COMMUNICABLE DISEASE REPORT

Quarterly Report

Volume 33, Number 1 March 2016

FOCUS: Zika Virus, Hepatitis A, Listeriosis

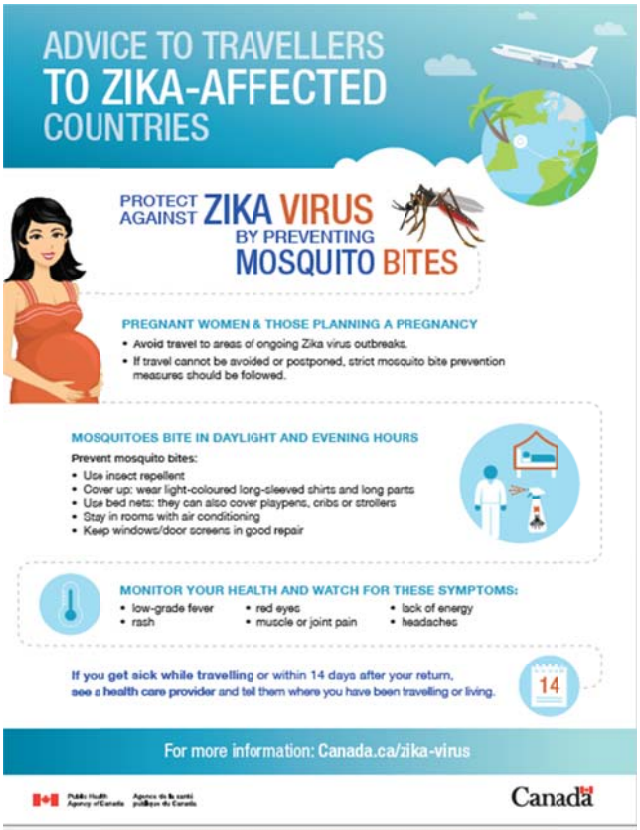
Zika Virus

Zika Virus (ZikV) has recently been classified as a significant public health challenge after an outbreak in certain risk areas in the Americas (PHAC, 2016a). A ZikV infection can take place after a bite from an infected *Aedes* mosquito, which are present in tropical, subtropical, and some warmer temperate regions (PHAC, 2016a). Canadians who travel to these tropical and subtropical regions should take precautions against mosquito bites and consult a healthcare provider for more information about ZikV (PHAC, 2016a). Transmission of ZikV is also possible through contact with blood-based bodily fluids by vertical transmission, blood transfusion or sexual activity. Main symptoms of ZikV include fever, myalgia, pruritus, eye pain, and maculopapular rash (PHAC, 2016a). Early ZikV symptoms often resemble other infections from arboviruses such as dengue and chikungunya as well as malaria, so it is critical to rule out these other infections in the diagnosis (PHAC, 2016a). Furthermore, these symptoms may appear 3 to 12 days after the initial ZikV infection and the virus is present in the bloodstream for 3 to 5 days (PHAC, 2016a). Approximately 75-80% of people infected will report no symptoms or signs (PHAC, 2016a). A scientific consensus has been reached to conclude that ZikV can cause more serious neurological conditions such as infant microcephaly and Guillain-Barré syndrome (PHAC, 2016a).

The health impact in most Canadian travelers who become infected with ZikV is low, with the exception being pregnant women and rare cases that develop Guillain-Barré syndrome (PHAC, 2016). As of June 9th, there have been 114 travel-related cases of ZikV in Canada and 1 locally-acquired case that was sexually transmitted. In Newfoundland and Labrador, there has been 1 travel-related case of ZikV in the province. Since there is no vaccine for ZikV, preventative measures should be taken when travelling to areas of risk. The Public Health Agency of Canada recommends that pregnant women do not travel to areas of risk, if possible, due to the possibility of fetal microcephaly, a neurological birth defect, resulting from the infection (PHAC, 2016a).

To prevent mosquito bites when travelling, there are multiple ways to reduce the risk of infection. Firstly, ensure that the body is covered with long sleeved, loose-fitting light colored clothing (PHAC, 2016a). Insect repellents, bed nets, and screened enclosures, and use of permethrin insecticides on travel gear and clothing are also methods to reduce the probability of being bitten by mosquitos (PHAC, 2016a).

