

Ottawa Public Health would like to make clinicians aware of emerging tick-borne diseases in Ottawa

## Due to climate change, the presence of blacklegged ticks (*Ixodes scapularis*) continues to increase in Ottawa<sup>1</sup>

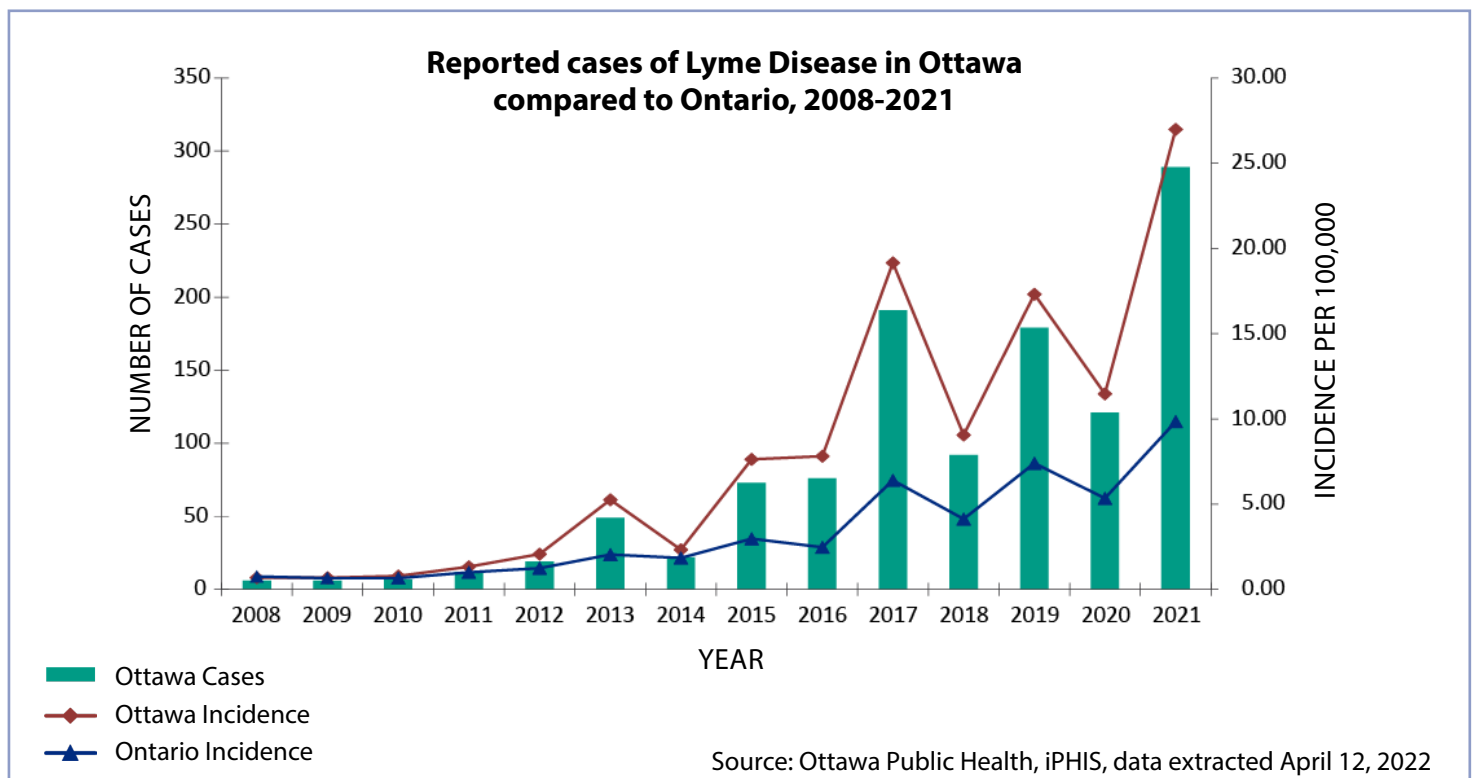
- Blacklegged ticks are the most important human tick-borne disease vectors in Ottawa.
- Blacklegged ticks have been detected across the Ottawa area, particularly in wooded habitat.

### Blacklegged Ticks Habitat



## Incidence of Lyme Disease (*Borrelia burgdorferi*) in Ottawa is rising

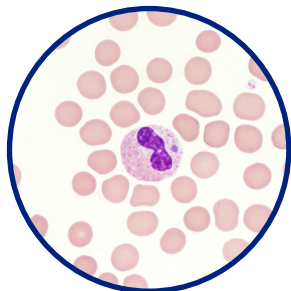
- Ottawa reported its **highest** number of cases of Lyme Disease to date in 2021.
- Ottawa has had a higher incidence of Lyme Disease compared to the provincial average: **27 per 100,000** in **Ottawa** compared to **11 per 100,000** in **Ontario** in 2021.



## Not just Lyme Disease:



- Blacklegged ticks transmit other pathogens that cause diseases including **anaplasmosis**, **babesiosis**, **Powassan virus** and *Borrelia miyamotoi*.
- These diseases are still uncommon in the Ottawa region but expected to rise over time.
- In 2021, 24 specimens tested positive for *Anaplasma* in Ottawa. This is in comparison to a total of 8 specimens between 2017 and 2020.
- Tick-borne diseases may have overlapping non-specific initial symptoms such as fever, myalgias, or headache.
- The **Ottawa algorithm for Lyme disease** is a good resource. However, in case of questions concerning severe, complex tick-related disease, an infectious disease colleague may be able to provide support.



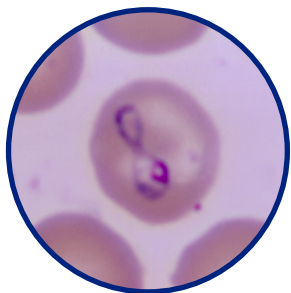
### **ANAPLASMOSIS:**

Caused by the bacterium *Anaplasma phagocytophilum*



### **POWASSAN VIRUS DISEASE:**

Caused by an RNA virus, a flavivirus



### **BABESIOSIS:**

Caused by the parasite *Babesia microti*



### **BORRELIA MIYAMOTOI DISEASE:**

Caused by the bacterium *Borrelia miyamotoi*

#### **PHOTO SOURCES:**

US Centers for Disease Control and Prevention ([Home - Public Health Image Library \(PHIL\) \(cdc.gov\)](https://www.cdc.gov/publichealthlibrary/))  
[Tickborne Diseases of the United States – CDC](https://www.cdc.gov/ticks/tickborne-diseases/)

For more resources on prevention, diagnosis and testing for tick-borne diseases, please visit:

- [Health Care Professionals: Communicable diseases and reportable conditions - Ottawa Public Health](#)
- [Patient Resources for Lyme Disease – Ottawa Public Health](#)
- [Tickborne Diseases of the United States – CDC](https://www.cdc.gov/ticks/tickborne-diseases/)

## References:

1. Burrows H, Talbot B, McKay R, Slatculescu A, Logan J, Thickstun C, Lindsay LR, Dibernardo A, Koffi JK, Ogden NH, Kulkarni MA. A multi-year assessment of blacklegged tick (*Ixodes scapularis*) population establishment and Lyme disease risk areas in Ottawa, Canada, 2017-2019. Plos one. 2021 Feb 4; 16 (2): e0246484.