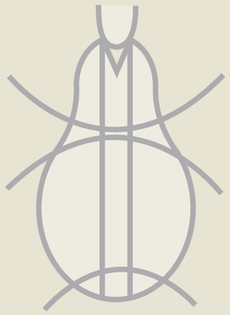
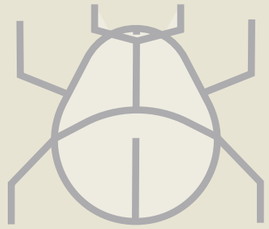
Stay informed about vector-borne disease risks.

Consult PHAC surveillance updates
Promote and share prevention measures to reduce the risk of vector-borne diseases.





Zoonoses

Zoonotic Infectious Diseases (ZIDs)

Diseases that spread between animals and humans, with causal agents being pathogenic microorganisms such as viruses, bacteria, fungi, or parasites.

Vector-Borne Zoonoses

Vector-borne transmission refers to the spread of zoonotic diseases via vectors, most commonly arthropods such as mosquitoes, ticks, flies, fleas, and lice. Vector-borne zoonoses require the interaction of a pathogen, a vector, and a host, and are characterized by complex and dynamic ecological relationships. Changes in vector populations, reservoir host species, and environmental conditions can significantly influence transmission dynamics.

As global temperatures rise and climate conditions change, there is concern that vector life cycles may change and that their geographic ranges may shift or expand, increasing or modifying human exposure to vector-borne diseases.

In Canada, the Public Health Agency of Canada (PHAC) monitors mosquito-borne and tick-borne diseases using a One Health approach, providing surveillance information.

Vector -borne disease surveillance in Canada
Mosquito-borne
Vectors, such as mosquitoes, spread diseases between humans or from animals to humans, usually by biting. Diseases spread by vectors are called vector-borne diseases (Health, Government of Canada).

Vector -borne disease surveillance in Canada
l Tick-borne
Vectors, such as ticks, spread diseases between humans or from animal to humans, usually by biting. Diseases spread by vectors are called vector-borne diseases. Find out how we monitor tick-borne diseases in Canada (Health, Government of Canada)

Resources to consult

*Explore **Resources to Consult** for additional sources.*

*Consult the **Key Terms** section for definitions used throughout the materials.*

Prairie Climate Centre
From Risk to Resilience
Public Health Agency of Canada
Agence de la santé publique du Canada