In terms of sexual transmission, for females who are pregnant, it is recommended that abstinence or condoms are used before sexual contact with a male who has travelled to a high risk area for the full term of the pregnancy (PHAC, 2016a). For females trying to get pregnant, it is recommended to wait at least 2 months after returning from travel from a high risk area (PHAC, 2016a). Due to uncertainty about the length of infectiousness in semen, males are advised to wait 6 months before trying to conceive (PHAC, 2016a). Male travelers should use condoms for at least 6 months while engaging in sexual activities with any partner to prevent possible viral transmission (PHAC, 2016a). Condoms can be used to reduce to probability of infection through sexual transmission.



Diagnostic testing of ZikV is available to individuals with symptoms consistent with ZikV and recent travel history to areas of risk (within the past 14 days). For those who are pregnant or trying to get pregnant, consult a health care provider for advice if you or your partner recently travelled to a country of risk.

For further information about specific endemic countries and ongoing updates ZikV, refer to the following Public Health Agency of Canada Publication: http://www.healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/zika-virus/index-eng.php

Hepatitis A

Hepatitis A is a viral pathogen that can cause inflammation of the liver and is transmitted through food, water or contaminated stool (PHAC, 2016b). It is responsible for a Canada-wide recall of a frozen food product called Nature's Touch Organic Berry Cherry Blend (PHAC, 2016b). This product was available for purchase from Costco warehouse locations in Ontario, Quebec, New Brunswick, Nova Scotia, and Newfoundland and Labrador (PHAC, 2016b). If you suspect you have this product, do not consume it and dispose of it accordingly.

For those who believe they may have consumed the product or have symptoms resembling a Hepatitis A infection, it is advised that they seek care from their healthcare provider (PHAC, 2016b). Symptoms of Hepatitis A often include fever, loss of appetite, stomach cramps, jaundice (yellowing of the skin and eyes), dark urine, and fatigue

occurring 2 to 7 weeks after initial infection (PHAC, 2016b). In some cases, Hepatitis A infections can last several months (PHAC, 2016b). An effective vaccine is available and can prevent symptoms from manifesting if given within 2 weeks of the exposure (PHAC, 2016b). Additionally, if an individual had a previous Hepatitis A infection, they will have developed a natural immunity to the disease (PHAC, 2016b).

From February to May, 20 individuals have had a Hepatitis A infection linked to this outbreak across 3 provinces, including Ontario (15 cases), and Quebec (4 cases), and Newfoundland and Labrador (1 case). Among these cases, there was an equal distribution of males and females and affected individuals had an average age of 42 (PHAC, 2016b). The Canadian Food Inspection Agency and Public Health Agency of Canada are continuing to investigate this outbreak.

Listeria

Listeria is a disease-causing bacterium that can be found in multiple environments such as food, soil, and sewage. In some circumstances, exposure to *Listeria* can lead to an illness called listeriosis (PHAC, 2016c). Mild symptoms of listeriosis can include fever, muscle aches, nausea, or diarrhea within days of being exposed to *Listeria* (PHAC, 2016c). In rare cases, after about 3 weeks severe symptoms such as head ache, poor coordination, seizures or neck stiffness are possible (PHAC, 2016c). Early diagnosis of Listeriosis, especially in high risk groups such as the pregnant woman, elderly or immunocompromised populations, is essential since it is treatable with antibiotic medication (PHAC, 2016c).

Recently, an investigation focused on cases of listeriosis linked back to Dole and PC Organic salad products from a processing plant in Springfield, Ohio (PHAC, 2016c). The contaminated products were recalled on January 22, 2016 and the investigation is closing (PHAC, 2016b). Since the recall was several months ago, it is unlikely this food product is present in consumer's homes or market. A list of the contaminated products can be found at the following link: http://inspection.gc.ca/about-the-cfia/newsroom/food-recall-warnings/complete-listing/2016-01-22c/eng/1453522915084/1453522920123.

Across Canada, 14 cases of listeriosis, with a mean age of 78, were linked to this outbreak through genetic laboratory testing of *listeria* (PHAC, 2016b). The majority of the cases (9) are from Ontario and there is 1 reported case in Newfoundland and Labrador (PHAC, 2016b). If you believe you still have this recalled Dole or PC organic product, discard it and wash your hands in your warm water afterwards. You should consult your healthcare provider if you are experiencing symptoms of listeriosis.

