Update: West Nile–Like Viral Encephalitis—New York, 1999

MMWR. 1999;48:890-892

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The outbreak of human arboviral encephalitis attributable to a mosquito-transmitted West Nile–like virus (WNLV) continues to wane in the Northeast. As of October 5, the number of laboratory-positive cases had increased to 50 (27 confirmed and 23 probable), including five deaths. The increase in cases is mainly a result of completed retesting with West Nile virus antigen of specimens previously tested with the related St. Louis encephalitis virus antigen and to intensive retrospective case finding in the ongoing epidemiologic investigations.1,2

Of the 50 case-patients, none had onset of illness after September 17. Thirty-eight resided within boroughs of New York City (NYC): 26 from Queens, nine from the Bronx, two from Manhattan, and one from Brooklyn. An additional 12 cases were reported from the adjacent counties of Westchester (eight) and Nassau (four). In NYC, the earliest laboratory-positive case occurred in a patient on August 4, followed by 11 cases in patients from Queens with onset dates ranging from August 5 to August 18.

The association of WNLV with deaths in crows and exotic birds was confirmed during September. As a result, CDC, state wildlife veterinarians, and an expanding group of federal agencies are using deaths in crows as sentinel events to define the current geographic distribution of mosquitoes and birds infected with WNLV.1 As of October 5, results from selected bird tissue samples tested indicate that WNLV has been identified from 41 avian tissue specimens collected in NYC; Nassau, Suffolk, Rockland, and Westchester counties in New York; Fairfield County, Connecticut; and Bergen, Union, Middlesex, and Essex counties in New Jersey. No human cases of encephalitis attributable to WNLV have been reported from either Connecticut or New Jersey. Pools of Culex mosquitoes collected in localized areas of Queens, Brooklyn, and the Bronx in mid-September and a pool of Culex pipiens collected from Nassau County in late September have been positive for WNLV by reverse transcriptase polymerase chain reaction testing. One pool of Culex pipiens and one pool of Aedes vexans mosquitoes collected from a single trap in Greenwich, Connecticut, on September 13 yielded isolates of WNLV.


CDC Editorial Note: Human cases of encephalitis attributable to WNLV should continue to decline in areas where WNLV activity has been documented because of the application of adulticidal and larvicald mosquito-control compounds; however, persons in these areas should continue to use personal protective measures, including reducing outdoor exposures at dusk and at night; wearing long-sleeved shirts and pants; and applying to skin and clothing DEET-containing mosquito repellants according to label directions.1 Shorter days and the onset of colder weather eventually will lead to major declines in vector mosquito populations and will reduce human risk for exposure.

Confirmation that these WNLVs are virulent in a wide range of domestic and exotic birds has led to the formation of a cooperative federal working group. This working group, in cooperation with state and local health departments, will attempt to define the extent to which WNLVs are distributed in mosquito and bird populations outside the Northeast.

The appearance of WNLV in the Western Hemisphere will necessitate enhanced surveillance for this virus during the transmission seasons for the next several years. Enhanced human surveillance for West Nile–like encephalitis will be a fundamental part of determining geographic distribution. To assist states in augmenting surveillance, CDC has distributed surveillance guidelines to state epidemiologists and state health laboratory directors. The guidelines include early warning tools for surveillance of arbovirus activity in nature, such as mosquito trapping for virus isolation and avian serologic and viral surveillance.3

REFERENCES
2. CDC. Case definitions for infectious conditions under public health surveillance. MMWR 1997; 46(no. RR-10):1-3.
Satellite Broadcast on HIV Prevention

“HIV PREVENTION WITH FAITH COMMUNITIES and Communities of Color,” a satellite broadcast, is scheduled for Thursday, November 18, 1999, at 1-3 PM eastern time. Cosponsors are CDC and the Public Health Training Network. This forum will focus on activities and resources for human immunodeficiency virus (HIV) infection prevention within faith communities and racial and ethnic minority communities. Viewers will hear about CDC activities and programs throughout the country.

This broadcast is designed for organizations and persons interested in conducting HIV infection prevention activities and includes national and local faith-based institutions and organizations; community-based organizations; health departments; national and regional minority organizations; and HIV infection prevention community planning groups. Speakers will discuss the impact of the epidemic on faith communities and racial and ethnic minority communities, how local communities are responding, and partnerships and resources available to communities. Viewers are invited to fax questions and comments before and during the satellite broadcast.

Additional information for organizations and potential viewers is available through the World-Wide Web site for this broadcast, http://www.cdcnpin.org/broadcast, and CDC's Fax Information System, telephone (888) 232-3299 ([888] CDC-FAXX), by entering document number 130031 and a return fax number. Organizations setting up viewing sites are encouraged to register online or by fax as early as possible so that potential viewers may access information about viewing locations when visiting the web site or calling the information line.

Primary and Secondary Syphilis—United States, 1998

RATES OF PRIMARY AND SECONDARY (P&S) syphilis have been declining in the United States since the last national epidemic in 1990. Syphilis causes substantial morbidity and mortality in the form of cardiac and neurologic disease, stillbirth and developmental disability from congenital syphilis, and by facilitating transmission of human immunodeficiency virus. Syphilis is both preventable and curable and has been successfully controlled in most developed countries. In the United States, declines in P&S syphilis have been followed by epidemics occurring approximately every 7-10 years. During 1960-1990, these cyclical epidemics resulted in progressively higher peaks in morbidity. To evaluate the epidemiology of syphilis in the United States, CDC analyzed notifiable disease surveillance data for 1998. This report summarizes the results of that analysis, which indicate that in 1998 P&S syphilis declined to the lowest rates ever reported in the United States and that syphilis transmission increasingly is concentrated in fewer geographic areas.

