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West Nile Virus Activity — United States, 2001

In 2001, West Nile virus (WNV) activity was reported from 359 counties in 27 states and the District of Columbia (DC) to ArboNET, a web-based, surveillance data network maintained by 54 state and local public health agencies and CDC. This activity represented a marked increase from 2000, when WNV activity was reported from 138 counties in 12 states and DC (*1*). This report summarizes surveillance data for 2001, which indicate that 66 human illnesses were reported from 10 states and that widespread WNV activity in birds, horses, and mosquitoes extended into the midwestern United States and several southern states unaffected previously. The findings in this report underscore the need for public education, increased WNV surveillance aimed at early viral detection, and sustained, integrated mosquito-control activities.

In 2001, CDC conducted WNV surveillance with 54 ArboNET surveillance coordinators from health departments in the contiguous 48 states and six jurisdictions (Chicago, DC, Houston, Los Angeles, New York City, and Philadelphia). Local WNV surveillance networks collected and tested for WNV or antibodies specimens from human and veterinary patients, dead birds, captive sentinel animals (mostly chickens), wild-caught birds, and mosquitoes. Test results, including county and week of specimen collection or illness onset, were entered into local electronic databases, and standardized summaries were forwarded weekly to CDC's ArboNET database system. In addition, reports of human WNV cases and other reports of WNV activity were reported to CDC by telephone, facsimile, or e-mail.

In 2001, a total of 66 human cases of WNV disease (64 persons with central nervous system infections [WNV meningoencephalitis] and two persons with uncomplicated WNV fever) were reported from 39 counties in 10 states (Figure 1). New York (13 WNV meningoencephalitis cases; two WNV fever cases), New Jersey (12 WNV meningoencephalitis cases), and Florida (12 WNV meningoencephalitis cases) accounted for 39 (59%) reported cases. Among 64 persons with WNV meningoencephalitis, the median age was 68 years (range: 9–90 years). Nine (14%) cases were fatal; the median age of these persons was 70 years (range: 44–90 years). The dates of human illness onset ranged from July 13 to December 7 (Figure 2). In 36 (92%) counties reporting human cases, the first case was preceded by at least one report of a WNV-infected bird, sentinel animal, horse, or mosquito pool; 320 counties detected enzootic WNV activity but no human infections.

Of the 359 counties reporting WNV activity, 328 (91%) counties in 27 states and DC reported 7,333 dead WNV-infected birds (5,154 crows from two *Corvus* species, 966 blue jays, and 1,213 birds from 71 other avian species). In 238 (66%) counties, dead crows were the first indicators of WNV activity. Of 9,679 crows tested for WNV, 5,154 (53%) were positive for WNV infection compared with 2,179 (9%) of 24,898 birds from other species. Dead infected birds were collected during April 4–December 26. A total of 55 seropositive wild-caught birds were reported from DC and five counties in three states (Florida, New York, and Ohio) and represented the first detection of WNV activity in two of these counties. A total of 218 seroconverting captive sentinel animals were reported from 26 counties in five states (Florida, New Jersey, New York, North Carolina, and Virginia). In four Florida counties, seroconverting sentinel chickens were the first sign of WNV activity.

INSIDE

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Horses were the only WNV-infected nonhuman mammals reported in 2001. A total of 733 equine cases were reported from 127 counties in 19 states (Alabama, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, and Virginia); this represented a 12-fold increase compared with 2000 (*1*). Florida reported 483 equine cases (66% of all reports) from 40 counties. The first equine illness preceded the first human illness; equine illness onset dates ranged from June 27 to December 18.

In 2001, a total of 564 counties conducted WNV testing on approximately 1.4 million mosquitoes from 91 species. WNV was detected in 919 mosquito pools (27 species) reported from 71 counties in 16 states (Connecticut, Delaware, Florida, Georgia, Illinois, Kentucky, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Virginia) and DC. As in 2000, two enzootic vector species, *Culex pipiens* and *Cx. restuans,* collectively accounted for the majority (59%) of WNV-positive pools. WNV also was found for the first time in several additional species of potential public health importance, including *Anopheles quadrimaculatus, Coquilletidia perturbans, Cx. nigripalpus, Cx. quinquefasciatus, Ochlerotatus sollicitans, Oc. taeniorhynchus,* and *Psorophora columbiae.*

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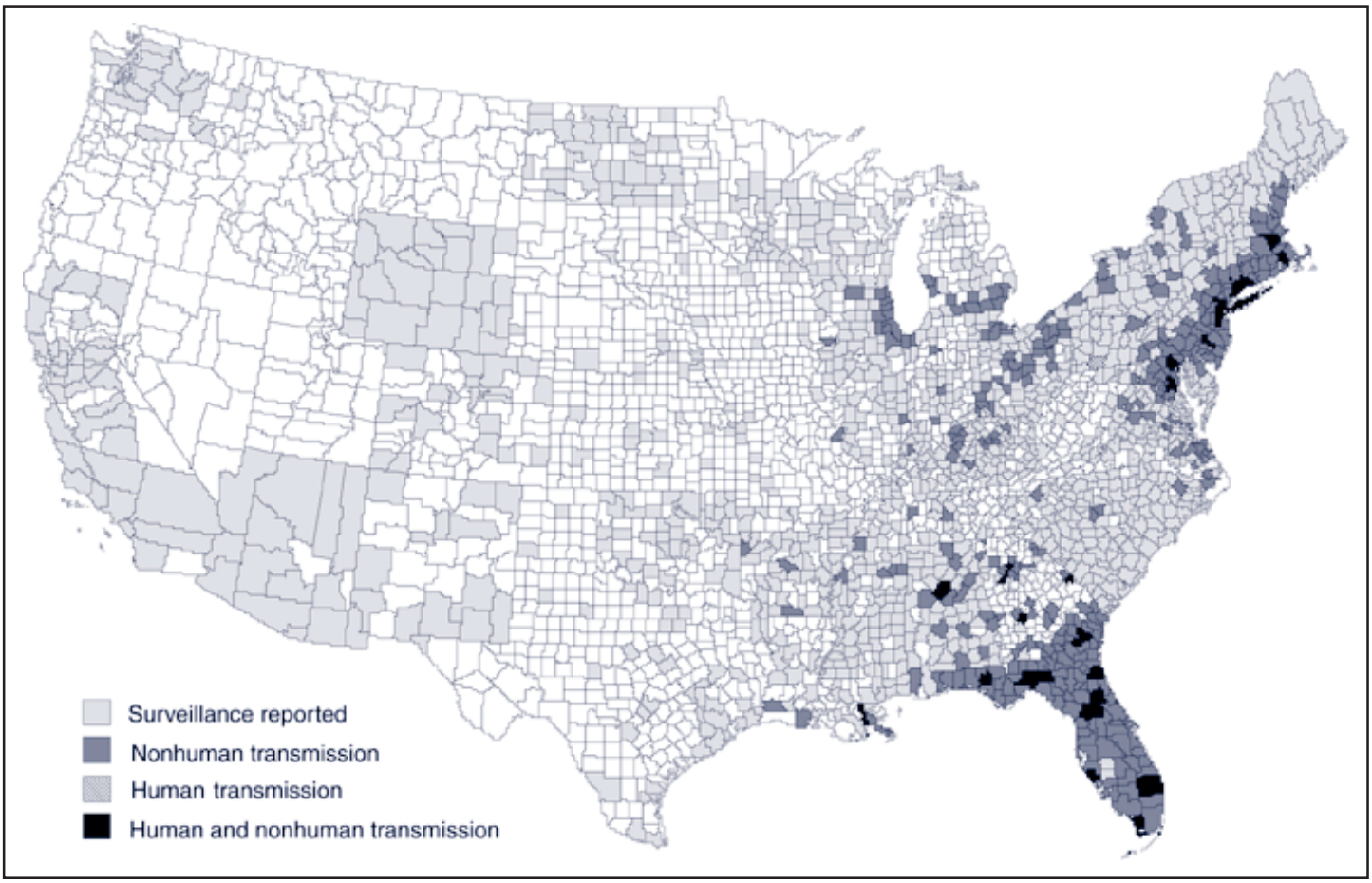
Editorial Note: The 2001 surveillance data indicate that the geographic area with WNV activity has increased and that dead WNV-infected birds were reported in western Arkansas, southern Maine, and southern Florida. Seven states reported human cases for the first time. Canadian health authorities also detected WNV activity in dead birds from southwestern Ontario, a region of lower latitude than the northern limits of WNV detection in the United States (*2*). In 2001, a case of WNV encephalitis was diagnosed serologically in a resident of the Cayman Islands who had no recent travel history (CDC, unpublished data, 2001), suggesting that WNV has entered the Caribbean region. Human illness onsets on July 13 and December 7 in persons in Florida and Georgia, respectively, mark the earliest and latest reported human cases since the introduction of WNV to the United States. Extended seasonal activity in 2001 occurred in the northeast; two of five persons with illness onset on October 15 or later were from Massachusetts. The widespread occurrence of human cases and the occurrence of human cases outside of WNV's usual season (summer and early fall) suggest that 1) state and local health departments in the contiguous 48 states should, at a minimum, establish enhanced passive hospital-based surveillance

FIGURE 1. Reported West Nile virus (WNV) activity, by county — United States, 2001

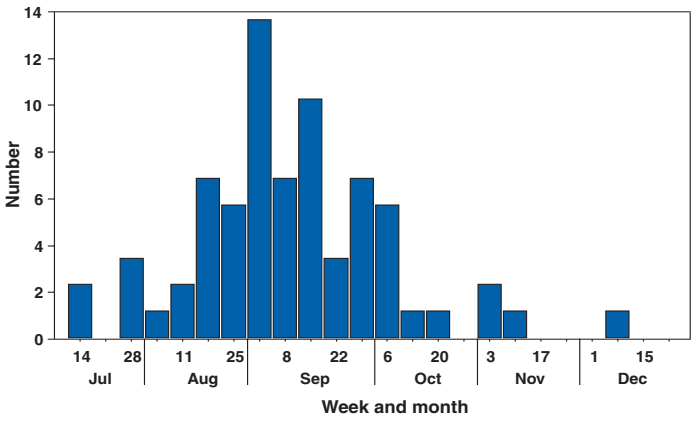


for human cases of encephalitis of unknown etiology and 2) this surveillance should extend beyond mid-October (*3*).

