and frequency — Connecticut, 2002

Behavior	Always		Sometimes		Never		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Avoiding areas with mosquitoes	529	(29)	557	(31)	685	(39)	**1,771**	**(100)**
Avoiding outdoor activities	238	(13)	493	(26)	1,039	(60)	**1,771**	**(100)**
Wearing long sleeves and long pants	342	(18)	591	(33)	836	(48)	**1,769**	**(100)**
Using mosquito repellent	370	(19)	676	(38)	740	(42)	**1,778**	**(100)**

TABLE 2. Multivariable logistic regression analyses of predictors of using personal protective behaviors (PPBs) to prevent mosquito bites, by behavior type and frequency — Connecticut, 2002

Behavior	OR*	(95% CI†)
Using mosquito repellent ("sometimes" or "always" versus "never")		
Spending >30 minutes outdoors most evenings versus never	2.3	(1.5–3.6)
Being very worried about getting West Nile Virus (WNV) versus not worried	2.0	(1.1–3.7)
Being a little worried about getting WNV versus not worried	1.5	(1.1–2.0)
Spending >30 minutes outdoors >1 evening per week versus never	1.5	(1.0–2.4)
Being aged >65 years versus aged 18–49 years	0.5	(0.3–0.7)
Always using at least one PPB		
Being aged >65 years versus aged 18–49 years	2.6	(1.7–3.9)
Being very worried about getting WNV versus not worried	2.2	(1.2–3.9)
Being aged 50–64 years versus aged 18–49 years	2.0	(1.4–2.8)
Being female versus male	1.9	(1.4–2.6)
Earning an annual income of $25,000–$75,000 versus >$75,000	1.6	(1.1–2.2)
Being a little worried about getting WNV versus not worried	1.5	(1.1–2.1)
Always or sometimes using at least two PPBs		
Being very worried about getting WNV versus not worried	3.0	(1.6–5.5)
Being a little worried about getting WNV versus not worried	2.7	(2.0–3.7)
Being female versus male	2.0	(1.5–2.6)
Never using any PPBs		
Not being worried about WNV versus always worried	3.5	(1.3–9.9)
Being male versus female	1.8	(1.2–2.8)

* Odds ratio.
† Confidence interval.

In addition, nearly half of all respondents reported always using some form of personal protection, and reported use of PPBs was much higher among respondents than among persons with confirmed WNV infection. However, awareness of local WNV surveillance findings was poor, and, in contrast to concern about getting WNV infection, belief in the local presence of WNV was not a predictor of use of PPBs. Although public announcements of local surveillance findings should continue, additional methods of communicating the changing levels of risk and appropriate levels of concern should be explored.

The findings in this report are subject to at least four limitations. First, BRFSS relies on the use of self-reporting, which does not allow for validation of responses. Second, extensive public health outreach and education on the use of PPBs has occurred in Connecticut during the preceding 15 years, primarily because of the emergence and recognition of Lyme disease. Therefore, Connecticut residents might have a higher reported baseline use of and/or might be more responsive to public health messages concerning PPBs. Third, questions about the use of PPBs were asked specifically about behaviors during July and August; therefore, behaviors during September and October and how behaviors might have changed during the transmission season were not evaluated. Finally, because BRFSS is a telephone survey, data were not collected from persons who use cellular phones exclusively or who do not have a telephone.

The use of PPBs is the most effective means of controlling exposure to WNV infection and might depend on several factors, including an understanding of the disease and how exposure occurs, personal perception of risk, and acceptability of using available measures. The WNV epidemics of 2002 and 2003 underscore the need for continued public education, especially regarding personal protection. Additional efforts should be made to evaluate knowledge, attitudes, and behavior and to use this information to refine and improve public health messages and the effectiveness with which they are delivered. In Connecticut in 2003, questions about WNV were again added to BRFSS to monitor the use of PPBs and the effectiveness of health-education efforts.

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Public Health Dispatch

Measles Epidemic — Majuro Atoll, Republic of the Marshall Islands, July 13–September 13, 2003

During July 13–September 13, 2003, a total of 647 clinically diagnosed measles cases* were reported on Majuro Atoll in the Republic of the Marshall Islands (RMI); this is the first measles outbreak reported in RMI since 1988. An additional 74 suspected measles cases are under investigation. This report describes the clinically diagnosed measles cases and the public health response to stop the epidemic. Of the 647 cases, 15 (2%) are laboratory confirmed, either by serology, polymerase chain reaction, or viral culture. The age of patients ranged from 2 weeks to 43 years (median: 12 years); 479 (74%) patients were aged <20 years. The overall measles incidence on Majuro Atoll (estimated 2003 population: 25,097) is 26 cases per 1,000 population. The incidence is highest among infants aged <1 year (160 per 1,000 population), followed by children aged 1–4 years (40).

A total of 58 persons with measles have been hospitalized; three patients have died, including a malnourished child aged 15 months with diarrhea and pneumonia, a woman aged 27 years with pneumonia, and a woman aged 39 years whose immediate cause of death remains unknown. Postmortem examination was not available for any of these patients.

To stop measles transmission, the Ministry of Health in RMI recommended measles, mumps, and rubella vaccine (MMR) for all infants aged 6–11 months and all persons aged 1–40 years who did not have documented proof of measles immunity†. Before the epidemic, estimated vaccine coverage with 1 dose of MMR was <75% for children aged 1–13 years, according to evaluations of computerized vaccination records and of children screened during the vaccination campaign. As of September 13, a total of 98% of persons aged 6 months–40 years had documentation of receipt of at least 1 dose of MMR. Campaign activities that delivered 16,913 doses included 1) vaccinating health-care and public health workers, 2) vaccinating children at nine vaccination posts across the atoll, 3) delaying the start of the school year until school children were vaccinated and requiring documentation of vaccination for school entry, and 4) conducting neighborhood

* Defined as a case in a person with fever, a generalized maculopapular rash, and cough, coryza, or conjunctivitis.
† Persons aged 12 months–18 years required documented history of 2 doses of MMR, with the first dose administered on or after the first birthday and the second dose at least 28 days after the first dose; otherwise, these persons received either their first or second dose as indicated. Persons aged >18 years required documented history of measles or 1 dose of MMR administered on or after the first birthday; otherwise, these persons received 1 dose of MMR.

and house-to-house vaccination in areas where adequate coverage was not reached.

To prevent spread from Majuro Atoll, vaccination campaigns were conducted in other atolls and islands in RMI. The Ministry of Health suspended travel of sea vessels and airlines from Majuro Atoll until vaccination campaigns had been completed in other atolls and islands, and required proof of MMR vaccination for all travelers leaving Majuro Atoll for other atolls or islands or for international destinations. A total of 17 measles cases have been reported from Ebeye Island in Kwajalein Atoll; 10 of these persons were exposed in Majuro Atoll. Two other atolls have reported six cases whose exposure was in Majuro Atoll. Measles surveillance has been enhanced in RMI, other Pacific islands, and in the United States. Spread to other areas in the Pacific and to the United States has been limited; five measles cases in Hawaii, three in Guam, one in Palau, and one in California are believed to be linked to this epidemic.

