*Philadelphia Department of Public Health*

**Division of Disease Control**

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# *Health Advisory*

## West Nile Virus Activity in Philadelphia and Reporting Requirements
## July 21, 2011

The Philadelphia Department of Public Health has identified the city's first mosquito pools to test positive for West Nile Virus (WNV) in 2011. The mosquito pools were collected from the northeast and western areas of Philadelphia in early July. To date, no human cases have been confirmed in Philadelphia. A report summarizing WNV activity in the Philadelphia region will be posted throughout the summer, with updates on the PDPH Health Information Portal (*https://hip.phila.gov*).

WNV-positive mosquito pools suggest there is a risk for human infection. Clinicians are urged to report all suspect cases of WNV to DDC at 215-685-6740 during regular business hours or 215-686-4514 after-hours (ask to speak with the representative on-call for the division). WNV may be considered in the differential diagnosis of any patient presenting with encephalitis or viral meningitis accompanied by fever and abnormal CSF, acute flaccid paralysis, or unexplained febrile illness especially if accompanied by meningeal signs and symptoms during summer and early fall months. Serum and CSF should be collected on suspected cases for diagnostic testing.

Clinical Presentation of WNV Infection:
The majority of infections due to West Nile Virus are asymptomatic. Approximately 20% of individuals develop a self-limited febrile illness called West Nile Fever, characterized by fever, headache, myalgia, gastrointestinal symptoms and sometimes a transient maculopapular rash. Less than 1% of infected individuals will develop neuroinvasive disease–aseptic meningitis, encephalitis, or flaccid paralysis. The risk of neuroinvasive disease increases with age, and is highest among adults > 60 years old and among organ transplant patients. Residual neurological deficits are not uncommon among severe cases.

Diagnosis of WNV Infection:
Serum and cerebrospinal fluid (CSF) may be tested for WNV using PCR or IgM enzyme immunoassay. Serum collected within the first 8 days of illness may not have detectable IgM and repeat testing may be necessary. A four-fold rise in WNV-specific IgG in acute and convalescent serum or positive viral culture may also be diagnostic. Many commercial laboratories provide serological and PCR testing for WNV. Any positive specimen should be forwarded to the Pennsylvania Department of Health Bureau of Laboratories (BOL) for confirmatory testing. DDC can provide consultation regarding diagnostic testing and help facilitate specimen submission to PA BOL. Additional information on diagnostic testing is available on *https://hip.phila.gov*.

Treatment and Prevention:
There is no treatment for West Nile Virus, other than supportive care. As such, personal prevention is extremely important and is the best way to decrease the risk of acquiring WNV and other mosquito-borne diseases. Use mosquito repellant containing either DEET, Picaridin, or oil of lemon eucalyptus whenever one is outside during mosquito season, especially at dusk. Eliminating standing water on personal property (e.g., unused swimming pools, tires) will decrease mosquito-breeding sites. Mosquito complaints and dead bird sightings can be reported to the PDPH Vector Control Program at 215-685-9027. Mosquito control activities such as larviciding and ground spraying will continue throughout the summer.



**Philadelphia Department of Public Health**
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