In 2001, infected birds, mosquitoes, or horses were detected in 16 states in which no previous WNV activity in animals had been reported. These findings demonstrate the dramatic spread of WNV westward and southward since 1999, when the virus was first recognized in North America. Although virus activity was detected for the first time in many southern states in 2001, the simultaneous appearance of two epizootic foci very early in 2001—one in the mid-Atlantic region and one in the southeast along the common borders of Florida, Georgia, and Alabama—suggests that WNV was introduced into the southern states by migrating birds in late 2000, but circulated at levels below the detection threshold of surveillance. Because many migratory bird species use well-established north-south flyways along the eastern seaboard, this movement of WNV from the mid-Atlantic region to the south Atlantic region and the Gulf states was expected; however, the reasons for WNV's rapid expansion into multiple foci in the central United States are less obvious. Possible mechanisms include carriage of the virus by the return of infected birds from wintering sites in southern states or by their incremental east-to-west local movements (*4*).

Surveillance of dead birds is essential in monitoring WNV activity. Infection in species within the family Corvidae (e.g., crows and jays) is a particularly important indicator of WNV activity. In 2001, the proportion of tested birds that were infected continued to be disproportionately higher in crows than all other birds (53% versus 9%). Although 83% of infected birds reported were either crows or blue jays, this might be attributed to greater emphasis placed by states on monitoring these species. State and local health department surveillance programs should continue to emphasize the collection and testing of dead corvids. However, because noncorvid birds were first indicators of WNV activity in 57 (16%) of 359 counties where the virus was detected, surveillance programs should include these other species wherever possible. In 2001, serosurveillance of sentinel chickens and wild-caught birds contributed additional information on WNV transmission and provided collectively the initial

FIGURE 2. Number* of human West Nile virus disease cases, by week and month of illness onset — United States, July–December 2001



* n=66.

signal of WNV activity in six counties. The limitations of these supplemental systems are documented (*3,5*) and their overall utility continues to be evaluated.

The 2001 equine WNV epizootic was unprecedented given its geographic span and the number of horses affected. In addition to a substantial epizootic in the northeast, an intense equine epizootic in Georgia and Florida accounted for 75% (551) of all reported equine cases. Scattered cases also were detected as far west as Louisiana, in the Ohio valley, and in northern Illinois. In August 2001, the U.S. Department of Agriculture granted conditional licensure of a commercial equine WNV vaccine because of the detrimental effect of these events on equine health and industry. Because WNV-infected horses are unlikely to develop viremias sufficient to infect feeding mosquitoes, they are unlikely to pose a risk to humans (*6*). However, equine epizootics reflect intense enzootic WNV activity in mosquitoes, which might place humans at increased risk.

In 2001, *Culex* mosquitoes (*Cx. pipiens, Cx. restuans*, and *Cx. salinarius*) were the most commonly identified mosquito vectors of WNV in the United States, and since 1999 these species have been found in close spatial and temporal proximity to the majority of human cases of WNV meningoencephalitis (*1,7,8*). Detection of WNV in several common human-feeding mosquito species (e.g., *Cx. nigripalpus, Oc. sollicitans, Oc. taeniorhynchus,* and *Cq. perturbans*) and recent studies demonstrating their ability to transmit this virus under laboratory conditions (*9,10*) raise concerns about increased human risk in areas where these species are common.

The data available to the ArboNET system likely underestimate actual geographic distribution and intensity of WNV virus transmission in the United States. Data provided by the 54 ArboNET coordinators are derived largely from local health unit surveillance efforts, which vary according to capacity and ability. The 28 jurisdictions reporting activity probably support additional, undetected WNV transmission within their borders, and undetected foci of transmission probably exist in counties and states that have not reported transmission activity. In addition, some detected WNV infections might not have been entered into the ArboNET system.

In Florida, epizootic WNV activity has been reported since January 2002, indicating that year-round transmission is occurring in that state. In northern states, WNV activity has been reported since April. The extended seasonal activity, the broad vertebrate host and vector-mosquito range, and the establishment of multiple epizootic foci throughout the eastern United States demonstrate that WNV has established itself permanently in temperate North America and strongly suggest that it will spread further westward. This underscores the need for increased surveillance geared toward early viral detection and mosquito-control activities that weaken or break amplification cycles and decrease the risk for human and domestic animal infection with WNV. Prevention activities should continue to include 1) public education programs urging residential source reduction and personal protective measures to reduce mosquito exposure; 2) development of sustained, community-level integrated mosquito-surveillance and management programs (*3*); and 3) high-priority emphasis on the control of urban *Culex* mosquitoes.

Acknowledgments

This report is based on data prepared by ArboNET surveillance coordinators in local and state health departments and ArboNET technical staff, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, CDC.

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Disseminated Infection with *Simiae-Avium* Group Mycobacteria in Persons with AIDS — Thailand and Malawi, 1997

Persons with advanced human immunodeficiency virus (HIV)-1 infection are susceptible to disseminated mycobacterial infections. In the United States, most such infections are caused by *Mycobacterium avium* or *M. intracellulare* (i.e., *M. avium* complex [MAC]). In less developed countries, *M. tuberculosis* is equally or more prevalent than MAC in persons with HIV-1 infection (*1*). Other mycobacterial species have been reported to cause disseminated infection in HIV-infected persons, including S*imiae-Avium* (SAV) group mycobacteria. SAV group organisms share characteristics of *M. avium* and *M. simiae* (*2*). Although disseminated (i.e., the isolation of a mycobacterial species from the blood) infection with *M. simiae* has been reported in HIV-infected persons (*3–6*), another distinct species within the SAV group, *M. triplex*, was characterized in 1996 (*7*). Two cases of disseminated infection caused by *M. triplex* have been reported in HIV-1-positive persons (*8,9*). This report describes four HIV-infected patients from Bangkok, Thailand, and Lilongwe, Malawi, who were infected with SAV group organisms. Because different mycobacterial species are not susceptible uniformly to antimycobacterial agents, accurate identification of mycobacterial species causing an infection is crucial for directing appropriate therapy.

These infections were detected during prospective blood culture studies of febrile, adult inpatients in these two countries (*1,10*). The Bangkok study was conducted at an infectious diseases hospital during February–March 1997 (*10*); the Lilongwe study was conducted at a general hospital during August–September 1997 (*1*). In both studies, adults (aged ≥18 years) admitted consecutively with fever (oral temperature ≥100° F [≥38° C] in Bangkok and axillary temperature ≥99° F [≥37.5° C] in Malawi) were recruited within 12 hours of hospital admission. After informed consent was obtained, patients gave a full medical history and underwent a comprehensive physical examination. Blood was drawn for HIV-1 testing and mycobacterial culture. All mycobacterial isolates were sent to Duke University Medical Center for confirmation and identification. *M. tuberculosis* complex and *M. avium* complex isolates were identified by using AccuPROBE (Gen-Probe, San Diego, California) DNA probes and biochemical tests. Isolates of uncommon *Mycobacterium* spp. (e.g., *M. simiae*) were sent to North Carolina State Public Health Laboratory and the Mycobacteria Reference Laboratory at CDC for further characterization and confirmation by high performance liquid chromatography analysis of mycolic acids. Personnel at both laboratories read all chromatograms visually. Susceptibilities of the isolates to antituberculous drugs were performed at CDC using methodology established for *M. tuberculosis.* Of 480 patients evaluated, four (two from Bangkok and two from Lilongwe) were found to have disseminated infection with SAV group mycobacteria, later identified as *M. simiae*.

Bangkok, Thailand

Both patients had positive serology for HIV-1 antibody. Neither was receiving antiretroviral or antimycobacterial therapy. Patient 1, a man aged 32 years, presented with fever, cachexia, and diarrhea of 3 months' duration. Physical examination revealed oral candidiasis and lymphadenopathy. Patient 2, a man aged 36 years, presented with fever, cachexia, and cough and shortness of breath of 1 weeks' duration. Physical examination revealed lymphadenopathy. Additional laboratory studies on this patient revealed hematocrit 16% (normal: 39%–49%) and positive cerebrospinal fluid cryptococcal antigen. Both patients were treated with broad-spectrum antimicrobials for possible underlying bacterial infection and were discharged from the hospital.

Lilongwe, Malawi

Both patients had positive serology for HIV-1 antibody. Neither was receiving antiretroviral or antimycobacterial therapy. Patient 3, a man aged 28 years, presented with chronic fever and cough of 7 months' duration. Physical examination revealed cachexia and skin lesions. No lymphadenopathy was noted. Patient 4, a man aged 36 years, presented with fever, chronic fever, and diarrhea of 5 months' duration. Physical examination revealed oral candidiasis. No lymphadenopathy was detected. Both patients were treated with penicillin and chloramphenicol for underlying bacterial infection and were discharged from the hospital.

Susceptibility testing

All four isolates were available for susceptibility testing. These isolates were resistant to all first-line drugs (isoniazid,

rifampin, streptomycin, ethambutol, and pyrazinamide) used for treating *M. tuberculosis* infection and to alternative drugs (e.g., kanamycin and ciprofloxacin) used for treating atypical mycobacteria and multidrug-resistant tuberculosis (MDR-TB).

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Editorial Note: Advances in laboratory methodology have enabled more rapid and reliable differentiation of mycobacterial species commonly associated with clinical illness (e.g., *M. tuberculosis* and MAC), and the identification of new or emerging species (e.g., *M. triplex*). However, ambiguities in determining specific mycobacteria species might occur in regions of the world where diagnostic resources are limited or not available. In addition, no standard susceptibility testing panel has been established for these organisms. These limitations might lead to difficulties in the clinical management of patients with disseminated mycobacterial infection.

The clinical manifestations of disseminated mycobacterial infection are nonspecific and are not indicative of the infecting species. Therefore, as with other mycobacterial infections, diagnosis and specific therapy should be guided by laboratory testing, including species identification and susceptibility testing whenever possible, rather than clinical findings alone.

