**Immediately notifiable disease (IND) - Factsheet**

**West Nile Fever**  
(West Nile Virus)

**Epidemiology:**

**Etiology:** West Nile Virus (*Flaviviridae*)  
**Agent type:** Virus  
**Mode of Transmission:** Vector transmitted disease

**Susceptible species and reservoirs:**

- **Reservoirs/Natural host:** Avian (mostly Passeriformes)  
- **Vector:** Mosquitoes (*Culex*). Hippoboscid flies, ticks and lice (*Philopterus* spp.) may have a minor role.  
- **Dead-end hosts:** Most frequent hosts: Equine and Human  
  Other hosts: Other mammals, some reptiles and amphibians

<table>
<thead>
<tr>
<th>Descriptive information</th>
<th>Source</th>
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<tr>
<td><strong>OIE-listed</strong></td>
<td>Yes</td>
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<tr>
<td><strong>Zoonotic (Public Health impact)</strong></td>
<td>Yes; Asymptomatic 80%, Flu-like syndrome 20%; neurological &lt;1% (fatal in 4-14% of neurological cases). No vaccine for human available</td>
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<td><strong>Global distribution</strong></td>
<td>Europe, Africa, Asia, Australia, Americas</td>
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<td><strong>Animal occurrence in Canada and USA</strong></td>
<td><strong>Canada:</strong> Endemic seasonal disease; IND (immediately notifiable disease) cases reported by year in domestic horses: 123 (2018), 54 (2017), 46 (2016), 19 (2015). Cases have been reported in alpaca, domestic avian, wildlife animals and a few other mammals. <strong>USA:</strong> Endemic seasonal disease in USA.</td>
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<td><strong>Clinical signs</strong></td>
<td>Equine: Clinical signs must include ataxia (including stumbling, staggering, wobbly gait, or incoordination) or at least two of the following: circling, hind limb weakness, inability to stand, multiple limb paralysis, muscle fasciculation, proprioceptive deficits, blindness, lip droop/paralysis, teeth grinding, fever, acute death.</td>
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| **Animal Health impact** | Equine: Neurological disease with up to 30% mortality, 10-20% recovered with residual defects  
Poultry and other species may be affected clinically | (3, 9) |
Criteria for reporting a case of immediately notifiable disease:

Compatible clinical signs* plus one or more of the following:

- isolation of West Nile virus from tissues;
- an associated 4-fold or greater change in IgG ELISA testing or sero neutralization (SN) test antibody titre to WNV in appropriately-timed, paired sera;
- detection of IgM antibody to WNV by ELISA testing in serum or cerebrospinal fluid (CSF) in animals that are not known to have been vaccinated in the preceding 45 days;
- a positive polymerase chain reaction (PCR) to WNV genomic sequences in tissues and appropriate histological changes;
- a positive immuno-histochemistry (IHC) for WNV antigen in tissue and appropriate histological changes.(8)

References