The source of importation of the measles virus to Majuro Atoll has not yet been determined, but the H1 genotype found in this outbreak is common in Asia, and the specific strain has been reported recently in measles cases from Japan and China (*1,2*). The Advisory Committee on Immunization Practices recommends that all international travelers be immune to measles because it is endemic or epidemic in many parts of the world, including developed countries (*3,4*). Persons aged <40 years who are traveling to RMI during the next 60 days should be aware that RMI requires documentation of measles immunity for all departing passengers on international flights. The documentation must fulfill the same age-specific requirements used in the vaccination campaign.

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Acknowledgments

This report is based on data contributed by P Asuo, MD, J Gancio, MD, H Emil, S Alfred, B Pharm, Majuro Hospital, Delap, Majuro Atoll, Republic of the Marshall Islands.

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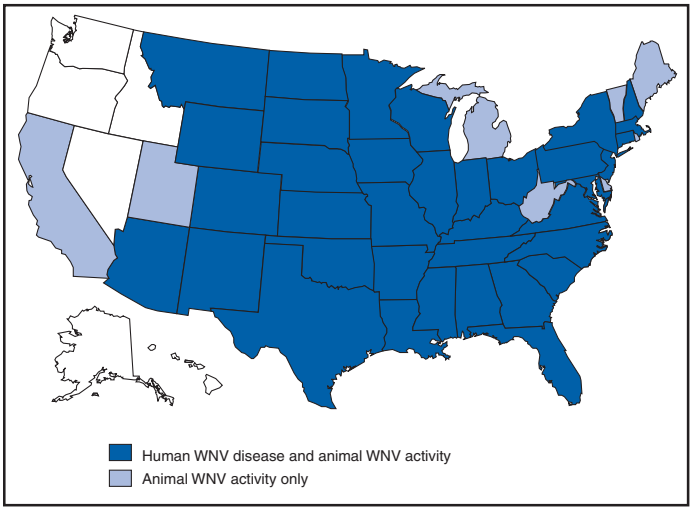
West Nile Virus Activity — United States, September 11–17, 2003

This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET as of 3 a.m., Mountain Daylight Time, September 17, 2003.

During the reporting week of September 11–17, a total of 1,214 human cases of WNV infection were reported from 28 states (Alabama, Colorado, Georgia, Iowa, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Wisconsin, and Wyoming), including 26 fatal cases from nine states (Alabama, Colorado, Louisiana, Minnesota, New York, Ohio, South Dakota, Texas, and Wyoming). During the same period, WNV infections were reported in 1,118 dead birds, 355 horses, two dogs, two squirrels, five infections in unidentified animal species, and 638 mosquito pools.

During 2003, a total of 4,137 human cases of WNV infection have been reported from Colorado (n = 1,542), South Dakota (n = 580), Nebraska (n = 543), Wyoming (n = 282), Texas (n = 276), Montana (n = 154), North Dakota (n = 126), New Mexico (n = 124), Pennsylvania (n = 72), Minnesota (n = 57), Louisiana (n = 52), Mississippi (n = 48), Iowa (n = 38), Oklahoma (n = 28), Kansas (n = 23), New York (n = 23), Florida (n = 22), Ohio (n = 22), Alabama (n = 21), Maryland (n = 17), North Carolina (n = 14), Georgia (n = 11), Missouri (n = 10), Illinois (n = eight), Tennessee (n = seven), Indiana (n = six), Kentucky (n = six), Wisconsin (n = six), Arkansas (n = five), New Jersey (n = four), Virginia (n = four), Arizona (n = one), Connecticut (n = one), Massachusetts (n = one), New Hampshire (n = one), Rhode Island (n = one), and South Carolina (n = one) (Figure). Of 3,969 (96%) cases for which demographic data were available, 2,081 (52%) occurred among males; the median age was 47 years (range: 1 month–99 years), and the dates of illness onset ranged from March 28 to September 11. Of the 3,969 cases, 80 fatal cases were reported from Colorado (n = 27), Nebraska (n = 10), South Dakota (n = seven), Texas (n = seven), Wyoming (n = seven), New Mexico (n = four), Alabama (n = three), New York (n = three), Iowa (n = two), Minnesota (n = two), Ohio (n = two), Georgia (n = one), Kansas (n = one), Louisiana (n = one), Mississippi (n = one), Missouri (n = one), and

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2003*

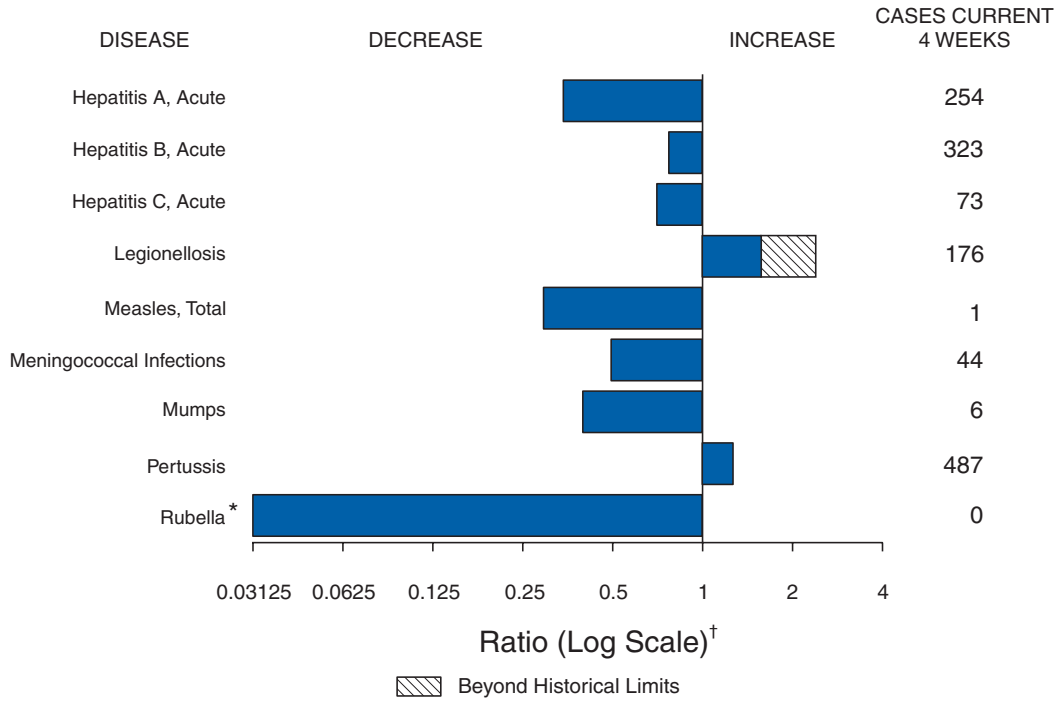


* As of 3 a.m., Mountain Daylight Time, September 17, 2003.