The findings in this report are subject to at least three limitations. First, neither CD4 lymphocyte nor HIV-1 viral load data were obtained. However, because each patient had a marker of symptomatic HIV-1 infection (oral candidiasis, Kaposi's sarcoma, or positive cerebrospinal fluid cryptococcal antigen), all probably had clinical evidence of advanced immune deficiency. Second, because these patients had multiple conditions that could have produced their nonspecific symptoms and physical findings, it is unclear whether SAV mycobacteria were the cause of their symptoms. Further study and characterization of the SAV group of mycobacteria and of the clinical illness with which they are associated are required to better ascertain the prevalence and clinical significance of these mycobacterial infections. Finally, no information was available on treatment or postdischarge outcome for these patients.

Awareness of *M. simiae* and other SAV mycobacteria as potential causes of disseminated infection in patients with AIDS is important for several reasons. Because of the phenotypic similarity between SAV mycobacteria and other mycobacterial species, patients infected with SAV mycobacteria might go unrecognized and be presumed to be infected with other *Mycobacterium* species (e.g., *M. tuberculosis*), particularly in resource-poor settings without access to adequate laboratory testing. This might lead to ineffective treatment, because not all species are susceptible to all agents. Also, if these isolates were assumed to be *M. tuberculosis*, they could be misclassified as MDR-TB.

Because of the lack of data and of clinical experience with *M. simiae* and other SAV group mycobacteria, the best treatment is unknown. Infections with other mycobacteria, particularly *M. tuberculosis*, require treatment for prolonged periods with multiple agents to which the organisms are susceptible; not adhering to these principles promotes the development of drug-resistant organisms. Additional investigation is needed to determine whether similar hazards exist when SAV mycobacteria are treated with ineffective agents or otherwise suboptimal therapy.

Acknowledgments

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Update: Influenza Activity — United States and Worldwide, 2001–02 Season, and Composition of the 2002–03 Influenza Vaccine

The 2001–02 influenza season in the United States was mild to moderate. Influenza A (H3N2) viruses predominated, but influenza B viruses were identified more frequently than influenza A viruses toward the end of the season. Worldwide, influenza A (H3N2) and B viruses predominated. This report summarizes influenza activity in the United States* (September 30, 2001–May 18, 2002) and worldwide (October–May) during the 2001–02 influenza season and describes the composition of the 2002–03 influenza vaccine.

United States

Influenza activity increased in mid-January and peaked during mid-to-late February. Influenza A (H3N2) viruses predominated; however, the number of influenza B viruses increased as the season progressed. Influenza B viruses were the most frequently identified influenza viruses from the week ending March 30 (week 13) through the week ending May 18 (week 20) (Figure).

During September 30, 2001–May 18, 2002, the World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories in the United States tested 100,815 respiratory specimens for influenza; 15,671 (16%) were positive (Figure). Of these, 13,706 (87%) were influenza type A and 1,965 (13%) were influenza type B. Of the 4,507 subtyped influenza A viruses, 4,420 (98%) were H3 viruses and 87 (2%) were H1 viruses. Influenza A viruses predominated in all nine surveillance regions. The proportion of specimens testing positive for influenza first increased to ≥10% during the week ending January 12 (week 2), peaked at 26% during the week ending February 23 (week 8), and declined to <10% during the week ending April 27 (week 17). The peak percentage of specimens testing positive for influenza during the previous three seasons ranged from 23% to 31%.

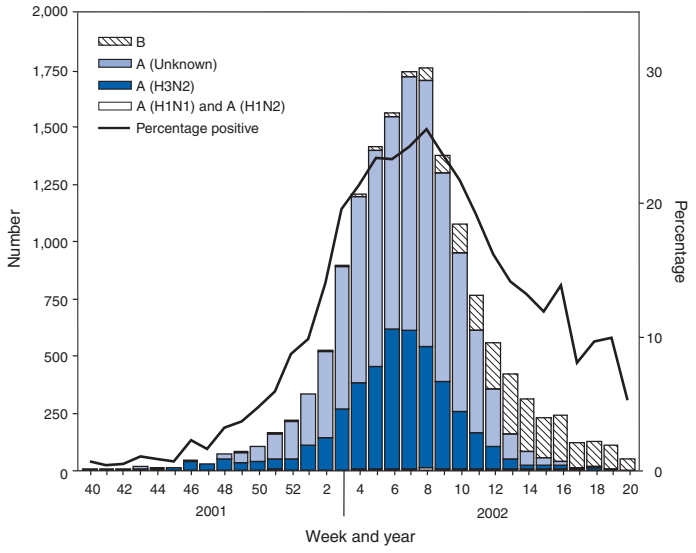
CDC has characterized antigenically 690 influenza viruses collected from U.S. laboratories since September 30: 393 influenza A (H3N2) viruses, 30 influenza A H1 viruses, and 267 influenza B viruses. All 393 influenza A (H3N2) viruses were similar to A/Panama/2007/99, the H3N2 component of the 2001–02 influenza vaccine. All 30 influenza A H1 viruses had an H1 protein similar antigenically to the A/New Caledonia/20/99, the H1N1 component of the 2001–02 influenza vaccine. Sixteen of the 30 H1 viruses were identified as influenza A (H1N2) viruses. These H1N2 viruses were collected in Hawaii, Massachusetts, New York, Pennsylvania, and Wisconsin. Two additional H1N2 viruses were identified from patient specimens collected during July and September in Texas and Nevada, respectively.

Influenza B viruses circulating currently can be divided into two antigenically distinct lineages: B/Yamagata/16/88-like and B/Victoria/2/87-like viruses. CDC has characterized antigenically 267 influenza B viruses collected from U.S. laboratories since September 30; 61 were of the B/Yamagata lineage and 206 of the B/Victoria lineage. Of the 61 B/Yamagata lineage viruses, 13 were similar to the vaccine strain B/Sichuan/379/99, and 48 demonstrated reduced titers to ferret antisera produced against B/Sichuan/379/99. Most of the viruses that demonstrated reduced titers to ferret antisera produced against B/Sichuan/379/99 were related closely to B/Shizuoka/15/01, a minor antigenic variant of B/Sichuan/379/99.

During the weeks ending December 29–January 5 (weeks 52–1) and the weeks ending January 19–March 16 (weeks 3–11), the weekly percentage of patient visits for influenza-like illness (ILI)† reported by U.S. sentinel physicians§ exceeded

*Data reported as of June 10, 2002. The four components of the influenza surveillance system have been described previously (*1*).

FIGURE. Number* and percentage of respiratory specimens testing positive for influenza reported by World Health Organization and National Enteric and Respiratory Virus Surveillance System collaborating laboratories, by week and year — United States, 2001–02 season†



*n=15,671.
†Data reported as of June 10, 2002.

†Temperature ≥100° F (≥37.8° C) and either cough or sore throat in the absence of a known cause.

§The national baseline was calculated as the mean percentage of patient visits for ILI during noninfluenza weeks plus two standard deviations. Because of wide variability in regional-level data, calculating region-specific baselines is not possible, and the national baseline cannot be applied to regional level data.

baseline levels (0–1.9%). The peak percentage of patient visits for ILI was 3.2% during the week ending February 16 (week 7). During the previous three seasons, the peak percentage of patient visits for ILI ranged from 4% to 6%.

On the basis of data from state and territorial epidemiologists, influenza activity peaked during the week ending February 23 (week 8), when 40 states reported regional or widespread influenza activity.[¶] Regional influenza activity was reported by one or more states during all but 1 week from the week ending October 27 (week 43) through the week ending May 4 (week 18). Widespread activity was reported by one or more states during all but 1 week from the week ending December 1 (week 48) through the week ending March 30 (week 13). The peak number of states reporting regional or widespread activity during the previous three seasons ranged from 38 to 44.

As reported by the 122 Cities Mortality Reporting System, the percentage of deaths in the United States associated with pneumonia and influenza (P&I) exceeded the epidemic threshold[**] for 5 consecutive weeks (weeks ending March 2 [week 9] to March 30 [week 13]). During the previous three seasons, the number of consecutive weeks during which the percentage of deaths attributed to P&I exceeded the epidemic threshold ranged from 0 to13.

Worldwide

During October 2001–May 2002, influenza A (H3N2) and B viruses circulated widely in Africa, the Americas, Asia, Europe, and Oceania, and influenza A (H1N1) and A (H1N2) viruses were reported sporadically. Influenza A (H3N2) viruses predominated in Africa (Egypt, Madagascar, Mauritus, Senegal, and Tunisia), the Americas (Argentina, Canada, French Guiana, and Mexico), Asia (China and Hong Kong), Europe (Croatia, Czech Republic, Denmark, Finland, France, Germany, Iceland, Ireland, Israel, Latvia, the Netherlands, Norway, Portugal, Romania, Spain, and the United Kingdom), and Oceania (Australia). Influenza A (H3N2) viruses also were reported from Asia (Japan, the Philippines, the Republic of Korea, Singapore, Taiwan, and Thailand) and Europe (Bulgaria, Greece, Italy, Poland, the Russian Federation, and Switzerland), and Oceania (New Zealand).

Influenza B viruses were identified more frequently than influenza A viruses in Austria, Chile, Greece, Italy, India, Paraguay, the Russian Federation, Slovakia, Slovenia, and Switzerland. Many of the influenza B viruses from the Americas, Asia, Europe, and Oceania were B/Sichuan/379/99-like viruses that were identified in Argentina, Australia, Canada, Croatia, France, Greece, Hong Kong, India, Israel, Italy, Malaysia, Norway, the Philippines, the Russian Federation, Singapore, Slovakia, Thailand, Taiwan, and the Ukraine. However, the majority of influenza B isolates from Canada, Hong Kong, India, Oman, and the Philippines were B/Hong Kong/330/01-like viruses; these viruses also were identified in China, Israel, Italy, Malaysia, the Netherlands, Norway, the Philippines, Singapore, and Switzerland.

Influenza A (H1N1) viruses were reported from Africa (Egypt and South Africa) the Americas (Canada and Chile), Asia (China, Hong Kong, Iran, Japan, the Philippines, the Republic of Korea, Singapore, Taiwan, and Thailand), Europe (Bulgaria, Croatia, Finland, France, Ireland, Israel, Italy, Norway, Poland, Portugal, Romania, the Russian Federation, Spain, the Ukraine, and the United Kingdom), and Oceania (Australia, New Caledonia, and New Zealand). Since September 30, influenza A (H1N2) viruses have been identified from Canada, Egypt, Hong Kong, India, Israel, Malaysia, Romania, Singapore and the United Kingdom. Before September 30, H1N2 viruses also were collected from India and Oman. Influenza A (unsubtyped) viruses were reported from Belarus, Belgium, and Brazil.