Summary data for syphilis cases reported to state health departments and the District of Columbia for 1998 were sent quarterly and annually to CDC. These data included the total number of syphilis cases by county of residence, sex, stage of disease, racial/ethnic group, and 5-year age group. Data on reported cases of P&S syphilis were analyzed for this report because these cases best represent incidence (i.e., newly acquired infections within the evaluated time). P&S syphilis rates were calculated per 100,000 persons using population denominators from the Bureau of the Census.

In 1998, 6993 cases of P&S syphilis were reported in the United States (rate: 2.6 cases per 100,000 population), representing a 19% decrease in cases reported in 1997 (rate: 3.2) and an 86% decrease from the 50,578 cases reported in 1990 (rate: 20.3), the peak of the most recent U.S. epidemic. In 1998, the rate of P&S syphilis was higher in the South (5.1) than in the Midwest (1.9), West (1.0), and Northeast (0.8); the rate of decline from 1997 to 1998 was greater in the Northeast (27%) than in the South (22%), Midwest (3%), and West (0%). The rate of P&S syphilis was higher in blacks (17.1) than in American Indians/Alaska Natives (2.8), Hispanics (1.5), non-Hispanic whites (0.5), and Asians/Pacific Islanders (0.4). In 1998, the rate ratio of P&S syphilis in non-Hispanic blacks compared with non-Hispanic whites was 34:1, which is substantially lower than 44:1 in 1997 and 53:1 in 1990. Rates for P&S syphilis were 30% higher in men than in women in 1998. The incidence of P&S syphilis was highest among women aged 20-24 years and among men aged 30-39 years.

During 1997-1998, the number of P&S syphilis cases declined or remained the same in 35 states and the District of Columbia. The number of cases increased in 15 states; seven of these states are in the West. Although the absolute number of cases in the West was low, increases in Arizona and Washington were notable. Three other states reported substantial increases from 1997 to 1998: Louisiana, Indiana, and Michigan. Forty states had rates of P&S syphilis below 4.0, the target rate of the national health objectives for 2000 (objective 19.3). Fourteen states reported five or fewer cases of syphilis.

In 1998, 28 (0.9%) of 3115 counties accounted for 50% of P&S syphilis cases, a 10% decrease from 31 counties in 1997. The South was disproportionately represented in the counties with the highest number of cases (19 of 28 counties). Counties/cities with the highest number of cases were Baltimore, Maryland; Cook County, Illinois; and Los Angeles County, California.
nos (Chicago); Shelby County, Tennessee (Memphis); and Davidson County, Tennessee (Nashville). In 1998, 10 of the 28 counties had an increase in cases of P& S syphilis. Counties with the greatest percentage increase in cases were Marion County, Indiana (Indianapolis), Mecklenberg County, North Carolina (Charlotte), Maricopa County, Arizona (Phoenix), and Wayne County, Michigan (Detroit). In 1998, 2803 (90%) counties had rates of P& S syphilis equal to or below the 2000 national objective. In 1998, the number of counties reporting no cases of P& S syphilis increased to 2430 (78%) from 2324 (75%) in 1997.

Reported by: State and local health dept. Epidemiology and Surveillance Br, Statistics and Data Management Br, Div of Sexually Transmitted Diseases Prevention, National Center for HIV, STD, and TB Prevention, CDC.

CDC Editorial Note: The number and rate of P& S syphilis cases reported in 1998 in the United States are record lows. Syphilis is progressively concentrated geographically; in 1998, 50% of P& S syphilis cases occurred in fewer counties than in 1997, and the number of cases in most of those counties declined in 1998. In 1998, approximately 80% of U.S. counties reported no infectious syphilis.

Despite progress in syphilis control nationally, increases have occurred in several states and local areas. Focal outbreaks have occurred in both Marion County, Indiana (Indianapolis) (associated with exchanging sex for drugs or money), and King County, Washington (Seattle) (associated with increases in cases among men who have sex with men).6,7 The variation in demographics over time and between regions highlights the importance of analyzing demographic and behavioral information and developing targeted interventions. Despite considerable declines in syphilis rates, continued attention must focus on educating and screening persons in settings associated with high-risk behaviors, maintaining high quality surveillance systems, and recognizing changing demographics.

The findings in this report are subject to at least three limitations. First, the quality of surveillance varies at the local and state levels. Second, sexually transmitted disease (STD) reporting may be incomplete. Finally, reporting of syphilis may be biased toward over-reporting of infections in persons of minority race/ethnicity who attend public STD clinics. The degree to which this bias influences reported rates of syphilis is unknown.

Syphilis results in severe health consequences with substantial social and economic cost. National annual direct and indirect costs of syphilis are estimated $966 million.8 The low rates of P& S syphilis, the geographic concentration of infection, and the potential for another large-scale epidemic underscore the importance of initiating an effective elimination campaign.9 CDC, in collaboration with Health Resources and Services Administration, Substance Abuse and Mental Health Services Administration, the National Institutes and Health, the National Institute of Justice, and partners in state and local health departments, community-based organizations, and researchers, has developed a National Plan for Elimination of Syphilis from the United States.9 The five key strategies of the plan focus on enhanced community involvement and partnerships at local, state, and national levels, intensified surveillance, rapid outbreak response, expanded access to health care for those infected or exposed to syphilis, and improved health promotion.

Syphilis elimination in the United States has been defined as the absence of sustained transmission. The national goal for syphilis elimination is to reduce P& S syphilis cases to <1000 (rate: 0.4 per 100,000 population) and to increase the number of syphilis-free counties to 90% by 2005. Syphilis elimination can be the entry point for building or rebuilding broader public health capacity to control infectious disease and to assure reproductive health in historically underserved communities.10

REFERENCES