Newfoundland and Labrador Communicable Disease Surveillance
Monthly Disease Report: March 2016

DISEASE CLASS	DISEASE NAME	TOTAL			EASTERN			CENTRAL			WESTERN			LABRADOR GRENFELL		
		Mar	YTD 16	YTD 15	Mar	YTD 16	YTD 15	Mar	YTD 16	YTD 15	Mar	YTD 16	YTD 15	Mar	YTD 16	YTD 15
Enteric, Food and Waterborne	Amoebiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Botulism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Campylobacteriosis	**1**	**2**	**10**	0	**1**	**6**	**1**	**1**	**2**	0	0	**1**	0	0	**1**
	Cryptosporidiosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cyclosporiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cytomegalovirus	**4**	**12**	**19**	**4**	**11**	**18**	0	**1**	**1**	0	0	0	0	0	0
	Giardiasis	0	**2**	**8**	0	**2**	0	0	0	**1**	0	0	**7**	0	0	0
	Hepatitis A	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0
	Listeriosis	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0
	Norovirus Infection	**4**	**10**	**23**	0	0	**6**	0	0	**10**	**4**	**10**	**7**	0	0	0
	Salmonellosis	**1**	**10**	**17**	0	**3**	**7**	**1**	**5**	**6**	0	0	**3**	0	**2**	**1**
	Shigellosis	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Typhoid/Paratyphoid Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Verotoxigenic Escherichia coli	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0
	Yersiniosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diseases Transmitted by Direct Contact and Respiratory Route	Creutzfeldt-Jakob Disease (CJD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Group B Streptococcal Disease of Newborn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Influenza Virus of a Novel Strain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Group A Streptococcal Disease	**1**	**1**	**4**	0	0	**2**	0	0	0	**1**	**1**	**2**	0	0	0
	Invasive Haemophilus Influenza non-type B	0	**1**	0	0	0	0	0	0	0	0	**1**	0	0	0	0
	Invasive Meningococcal Disease (IMD), Conf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Meningococcal Disease (IMD), Prob	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Pneumococcal Disease (IPD)	**2**	**3**	0	**1**	**1**	0	0	0	0	**1**	**2**	0	0	0	0
	Legionellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis, Bacterial (other than Hib, IMD or IPD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis, Viral	0	0	**2**	0	0	**1**	0	0	**1**	0	0	0	0	0	0
	Nontuberculosis Mycobacterial Disease	0	**1**	**2**		0	**1**	0	**1**	**1**	0	0	0	0	0	0
	Severe Respiratory Illness, unknown origin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tuberculosis, non-respiratory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tuberculosis, respiratory	0	**2**	**12**	0	0	**2**	0	0	0	0	0	0	0	**2**	**10**
Sexually Transmitted and Bloodborne Pathogens	Chlamydia	**87**	**286**	**260**	**54**	**168**	**182**	**9**	**23**	**21**	**12**	**50**	**25**	**12**	**45**	**32**
	Gonorrhoea	**1**	**8**	**17**	**1**	**5**	**16**	0	0	**1**	0	**2**	0	0	**1**	0
	Hepatitis C	**12**	**41**	**39**	**8**	**29**	**26**	0	0	**5**	**4**	**10**	**6**	0	**2**	**2**
	HIV Infection	0	**3**	**2**	0	**3**	**2**	0	0	0	0	0	0	0	0	0
	Syphilis, infectious	**1**	**7**	**21**	**1**	**7**	**20**	0	0	**1**	0	0	0	0	0	0
	Syphilis, non-infectious	0	**2**	**4**	0	**2**	**2**	0	0	0	0	0	**2**	0	0	0
Vectorborne & Other Zoonotic Diseases	Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Malaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Q Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Toxoplasmosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trichinellosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	West Nile Virus Infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vaccine Preventable	Chickenpox	**53**	**124**	**50**	**52**	**122**	**44**	**1**	**2**	**2**	0	0	**2**	0	0	**2**
	Congenital Rubella Syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hepatitis B	**1**	**3**	**5**	**1**	**3**	**4**	0	0	0	0	0	**1**	0	0	0
	Invasive Haemophilus Influenza type B (Hib)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mumps	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0
	Pertussis	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Communicable Disease Control System, Department of Health and Community Services, Government of Newfoundland and Labrador

Date verified: 24-May-2016

Disclaimer: Data are subject to continuous updates; small variations in numbers may occur.

Note: Prior to January 2011, "Invasive Meningococcal Disease, Probable" was included under the heading "Invasive Meningococcal Disease"

The majority of chickenpox cases meet the probable case 'definition'

References

Public Health Agency of Canada. (2016a). Canadian recommendations on the prevention and treatment of Zika virus: Update. Canada Communicable Disease Report. Retrieved from http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/16vol42/dr-rm42-5/ar-01-eng.php

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