Composition of the 2002–03 Influenza Vaccine

The Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee (VRBPAC) recommended that the 2002–03 trivalent influenza vaccine for the United States contain A/New Caledonia/20/99-like (H1N1), A/Moscow/10/99-like (H3N2), and B/Hong Kong/330/01-like viruses. This recommendation was based on antigenic analyses of influenza viruses isolated recently, epidemiologic data, and postvaccination serologic studies in humans.

Most influenza A (H3N2) viruses isolated worldwide during the 2001–02 season were similar to A/Panama/2007/99-like and A/Moscow/10/99-like (H3N2) viruses. Some influenza A (H3N2) viruses were distinguished antigenically from the reference strains but were heterogeneous antigenically

[¶] Levels of activity are 1) *no activity*; 2) *sporadic*—sporadically occurring ILI or culture-confirmed influenza with no outbreaks detected; 3) *regional*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of <50% of the state's population; and 4) *widespread*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of ≥50% of the state's population.

[**] The expected baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected by using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I over the previous 5 years. The epidemic threshold is 1.654 standard deviations above the seasonal baseline. Before the 1999–2000 season, a new case definition for a P&I death was introduced. During summer 2000, the baseline and epidemic thresholds were adjusted manually to account for the changes in case definition. For the 2001–02 season, sufficient data have been collected by using the new case definition to allow projection of the baseline using the regression procedure employed before the 2000–01 season.

and genetically. Antibodies produced following vaccination with the 2001–02 vaccine containing the A/Panama/2007/99 (H3N2) virus reacted equally well with recent influenza A (H3N2) viruses and the vaccine strain (*2*); therefore, VRBPAC recommended that an influenza A/Moscow/10/99-like (H3N2) virus be retained in the 2002–03 vaccine. U.S. vaccine manufacturers will use the antigenically equivalent virus A/Panama/2007/99 because of its growth properties.

The hemagglutinin of most influenza A (H1N1) and A (H1N2) viruses were related antigenically to A/New Caledonia/20/99; therefore, VRBPAC recommended that an A/New Caledonia/20/99 (H1N1) virus be retained in the 2002–03 vaccine. Genetic analyses showed that the neuraminidase of influenza A (H1N2) viruses was related closely to the circulating H3N2 viruses. Current vaccines containing A/New Caledonia/20/99-like virus antigen induced antibodies to H1N2 strains, which were similar in titer and frequency to those of the vaccine strain.

Many influenza B isolates were from the B/Yamagata/16/88 lineage represented in the 2001–02 vaccine by B/Sichuan/379/99. However, B/Hong Kong/330/01-like viruses, which belong to the B/Victoria/2/87 lineage, have spread to countries in Asia, Europe, and North America. Current vaccines containing antigen of B/Sichuan/379/99-like viruses induced antibodies that reacted poorly with viruses related to B/Hong Kong/330/01. Consequently, VRBPAC recommended that the influenza B component be updated for the 2002–03 vaccine to an influenza B/Hong Kong/330/01-like virus. U.S. manufacturers will use one of the antigenically equivalent viruses: B/Hong Kong/330/01 or B/Hong Kong/1434/02.

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Editorial Note: Overall, the 2001–02 influenza season was mild to moderate. Influenza A (H3N2) viruses predominated; however, influenza B viruses were isolated more frequently during the late spring in the United States and continue to circulate. Since 1990, viruses of the B/Yamagata lineage have circulated widely. The influenza B component of this season's influenza vaccine belonged to the B/Yamagata lineage. However, during 2001–02, the majority of influenza B viruses characterized in the United States and worldwide was from the B/Victoria/2/87 lineage. Until March 2001, viruses of the B/Victoria lineage had not been identified outside of Asia since 1991. Since March 2001, B/Victoria lineage viruses have been identified in Africa, Asia, Europe, and North America. The 2002–03 influenza vaccine will contain a virus from the B/Victoria lineage.

During the 2001–02 season, influenza A (H1N2) viruses were isolated from several countries, including the United States (*3*). These new A (H1N2) viruses resulted from gene reassortment among the circulating influenza A (H1N1) and A (H3N2) subtypes. Because hemagglutinin proteins of the A (H1N2) viruses were similar to those of this season's A (H1N1) viruses, and the neuraminidase proteins were similar to this season's A (H3N2) viruses, the 2001–02 vaccine should have provided protection against the A (H1N2) viruses (*2*). No information suggests that A (H1N2) viruses have been causing more severe illness than other influenza A viruses, and no unusual increases in influenza activity have been associated with these viruses. Influenza A (H1N2) viruses were isolated in China during the 1988–89 influenza season but were not reported in other parts of the world. Whether the new A (H1N2) viruses will persist is uncertain.

Influenza vaccine manufacturers project that approximately 92–97 million doses will be available for distribution during the 2002–03 influenza season. This estimate is based on early projections and could change as the season progresses. In comparison, approximately 70.4 million doses were distributed in 2000 when there were difficulties with growing and processing the influenza A (H3N2) vaccine strain and other manufacturing problems resulted in substantial distribution delays (*4*). In 2001, a less severe delay occurred. By December 2001, approximately 87.7 million doses of vaccine were produced, more than in any year except the 1976–1977 swine influenza vaccine campaign (*5*).

The 2002–03 recommendations of the Advisory Committee on Immunization Practices (ACIP) for the Prevention and Control of Influenza (*6*) contain important changes concerning the timing of vaccination and target groups for vaccination. The optimal time to receive influenza vaccine is during October–November. However, because of vaccine distribution delays during the previous 2 years and uncertainty about vaccine supply in future seasons, ACIP recommends that vaccination efforts during October focus on persons at greatest risk for influenza-related complications (e.g., persons aged ≥65 years and persons aged 6 months–64 years with certain medical conditions), household contacts of these high-risk persons, children aged 6 months to <9 years receiving vaccine for the first time, and health-care workers, and that vaccination of other groups begin in November. Vaccination efforts for all groups should continue into December and later, for as long as vaccine is available. Because young, healthy children are at increased risk for influenza-related hospitalization, vaccination of healthy children aged 6–23 months and close contacts of children aged 0–23 months is encouraged when feasible and should begin during October. Vaccination of children

aged ≥6 months who have certain high-risk medical conditions continues to be recommended strongly (*6*).

Although influenza epidemics in the temperate regions of the Northern Hemisphere typically peak during December–March, sporadic cases and outbreaks can occur during the summer (*7*–*9*). U.S. health-care providers should consider influenza types A and B when diagnosing a febrile respiratory illness during the summer, particularly among persons who have traveled recently in the tropics or Southern Hemisphere, or with large international groups.

Acknowledgments

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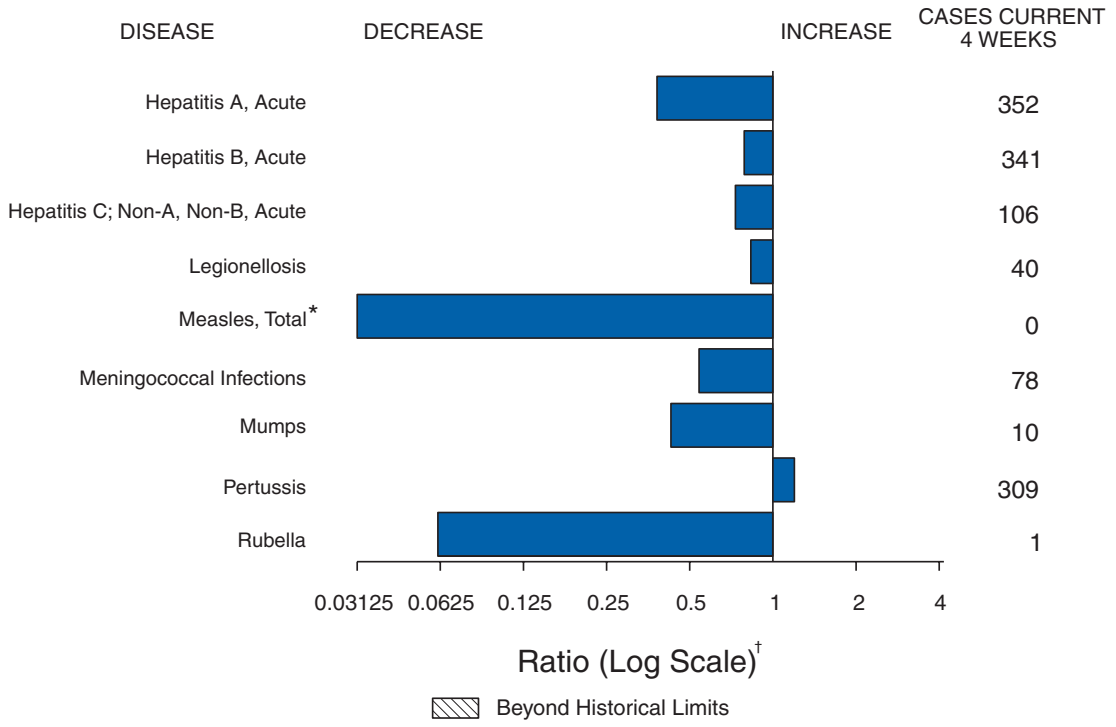
FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending June 8, 2002, with historical data



* No measles cases were reported for the current 4-week period yielding a ratio for week 23 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 June 8, 2002 (23rd Week)*

		Cum. 2002	Cum. 2001		Cum. 2002	Cum. 2001
Anthrax		1	-	Encephalitis: West Nile†	1	-
Botulism:	foodborne	7	9	Hansen disease (leprosy)†	34	30
	infant	21	45	Hantavirus pulmonary syndrome†	4	3
	other (wound & unspecified)	8	5	Hemolytic uremic syndrome, postdiarrheal†	48	41
Brucellosis†		33	46	HIV infection, pediatric†§	31	75
Chancroid		28	17	Plague	-	-
Cholera		2	2	Poliomyelitis, paralytic	-	-
Cyclosporiasis†		52	37	Psittacosis†	11	4
Diphtheria		-	1	Q fever†	14	5
Ehrlichiosis:	human granulocytic (HGE)†	56	28	Rabies, human	-	-
	human monocytic (HME)†	22	24	Streptococcal toxic-shock syndrome†	37	44
	other and unspecified	2	1	Tetanus	5	18
Encephalitis:	California serogroup viral†	5	1	Toxic-shock syndrome	49	61
	eastern equine†	-	-	Trichinosis	5	5
	Powassan†	-	-	Tularemia†	15	28
	St. Louis†	-	-	Yellow fever	1	-
	western equine†	-	-			

