
AVIAN WEST NILE VIRUS SURVEILLANCE AT THE NWHC: A 5-YEAR SUMMARY

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Abstract

West Nile virus (WNV) emerged in the New York City region in 1999 and has rapidly spread across the North American continent in the short course of 5 yr. At this time, much remains unknown about the ecology of WNV in North America. There are two unusual characteristics of the North American epidemic: high avian mortality associated with the human and equine epidemic and the increasing number of species in which WNV has been detected. Mortality rates have been particularly high in corvids (crows, jays) and raptors, and 226 avian species have been reported by state and federal public health, veterinary and wildlife agencies. The USGS National Wildlife Health Center (NWHC) has been actively involved in testing dead birds submitted through state and federal WNV surveillance programs since 1999. Due to changing surveillance programs, variation in the data collected by each state, and the constantly evolving role of the NWHC in surveillance programs, the wild bird data are impossible to interpret epidemiologically. However, the surveillance testing does serve as an indicator of the avian mortality that has occurred since 1999. Although WNV has been a major cause of avian mortality during this time period, the data shows that other uninvestigated, and therefore unknown, causes of death have probably contributed to the avian mortality, even in those species found to be particularly susceptible to fatal WNV infection.