



## West Nile Virus and Other Mosquito-borne Diseases National Surveillance Report

English Edition

August 7 to August 13, 2016 (Week 32)

### Canada

#### Humans:

During surveillance week 32, ending on August 13, 2016, two (2) additional human clinical cases of West Nile virus (WNV) were reported to the Public Health Agency of Canada (the Agency) in Manitoba.

As of surveillance week 32, a total of 3 human clinical cases have been reported in Manitoba. Of these, one case was classified as West Nile virus Neurological Syndrome (33%), and two as Unclassified (67%).

#### Mosquitoes:

As of surveillance week 32, 118 (1.37 %) out of 8,600 mosquito pools have been tested positive for WNV in Canada: Manitoba (22), Ontario (58), Quebec (8), and Saskatchewan (30).

#### Birds:

As of August 13, 2016, the Canadian Wildlife Health Cooperative has examined a total of 32 dead birds for WNV: Ontario (29), Quebec (1), and Saskatchewan (2). No positives have been reported.

#### Domestic Animals:

As of Aug 13, 2016, no domestic animals tested positive for WNV, have been reported by the Canadian Food Inspection Agency.

### United States and U.S. territories

As of August 13, 2016, the Centers for Disease Control and Prevention have reported 139 cases of West Nile virus disease from 27 states in the USA, including Idaho (1), Minnesota (2), Michigan (1), North Dakota (1), and Vermont (1). Of these, 63 (45%) were diagnosed as neuroinvasive disease cases and 76 (55%) as non- neuroinvasive disease cases. One fatal case has been reported. In addition, 32 presumptive viremic blood donors have been identified.

Detailed information can be accessed via the CDC web site: <http://www.cdc.gov/westnile/statsmaps/preliminarymapsdata/histatedate.html>

### Europe and Neighbouring Countries

As of August 13, 2016, 11 human cases of WNV have been reported in the European Union and 24 cases have been reported in the neighbouring countries.

Detailed information can be accessed via the ECDC web site:

[http://ecdc.europa.eu/en/healthtopics/west\\_nile\\_fever/West-Nile-fever-maps/pages/index.aspx](http://ecdc.europa.eu/en/healthtopics/west_nile_fever/West-Nile-fever-maps/pages/index.aspx)

FIGURE 1: Geographic distribution of Human Clinical cases of WNV in Canada, as of August 13, 2016

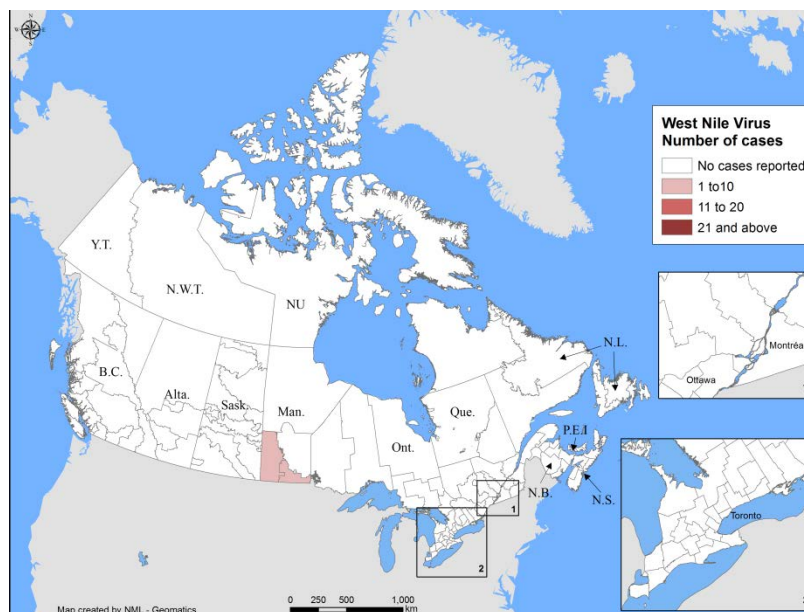


FIGURE 2: WNV Human Clinical cases and Asymptomatic Infections, by Province/ Territory and by Report week, as of August 13, 2016