-:No reported cases.
* Incidence data for reporting year 2001 and 2002 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 (NCHSTP). Last update May 26, 2002.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	AIDS		Chlamydia†		Cryptosporidiosis		*Escherichia coli* O157:H7		*Escherichia coli* Shiga Toxin Positive, Serogroup non-O157	
	Cum. 2002§	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	16,795	16,721	307,454	331,455	834	806	630	635	24	32
NEW ENGLAND	637	575	11,116	9,595	39	35	51	61	5	14
Maine	19	18	599	578	2	3	2	8	-	-
N.H.	17	14	701	584	10	-	4	8	-	2
Vt.	6	10	300	259	8	12	1	2	-	-
Mass.	318	325	4,636	3,701	9	13	26	29	2	4
R.I.	50	42	1,135	1,206	5	3	4	4	-	-
Conn.	227	166	3,745	3,267	5	4	14	10	3	8
MID. ATLANTIC	3,498	4,575	32,097	34,741	92	114	46	50	-	-
Upstate N.Y.	259	668	6,969	5,540	27	32	33	31	-	-
N.Y. City	1,838	2,617	12,826	12,934	43	52	1	4	-	-
N.J.	668	712	2,019	5,560	6	3	9	15	-	-
Pa.	733	578	10,283	10,707	16	27	N	N	-	-
E.N. CENTRAL	1,779	1,155	48,720	61,792	216	276	168	156	1	2
Ohio	316	190	9,361	16,177	60	49	29	37	1	1
Ind.	207	117	6,698	6,969	20	28	16	22	-	-
Ill.	815	562	13,391	18,378	29	23	53	42	-	-
Mich.	358	224	13,869	13,070	46	59	32	23	-	1
Wis.	83	62	5,401	7,198	61	117	38	32	-	-
W.N. CENTRAL	270	353	15,077	17,217	99	43	87	79	3	2
Minn.	56	65	4,051	3,560	42	-	32	34	3	-
Iowa	42	40	629	2,056	9	18	19	11	-	-
Mo.	117	161	5,682	5,997	16	12	16	13	-	-
N. Dak.	-	1	469	474	5	2	-	1	-	-
S. Dak.	2	9	978	806	5	4	5	6	-	1
Nebr.	23	34	589	1,561	16	7	9	6	-	1
Kans.	30	43	2,679	2,763	6	-	6	8	-	-
S. ATLANTIC	5,478	4,854	61,922	64,375	147	139	65	60	10	9
Del.	96	83	1,218	1,284	1	1	1	-	-	-
Md.	822	591	6,384	6,616	5	26	2	3	-	-
D.C.	266	357	1,330	1,585	3	9	-	-	-	-
Va.	350	426	7,157	7,750	2	7	14	15	-	1
W. Va.	41	33	1,035	1,041	1	-	2	1	-	-
N.C.	418	189	10,271	10,353	18	14	9	24	-	-
S.C.	433	327	5,881	7,139	2	1	-	2	-	-
Ga.	922	575	12,079	13,036	77	54	29	10	6	6
Fla.	2,130	2,273	16,567	15,571	38	27	8	5	4	2
E.S. CENTRAL	768	813	22,186	21,650	53	16	34	29	-	-
Ky.	122	181	3,526	3,842	1	1	8	9	-	-
Tenn.	341	227	7,264	6,335	27	3	19	12	-	-
Ala.	144	182	6,955	6,030	21	5	3	6	-	-
Miss.	161	223	4,441	5,443	4	7	4	2	-	-
W.S. CENTRAL	1,834	1,587	46,423	47,044	9	22	6	43	-	-
Ark.	123	89	2,545	3,348	4	2	1	2	-	-
La.	442	392	8,396	7,759	2	7	-	2	-	-
Okla.	95	90	4,398	4,584	3	3	5	9	-	-
Tex.	1,174	1,016	31,084	31,353	-	10	-	30	-	-
MOUNTAIN	565	634	19,311	19,403	56	49	58	66	3	1
Mont.	6	12	731	983	4	5	8	5	-	-
Idaho	10	14	1,053	784	16	5	7	8	-	-
Wyo.	2	1	387	353	5	1	2	2	1	-
Colo.	108	139	4,669	5,276	14	15	16	26	1	1
N. Mex.	34	53	2,600	2,624	6	8	4	5	1	-
Ariz.	247	243	5,969	6,434	6	2	5	10	-	-
Utah	30	52	2,086	693	2	10	10	6	-	-
Nev.	128	120	1,816	2,256	3	3	6	4	-	-
PACIFIC	1,966	2,175	50,602	55,638	123	112	115	91	2	4
Wash.	235	241	6,173	6,158	24	U	15	17	-	-
Oreg.	181	102	2,842	3,127	17	11	35	18	2	4
Calif.	1,509	1,800	38,420	43,449	81	99	43	49	-	-
Alaska	9	10	1,511	1,187	-	-	4	1	-	-
Hawaii	32	22	1,656	1,717	1	2	18	6	-	-
Guam	2	8	-	182	-	-	N	N	-	-
P.R.	503	533	1,583	1,305	-	-	-	-	-	-
V.I.	57	2	30	80	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	90	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 year 2001 and 2002 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 April 28, 2002.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	*Escherichia coli* Shiga Toxin Positive, Not Serogrouped		Giardiasis	Gonorrhea		*Haemophilus influenzae*, Invasive			
						All Ages, All Serotypes		Age <5 Years Serotype B	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	6	4	5,863	130,634	148,863	746	736	10	12
NEW ENGLAND	-	1	611	3,304	2,579	55	34	-	1
Maine	-	-	65	41	58	1	1	-	-
N.H.	-	-	22	55	59	4	-	-	-
Vt.	-	1	48	41	37	3	1	-	-
Mass.	-	-	288	1,473	1,120	25	24	-	1
R.I.	-	-	49	414	305	9	2	-	-
Conn.	-	-	139	1,280	1,000	13	6	-	-
MID. ATLANTIC	-	-	1,302	14,735	15,934	135	101	1	2
Upstate N.Y.	-	-	450	3,610	3,368	59	29	1	-
N.Y. City	-	-	535	5,231	5,387	32	30	-	-
N.J.	-	-	117	1,923	1,964	31	24	-	-
Pa.	-	-	200	3,971	5,215	13	18	-	2
E.N. CENTRAL	3	2	1,102	23,075	31,511	123	125	2	1
Ohio	3	2	346	5,082	8,589	47	40	-	1
Ind.	-	-	-	2,890	2,887	25	20	1	-
Ill.	-	-	253	7,255	9,875	36	45	-	-
Mich.	-	-	339	6,133	7,638	9	7	1	-
Wis.	-	-	164	1,715	2,522	6	13	-	-
W.N. CENTRAL	-	-	711	6,183	7,013	23	28	-	1
Minn.	-	-	260	1,201	1,117	15	15	-	-
Iowa	-	-	96	170	524	1	-	-	-
Mo.	-	-	202	3,466	3,531	5	11	-	-
N. Dak.	-	-	6	27	16	-	-	-	-
S. Dak.	-	-	28	107	124	-	-	-	-
Nebr.	-	-	52	137	538	-	1	-	1
Kans.	-	-	67	1,075	1,163	2	1	-	-
S. ATLANTIC	-	-	997	36,029	38,691	191	191	1	1
Del.	-	-	19	728	705	-	-	-	-
Md.	-	-	40	3,469	3,796	45	47	1	-
D.C.	-	-	19	1,124	1,305	-	-	-	-
Va.	-	-	84	4,631	3,851	13	15	-	-
W. Va.	-	-	13	409	254	2	4	-	1
N.C.	-	-	-	6,964	7,554	20	28	-	-
S.C.	-	-	27	3,418	5,381	10	4	-	-
Ga.	-	-	399	6,559	7,070	61	52	-	-
Fla.	-	-	396	8,727	8,775	40	41	-	-
E.S. CENTRAL	-	1	130	12,555	13,861	24	49	1	-
Ky.	-	1	-	1,377	1,504	2	2	-	-
Tenn.	-	-	60	4,063	4,167	14	22	-	-
Ala.	-	-	70	4,394	4,722	6	23	1	-
Miss.	-	-	-	2,721	3,468	2	2	-	-
W.S. CENTRAL	-	-	54	20,110	22,640	29	28	2	1
Ark.	-	-	54	1,277	2,092	1	-	-	-
La.	-	-	-	5,140	5,315	2	5	-	-
Okla.	-	-	-	1,903	2,079	24	22	-	-
Tex.	-	-	-	11,790	13,154	2	1	2	1
MOUNTAIN	3	-	541	4,073	4,563	99	92	2	2
Mont.	-	-	31	39	50	-	-	-	-
Idaho	-	-	27	39	35	1	1	-	-
Wyo.	-	-	9	27	24	1	-	-	-
Colo.	3	-	183	1,397	1,390	19	26	-	-
N. Mex.	-	-	65	493	417	15	13	-	-
Ariz.	-	-	78	1,409	1,780	49	40	1	1
Utah	-	-	92	165	61	10	4	-	-
Nev.	-	-	56	504	806	4	8	1	1
PACIFIC	-	-	415	10,570	12,071	67	88	1	3
Wash.	-	-	166	1,222	1,312	2	1	1	-
Oreg.	-	-	168	354	516	35	29	-	-
Calif.	-	-	-	8,512	9,820	9	39	-	3
Alaska	-	-	37	252	146	1	3	-	-
Hawaii	-	-	44	230	277	20	16	-	-
Guam	-	-	-	-	22	-	-	-	-
