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Outbreak of West Nile-Like Virus Encephalitis, New York City

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An outbreak of arboviral encephalitis was first recognized in New York City in late August and has since been identified in neighboring counties in New York state. Although initially attributed to St Louis encephalitis (SLE) virus, based on positive serological findings in the cerebrospinal fluid and serum samples, the cause of the outbreak has been confirmed as a West Nile-like virus, based on the identification of virus in human, avian, and mosquito samples.

Prior to the outbreak, local health officials observed an increase in fatalities among New York City

birds, especially crows. Testing of the birds by polymerase chain reaction and DNA sequencing isolated virus from the birds' tissue that indicated it was closely related to the West Nile virus (WNV).

As of September 28, a total of 17 confirmed and 29 probable human cases and 4 deaths have been reported from New York City and the surrounding area. Vector control measures were implemented, and surveillance for new human cases of WNV will continue until several weeks after the first frost, when mosquito activity is expected to subside.

Like the St Louis encephalitis virus, WNV is transmitted principally by the *Culex* species mosquito, but also can be transmitted by the *Aedes*, *Anopheles*, and other species. The pre-

dominance of urban *Culex* mosquitoes trapped during this outbreak suggests an important role for this species.

It is not clear whether the virus causing this outbreak is related to previous outbreaks in Israel in the 1950s, France and Romania in the 1960s, and South Africa in the 1970s, or if it is a new variant. Although it is not known when and how a West Nile-like virus was introduced into North America, international travel of infected persons to New York or transport by imported infected birds may have played a role.

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