Montana (n = one). A total of 267 presumptive West Nile (WN)–viremic blood donors have been reported from Nebraska (n = 116), South Dakota (n = 56), Texas (n = 20), Wyoming (n = 20), Oklahoma (n = 11), Colorado (n = 10), New Mexico (n = nine), Montana (n = five), Georgia (n = four), Iowa (n = three), Minnesota (n = three), Mississippi (n = three), New Jersey (n = two), Florida (n = one), Illinois (n = one), Louisiana (n = one), Michigan (n = one), and Tennessee (n = one). Of these 267 donors, 34 subsequently had onset of WNV fever, one subsequently had onset of encephalitis, and one subsequently had onset of WNV meningoencephalitis. In addition, 7,263 dead birds with WNV infection were reported from 42 states and New York City; 1,912 WNV infections in horses have been reported from 34 states, 12 WNV infections were reported in dogs, five infections in squirrels, and 17 infections in unidentified animal species. During 2003, WNV seroconversions have been reported in 591 sentinel chicken flocks from 12 states, and 11 seropositive sentinel horses have been reported from four states. A total of 4,412 WNV positive mosquito pools have been reported from 36 states and New York City.

Additional information about WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and http://westnilemaps.usgs.gov.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals September 13, 2003, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 37 of zero (0).
† 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.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending September 13, 2003 (37th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	2	Hansen disease (leprosy)†	37	65
Botulism:	-	-	Hantavirus pulmonary syndrome†	13	15
foodborne	8	20	Hemolytic uremic syndrome, postdiarrheal†	89	153
infant	39	51	HIV infection, pediatric†§	151	112
other (wound & unspecified)	19	11	Measles, total	35¶	26**
Brucellosis†	50	83	Mumps	138	197
Chancroid	32	54	Plague	1	-
Cholera	1	1	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	52	143	Psittacosis†	12	13
Diphtheria	-	1	Q fever†	51	38
Ehrlichiosis:	-	-	Rabies, human	-	2
human granulocytic (HGE)†	223	211	Rubella	7	10
human monocytic (HME)†	105	135	Rubella, congenital	-	1
other and unspecified	20	15	Streptococcal toxic-shock syndrome†	119	86
Encephalitis/Meningitis:	-	-	Tetanus	10	17
California serogroup viral†	23	71	Toxic-shock syndrome	93	76
eastern equine†	5	2	Trichinosis	2	13
Powassan†	-	1	Tularemia†	53	58
St. Louis†	1	14	Yellow fever	-	-
western equine†	91	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 24, 2003.
¶ Of 35 cases reported, 29 were indigenous, and six were imported from another country.
** Of 26 cases reported, 13 were indigenous, and 13 were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	30,269	27,789	565,913	579,825	2,540	3,209	1,806	2,041	510	1,455
NEW ENGLAND	989	1,102	19,116	19,097	-	-	111	139	-	16
Maine	49	25	1,345	1,127	N	N	15	9	-	-
N.H.	24	22	1,023	1,099	-	-	11	23	-	-
Vt.	13	8	690	626	-	-	23	23	-	-
Mass.	408	579	7,919	7,628	-	-	41	57	-	11
R.I.	79	74	2,055	1,930	-	-	12	14	-	-
Conn.	416	394	6,084	6,687	N	N	9	13	-	5
MID. ATLANTIC	6,726	6,437	76,377	64,936	-	-	232	257	30	53
Upstate N.Y.	693	502	13,690	11,693	N	N	75	69	1	14
N.Y. City	3,390	3,663	22,923	21,590	-	-	57	105	-	23
N.J.	1,159	1,026	9,670	9,873	-	-	4	15	2	15
Pa.	1,484	1,246	30,094	21,780	N	N	96	68	27	1
E.N. CENTRAL	2,925	2,868	90,075	106,520	7	19	460	689	21	786
Ohio	555	510	19,151	26,481	-	-	77	95	21	77
Ind.	378	397	10,745	11,829	N	N	59	28	-	16
Ill.	1,348	1,357	27,917	33,858	-	2	45	90	-	492
Mich.	506	461	21,727	22,396	7	17	85	82	-	178
Wis.	138	143	10,535	11,956	-	-	194	394	-	23
W.N. CENTRAL	563	477	32,687	32,884	1	1	314	275	93	41
Minn.	110	105	7,094	7,371	N	N	91	136	14	-
Iowa	63	58	2,676	3,828	N	N	52	32	6	-
Mo.	266	217	12,249	11,057	-	-	24	26	6	17
N. Dak.	2	1	700	850	N	N	12	10	5	-
S. Dak.	9	3	1,821	1,498	-	-	29	17	16	14
Nebr.¶	39	44	3,269	3,333	1	1	9	40	24	8
Kans.	74	49	4,878	4,947	N	N	97	14	22	2
S. ATLANTIC	8,582	8,222	110,217	108,994	3	3	235	212	40	31
Del.	176	142	2,123	1,860	N	N	3	2	1	-
Md.	994	1,199	11,655	11,167	3	3	13	13	10	9
D.C.	765	394	2,053	2,310	-	-	12	4	-	-
Va.	655	578	11,770	12,436	-	-	34	10	-	-
W. Va.	61	66	1,787	1,699	N	N	4	2	-	-
N.C.	869	628	18,594	17,285	N	N	27	26	-	-
S.C.¶	551	586	10,678	10,360	-	-	3	5	1	1
Ga.	1,369	1,234	23,192	22,132	-	-	73	86	8	18
Fla.	3,142	3,395	28,365	29,745	N	N	66	64	20	3
E.S. CENTRAL	1,306	1,247	36,959	37,325	N	N	92	100	14	198
Ky.	111	198	5,794	6,127	N	N	20	4	4	12
Tenn.	575	525	14,235	11,552	N	N	32	48	4	-
Ala.	308	248	8,424	11,671	-	-	32	41	6	13
Miss.	312	276	8,506	7,975	N	N	8	7	-	173
W.S. CENTRAL	3,128	3,024	70,708	77,316	-	10	32	48	135	329
Ark.	127	175	5,345	5,368	-	-	8	7	9	6
La.	414	782	12,093	13,881	N	N	2	8	2	181
Okla.	154	143	6,828	8,122	N	N	9	10	9	-
Tex.	2,433	1,924	46,442	49,945	-	10	13	23	115	142
MOUNTAIN	1,152	885	32,873	35,864	1,801	2,086	94	120	177	1
Mont.	11	8	1,288	1,528	N	N	17	4	170	-
Idaho	17	23	1,777	1,753	N	N	20	20	1	1
Wyo.	6	6	700	658	1	-	3	9	3	-
Colo.	296	178	7,735	9,904	N	N	22	44	-	-
N. Mex.	92	59	5,052	5,262	5	7	8	18	2	-
Ariz.	490	370	9,415	10,566	1,761	2,041	4	11	-	-
Utah	47	49	3,061	1,976	9	10	14	11	1	-
Nev.	193	192	3,845	4,217	25	28	6	3	-	-
PACIFIC	4,898	3,527	96,901	96,889	727	1,089	236	201	-	-
Wash.	311	336	11,466	10,354	N	N	25	22	-	-
Oreg.	184	234	4,378	4,798	-	-	31	29	-	-
Calif.	4,319	2,854	76,240	76,016	727	1,089	180	149	-	-
Alaska	13	22	2,559	2,588	-	-	-	-	-	-
Hawaii	71	81	2,258	3,133	-	-	-	1	-	-
Guam	6	1	-	444	-	-	-	-	-	-
P.R.	787	798	1,367	1,833	N	N	N	N	-	-
V.I.	25	63	142	125	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 31, 2003.