P.R.	-	-	1	235	300	-	1	-	-
V.I.	-	-	-	17	13	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	7	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	*Haemophilus influenzae*, Invasive, Age <5 Years, Non-Serotype B		*Haemophilus influenzae*, Invasive, Age <5 Years, Unknown Serotype		Hepatitis (Viral, Acute), By Type, A		B		C; Non-A, Non-B	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	124	127	9	14	3,655	3,923	2,676	2,963	1,336	1,825
NEW ENGLAND	6	9	-	-	159	203	89	59	17	23
Maine	-	-	-	-	6	5	3	5	-	-
N.H.	-	-	-	-	10	4	11	9	-	-
Vt.	-	-	-	-	-	5	2	3	10	5
Mass.	3	7	-	-	73	70	46	11	7	18
R.I.	-	-	-	-	20	8	14	9	-	-
Conn.	3	2	-	-	50	111	13	22	-	-
MID. ATLANTIC	19	16	1	2	468	506	617	579	594	494
Upstate N.Y.	7	4	-	1	86	111	64	55	26	15
N.Y. City	6	4	-	-	203	191	357	290	-	-
N.J.	4	2	-	-	51	121	111	100	558	445
Pa.	2	6	1	1	128	83	85	134	10	34
E.N. CENTRAL	17	21	-	1	489	478	365	337	53	98
Ohio	5	5	-	-	151	109	45	55	5	5
Ind.	6	4	-	1	26	37	13	15	-	1
Ill.	5	8	-	-	146	142	31	35	7	8
Mich.	-	-	-	-	114	152	276	212	41	84
Wis.	1	4	-	-	52	38	-	20	-	-
W.N. CENTRAL	2	1	3	2	161	168	96	96	405	578
Minn.	2	1	1	-	23	14	6	9	-	1
Iowa	-	-	-	-	41	17	10	9	1	-
Mo.	-	-	2	2	37	34	57	57	398	573
N. Dak.	-	-	-	-	1	-	1	-	-	-
S. Dak.	-	-	-	-	3	1	-	1	-	-
Nebr.	-	-	-	-	5	21	14	11	6	1
Kans.	-	-	-	-	51	81	8	9	-	3
S. ATLANTIC	29	27	-	4	1,119	684	695	524	71	27
Del.	-	-	-	-	8	4	7	10	3	1
Md.	1	4	-	-	131	97	61	59	9	3
D.C.	-	-	-	-	44	20	8	4	-	-
Va.	2	4	-	-	41	60	97	59	1	-
W. Va.	-	-	-	-	10	4	13	14	1	6
N.C.	3	1	-	4	120	55	98	98	13	8
S.C.	4	1	-	-	37	26	39	6	4	3
Ga.	13	13	-	-	276	369	227	171	16	-
Fla.	6	4	-	-	452	49	145	103	24	6
E.S. CENTRAL	7	10	-	2	72	158	80	187	82	114
Ky.	-	-	-	1	25	29	18	24	2	5
Tenn.	5	5	-	-	-	67	-	80	17	29
Ala.	2	4	-	1	22	51	32	44	3	2
Miss.	-	1	-	-	25	11	30	39	60	78
W.S. CENTRAL	7	4	-	-	50	470	171	392	12	400
Ark.	-	-	-	-	22	28	51	47	1	4
La.	1	-	-	-	11	52	12	59	11	96
Okla.	6	4	-	-	16	77	1	47	-	3
Tex.	-	-	-	-	1	313	107	239	-	297
MOUNTAIN	23	11	4	1	298	343	218	221	36	29
Mont.	-	-	-	-	7	5	3	2	-	-
Idaho	-	-	-	-	19	28	3	7	-	1
Wyo.	-	-	-	-	3	2	9	-	5	4
Colo.	2	-	-	-	49	33	43	51	17	5
N. Mex.	4	6	-	1	7	13	39	60	-	10
Ariz.	12	4	3	-	161	187	81	68	3	5
Utah	4	1	-	-	26	30	15	11	-	1
Nev.	1	-	1	-	26	45	25	22	11	3
PACIFIC	14	28	1	2	839	913	345	568	66	62
Wash.	1	-	-	1	81	46	29	45	11	14
Oreg.	4	5	-	-	41	61	69	71	10	10
Calif.	6	21	1	1	709	785	241	438	45	38
Alaska	1	1	-	-	7	12	3	4	-	-
Hawaii	2	1	-	-	1	9	3	10	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	40	77	27	111	-	1
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	26	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	Legionellosis		Listeriosis		Lyme Disease		Malaria		Measles Total	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	275	341	164	209	2,051	2,281	440	523	9†	74§
NEW ENGLAND	14	16	19	20	119	532	27	38	-	5
Maine	2	1	2	-	-	-	1	3	-	-
N.H.	2	3	2	-	25	7	5	2	-	-
Vt.	1	4	-	-	2	1	1	-	-	1
Mass.	5	3	12	11	70	218	10	17	-	3
R.I.	-	1	1	1	22	35	1	3	-	-
Conn.	4	4	2	8	-	271	9	13	-	1
MID. ATLANTIC	62	75	27	37	1,557	1,223	98	137	5	9
Upstate N.Y.	17	19	13	12	1,077	324	18	19	-	4
N.Y. City	13	6	7	8	64	35	60	83	5	1
N.J.	10	5	3	6	112	260	12	18	-	1
Pa.	22	45	4	11	304	604	8	17	-	3
E.N. CENTRAL	73	90	22	31	22	172	53	70	-	10
Ohio	34	40	9	4	19	5	10	9	-	3
Ind.	6	4	3	3	3	2	1	10	-	4
Ill.	-	10	1	9	-	14	15	27	-	3
Mich.	25	18	7	13	-	1	20	16	-	-
Wis.	8	18	2	2	U	150	7	8	-	-
W.N. CENTRAL	20	18	7	6	39	46	35	16	-	4
Minn.	2	1	-	-	21	25	12	6	-	2
Iowa	4	5	1	-	5	9	2	1	-	-
Mo.	9	8	4	3	11	9	9	5	-	2
N. Dak.	-	-	1	-	-	-	1	-	-	-
S. Dak.	1	-	-	-	-	-	-	-	-	-
Nebr.	4	3	-	1	-	1	5	2	-	-
Kans.	-	1	1	2	2	2	6	2	-	-
S. ATLANTIC	59	45	25	26	245	207	135	101	1	4
Del.	5	-	-	1	30	27	1	1	-	-
Md.	7	10	4	2	130	128	36	41	-	3
D.C.	2	2	-	-	9	7	5	4	-	-
Va.	5	7	2	5	14	35	10	21	-	-
W. Va.	N	N	-	4	3	1	2	1	-	-
N.C.	5	5	3	-	35	6	8	2	-	-
S.C.	5	1	3	2	2	2	4	4	-	-
Ga.	8	6	7	6	1	-	49	18	-	1
Fla.	22	14	6	6	21	1	20	9	1	-
E.S. CENTRAL	8	29	8	8	12	14	6	11	-	2
Ky.	5	7	2	2	5	5	1	2	-	2
Tenn.	-	10	3	3	3	5	2	5	-	-
Ala.	3	8	3	3	4	2	2	3	-	-
Miss.	-	4	-	-	-	2	1	1	-	-
W.S. CENTRAL	3	14	3	18	2	46	3	37	-	1
Ark.	-	-	-	1	-	-	1	3	-	-
La.	1	6	-	-	1	2	2	2	-	-
Okla.	2	2	3	-	-	-	-	1	-	-
Tex.	-	6	-	17	1	44	-	31	-	1
MOUNTAIN	19	22	15	18	11	4	15	23	-	1
Mont.	1	-	-	-	-	-	-	2	-	-
Idaho	-	1	1	1	2	2	-	2	-	1
Wyo.	3	2	-	1	-	1	-	-	-	-
Colo.	4	8	2	4	3	-	7	12	-	-
N. Mex.	1	1	2	3	1	-	1	1	-	-
Ariz.	3	6	8	3	1	-	2	2	-	-
Utah	6	2	2	1	3	-	2	2	-	-
Nev.	1	2	-	5	1	1	3	2	-	-
PACIFIC	17	32	38	45	44	37	68	90	3	38
Wash.	3	6	3	2	-	1	8	2	-	15
Oreg.	N	N	2	4	3	4	3	7	-	2
Calif.	14	21	29	38	41	32	51	74	3	15
Alaska	-	1	-	-	-	-	1	1	-	-
Hawaii	-	4	4	1	N	N	5	6	-	6
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	2	1	-	N	N	-	3	-	-
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 year 2001 and 2002 are provisional and cumulative (year-to-date).
† Of nine cases reported, three were indigenous and six were imported from another country.
§ Of 74 cases reported, 34 were indigenous and 40 were imported from another country.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	Meningococcal Disease		Mumps		Pertussis		Rabies, Animal	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	796	1,339	118	100	2,378	2,215	2,144	3,028
NEW ENGLAND	56	63	5	-	271	212	335	258
Maine	4	1	-	-	3	-	22	31
N.H.	5	6	3	-	5	7	11	6
Vt.	4	4	-	-	44	23	57	34
Mass.	28	38	2	-	213	169	109	86
R.I.	4	2	-	-	1	1	23	27
Conn.	11	12	-	-	5	12	113	74
MID. ATLANTIC	74	140	12	9	123	162	392	460
Upstate N.Y.	25	42	2	2	85	94	234	293
N.Y. City	10	23	1	4	7	24	10	8
N.J.	11	23	1	-	3	8	59	68
Pa.	28	52	8	3	28	36	89	91
E.N. CENTRAL	122	186	15	14	298	249	26	23
Ohio	47	54	3	1	178	132	5	4
Ind.	21	17	1	1	19	19	6	1
Ill.	20	44	6	10	44	29	6	3
