

Public Health Fact Sheet

West Nile Virus

The Somerset County Health Officer's Association presents this document on West Nile Virus (WNV) as part of a community education campaign to provide up-to-date prevention information and to allay fears that may have been heightened by the media.

Transmission

The WNV is a mild virus of birds which may cause West Nile Encephalitis in humans. Mosquitoes become infected when they feed on birds that carry this virus. The virus is transmitted to people through the bite of an infected mosquito. The northern house mosquito, *Culex pipiens* and *Aedes vexans* are the primary source for WNV that caused the recent outbreak in the state. In 2000 there was one confirmed human case of WNV in New Jersey. The virus cannot be transmitted from person to person.

Symptoms

Most infections are mild and symptoms include fever, headache, and body aches, often with skin rash and swollen lymph glands. More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis and, rarely, death.

Risk

All residents of areas where virus activity has been identified are at risk of getting WNV; persons over 50 years of age have the highest risk of severe disease.

What is being done to prevent a recurrent outbreak?

All local health departments in Somerset County are prepared with a readiness system of surveillance and coordination. There is ongoing communication with the New Jersey State Department of Health and Senior Services, the Centers for Disease Control, scientists at Rutgers University, County Mosquito Control programs and the State Office of Mosquito Control Coordination.

New Jersey probably has the strongest mosquito control program in the Northeast. Through the County Mosquito Control Programs, there is a thorough, efficient system in place to prevent an outbreak of this disease and to manage nuisance mosquitoes. Control measures first target the aquatic stage of the mosquito, then the adult stage. If virus activity is detected in a community, control efforts will be intensified prior to the occurrence of human disease.

Sponsored by the Somerset County Board of Chosen Freeholders, 2001

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Prevention Measures

The most important part of mosquito control is denying the mosquito a place to breed. The house mosquito needs standing water to multiply - you CAN make a difference by removing these sources!

- Clean up all containers that hold water around your yard — buckets, birdbaths, tires, pool covers, wading pools, and gutters.
- Keep water clean in children's wading pools; drain when not in use.
- Keep ditches and streams adjoining your property free of grass clippings, garbage, and other debris.
- Keep weeds and grass cut short during the summer months to eliminate hiding places for mosquitoes; report vacant or un-maintained lots to local officials.

There are many places such as low-spots and wetlands that are too large for individual control of mosquitoes. For problems that cannot be handled by the individual, residents should contact the Mosquito Control Program in Somerset County at 908/231-7027.

Personal Protection

- Mosquitoes are most active dawn to dusk. Wear long-sleeved shirts/pants when outdoors.
- Apply insect repellent sparingly to exposed skin. An effective repellent will contain 20% to 30% DEET (N-diethyl-meta-toluamide). Spray clothing with repellents containing permethrin or DEET, as mosquitoes may bite through thin clothing. You may try a product with a lower concentration of DEET and evaluate its effectiveness for you.
- Insect repellent should NOT be applied to children under three years old.
- Ensure that you have proper screens on windows and doors free from tears and holes.
- Vitamin B and "ultrasonic" devices are NOT effective in preventing mosquito bites.

Community Involvement in Bird Surveillance

Local health departments are assisting the State Department of Health and Senior Services in the collection of dead crows, hawks and falcons for testing of WNV. The purpose of testing birds is to detect and report morbidity and mortality. Somerset County residents are asked to assist with this effort by reporting bird specimens found on their property. The specimen must meet the following criteria:

- The birds tested are crows, hawks or falcons.
- The sample must be in fresh condition (not dead for more than 24 hours), not road kill.
- The specimen should be double bagged and packaged in clear, watertight bags which are properly labeled and are kept refrigerated.

For drop-off information, contact your local health department. Any weekend specimens should be refrigerated until Monday morning. Please note that there is no evidence that a person can get the virus from handling live or dead infected birds. However, avoid barehanded contact; use gloves or doubled plastic bags.

Resources

There are many sources of information available about the WNV. For accurate and up-to-date information about WNV, please refer to the following sources.

NJDHSS web page <http://www.state.nj.us/health/cd/westnile/enceph.htm>

Centers for Disease Control web page: http://www.cdc.gov/ncidod/dvbid/arbtor/West_Nile_QA.

New Jersey Mosquito Control Commission, 609/292-3649

web page <http://www-rci.rutgers.edu/~insects/njmos.htm>