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,454	2,469	157	135	95	32	11,627	13,786	214,259	247,229
NEW ENGLAND	98	187	28	37	11	4	817	1,251	4,916	5,399
Maine	8	24	1	6	-	-	115	133	138	95
N.H.	11	22	2	-	-	-	21	33	76	86
Vt.	13	8	-	1	-	-	84	91	54	75
Mass.	39	89	3	16	11	4	354	682	2,045	2,329
R.I.	1	8	-	1	-	-	82	101	672	611
Conn.	26	36	22	13	-	-	161	211	1,931	2,203
MID. ATLANTIC	167	265	11	1	24	6	2,307	2,794	29,449	29,652
Upstate N.Y.	68	118	7	-	11	-	666	777	5,368	6,042
N.Y. City	3	13	-	-	-	-	752	1,048	9,032	8,893
N.J.	13	46	-	-	-	1	241	329	5,744	5,404
Pa.	83	88	4	1	13	5	648	640	9,305	9,313
E.N. CENTRAL	336	620	18	26	16	3	1,893	2,365	40,078	51,637
Ohio	69	103	13	9	15	2	610	611	10,401	14,934
Ind.	63	47	-	-	-	-	-	-	4,170	5,054
Ill.	63	147	-	6	-	-	482	682	12,577	17,179
Mich.	56	98	-	3	-	1	484	606	9,343	10,182
Wis.	85	225	5	8	1	-	317	466	3,587	4,288
W.N. CENTRAL	254	347	26	25	20	3	1,280	1,381	11,527	12,705
Minn.	83	117	14	21	1	-	497	530	1,951	2,207
Iowa	57	86	-	-	-	-	174	211	607	877
Mo.	57	46	8	-	1	-	333	332	5,876	6,268
N. Dak.	8	4	-	-	9	-	24	13	30	51
S. Dak.	17	31	3	1	-	-	50	50	159	178
Nebr.	14	41	1	3	-	-	84	122	1,083	1,105
Kans.	18	22	-	-	9	3	118	123	1,821	2,019
S. ATLANTIC	105	190	49	22	5	-	1,864	2,025	54,674	63,010
Del.	4	5	N	N	N	N	29	36	835	1,122
Md.	7	20	-	-	-	-	75	85	5,527	6,293
D.C.	1	-	-	-	-	-	36	29	1,648	1,878
Va.	30	44	8	5	-	-	237	191	5,445	7,337
W. Va.	3	4	-	-	-	-	27	35	611	686
N.C.	4	31	16	-	-	-	N	N	10,741	11,406
S.C.	-	5	-	-	-	-	82	75	5,827	6,686
Ga.	21	38	2	7	-	-	645	660	11,520	12,182
Fla.	35	43	23	10	5	-	733	914	12,520	15,420
E.S. CENTRAL	55	81	2	-	6	9	236	259	17,943	21,572
Ky.	18	20	2	-	6	9	N	N	2,555	2,582
Tenn.	22	36	-	-	-	-	116	117	5,851	6,672
Ala.	12	17	-	-	-	-	120	142	5,251	7,525
Miss.	3	8	-	-	-	-	-	-	4,286	4,793
W.S. CENTRAL	40	86	1	-	7	3	203	164	29,112	34,765
Ark.	7	9	-	-	-	-	106	110	2,817	3,337
La.	3	3	-	-	-	-	5	4	7,250	8,568
Okla.	20	16	-	-	-	-	92	48	2,691	3,455
Tex.	10	58	1	-	7	3	-	2	16,354	19,405
MOUNTAIN	182	238	20	18	6	4	1,055	1,092	6,960	7,742
Mont.	12	21	-	-	-	-	75	65	69	65
Idaho	42	33	15	10	-	-	132	83	55	60
Wyo.	2	8	-	1	-	-	16	21	32	43
Colo.	39	72	2	4	6	4	286	361	1,772	2,439
N. Mex.	6	5	3	3	-	-	32	118	819	1,060
Ariz.	24	27	N	N	N	N	194	140	2,587	2,559
Utah	40	50	-	-	-	-	239	206	304	189
Nev.	17	22	-	-	-	-	81	98	1,322	1,327
PACIFIC	217	455	2	6	-	-	1,972	2,455	19,600	20,747
Wash.	62	103	1	-	-	-	197	284	1,924	2,049
Oreg.	63	160	1	6	-	-	275	299	581	598
Calif.	85	154	-	-	-	-	1,390	1,737	16,205	17,205
Alaska	2	6	-	-	-	-	52	68	360	425
Hawaii	5	32	-	-	-	-	58	67	530	470
Guam	N	N	-	-	-	-	-	7	-	36
P.R.	-	1	-	-	-	-	35	55	147	264
V.I.	-	-	-	-	-	-	-	-	36	31
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	*Haemophilus influenzae*, invasive†								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,241	1,230	12	25	71	100	131	112	4,108	6,529
NEW ENGLAND	97	83	1	-	6	8	5	2	202	227
Maine	4	1	-	-	-	-	1	-	9	7
N.H.	11	7	1	-	-	-	-	-	11	11
Vt.	7	6	-	-	-	-	-	-	6	1
Mass.	45	39	-	-	6	4	3	2	117	102
R.I.	5	10	-	-	-	-	1	-	11	29
Conn.	25	20	-	-	-	4	-	-	48	77
MID. ATLANTIC	279	225	-	2	1	13	35	20	854	824
Upstate N.Y.	103	88	-	2	1	4	11	6	89	131
N.Y. City	44	54	-	-	-	-	9	9	310	310
N.J.	52	44	-	-	-	-	6	5	103	138
Pa.	80	39	-	-	-	9	9	-	352	245
E.N. CENTRAL	181	243	3	3	7	9	28	31	443	820
Ohio	57	62	-	-	-	1	10	7	76	231
Ind.	36	35	-	1	4	7	-	-	49	37
Ill.	58	93	-	-	-	-	14	16	140	216
Mich.	19	11	3	2	3	1	1	-	140	174
Wis.	11	42	-	-	-	-	3	8	38	162
W.N. CENTRAL	89	52	-	1	6	2	11	3	137	236
Minn.	34	32	-	1	6	2	2	1	37	36
Iowa	-	1	-	-	-	-	-	-	22	53
Mo.	35	11	-	-	-	-	9	2	48	69
N. Dak.	1	4	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	2	-	-	-	-	-	-	-	7	16
Kans.	16	3	-	-	-	-	-	-	23	58
S. ATLANTIC	287	280	1	5	12	15	14	21	981	1,796
Del.	-	-	-	-	-	-	-	-	4	10
Md.	63	71	-	2	5	3	-	1	105	228
D.C.	-	-	-	-	-	-	-	-	29	57
Va.	40	24	-	-	-	-	5	4	62	81
W. Va.	13	15	-	-	-	1	-	1	13	15
N.C.	32	30	-	-	3	3	1	-	58	168
S.C.	3	10	-	-	-	-	-	2	26	49
Ga.	51	58	-	-	-	-	5	10	368	361
Fla.	85	72	1	3	4	8	3	3	316	827
E.S. CENTRAL	55	52	1	1	-	4	7	9	123	199
Ky.	4	4	-	-	-	1	-	-	23	40
Tenn.	31	26	-	-	-	-	4	6	73	80
Ala.	18	14	1	1	-	3	2	1	13	31