Mich.	22	42	5	2	33	22	9	10
Wis.	12	29	-	-	24	47	-	5
W.N. CENTRAL	78	88	10	5	240	102	166	153
Minn.	19	13	2	2	70	31	10	17
Iowa	11	20	-	-	89	10	21	30
Mo.	31	31	3	-	50	42	18	13
N. Dak.	-	3	1	-	-	-	8	20
S. Dak.	2	4	-	-	5	3	20	23
Nebr.	10	8	-	1	4	2	-	1
Kans.	5	9	4	2	22	14	89	49
S. ATLANTIC	135	198	17	16	181	102	910	1,056
Del.	6	-	-	-	2	-	9	21
Md.	5	27	3	4	18	16	137	218
D.C.	-	-	-	-	1	1	-	-
Va.	20	23	3	2	83	12	226	195
W. Va.	-	6	-	-	6	1	77	59
N.C.	16	48	1	1	18	36	293	268
S.C.	14	19	2	1	26	18	33	53
Ga.	21	31	4	7	14	10	132	150
Fla.	53	44	4	1	13	8	3	92
E.S. CENTRAL	42	82	9	3	61	41	77	131
Ky.	6	13	4	1	18	11	15	10
Tenn.	18	31	2	-	34	17	46	106
Ala.	11	29	2	-	9	10	16	15
Miss.	7	9	1	2	-	3	-	-
W.S. CENTRAL	45	219	10	8	491	149	46	657
Ark.	20	12	-	-	238	8	-	-
La.	13	55	1	2	2	4	-	4
Okla.	11	18	-	-	27	3	46	39
Tex.	1	134	9	6	224	134	-	614
MOUNTAIN	58	68	7	7	349	850	84	111
Mont.	2	2	-	-	2	6	4	16
Idaho	3	7	1	-	36	159	-	1
Wyo.	-	4	-	1	5	-	12	18
Colo.	18	25	1	1	157	160	-	-
N. Mex.	1	8	-	2	35	43	4	4
Ariz.	19	11	-	1	83	455	63	71
Utah	4	7	4	1	22	18	-	-
Nev.	11	4	1	1	9	9	1	1
PACIFIC	186	295	33	38	364	348	108	179
Wash.	37	38	-	-	157	45	-	-
Oreg.	28	37	N	N	59	18	-	-
Calif.	115	210	26	21	139	267	84	143
Alaska	1	2	-	1	2	1	24	36
Hawaii	5	8	7	16	7	17	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	1	3	-	-	1	-	34	52
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	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 year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	Rocky Mountain Spotted Fever		Rubella				Salmonellosis	
			Rubella		Congenital Rubella			
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	185	103	5	11	2	-	11,202	12,143
NEW ENGLAND	-	-	-	-	-	-	691	884
Maine	-	-	-	-	-	-	63	93
N.H.	-	-	-	-	-	-	41	57
Vt.	-	-	-	-	-	-	28	33
Mass.	-	-	-	-	-	-	385	500
R.I.	-	-	-	-	-	-	30	42
Conn.	-	-	-	-	-	-	144	159
MID. ATLANTIC	9	5	2	4	-	-	1,429	1,682
Upstate N.Y.	2	-	1	1	-	-	459	376
N.Y. City	1	1	-	2	-	-	520	450
N.J.	-	2	1	1	-	-	176	384
Pa.	6	2	-	-	-	-	274	472
E.N. CENTRAL	2	7	-	2	-	-	1,924	1,666
Ohio	2	1	-	-	-	-	548	515
Ind.	-	-	-	-	-	-	154	146
Ill.	-	6	-	2	-	-	587	470
Mich.	-	-	-	-	-	-	341	281
Wis.	-	-	-	-	-	-	294	254
W.N. CENTRAL	21	19	-	3	-	-	881	743
Minn.	-	-	-	-	-	-	199	244
Iowa	1	1	-	1	-	-	131	114
Mo.	19	17	-	1	-	-	354	173
N. Dak.	-	-	-	-	-	-	9	11
S. Dak.	-	1	-	-	-	-	29	45
Nebr.	-	-	-	-	-	-	51	55
Kans.	1	-	-	1	-	-	108	101
S. ATLANTIC	129	37	1	1	-	-	2,697	2,599
Del.	1	-	-	-	-	-	15	29
Md.	17	6	1	-	-	-	271	260
D.C.	-	-	-	-	-	-	31	29
Va.	3	1	-	-	-	-	300	412
W. Va.	-	-	-	-	-	-	39	37
N.C.	65	16	-	-	-	-	406	412
S.C.	28	7	-	-	-	-	179	286
Ga.	14	4	-	-	-	-	655	442
Fla.	1	3	-	1	-	-	801	692
E.S. CENTRAL	19	24	-	-	1	-	688	663
Ky.	-	1	-	-	-	-	111	116
Tenn.	14	20	-	-	1	-	195	175
Ala.	5	1	-	-	-	-	206	205
Miss.	-	2	-	-	-	-	176	167
W.S. CENTRAL	3	7	1	-	-	-	372	1,303
Ark.	-	4	-	-	-	-	181	155
La.	-	1	-	-	-	-	75	256
Okla.	3	2	-	-	-	-	114	91
Tex.	-	-	1	-	-	-	2	801
MOUNTAIN	2	4	-	-	-	-	822	793
Mont.	-	1	-	-	-	-	35	30
Idaho	-	1	-	-	-	-	55	45
Wyo.	1	1	-	-	-	-	21	26
Colo.	-	-	-	-	-	-	211	216
N. Mex.	-	-	-	-	-	-	105	101
Ariz.	-	-	-	-	-	-	248	216
Utah	-	1	-	-	-	-	62	83
Nev.	1	-	-	-	-	-	85	76
PACIFIC	-	-	1	1	1	-	1,698	1,810
Wash.	-	-	-	-	-	-	170	178
Oreg.	-	-	-	-	-	-	152	110
Calif.	-	-	1	-	-	-	1,248	1,360
Alaska	-	-	-	-	-	-	26	20
Hawaii	-	-	-	1	1	-	102	142
Guam	-	-	-	-	-	-	-	3
P.R.	-	-	-	3	-	-	57	369
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	17	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	Shigellosis		Streptococcal Disease, Invasive, Group A		*Streptococcus pneumoniae*, Drug Resistant, Invasive		*Streptococcus pneumoniae*, Invasive (<5 Years)	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	5,323	5,997	2,066	2,143	1,319	1,644	111	283
NEW ENGLAND	102	104	106	145	6	76	11	63
Maine	3	4	14	10	-	-	-	-
N.H.	4	1	23	9	-	-	-	-
Vt.	-	3	8	8	3	6	1	-
Mass.	72	71	53	44	-	-	10	36
R.I.	4	7	8	6	3	-	-	1
Conn.	19	18	-	68	-	70	-	26
MID. ATLANTIC	300	636	363	334	66	91	38	63
Upstate N.Y.	66	214	179	147	62	89	38	63
N.Y. City	174	182	90	104	U	U	-	-
N.J.	21	121	67	54	-	-	-	-
Pa.	39	119	27	29	4	2	-	-
E.N. CENTRAL	578	888	306	476	109	114	32	72
Ohio	308	333	126	122	3	-	-	-
Ind.	32	110	20	39	102	114	24	35
Ill.	141	215	4	160	2	-	-	25
Mich.	61	136	156	112	2	-	8	12
Wis.	36	94	-	43	-	-	-	-
W.N. CENTRAL	499	582	141	205	333	78	23	25
Minn.	100	215	69	79	241	40	23	24
Iowa	38	101	-	-	-	-	-	-
Mo.	58	118	31	47	5	9	-	-
N. Dak.	7	12	-	7	1	2	-	1
S. Dak.	139	61	9	7	1	3	-	-
Nebr.	104	35	13	23	23	7	-	-
Kans.	53	40	19	42	62	17	-	-
S. ATLANTIC	2,106	850	396	357	680	870	6	4
Del.	6	4	1	2	3	2	-	-
Md.	356	48	58	26	-	-	-	-
D.C.	25	23	5	3	33	3	1	3
Va.	382	62	43	51	-	-	-	-
W. Va.	2	4	7	13	32	31	-	1
N.C.	125	162	77	85	-	-	-	-
S.C.	33	100	25	6	114	187	5	-
Ga.	733	116	119	114	233	257	-	-
Fla.	444	331	61	57	265	390	-	-
E.S. CENTRAL	489	580	58	43	78	162	-	-
Ky.	58	203	6	16	8	18	-	-
Tenn.	25	41	52	27	70	143	-	-
Ala.	232	115	-	-	-	1	-	-
Miss.	174	221	-	-	-	-	-	-
W.S. CENTRAL	281	1,164	24	188	22	223	1	56
Ark.	84	273	4	-	5	12	-	-
La.	53	125	-	-	17	181	1	56
Okla.	143	16	19	26	-	30	-	-
Tex.	1	750	1	162	-	-	-	-
MOUNTAIN	240	328	377	213	25	29	-	-
Mont.	1	-	-	-	-	-	-	-
Idaho	2	14	5	3	-	-	-	-
Wyo.	3	2	6	4	9	5	-	-
Colo.	50	66	134	84	-	-	-	-
N. Mex.	48	53	59	46	16	22	-	-
Ariz.	107	144	173	73	-	-	-	-
Utah	15	22	-	3	-	-	-	-
Nev.	14	27	-	-	-	2	-	-
PACIFIC	728	865	295	182	-	1	-	-
Wash.	50	72	36	-	-	-	-	-
Oreg.	39	46	-	-	-	-	-	-
Calif.	616	723	226	159	-	-	-	-
Alaska	2	3	-	-	-	-	-	-
Hawaii	21	21	33	23	-	1	-	-
Guam	-	25	-	1	-	-	-	-
P.R.	1	8	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	-	-	U	U
C.N.M.I.	7	U	-	U	-	-	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 8, 2002, and June 9, 2001 (23rd Week)*

