



Department of Health and Social Services

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Summary of Alaska West Nile Virus Surveillance 2006

West Nile virus in the United States

West Nile virus (WNV) has been detected in the United States each year since 1999. In several eastern states, like New York, WNV has become well-established and human and animal cases are expected each summer.

WNV has spread westward in recent years and most confirmed cases in 2006 occurred in residents of states west of Mississippi. With nearly 1,000 cases, Idaho reported almost a quarter of all cases in the nation in 2006.¹

Numbers of reported human WNV cases have become a less reliable indicator of overall disease burden in many states. This is evidenced by the state-to-state variation in the ratio of neuroinvasive disease to West Nile fever cases that suggests testing in endemic states has declined overall and the majority of confirmed cases have severe illness.

WNV surveillance in Alaska

Surveillance for WNV in Alaska began in 2002 when the Alaska State Virology Laboratory (ASVL) developed capacity to test both avian and human specimens for evidence of WNV infection. Since then, there has been no evidence of locally-occurring WNV infection in either humans or animals.

2006 results – Birds

For the 2006 season, there were 33 birds tested for WNV at ASVL; all were negative. The majority of birds tested were either corvids or raptors (Table).

Table. Birds Tested for WNV by ASVL, 2006

Type of bird	Location in Alaska (# of birds tested)
Eagle, Bald	Chignik Bay (1)
Goshawk, Northern	Eagle River (1) Fairbanks (1)
Gull	Yakutat (1)
Hawk, Sharp-shinned	Anchorage (1) Ester (1) North Pole (1)
Kestrel, American	Fairbanks (2) North Pole (1)
Magpie, Black-billed	Anchorage (2) Eagle River (1) Palmer (3)
Owl, Boreal	Dalton Highway (1)
Owl, Great Gray	Delta (1) Nenana (1)
Owl, Great-Horned	Fairbanks (1)
Raven, Common	Anchorage (3) Fairbanks (8) Port Graham (1)
Woodpecker, Hairy	Chugiak (1)

Some other species were evaluated this year because there were unusual circumstances surrounding their deaths. Additionally, with heightened surveillance efforts for avian influenza, several Alaska birds submitted to the

National Wildlife Health Center in Madison, Wisconsin, were also tested for WNV as part of a more thorough diagnostic work-up. None of these birds were positive for WNV.

2006 results – Humans

In 2006, ASVL did not receive any clinical specimens from patients with suspected WNV infection. Additionally, none of 25,535 units of blood donated at the Blood Bank of Alaska in 2006 tested positive for WNV.

New in 2007, state regulations specify WNV as a condition reportable to the Section of Epidemiology for both health care providers and laboratories.²

Discussion

There continues to be no evidence of locally-occurring WNV in Alaska. Whether the right combination of vectors, reservoirs and climatic conditions required for WNV transmission will ever exist in Alaska is unknown.

WNV is considered an endemic disease in many of the lower 48 states and testing of both humans and birds has been decreasing across the nation. Also decreasing are federal public health funds for WNV surveillance. Given new surveillance initiatives for other diseases, ASVL will be discontinuing testing for WNV in 2007. However, efforts by wildlife and agriculture agencies to identify and characterize bird mortality events will be continuing as part of avian influenza surveillance. Testing for WNV at other laboratories will likely be included in the diagnostic work-up of some of these birds.

Recommendations

1. Health care providers should contact the Section of Epidemiology if they suspect a patient may have WNV. Call 907-269-8000 Mon-Fri 8AM-5PM, or 800-478-0084 after-hours or on weekends.
2. Sick or dead birds should be reported to the Alaska Interagency Bird Hotline at 1-800-527-3358 staffed by the National Park Service. Reports will be reviewed by Alaska wildlife authorities and birds may be tested for WNV if indicated.

References

1. Centers for Disease Control and Prevention, Division of Vector-borne Infectious Diseases. 2006 West Nile Virus Activity in the United States. http://www.cdc.gov/ncidod/dvbid/westnile/surv&control/CaseCount06_detailed.htm. Accessed on January 30, 2007.
2. Alaska Section of Epidemiology *Bulletin*, "Infectious Diseases Reportable to the Alaska Division of Public Health – Update January 2007." Recommendations and Reports, Vol. 11, No. 1, January 2, 2007. Available at: http://www.epi.alaska.gov/bulletins/docs/rr2007_01.pdf. Accessed on January 12, 2007.