Miss.	2	8	-	-	-	-	1	2	14	48
W.S. CENTRAL	50	42	1	2	7	7	3	2	177	750
Ark.	6	1	-	-	1	-	-	-	17	41
La.	7	6	-	-	-	-	2	2	38	63
Okla.	34	33	-	-	6	7	1	-	10	38
Tex.	3	2	1	2	-	-	-	-	112	608
MOUNTAIN	127	139	4	4	17	25	18	13	348	411
Mont.	-	-	-	-	-	-	-	-	7	12
Idaho	4	2	-	-	-	-	1	1	-	24
Wyo.	1	2	-	-	-	-	-	-	1	2
Colo.	25	26	-	-	-	-	5	2	53	65
N. Mex.	14	22	-	-	4	6	1	1	15	15
Ariz.	64	62	4	2	6	14	8	6	205	225
Utah	11	14	-	1	4	3	3	-	28	31
Nev.	8	11	-	1	3	2	-	3	39	37
PACIFIC	76	114	1	7	15	17	10	11	843	1,266
Wash.	9	2	-	1	6	1	2	-	40	122
Oreg.	37	44	-	-	-	-	3	3	46	49
Calif.	17	38	1	6	9	16	4	4	743	1,067
Alaska	-	1	-	-	-	-	-	1	8	8
Hawaii	13	29	-	-	-	-	1	3	6	20
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	-	-	-	26	168
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Non-serotype b: nontypeable and type other than b; Unknown serotype: type unknown or not reported. Previously, cases reported without type information were counted as non-serotype b.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	4,302	5,154	910	1,347	1,275	757	400	412	11,315	13,723
NEW ENGLAND	169	198	2	18	51	66	33	40	1,963	3,400
Maine	1	8	-	-	2	2	6	4	150	49
N.H.	11	13	-	-	6	4	3	4	87	178
Vt.	2	4	2	12	5	26	-	2	30	28
Mass.	139	112	-	6	19	25	13	19	412	1,626
R.I.	8	21	-	-	3	1	-	1	402	186
Conn.	8	40	U	U	16	8	11	10	882	1,333
MID. ATLANTIC	694	1,087	119	71	353	206	78	120	7,625	7,770
Upstate N.Y.	80	83	35	30	105	54	22	34	2,996	3,423
N.Y. City	251	538	-	-	28	43	11	30	4	55
N.J.	165	220	-	4	34	25	11	24	1,372	1,915
Pa.	198	246	84	37	186	84	34	32	3,253	2,377
E.N. CENTRAL	267	460	118	76	259	194	48	56	498	1,090
Ohio	92	68	7	-	164	67	18	15	51	45
Ind.	25	31	7	-	20	13	5	6	15	17
Ill.	1	98	14	16	3	21	5	13	-	46
Mich.	126	224	90	57	59	63	16	15	4	24
Wis.	23	39	-	3	13	30	4	7	428	958
W.N. CENTRAL	227	158	163	585	46	40	15	11	252	186
Minn.	28	20	8	2	3	9	8	1	185	112
Iowa	7	13	1	1	9	9	-	1	26	30
Mo.	158	82	153	572	21	11	4	6	29	34
N. Dak.	2	4	-	-	1	-	-	1	-	-
S. Dak.	2	1	-	1	2	2	-	-	-	1
Nebr.	17	21	1	9	2	9	3	1	2	5
Kans.	13	17	-	-	8	-	-	1	10	4
S. ATLANTIC	1,356	1,230	124	149	362	133	86	56	811	1,017
Del.	5	13	-	-	20	7	N	N	133	146
Md.	94	94	13	8	86	25	13	12	480	585
D.C.	7	14	-	-	11	5	-	-	6	17
Va.	130	142	6	6	69	16	9	4	57	101
W. Va.	20	18	1	2	12	-	5	-	14	12
N.C.	111	174	10	22	26	7	14	5	62	95
S.C.	110	81	24	4	5	6	2	8	2	12
Ga.	404	318	3	60	19	12	21	9	12	1
Fla.	475	376	67	47	114	55	22	18	45	48
E.S. CENTRAL	285	264	60	101	75	24	23	10	42	51
Ky.	49	45	9	4	31	10	5	2	10	18
Tenn.	139	100	18	22	28	8	6	5	12	16
Ala.	45	53	6	6	13	6	10	3	5	8
Miss.	52	66	27	69	3	-	2	-	15	9
W.S. CENTRAL	222	718	195	214	25	23	19	24	33	110
Ark.	38	89	3	10	2	-	1	-	-	2
La.	46	96	46	67	-	4	1	1	3	3
Okla.	31	41	2	4	5	3	2	7	-	-
Tex.	107	492	144	133	18	16	15	16	30	105
MOUNTAIN	455	447	53	45	45	28	24	23	15	13
Mont.	13	4	1	-	2	3	2	-	-	-
Idaho	-	6	-	-	3	-	2	2	3	3
Wyo.	27	14	-	5	2	2	-	-	1	1
Colo.	59	58	26	6	9	5	9	4	4	1
N. Mex.	26	125	-	2	2	2	2	2	-	1
Ariz.	227	166	7	4	9	6	7	11	1	2
Utah	47	30	-	4	13	7	-	3	3	4
Nev.	56	44	19	24	5	3	2	1	3	1
PACIFIC	627	592	76	88	59	43	74	72	76	86
Wash.	47	53	13	17	8	3	2	8	2	8
Oreg.	83	100	11	10	N	N	4	8	15	11
Calif.	474	427	50	60	51	40	64	49	56	65
Alaska	8	6	1	-	-	-	-	-	3	2
Hawaii	15	6	1	1	-	-	4	7	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	41	140	-	-	-	-	-	2	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	688	1,024	1,150	1,358	4,730	5,692	4,084	5,509	483	710
NEW ENGLAND	27	59	52	77	496	503	401	654	-	4
Maine	3	4	5	4	12	8	43	43	-	-
N.H.	2	6	3	10	57	10	13	32	-	-
Vt.	1	2	1	4	54	96	27	81	-	-
Mass.	6	25	33	41	358	353	153	205	-	3
R.I.	1	4	2	5	14	10	43	55	-	1
Conn.	14	18	8	13	1	26	122	238	-	-
MID. ATLANTIC	167	273	139	169	486	283	651	897	27	46
Upstate N.Y.	40	31	35	38	269	197	288	509	2	-
N.Y. City	78	177	27	32	-	12	5	10	7	9
N.J.	25	37	19	25	39	-	62	121	10	16
Pa.	24	28	58	74	178	74	296	257	8	21
E.N. CENTRAL	62	134	173	193	396	671	115	132	9	26
Ohio	14	15	47	60	178	312	41	29	6	10
Ind.	2	12	37	24	45	86	15	27	1	3
Ill.	20	57	38	44	-	109	15	28	-	11
Mich.	20	40	34	30	75	41	37	34	2	2
Wis.	6	10	17	35	98	123	7	14	-	-
W.N. CENTRAL	38	51	106	116	273	483	453	371	52	92
Minn.	21	16	20	29	106	220	26	30	1	-
