



NEW YORK CITY DEPARTMENT OF  
HEALTH AND MENTAL HYGIENE  
Thomas Farley, M.D., M.P.H.  
*Commissioner*

**2010 DOHMH Advisory #15:  
First Human Case of West Nile Virus Reported in New York City,  
Widespread West Nile Viral Activity Continues  
August 5, 2010**

Please distribute to staff in the Departments of Critical Care, Emergency Medicine, Family Medicine, Infection Control, Infectious Disease, Internal Medicine, Laboratory Medicine, Nursing, Neurology, Obstetrics and Gynecology, and Pediatrics

- **A Bronx man hospitalized with viral meningitis has been diagnosed with West Nile neuroinvasive disease. This is the first reported case of West Nile viral infection in NYC this year.**
- **West Nile viral activity has been found in all five NYC boroughs during the past three weeks. The most intense activity is in the Bronx, northern and eastern Queens, northern and southern Brooklyn and Staten Island (see map below).**
- **The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) reminds providers to maintain vigilance and test for West Nile viral infection during peak adult mosquito season (July 1 – October 31):**
  - **Consider West Nile viral infection in the differential diagnosis for all patients with viral meningitis, encephalitis, acute flaccid paralysis, and/or symptoms compatible with West Nile fever.**
  - **Although the DOHMH Public Health Laboratory no longer performs routine testing for West Nile virus, testing is widely available through commercial laboratories.**
  - **Routinely report cases of viral encephalitis and meningitis using the Universal Reporting Form (link to instructions at the end of this advisory).**

Dear Colleagues,

We are writing to alert you that West Nile viral activity is increasing in NYC this summer.

**(1) First human case of West Nile viral disease identified in a NYC resident in 2010.**

The case is a 61-year-old male resident of the Bronx who presented with symptoms consistent with viral meningitis. His illness began on July 10 and he was admitted to the hospital on July 19. Serum tested positive for West Nile virus IgM by enzyme immunoassay testing at a commercial laboratory, and the result was confirmed at the DOHMH Public Health Laboratory. The patient did not travel outside NYC during the exposure period.

**(2) West Nile virus has been detected in 154 mosquito pools from all NYC boroughs, with most activity occurring in the northern and eastern Bronx, northern and eastern Queens, northern and southern Brooklyn and Staten Island.**

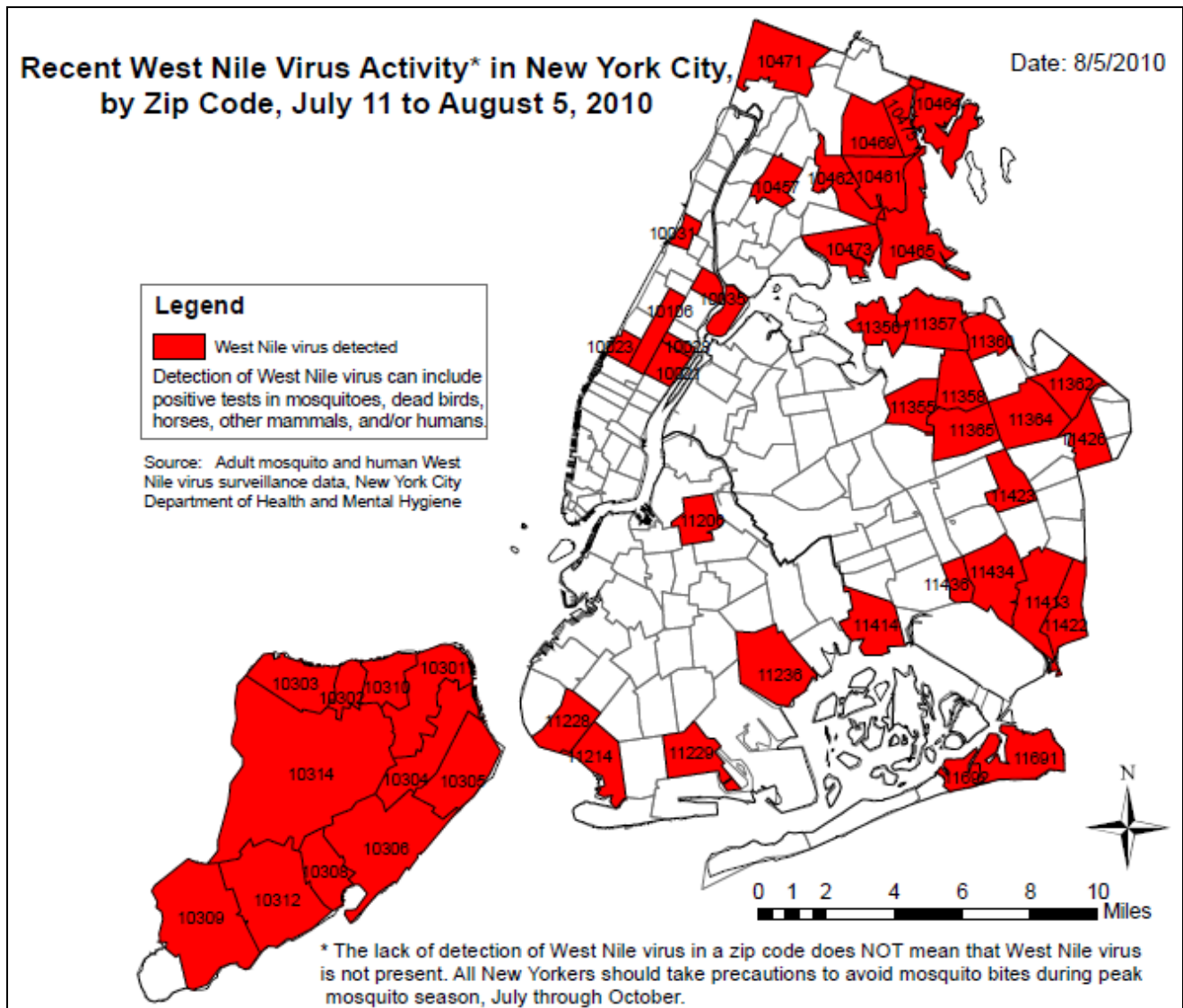
Since June 29<sup>th</sup>, West Nile virus has been identified in 154 mosquito pools collected in the Bronx (45), Brooklyn (7), Manhattan (7), Queens (62) and Staten Island (33). This is the largest number of positive pools identified in NYC by this point in the season since the introduction of West Nile virus into NYC in 1999. The DOHMH has increased mosquito surveillance and larviciding in areas with new or persistent