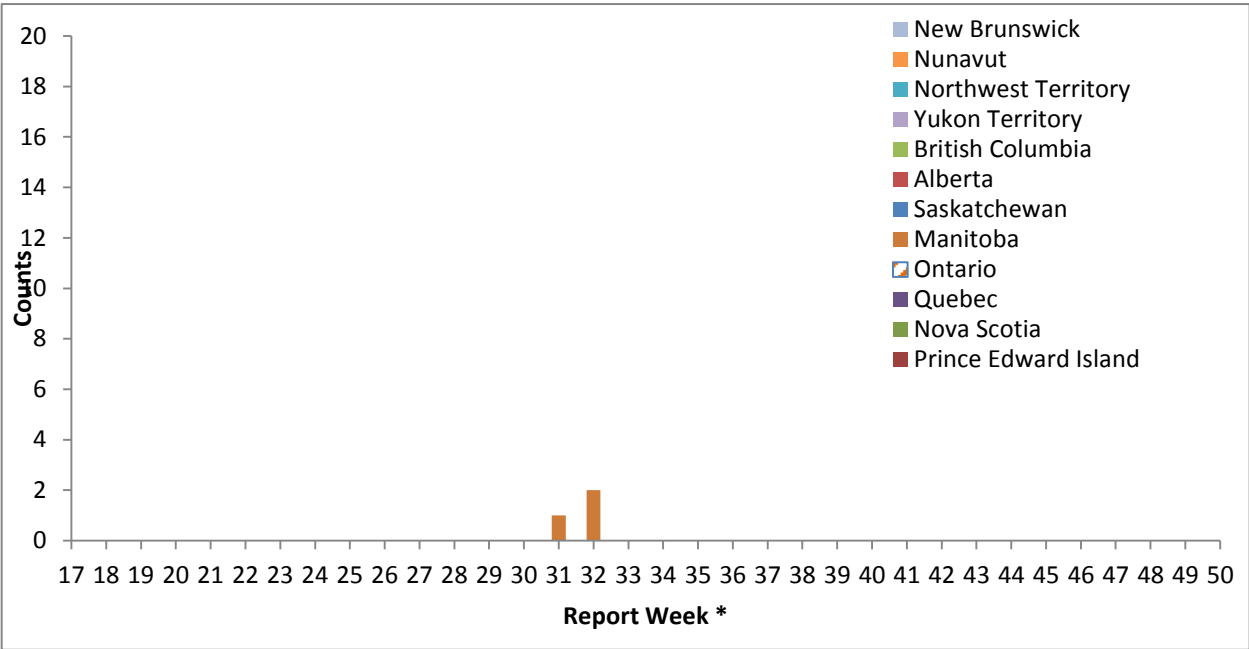
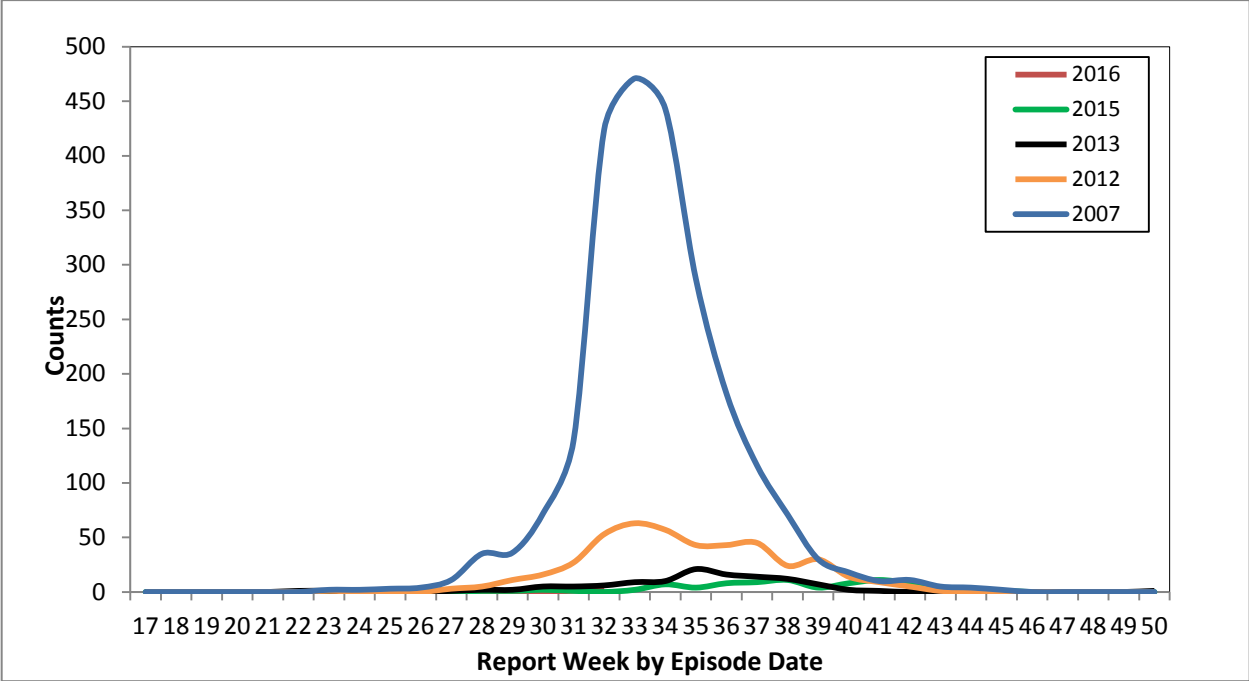


