



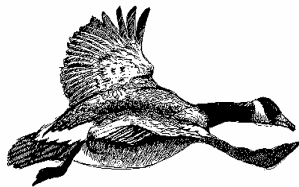
NEVADA DIVISION OF WILDLIFE

WEST NILE VIRUS

FACT SHEET

INTRODUCTION

In the fall of 1999, the first case of West Nile virus (WNV) in humans, a mosquito-borne disease never previously reported in the Western Hemisphere, was reported in the New York City area. The virus is carried by birds, and can be transmitted from infected birds to humans and other animals through bites of infected mosquitoes. In 1999, WNV was reported in the New York City area. The distribution of the virus increased slowly in 2000 and then increased rapidly in 2001 and 2002 with the migration of wild birds. By January 2003, Oregon, Nevada, Utah and Arizona were the only contiguous states that had not reported the virus.



The virus causes disease in a wide variety of species ranging from birds to mammals. Human illness is rare even in areas where the virus has been reported.

The chance that any one person will become ill from a mosquito bite is low.

Based upon the demonstrated rate of dispersal of the virus, it is anticipated that Nevada will report a positive case in the near future.

WHAT IS WEST NILE VIRUS?

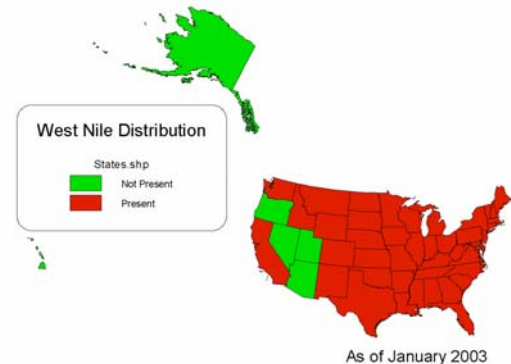
West Nile virus is a mosquito-borne virus that can cause encephalitis (inflammation of the brain) or meningitis (inflammation of the lining of the brain and spinal cord). WNV is spread to humans by the bite of an infected mosquito. The virus is spread when a mosquito becomes infected by biting a bird that carries the virus.



You cannot get WNV from a person who has the disease, though some people have contracted the disease from transfusions and organ transplants. WNV is not spread by person-to-person contact such as touching, kissing, or caring for someone who is infected. Humans cannot contract the disease from eating birds.

SURVEILLANCE AND RANGE

Outbreaks of WNV have occurred before in Egypt, Asia, Israel, South Africa, parts of Europe and Australia. Before 1999, the virus had never been found in the United States. The most likely explanation of how the virus got to the United States is that the virus was introduced by an infected bird that was imported or by an infected human returning from a country where the virus is common.



A broad partnership of governmental organizations is working to monitor the distribution, prevention, control and treatment of WNV. The Centers for Disease Control, USGS, US Fish and Wildlife Service, National Wildlife Health Center, U.S. Departments of Agriculture and Defense, National Park Service, state and local health departments and state natural resource and agriculture departments are cooperating in this project.

The presence of WNV is determined by monitoring one or more of the following: wild bird infection, human disease, sentinel flock antibodies, mosquito sampling and veterinarian diagnoses of animal disease. In Nevada, public health authorities are monitoring human health for clinical evidence of WNV. The Nevada Department of Agriculture (NDOA) is monitoring sentinel chicken flocks distributed widely in the state. NDOA also samples mosquitoes, wild birds, and wild horses trapped by USDA Wildlife Services.

The Division of Wildlife along with other agencies is monitoring wild birds for signs of any



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mortality.

INFECTION IN HUMANS

Most people that come into contact with WNV have no symptoms. Small proportions of people become infected and develop mild symptoms that include fever, headache, body aches, skin rash and swollen lymph glands. Less than one percent of infected people develop more severe illnesses, which include meningitis or encephalitis. The symptoms of these illnesses can include headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. Of the few people that developed encephalitis, a small proportion died, overall, this is estimated to occur in less than 1 out of 1,000 infections. The incubation period from mosquito bite to infection in humans is between five and 15 days.

The Center for Disease Control report that older people or people with compromised immune systems are most susceptible to disease. If a person has signs of encephalitis, with fever, muscle weakness, and confusion, he or she should seek medical care as soon as possible.

INFECTION IN WILDLIFE

Birds are the natural host of WNV. To date over 111 species of birds have been either naturally or experimentally infected with the virus in North America. The virus affects different species and groups of birds differently. Many species of birds, once infected develop antibodies and show no clinical symptoms of the disease. Other species, particularly hawks, falcons and owls, show symptoms of the disease and if they survive, show chronic neurological dysfunction. Many corvids-crows, magpies, ravens and jays-suffer acutely from the disease. These birds often do not survive the disease after infection. Bird mortality events can be an important indicator of the presence of WNV.

WNV has caused sickness and mortality in several species of mammals. Horses have been affected by the disease across North America, and appear to be especially susceptible to the disease. USDA-APHIS reported 14,717 equine cases during 2002. The disease is being managed in domestic horses with vaccinations that are effective. Wild horses are also

susceptible. Mountain goats, in both wild and captive situations, have demonstrated the disease and died from the infection.

REPORTING DEAD BIRDS

A high number of dead birds in an area may mean that WNV is circulating between the birds and the mosquitoes in that area. Over 111 species of birds are known to have been infected with WNV. Although birds, particularly crows, ravens, magpies and jays, infected with WNV can die or become ill, most infected birds do survive.

The public can play an important role in monitoring WNV through reporting dead birds to the state or your local health department. Birds can also be reported to the Nevada State Veterinarian. A list of contacts is found on this fact sheet below.

WEST NILE VIRUS RESOURCES

The following list of agencies can provide information or support regarding West Nile Virus.

Web Sites:

Human Health

Nevada Health Department (775)684-4200

<http://health2k.state.nv.us/special/wnv.htm>

Centers for Disease Control

<http://www.cdc.gov/ncidod/westnile/index>

Surveillance and Veterinary Services

Nevada Department of Agriculture

<http://agri.state.nv.us/westnile>

US Department of Agriculture, APHIS

<http://aphis.usda.gov/lpa/issues/wnv/wnv>

USGS National Wildlife Health Center

http://www.nwhc.usgs.gov/research/west_nile/west_nile

Agency contacts:

Human Health

Nevada Health Department (775) 684-4200

Animal Health

Nevada State Veterinarian (775) 688-1180

Wildlife Health

Nevada Division of Wildlife (775) 688-1523