Reporting Area	Syphilis				Tuberculosis		Typhoid Fever	
	Primary & Secondary		Congenital†					
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	2,533	2,444	49	207	4,530	5,367	99	128
NEW ENGLAND	47	18	-	4	146	198	10	7
Maine	-	-	-	-	5	7	-	1
N.H.	3	1	-	-	6	8	-	1
Vt.	1	2	-	-	-	4	-	-
Mass.	31	9	-	2	86	104	8	4
R.I.	2	1	-	-	15	29	-	-
Conn.	10	5	-	2	34	46	2	1
MID. ATLANTIC	287	207	11	33	914	940	27	39
Upstate N.Y.	18	5	3	19	133	137	4	9
N.Y. City	172	121	-	-	475	474	13	13
N.J.	47	37	5	12	220	214	9	16
Pa.	50	44	3	2	86	115	1	1
E.N. CENTRAL	454	415	-	32	474	543	11	17
Ohio	63	41	-	1	76	105	4	2
Ind.	27	78	-	5	49	38	1	1
Ill.	114	132	-	24	239	273	1	9
Mich.	242	149	-	2	104	94	3	3
Wis.	8	15	-	-	6	33	2	2
W.N. CENTRAL	38	32	-	5	215	225	4	6
Minn.	17	17	-	-	96	96	3	2
Iowa	-	1	-	-	14	18	-	-
Mo.	11	6	-	3	67	52	1	4
N. Dak.	-	-	-	-	-	3	-	-
S. Dak.	-	-	-	-	9	6	-	-
Nebr.	4	-	-	-	9	17	-	-
Kans.	6	8	-	2	20	33	-	-
S. ATLANTIC	646	881	7	51	911	1,007	10	18
Del.	8	7	-	-	7	-	-	-
Md.	73	114	1	1	97	82	1	5
D.C.	36	14	-	1	-	34	-	-
Va.	32	50	-	1	72	101	-	4
W. Va.	-	-	-	-	9	13	-	-
N.C.	131	214	1	7	123	131	-	1
S.C.	55	128	-	12	68	92	-	-
Ga.	100	139	-	11	130	184	6	6
Fla.	211	215	5	18	405	370	3	2
E.S. CENTRAL	249	258	1	9	305	341	2	-
Ky.	37	18	-	-	48	43	2	-
Tenn.	101	144	-	4	110	122	-	-
Ala.	84	45	1	2	101	122	-	-
Miss.	27	51	-	3	46	54	-	-
W.S. CENTRAL	357	314	25	38	574	829	-	7
Ark.	12	20	-	2	54	56	-	-
La.	56	60	-	-	-	-	-	-
Okla.	28	34	-	2	59	59	-	-
Tex.	261	200	25	34	461	714	-	7
MOUNTAIN	136	89	2	7	128	211	8	5
Mont.	-	-	-	-	4	-	-	1
Idaho	5	-	-	-	-	3	-	-
Wyo.	-	-	-	-	2	1	-	-
Colo.	10	14	1	-	21	57	4	-
N. Mex.	21	9	-	-	8	31	-	-
Ariz.	91	57	1	7	79	76	-	1
Utah	6	6	-	-	12	8	3	-
Nev.	3	3	-	-	2	35	1	3
PACIFIC	319	230	3	28	863	1,073	27	29
Wash.	21	23	-	-	95	95	3	1
Oreg.	5	7	-	-	39	45	2	3
Calif.	288	196	3	28	640	846	22	23
Alaska	-	-	-	-	25	18	-	-
Hawaii	5	4	-	-	64	69	-	2
Guam	-	2	-	-	-	31	-	1
P.R.	101	118	-	11	8	47	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	13	U	-	U	26	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).
† Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE III. Deaths in 122 U.S. cities,* week ending June 8, 2002 (23rd Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	439	309	87	26	10	7	37
Boston, Mass.	U	U	U	U	U	U	U
Bridgeport, Conn.	39	33	3	1	1	1	6
Cambridge, Mass.	18	13	4	1	-	-	1
Fall River, Mass.	20	18	2	-	-	-	2
Hartford, Conn.	79	53	16	7	3	-	10
Lowell, Mass.	23	15	7	-	1	-	3
Lynn, Mass.	11	8	3	-	-	-	1
New Bedford, Mass.	16	10	6	-	-	-	3
New Haven, Conn.	48	33	9	1	1	4	4
Providence, R.I.	67	47	13	3	2	2	1
Somerville, Mass.	4	2	1	1	-	-	-
Springfield, Mass.	41	23	10	6	2	-	-
Waterbury, Conn.	17	13	4	-	-	-	2
Worcester, Mass.	56	41	9	6	-	-	4
MID. ATLANTIC	2,283	1,533	498	167	49	36	124
Albany, N.Y.	33	22	8	1	-	2	5
Allentown, Pa.	12	10	2	-	-	-	1
Buffalo, N.Y.	98	79	13	4	2	-	9
Camden, N.J.	27	16	2	6	2	1	2
Elizabeth, N.J.	14	11	3	-	-	-	-
Erie, Pa.	51	39	7	1	2	2	4
Jersey City, N.J.	39	28	7	2	-	2	-
New York City, N.Y.	1,150	758	255	105	20	12	48
Newark, N.J.	56	24	23	7	1	1	4
Paterson, N.J.	18	7	4	4	1	2	1
Philadelphia, Pa.	428	274	107	28	15	4	21
Pittsburgh, Pa.§	35	28	4	1	1	1	3
Reading, Pa.	12	5	7	-	-	-	2
Rochester, N.Y.	128	99	22	4	1	2	13
Schenectady, N.Y.	23	17	5	-	1	-	6
Scranton, Pa.	21	19	2	-	-	-	-
Syracuse, N.Y.	47	30	9	1	1	6	2
Trenton, N.J.	35	22	10	1	1	1	1
Utica, N.Y.	27	23	4	-	-	-	1
Yonkers, N.Y.	29	22	4	2	1	-	1
E.N. CENTRAL	1,590	1,120	290	115	24	40	99
Akron, Ohio	47	35	7	2	-	2	-
Canton, Ohio	33	22	7	3	1	-	2
Chicago, Ill.	U	U	U	U	U	U	U
Cincinnati, Ohio	U	U	U	U	U	U	U
Cleveland, Ohio	123	88	20	9	1	5	4
Columbus, Ohio	243	167	46	19	4	7	20
Dayton, Ohio	145	111	21	8	3	2	8
Detroit, Mich.	179	95	51	22	6	5	12
Evansville, Ind.	62	48	9	4	-	1	5
Fort Wayne, Ind.	79	52	19	5	1	2	6
Gary, Ind.	15	6	2	6	1	-	1
Grand Rapids, Mich.	35	21	7	3	1	3	-
Indianapolis, Ind.	170	133	24	7	-	6	12
Lansing, Mich.	32	20	8	4	-	-	4
Milwaukee, Wis.	122	86	24	9	-	3	8
Peoria, Ill.	46	36	4	3	1	2	3
Rockford, Ill.	39	32	6	-	-	1	4
South Bend, Ind.	37	27	6	4	-	-	2
Toledo, Ohio	111	81	19	5	5	1	8
Youngstown, Ohio	72	60	10	2	-	-	-
W.N. CENTRAL	539	367	103	38	15	16	30
Des Moines, Iowa	49	38	7	3	-	1	1
Duluth, Minn.	36	32	3	1	-	-	6
Kansas City, Kans.	22	12	6	4	-	-	3
Kansas City, Mo.	48	32	11	4	-	1	-
Lincoln, Nebr.	U	U	U	U	U	U	U
Minneapolis, Minn.	75	45	21	1	3	5	9
Omaha, Nebr.	73	56	12	3	1	1	5
St. Louis, Mo.	116	69	20	16	6	5	-
St. Paul, Minn.	48	37	7	1	2	1	2
Wichita, Kans.	72	46	16	5	3	2	4
S. ATLANTIC	1,068	642	234	131	35	26	78
Atlanta, Ga.	153	85	38	23	5	2	5
Baltimore, Md.	235	127	67	28	10	3	31
Charlotte, N.C.	109	67	13	23	3	3	11
Jacksonville, Fla.	U	U	U	U	U	U	U
Miami, Fla.	U	U	U	U	U	U	U
Norfolk, Va.	69	46	13	5	1	4	3
Richmond, Va.	78	36	26	12	3	1	10
Savannah, Ga.	66	41	12	9	3	1	6
St. Petersburg, Fla.	64	43	9	8	2	2	5
Tampa, Fla.	182	125	29	16	4	8	6
Washington, D.C.	100	66	21	7	4	2	1
Wilmington, Del.	12	6	6	-	-	-	-
E.S. CENTRAL	615	429	133	27	18	8	50
Birmingham, Ala.	161	116	33	6	5	1	19
Chattanooga, Tenn.	90	76	11	1	2	-	4
Knoxville, Tenn.	75	50	18	4	2	1	2
Lexington, Ky.	U	U	U	U	U	U	U
Memphis, Tenn.	U	U	U	U	U	U	U
Mobile, Ala.	71	47	17	5	2	-	5
Montgomery, Ala.	26	18	7	-	-	1	5
Nashville, Tenn.	192	122	47	11	7	5	15
W.S. CENTRAL	1,571	1,008	352	118	48	44	112
Austin, Tex.	82	58	18	2	2	2	3
Baton Rouge, La.	53	41	11	-	-	1	1
Corpus Christi, Tex.	57	37	14	2	1	3	4
Dallas, Tex.	208	117	54	20	10	7	12
El Paso, Tex.	74	49	14	9	1	1	6
Ft. Worth, Tex.	128	78	36	11	3	-	10
Houston, Tex.	432	259	96	36	19	22	37
Little Rock, Ark.	86	54	19	10	1	2	7
New Orleans, La.	50	26	11	6	4	2	-
San Antonio, Tex.	217	164	34	15	4	-	17
Shreveport, La.	45	30	10	2	-	3	6
Tulsa, Okla.	139	95	35	5	3	1	9
MOUNTAIN	934	644	183	48	24	15	69
Albuquerque, N.M.	130	97	21	9	3	-	12
Boise, Idaho	44	33	8	2	1	-	3
Colo. Springs, Colo.	78	49	7	1	-	1	4
Denver, Colo.	106	69	28	2	4	3	10
Las Vegas, Nev.	214	132	60	11	5	6	9
Ogden, Utah	27	18	6	1	2	-	4
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	29	23	3	2	-	1	3
Salt Lake City, Utah	120	86	22	8	3	1	11
Tucson, Ariz.	186	137	28	12	6	3	13
PACIFIC	1,418	1,013	250	99	34	22	104
Berkeley, Calif.	17	12	2	1	-	2	-
Fresno, Calif.	169	109	37	13	7	3	7
Glendale, Calif.	31	25	5	-	-	1	-
Honolulu, Hawaii	83	60	17	5	1	-	5
Long Beach, Calif.	71	47	11	10	2	1	6
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	28	21	5	-	1	1	3
Portland, Oreg.	155	118	26	7	1	3	18
Sacramento, Calif.	203	143	29	16	10	5	29
San Diego, Calif.	177	120	35	15	4	3	9
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	155	114	24	12	4	1	12
Santa Cruz, Calif.	39	31	6	2	-	-	1
Seattle, Wash.	135	101	22	9	2	1	8
Spokane, Wash.	61	46	8	4	2	1	3
Tacoma, Wash.	94	66	23	5	-	-	3
TOTAL	10,457¶	7,065	2,130	769	257	214	703

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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