Iowa	4	3	17	17	64	108	89	60	2	3
Mo.	3	14	52	39	61	94	32	40	41	85
N. Dak.	1	1	1	-	4	5	45	32	-	-
S. Dak.	2	1	1	2	3	5	67	74	4	-
Nebr.	-	5	7	22	5	7	58	-	2	4
Kans.	7	11	8	7	30	44	136	135	2	-
S. ATLANTIC	210	236	218	217	432	315	1,871	1,939	279	326
Del.	3	2	7	6	1	2	43	24	1	1
Md.	51	84	24	7	54	53	245	297	80	32
D.C.	8	15	-	-	-	1	-	-	-	-
Va.	26	20	20	33	76	107	393	428	19	24
W. Va.	4	3	4	4	6	29	67	135	5	1
N.C.	18	16	30	25	90	29	575	516	121	199
S.C.	3	6	20	21	90	32	172	101	14	44
Ga.	36	40	25	25	30	23	261	303	31	19
Fla.	61	50	88	96	85	39	115	135	8	6
E.S. CENTRAL	12	17	60	75	113	179	136	181	67	99
Ky.	5	6	14	12	37	78	29	19	1	5
Tenn.	4	3	16	30	57	65	86	108	48	59
Ala.	3	3	15	17	15	28	21	52	10	11
Miss.	-	5	15	16	4	8	-	2	8	24
W.S. CENTRAL	18	57	99	166	382	1,340	175	882	40	102
Ark.	4	1	12	22	28	468	25	3	-	30
La.	3	3	25	32	6	7	-	-	-	-
Okla.	4	7	13	17	12	34	150	90	39	61
Tex.	7	46	49	95	336	831	-	789	1	11
MOUNTAIN	34	37	57	77	700	695	134	224	9	13
Mont.	-	1	3	2	4	4	20	14	1	1
Idaho	1	-	6	3	60	53	13	27	2	-
Wyo.	1	-	2	-	119	10	4	15	2	4
Colo.	14	20	16	23	232	269	31	35	2	2
N. Mex.	1	2	7	4	50	146	5	9	-	1
Ariz.	12	6	15	23	125	109	49	112	1	-
Utah	4	5	1	4	87	61	9	9	1	-
Nev.	1	3	7	18	23	43	3	3	-	5
PACIFIC	120	160	246	268	1,452	1,223	148	229	-	2
Wash.	19	16	24	51	417	340	-	-	-	-
Oreg.	10	8	41	38	344	158	6	14	-	2
Calif.	85	128	169	170	681	695	135	189	-	-
Alaska	-	2	3	3	-	4	7	26	-	-
Hawaii	6	6	9	6	10	26	-	-	-	-
Guam	-	-	-	1	-	2	-	-	-	-
P.R.	1	1	2	6	-	2	55	62	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	25,439	28,489	13,753	13,061	4,064	3,537	1,586	1,808	320	239
NEW ENGLAND	1,478	1,548	213	241	332	271	40	86	6	2
Maine	98	102	6	4	22	20	-	-	-	-
N.H.	94	95	5	8	21	31	-	-	N	N
Vt.	48	59	6	1	17	9	6	4	3	1
Mass.	872	882	145	156	159	92	N	N	N	N
R.I.	89	109	11	9	11	14	10	11	3	1
Conn.	277	301	40	63	102	105	24	71	U	U
MID. ATLANTIC	3,012	3,861	1,589	1,171	740	572	96	84	73	59
Upstate N.Y.	759	1,019	280	193	297	231	54	72	56	49
N.Y. City	802	1,000	258	337	96	132	U	U	U	U
N.J.	358	769	206	428	130	121	N	N	N	N
Pa.	1,093	1,073	845	213	217	88	42	12	17	10
E.N. CENTRAL	3,808	4,043	1,242	1,491	890	757	332	163	133	89
Ohio	1,026	941	249	456	253	169	219	33	77	2
Ind.	423	372	112	77	92	41	113	128	34	44
Ill.	1,211	1,392	601	699	180	217	-	2	-	-
Mich.	572	654	191	123	303	240	N	N	N	N
Wis.	576	684	89	136	62	90	N	N	22	43
W.N. CENTRAL	1,740	1,747	569	779	264	193	128	332	44	41
Minn.	368	403	68	159	131	99	-	220	38	37
Iowa	260	285	48	99	N	N	N	N	N	N
Mo.	702	595	290	121	56	38	9	5	2	1
N. Dak.	28	24	3	16	11	-	3	1	4	3
S. Dak.	78	76	13	151	19	11	1	1	-	-
Nebr.	101	123	90	163	21	16	-	25	N	N
Kans.	203	241	57	70	26	29	115	80	N	N
S. ATLANTIC	6,902	6,968	5,344	4,115	721	578	828	838	15	25
Del.	61	60	146	93	6	2	1	3	N	N
Md.	580	671	480	806	213	89	-	-	-	19
D.C.	34	51	54	42	12	6	2	-	5	3
Va.	752	738	307	672	90	62	N	N	N	N
W. Va.	92	93	-	8	31	16	57	36	10	3
N.C.	848	917	673	248	86	105	N	N	U	U
S.C.	443	464	305	81	32	31	116	144	N	N
Ga.	1,284	1,305	1,326	938	86	112	194	209	N	N
Fla.	2,808	2,669	2,053	1,227	165	155	458	446	N	N
E.S. CENTRAL	1,645	2,080	629	951	159	81	106	114	-	-
Ky.	293	238	72	100	37	16	13	13	N	N
Tenn.	531	529	236	62	122	65	93	101	N	N
Ala.	364	542	190	498	-	-	-	-	N	N
Miss.	457	771	131	291	-	-	-	-	-	-
W.S. CENTRAL	2,007	3,040	1,763	2,008	150	237	33	152	45	19
Ark.	498	643	75	148	5	6	8	6	-	-
La.	258	535	144	330	1	1	25	146	10	6
Okla.	313	347	593	356	65	36	N	N	27	2
Tex.	938	1,515	951	1,174	79	194	N	N	8	11
MOUNTAIN	1,485	1,562	743	530	359	420	20	39	4	4
Mont.	77	71	2	3	2	-	-	-	-	-
Idaho	131	102	24	5	18	6	N	N	N	N
Wyo.	68	45	5	7	2	7	4	10	-	-
Colo.	322	447	139	118	102	89	-	-	-	-
N. Mex.	153	212	144	105	89	80	16	29	-	-
Ariz.	462	409	350	232	135	210	-	-	N	N
Utah	160	122	38	21	9	28	-	-	4	4
Nev.	112	154	41	39	2	-	-	-	-	-
PACIFIC	3,362	3,640	1,661	1,775	449	428	3	-	-	-
Wash.	362	334	113	109	38	46	-	-	N	N
Oreg.	287	262	183	74	N	N	N	N	N	N
Calif.	2,522	2,802	1,328	1,545	330	328	N	N	N	N
Alaska	54	45	7	3	-	-	-	-	N	N
Hawaii	137	197	30	44	81	54	3	-	-	-
Guam	-	35	-	24	-	-	-	4	-	-
P.R.	169	347	3	26	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 2003, and September 14, 2002 (37th Week)*

