New York City reports outbreak of West Nile virus

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Scientists in the New York metropolitan area have identified the presence of a viral strain never before seen in the Western hemisphere, West Nile virus. Initially believed to be an outbreak of St. Louis Encephalitis, illness resulting from the virus has been responsible for the deaths of at least five people in New York, four of them city residents. There are currently a total of 37 confirmed cases in humans.

Others who exhibited symptoms previously attributed to St. Louis Encephalitis are being tested for evidence indicating the presence of this recently detected mosquito-borne illness of African origins. Symptoms include headaches and fever and can result in severe or fatal neurological disorders. While West Nile virus is not fatal in most incidences of infection, it remains a threat to the elderly, children and others with weakened immune systems.

West Nile virus is transmitted to humans via mosquitoes from birds. The work of Tracey McNamara, a pathologist at the Bronx Zoo concerned over the unusually high death rates among crows around her workplace, led to the reclassification of the outbreak in New York City. Observers have noticed large numbers of birds dying throughout the region for several weeks. The discovery of West Nile virus is prompting continued examination into this phenomenon, with city workers sweeping the city for dead birds. Earlier this week, for the first time, birds in the state of New Jersey were identified as being infected with the virus.

Towards the beginning of September initial reports of the St. Louis Encephalitis outbreak, with several dozen people infected, prompted a citywide mosquito spraying campaign. Malathion, the pesticide used, attacks the nervous system of insects. The species of mosquito this chemical eliminates is also the carrier of West Nile virus. Malathion is said to pose "virtually no health risks to humans or pets," in the words of the New York Health Commissioner. While this contention is supported by many environmentalists and entomologists, the use of the chemical has spawned debate in the past. The measures taken by the city—such as the spraying of playgrounds while children were at play—caused many city residents to express concern.

Currently, New York City is continuing with the use of pesticides in order to curb the mosquito population. With the aid of workers from the Federal Centers for Disease Control (CDC), surveys of residents in specific regions of the city are being taken in order to track down the prevalence of the West Nile virus and patterns of infection. Federal officials are also undertaking genetic decoding of the virus in order to provide a final and absolute confirmation of it as the West Nile strain.

Epidemiologists and public health experts are exploring how the migratory patterns of birds might affect the spread of the disease. At the same time, researchers are unsure of how West Nile virus initially made its way into the United States. Theories range from pinpointing bird smuggling, to an infected individual entering the country. There is also the possibility that West Nile virus has been present in North America for some time but has gone undetected.

International migration and tourism are key components to the spread of this and many other viral agents. As global air travel reaches ever higher levels, the ease with which diseases cross formerly formidable natural barriers is much greater. Moreover, the flow of people in and out of ports makes it more difficult to track and contain viral agents. Currently there is another outbreak of West Nile virus in Russia, another region of the world where the disease has never before

been detected. The last major modern outbreak of West Nile virus occurred in Romania in 1996. There were 90,000 confirmed cases and 17 attributed deaths.