

Communicable Disease – Zoonotic and Vector-Borne Infection

Why Is This Important?

Zoonotic infections are caused by pathogens transmitted from animals to humans.

West Nile virus is a mosquito-borne illness transmitted to humans by one known species of mosquito in Saskatchewan, *Culex tarsalis*. West Nile Virus neurological syndrome is a severe form of presentation.

Malaria is a mosquito-borne infection that is not endemic to Saskatchewan. Cases are reported by travelers who have returned from countries where the infection is endemic.

Rabies is a viral infection, fatal to humans, transmitted in the saliva of the infectious animal. On average 20 animals test positive for rabies annually in Saskatchewan.¹ Animal bites to humans require follow up for rabies risk assessment.

Toxoplasmosis is spread by exposure to infected cat feces or eating poorly cooked food containing the parasitic cysts.

Brucellosis is caused by ingesting unpasteurized milk or undercooked meat from infected animals or close contact to infected animals.

Hantavirus is spread by deer mice and other wild rodents, and can result in serious respiratory syndrome.

Tularemia is transmitted through rabbits, hares and rodents by dust, ingestion of contaminated water and tick and deer fly bites.

Lyme disease and **Rocky Mountain Spotted fever** are tick-borne infections, rarely reported in Saskatchewan.

What Is Being Done?

[2016 Disease Control Activities](#)

To Learn More:

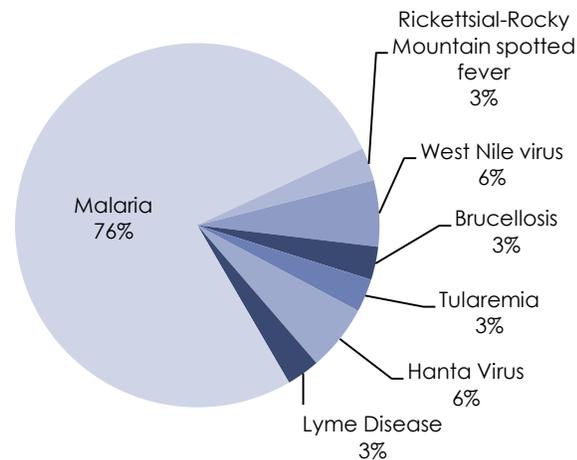
Chief Medical Health Officer's [Call to Action](#)

Highlights

Malaria, while not endemic to Saskatchewan, represents the greatest proportion of the Region's zoonotic and vector-borne infection.

- Since 2012, 36 cases of zoonotic infection have been reported in the Region (not shown).
- Twenty-six cases of malaria have been reported in individuals returning from malaria endemic countries.
- West Nile virus has been sporadic in the Region since 2004 with the last outbreak year in 2007, with 356 cases, including 31 cases involving neurological syndrome. See [West Nile Virus](#).
- Although there have been no human cases of rabies in Saskatchewan for more than 20 years, rabies is endemic in animals and every year animals test positive for rabies (Table 1).
- In 2016, seven animals tested positive for rabies and three people were known to be exposed to a positive animal. Individuals with suspected exposures to rabid animals are also vaccinated.
- In 2016, 45 people received rabies vaccine and 38 received rabies immune globulin (not shown). See [Rabies Risk Assessment](#) for further details.

Figure 1: Zoonotic and Vector-Borne Illness, Saskatoon Health Region, 2012 to 2016



Source: iPHIS

Table 1: Animal Rabies, Saskatchewan & Saskatoon Health Region, 2012 to 2016

Species	Number of Animals Rabies Positive in Saskatchewan					Saskatoon Health Region
	2012	2013	2014	2015	2016	2016
Skunk	13	5	11	12	22	0
Dog	4	0	1	2	1	0
Bat	5	6	9	9	14	7
Cat	0	2		0	2	0
Cow	1	0	0	0	1	0
Horse	1		1	0	1	0
Other					2	0
Total	24	13	22	23	43	7

Source: CFIA