Reporting area	Syphilis: Primary & secondary		Syphilis: Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	4,692	4,665	246	292	7,528	8,919	190	226	8,523
NEW ENGLAND	143	100	1	-	215	279	21	11	1,273
Maine	6	2	1	-	5	10	-	-	640
N.H.	13	2	-	-	7	9	2	-	-
Vt.	-	1	-	-	3	4	-	-	504
Mass.	96	68	-	-	140	146	11	7	126
R.I.	14	6	-	-	27	39	2	-	3
Conn.	14	21	-	-	33	71	6	4	-
MID. ATLANTIC	595	492	46	45	1,482	1,546	29	56	25
Upstate N.Y.	32	23	14	1	193	222	7	6	N
N.Y. City	330	292	24	19	803	748	11	27	-
N.J.	115	99	8	24	294	348	9	16	-
Pa.	118	78	-	1	192	228	2	7	25
E.N. CENTRAL	628	870	45	44	783	902	12	25	3,824
Ohio	157	106	2	2	144	144	2	6	940
Ind.	33	44	7	2	93	78	3	2	-
Ill.	238	330	15	33	366	438	1	10	-
Mich.	189	371	21	7	144	189	6	3	2,308
Wis.	11	19	-	-	36	53	-	4	576
W.N. CENTRAL	98	89	3	1	324	384	3	9	39
Minn.	34	42	-	1	134	159	-	3	N
Iowa	4	2	-	-	17	24	1	-	N
Mo.	34	23	3	-	79	102	1	2	-
N. Dak.	-	-	-	-	-	4	-	-	39
S. Dak.	1	-	-	-	16	10	-	-	-
Nebr.	4	5	-	-	10	20	1	4	-
Kans.	21	17	-	-	68	65	-	-	-
S. ATLANTIC	1,242	1,159	47	68	1,521	1,811	36	28	1,598
Del.	4	9	-	-	-	13	-	-	20
Md.	204	137	8	13	153	207	7	7	-
D.C.	37	36	-	1	-	-	-	-	22
Va.	59	52	1	1	183	195	10	3	436
W. Va.	2	2	-	-	12	24	-	-	941
N.C.	115	207	16	17	219	230	6	1	N
S.C.	78	86	4	9	111	122	-	-	179
Ga.	300	257	5	13	229	373	7	5	-
Fla.	443	373	13	14	614	647	6	12	N
E.S. CENTRAL	219	356	12	19	446	545	5	4	-
Ky.	29	66	1	3	84	99	-	4	N
Tenn.	94	132	5	6	148	216	2	-	N
Ala.	79	124	4	7	147	145	3	-	-
Miss.	17	34	2	3	67	85	-	-	-
W.S. CENTRAL	632	603	44	65	1,042	1,366	7	24	1,354
Ark.	40	24	-	6	66	93	-	-	-
La.	93	109	-	-	-	-	-	-	4
Okla.	34	48	1	2	90	116	-	-	N
Tex.	465	422	43	57	886	1,157	7	24	1,350
MOUNTAIN	206	224	21	11	274	272	3	9	410
Mont.	-	-	-	-	5	6	-	-	N
Idaho	5	1	-	-	5	10	-	-	N
Wyo.	-	-	-	-	3	2	-	-	43
Colo.	14	48	3	2	56	59	3	4	-
N. Mex.	38	24	-	-	6	24	-	1	-
Ariz.	136	138	18	9	149	140	-	-	4
Utah	4	4	-	-	28	18	-	2	363
Nev.	9	9	-	-	22	13	-	2	-
PACIFIC	929	772	27	39	1,441	1,814	74	60	-
Wash.	55	39	-	1	180	171	3	4	-
Oreg.	27	11	-	-	83	80	4	2	-
Calif.	845	715	27	37	1,095	1,416	66	52	-
Alaska	-	-	-	-	42	36	-	-	-
Hawaii	2	7	-	1	41	111	1	2	-
Guam	-	6	-	-	-	50	-	-	-
P.R.	140	179	1	21	33	75	-	-	278
V.I.	1	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending September 13, 2003 (37th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	499	344	107	30	9	9	44
Boston, Mass.	146	95	33	10	2	6	11
Bridgeport, Conn.	19	14	5	-	-	-	2
Cambridge, Mass.	11	7	2	2	-	-	1
Fall River, Mass.	27	19	8	-	-	-	7
Hartford, Conn.	41	21	12	6	2	-	3
Lowell, Mass.	23	18	5	-	-	-	2
Lynn, Mass.	11	10	1	-	-	-	1
New Bedford, Mass.	29	25	2	2	-	-	1
New Haven, Conn.	41	34	3	2	1	1	3
Providence, R.I.	53	35	13	2	2	1	5
Somerville, Mass.	1	1	-	-	-	-	-
Springfield, Mass.	42	29	9	2	1	1	1
Waterbury, Conn.	U	U	U	U	U	U	U
Worcester, Mass.	55	36	14	4	1	-	7
MID. ATLANTIC	1,990	1,340	428	143	40	39	93
Albany, N.Y.	42	24	14	3	1	-	2
Allentown, Pa.	14	13	1	-	-	-	1
Buffalo, N.Y.	92	64	21	5	2	-	9
Camden, N.J.	28	19	5	4	-	-	2
Elizabeth, N.J.	17	11	3	3	-	-	1
Erie, Pa.	47	34	10	3	-	-	-
Jersey City, N.J.	40	28	7	4	-	1	-
New York City, N.Y.	1,006	671	226	71	21	17	33
Newark, N.J.	51	27	16	6	2	-	2
Paterson, N.J.	17	10	4	-	1	2	-
Philadelphia, Pa.	253	149	61	27	5	11	15
Pittsburgh, Pa.§	31	22	3	2	2	2	2
Reading, Pa.	24	19	2	1	1	1	4
Rochester, N.Y.	135	100	25	5	2	3	10
Schenectady, N.Y.	25	20	4	1	-	-	2
Scranton, Pa.	21	15	5	1	-	-	-
Syracuse, N.Y.	97	75	13	5	2	2	7
Trenton, N.J.	17	11	5	1	-	-	-
Utica, N.Y.	12	11	-	-	1	-	-