FIGURE 3: WNV Human Clinical cases and Asymptomatic Infections by Report week for selected years, in Canada



\*West Nile virus clinical cases and asymptomatic infections are grouped by report week, based on episode date. Episode date could include one of the following: onset date, diagnosis date, lab sample date or reporting date.

**TABLE 1: West Nile Virus Human Clinical cases and Asymptomatic Infections by Province/Territory for the current report week and year to date, 2016 season**

	Week 32: August 7 to August 13, 2016					
	West Nile virus neurological syndrome	West Nile virus non-neurological syndrome	Unclassified/unspecified	Total clinical cases <sup>1</sup>	Number of travel-related cases <sup>2</sup>	West Nile virus asymptomatic infection <sup>3</sup>
Newfoundland and Labrador	0	0	0	0	0	0
Prince Edward Island	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0
New Brunswick	0	0	0	0	0	0
Quebec	0	0	0	0	0	0
Ontario	0	0	0	0	0	0
Manitoba	0	0	2	2	0	0
Saskatchewan	0	0	0	0	0	0
Alberta	0	0	0	0	0	0
British Columbia	0	0	0	0	0	0
Yukon Territory	0	0	0	0	0	0
Northwest Territory	0	0	0	0	0	0
Nunavut	0	0	0	0	0	0
Total	0	0	2	2	0	0

	Year to date: January 1 to August 13 , 2016					
	West Nile virus neurological syndrome	West Nile virus non-neurological syndrome	Unclassified/unspecified	Total clinical cases <sup>1</sup>	Number of travel-related cases <sup>2</sup>	West Nile virus asymptomatic infection <sup>3</sup>
Newfoundland and Labrador	0	0	0	0	0	0
Prince Edward Island	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0
New Brunswick	0	0	0	0	0	0
Quebec	0	0	0	0	0	0
Ontario	0	0	0	0	0	0
Manitoba	1	0	2	3	0	0
Saskatchewan	0	0	0	0	0	0
Alberta	0	0	0	0	0	0
British Columbia	0	0	0	0	0	0
Yukon Territory	0	0	0	0	0	0
Northwest Territory	0	0	0	0	0	0
Nunavut	0	0	0	0	0	0
Total	1	0	2	3	0	0

<sup>1</sup> Total clinical cases is the sum of both probable and confirmed: West Nile virus neurological and non-neurological syndromes, along with any unclassified or unspecified cases.

<sup>2</sup> Likely related to travel outside the Province/Territory. These cases are included in either the total clinical cases or West Nile virus asymptomatic infections.