West Nile viral activity, and has conducted adulticiding activities in localized areas where persistently high levels of West Nile viral activity have been detected, indicating a risk to humans.

### **(3) Regional West Nile and eastern equine encephalitis viral activity**

West Nile viral activity in mosquitoes and dead birds has also been identified in New York state (including Nassau and Suffolk counties), in 17 counties in New Jersey, and in Connecticut and Massachusetts. A Nassau County resident was recently diagnosed with West Nile viral disease; the onset date was July 5, 2010. Nationally 45 cases of human West Nile viral disease have been reported in the United States, including 21 cases of West Nile neuroinvasive disease.

In addition, eastern equine encephalitis (EEE) virus has been found in mosquito pools in New Jersey (Burlington and Cape May Counties), upstate New York (Oswego County) and in Massachusetts (primarily Plymouth and Bristol Counties in southeastern Massachusetts). EEE infection should be considered in the differential diagnosis for patients with encephalitis or viral meningitis and travel history to areas where EEE activity has been found. EEE virus has not been found to be transmitted in NYC. Consult with the DOHMH Bureau of Communicable Disease at 212-788-9830 to discuss testing if you suspect EEE in a patient.



**(4) Providers should advise their patients, especially older residents, to protect themselves from mosquito bites.**

With West Nile viral activity increasing in NYC and surrounding areas, health care providers should advise residents and visitors, especially adults 50 years of age or older, that West Nile virus is present now in mosquitoes in NYC, and to take measures immediately to protect themselves from mosquito bites. Prevention measures can include wearing protective clothing when outdoors from dusk to dawn, use of mosquito repellents, ensuring household screens are in good repair, and eliminating standing water where mosquitoes can breed.

**(5) Report promptly by telephone or facsimile cases of West Nile virus infection with positive laboratory diagnostic tests, and routinely report all cases of encephalitis and viral meningitis.**

The DOHMH reminds medical providers to be alert for possible cases of West Nile viral disease through the remainder of the peak adult mosquito season (through October). Currently, the most sensitive screening test for West Nile virus in humans is IgM enzyme immunoassay (EIA) on cerebrospinal fluid and/or serum. Refer to page 2 of the attached NYC DOHMH Guidelines for West Nile Testing and Reporting Cases of Viral Encephalitis and Meningitis for more detail on how to test for West Nile virus. Any patient with laboratory evidence suggesting a current or recent West Nile virus infection must be reported immediately to DOHMH. To report,

- During business hours:
  - Call the Bureau of Communicable Disease (BCD) at 212-788-9830, or
  - Fax a completed *Universal Reporting Form* (URF) to BCD at 212-788-4268, or
  - Submit the URF electronically (downloadable form or instructions to set up online reporting at <http://www.nyc.gov/html/doh/html/hcp/hcp-urf.shtml>)
- After hours, call the NYC Poison Control Center at 1-800-222-1222 or 1-212-POISONS.

If you have questions regarding how to test for West Nile virus, you may contact the Bureau of Communicable Disease (BCD) at 212-788-9830.

As always, we appreciate our ongoing partnership with health care providers in NYC in reporting and investigating unusual disease manifestations or clusters.

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**On Line Resources:**

1. DOHMH West Nile Virus Guidelines and Recommendations for Health Care Providers, including recent Health Alerts (available at <http://www.nyc.gov/html/doh/html/wnv/wnvhcp.shtml> )
2. NYC DOHMH Guidelines for West Nile Testing and Reporting Cases of Viral Encephalitis and Meningitis (June 2010 version) <http://www.nyc.gov/html/doh/downloads/pdf/wnv/wnv-reportinstructions.pdf> (also attached to this alert)
3. Universal Reporting Form (September 2009 version) (download from <http://www.nyc.gov/html/doh/html/hcp/hcp-urf.shtml>)
4. New York State Department of Health - Collection and Submission of Specimens for Viral Encephalitis Testing Instructions (June 2010 version) (available at <http://www.wadsworth.org/divisions/infdis/enceph/instructs.pdf>)
5. New York State Infectious Diseases Requisition Form (on-line fillable form also available from <http://www.wadsworth.org/divisions/infdis/enceph/form.htm>)
6. New York State Viral Encephalitis/Meningitis Case Report Form (on-line fillable form also available from <http://www.wadsworth.org/divisions/infdis/enceph/form.htm>)
7. See where West Nile virus has recently been found at <http://www.nyc.gov/html/doh/html/wnv/wnvactivity.shtml>)