Yonkers, N.Y.	21	17	3	1	-	-	3
E.N. CENTRAL	2,077	1,400	428	130	49	69	115
Akron, Ohio	59	34	18	-	1	6	5
Canton, Ohio	41	30	6	4	-	1	7
Chicago, Ill.	361	222	88	32	12	7	24
Cincinnati, Ohio	79	54	20	2	2	1	4
Cleveland, Ohio	123	76	31	9	3	4	4
Columbus, Ohio	U	U	U	U	U	U	U
Dayton, Ohio	119	91	20	5	2	1	10
Detroit, Mich.	172	98	35	17	8	13	10
Evansville, Ind.	49	39	9	-	1	-	2
Fort Wayne, Ind.	79	54	18	3	-	4	1
Gary, Ind.	21	11	4	3	1	2	1
Grand Rapids, Mich.	65	49	6	2	1	7	8
Indianapolis, Ind.	429	289	85	31	8	16	20
Lansing, Mich.	44	31	11	1	-	1	-
Milwaukee, Wis.	115	82	21	5	5	2	6
Peoria, Ill.	43	32	7	1	1	2	2
Rockford, Ill.	53	40	8	5	-	-	1
South Bend, Ind.	71	52	13	5	1	-	-
Toledo, Ohio	98	71	19	4	2	2	8
Youngstown, Ohio	56	45	9	1	1	-	2
W.N. CENTRAL	586	388	132	31	20	15	31
Des Moines, Iowa	106	76	23	2	3	2	4
Duluth, Minn.	33	27	5	1	-	-	-
Kansas City, Kans.	45	28	10	3	3	1	3
Kansas City, Mo.	75	47	15	5	4	4	1
Lincoln, Nebr.	58	44	9	3	2	-	5
Minneapolis, Minn.	51	30	13	1	2	5	6
Omaha, Nebr.	81	55	20	2	3	1	5
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	52	39	8	3	1	1	3
Wichita, Kans.	85	42	29	11	2	1	4
S. ATLANTIC	1,194	753	284	93	41	22	51
Atlanta, Ga.	154	87	42	17	7	1	2
Baltimore, Md.	173	98	44	18	7	6	9
Charlotte, N.C.	101	62	22	10	4	3	9
Jacksonville, Fla.	175	133	33	5	3	1	5
Miami, Fla.	78	48	14	10	5	1	4
Norfolk, Va.	43	27	10	3	-	3	-
Richmond, Va.	64	38	18	4	4	-	4
Savannah, Ga.	41	29	10	2	-	-	2
St. Petersburg, Fla.	55	33	18	-	2	2	3
Tampa, Fla.	190	124	46	11	3	5	10
Washington, D.C.	99	59	22	12	6	-	3
Wilmington, Del.	21	15	5	1	-	-	-
E.S. CENTRAL	866	551	196	63	26	22	43
Birmingham, Ala.	179	114	36	10	6	5	10
Chattanooga, Tenn.	62	42	16	2	1	1	3
Knoxville, Tenn.	96	63	28	5	-	-	-
Lexington, Ky.	38	22	10	2	3	1	1
Memphis, Tenn.	209	123	46	20	9	11	8
Mobile, Ala.	93	61	16	11	3	2	3
Montgomery, Ala.	43	31	9	2	1	-	8
Nashville, Tenn.	146	95	35	11	3	2	10
W.S. CENTRAL	1,374	858	282	122	63	49	73
Austin, Tex.	80	52	18	8	1	1	5
Baton Rouge, La.	U	U	U	U	U	U	U
Corpus Christi, Tex.	58	41	10	4	2	1	2
Dallas, Tex.	188	110	51	16	3	8	6
El Paso, Tex.	114	80	23	8	2	1	1
Ft. Worth, Tex.	123	77	27	5	2	12	8
Houston, Tex.	343	184	68	40	40	11	23
Little Rock, Ark.	76	57	2	9	3	5	4
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	212	136	46	19	7	4	8
Shreveport, La.	87	55	19	8	3	2	8
Tulsa, Okla.	93	66	18	5	-	4	8
MOUNTAIN	845	555	186	63	23	16	51
Albuquerque, N.M.	149	103	26	13	5	2	8
Boise, Idaho	U	U	U	U	U	U	U
Colo. Springs, Colo.	60	39	11	7	1	2	1
Denver, Colo.	104	62	24	6	4	8	8
Las Vegas, Nev.	224	140	59	14	8	1	13
Ogden, Utah	29	14	10	3	1	1	-
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	27	25	2	-	-	-	-
Salt Lake City, Utah	104	75	21	6	2	-	11
Tucson, Ariz.	148	97	33	14	2	2	10
PACIFIC	1,263	888	233	91	24	26	78
Berkeley, Calif.	25	16	4	2	1	2	1
Fresno, Calif.	85	58	15	5	5	2	2
Glendale, Calif.	17	15	2	-	-	-	1
Honolulu, Hawaii	U	U	U	U	U	U	U
Long Beach, Calif.	71	49	14	4	3	1	7
Los Angeles, Calif.	194	136	35	17	3	3	9
Pasadena, Calif.	21	18	3	-	-	-	3
Portland, Oreg.	181	118	44	13	1	5	8
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	188	127	31	21	4	4	15
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	176	132	28	10	1	5	15
Santa Cruz, Calif.	U	U	U	U	U	U	U
Seattle, Wash.	143	101	29	8	4	1	8
Spokane, Wash.	49	36	10	2	-	1	7
Tacoma, Wash.	113	82	18	9	2	2	2
TOTAL	10,694¶	7,077	2,276	766	295	267	579

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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