<sup>3</sup> Satisfies West Nile virus diagnostic test criteria in the absence of clinical criteria. This category could include asymptomatic blood donors whose blood is screened using a nucleic acid amplification test, by blood operators (i.e. Canadian Blood Services or Hema-Quebec) and is subsequently brought to the attention of public health officials. Blood operators in Canada perform a supplementary West Nile virus specific nucleic acid amplification test following any positive donor screen test result.

**TABLE 2: Number of mosquito pools tested and number of positive mosquito pools by Province/Territory, 2016 season**

Province	Year to date: January 1 to August 13, 2016 <sup>*</sup>		
	Number of positive mosquito pools	Number of mosquito pools tested	Percentage of positive mosquito pools (%)
Quebec	8	406	1.97
Ontario	58	6724	0.86
Manitoba	22	1107	1.99
Saskatchewan	30	363	8.26
Total	118	8600	1.37

<sup>\*</sup>In 2016, mosquito surveillance is conducted by the following provinces only: Quebec, Ontario, Manitoba and Saskatchewan

**TABLE 3: Number of WNV positive mosquito pools/ Total number of WNV mosquito pools tested by Report week and by Province/ Territory, 2016 season †**

Province / Territory	Report week of 2016																					
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Newfoundland and Labrador	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Prince Edward Island	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
New Brunswick	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Nova Scotia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Quebec	0	0	0	0	0	0	0	0	0	0	2/59	0/67	0/65	2/78	4/69	0/68						
Ontario	0	0/6	0/5	0/12	0/49	0/90	0/190	0/460	0/542	0/562	0/802	1/795	2/688	5/649	20/927	30/947						
Manitoba	0	0	0	0	0/4	0/8	0/3	0/17	0/56	0/58	0/69	0/100	4/113	7/192	5/241	6/246						
Saskatchewan	0	0	0	0	0	0	0/1	0/9	0/8	0/14	1/26	0/37	0/31	3/62	10/67	16/105						
Alberta	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
British Columbia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Yukon Territory	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Northwest Territory	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Nunavut	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						
Total	0	0/6	0/5	0/12	0/53	0/98	0/194	0/486	0/606	0/634	3/956	1/999	6/897	17/983	39/1305	52/1366						

<sup>†</sup> Detailed West Nile virus mosquito surveillance data can be accessed through Provincial/ Territorial websites.

– These jurisdictions do not maintain regular mosquito surveillance.

FIGURE 4: Reported number of dead birds tested positive for WNV by Province/ Territory and by Report week, 2016 season in Canada

