West Nile Encephalitis Fact Sheet

What is West Nile encephalitis?

- West Nile encephalitis is a viral disease transmitted to people and horses through the bite of an infected mosquito.
- West Nile virus (WNV) is maintained in a transmission cycle involving one or more species of mosquitoes and birds. Current research is focusing on which mosquitoes and birds are most important in this cycle.
- WNV is usually found in Africa and southern Europe. The virus was first reported in North America during a 1999 outbreak of encephalitis in New York City.

How serious is West Nile virus?

- Most people infected with WNV will have either no symptoms or a very mild illness. A small percentage of people, especially elderly patients, may develop encephalitis (inflammation of the brain). Approximately 10% of these encephalitis cases are fatal.
- Most of the severe human cases of WN encephalitis begin with sudden onset of fever, headache, stiff neck, and vomiting. The illness progresses quickly to include confusion and other mental status changes, altered reflexes, convulsions, and coma. There is no treatment for WN encephalitis other than supportive care.
- Approximately 33% of symptomatic horses are put down or die from WNV infections.

What is the risk of a West Nile Encephalitis outbreak in Minnesota?

- Since 1999, WNV has moved rapidly to 48 states, the District of Columbia, 7 Canadian Provinces, 24 Mexican States, Dominican Republic, EL Salvador, Jamaica, and the Cayman Islands. WNV was first detected in Minnesota July 23rd, 2002.
- From 1999-2006, 4,261 (956 deaths) human WN cases were reported in the United States. Of these, 430 (12 deaths) were Minnesota residents.
- With our abundant mosquito and bird populations, we expect that WNV will become established in Minnesota. Similar to other mosquito-transmitted diseases already established in this area (LaCrosse encephalitis, Western equine encephalitis, and Eastern equine encephalitis), WNV will likely cause sporadic illness in humans (especially elderly people) and horses.

What can people do to prevent West Nile Encephalitis?

- Personal protection measures such as use of mosquito repellents, avoiding outdoor exposures at dusk and dawn (peak feeding time for many mosquitoes), and wearing long-sleeved shirts and long pants can reduce the risk of WN encephalitis.
- Removal of water-holding containers (mosquito breeding sites) from residential areas will reduce numbers of several mosquito species.
- There is a vaccine available for horses to prevent WN encephalitis. Please contact your veterinarian for vaccine recommendations. A human WNV vaccine is still in development.

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