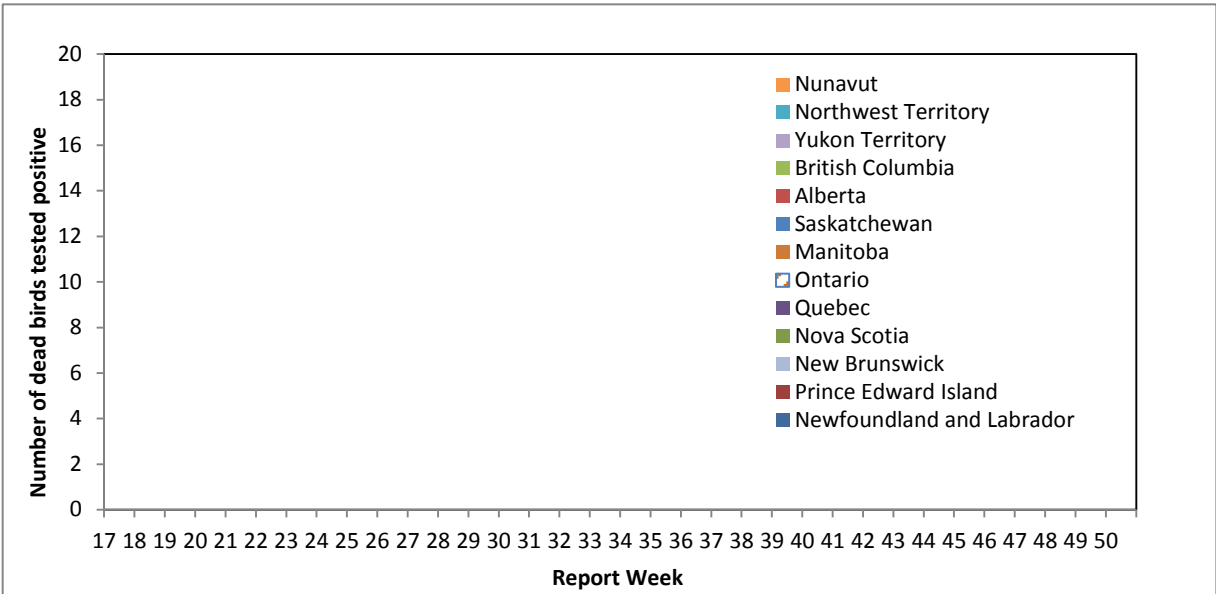
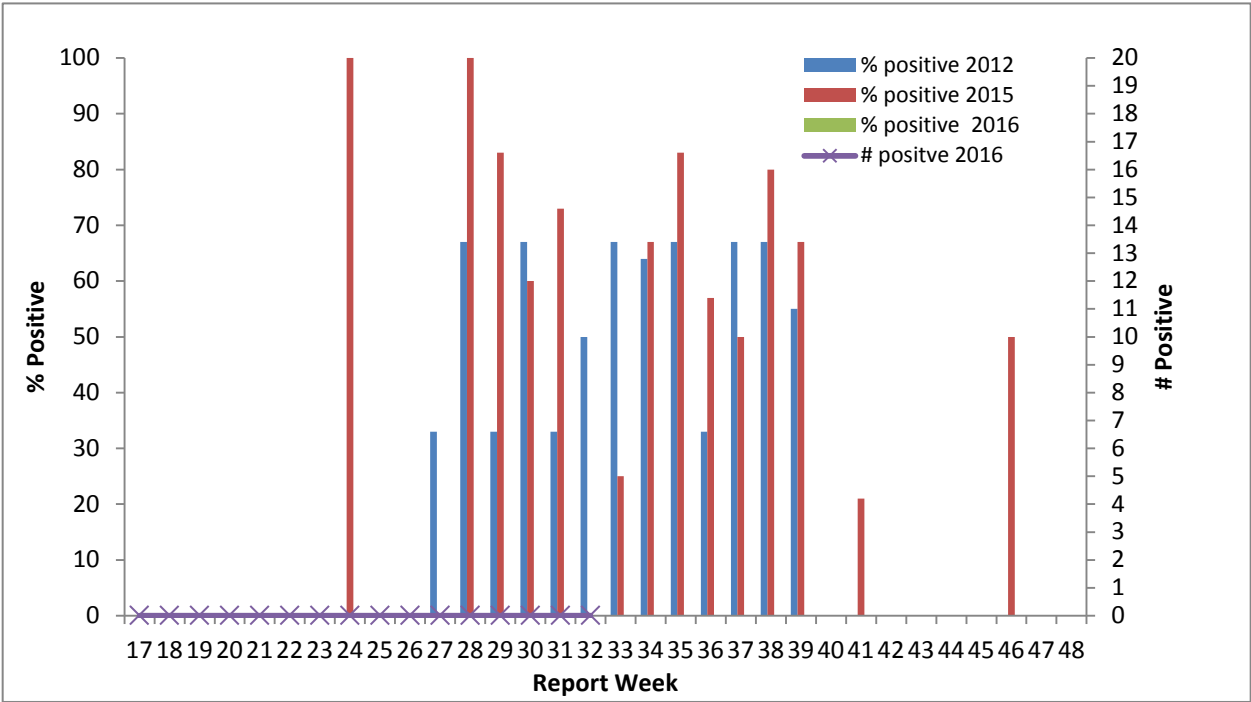


FIGURE 5: Percentage of dead birds tested positive for WNV by Report week in 2012, 2015 and 2016, and number of dead birds tested positive for WNV, by Report week, 2016, in Canada ¶



¶ Not all provinces are conducting dead bird surveillance as part of their own WNV surveillance program. However, WNV positive dead birds may be identified through the National Wildlife Disease Surveillance Program of the Canadian Wildlife Health Cooperative (CWHC)