## Windsor-Essex County Health Unit Board of Health

## BOH Resolution - Lyme Disease Prevention

## 2025-05-15

### ISSUE

Lyme disease caused by the bacterium *Borrelia burgdorferi* is primarily transmitted to humans through the bite of infected blacklegged ticks (also known as deer ticks). There is no other known way for humans to contract Lyme disease besides being bitten by an infected tick. Over the last twenty-five years, Lyme disease cases has been rising in Canada, both in case numbers and in geographic distribution.[1] According to Public Health Ontario, all of Windsor and Essex County (WEC) is considered endemic for blacklegged ticks. An effective multi-level collaboration among public health, municipalities as well as health care providers is needed to implement tick bite and Lyme disease prevention and control strategies for minimizing the risk of infection and protecting the health of the community.

### BACKGROUND

Lyme disease is a Disease of Public Health Significance and must be reported to public health in Ontario. The WECHU is required to investigate reported cases of Lyme disease in the region. In 2024, WEC saw the highest number (n= 17, incidence rate (per 100,000 population)= 3.8) of Lyme Disease cases in comparison to previous years (Table 1). Lyme disease cases in Ontario have also increased following a similar pattern.

**Table 1:** Confirmed Case Counts and Incidence Rates** for Lyme Disease in Windsor-Essex County and Ontario.

| Year | WEC Count | WEC Rate | ON Count | ON Rate |
|---|---|---|---|---|
| 2014 | 3 | 0.7 | 165 | 1.2 |
| 2015 | 6* | 1.5 | 382 | 2.8 |
| 2016 | 3 | 0.7 | 339 | 2.4 |
| 2017 | 5* | 1.2 | 940 | 6.7 |
| 2018 | 4 | 0.9 | 597 | 4.2 |
| 2019 | 4 | 0.9 | 1,135 | 7.8 |
| 2020 | 5 | 1.2 | 836 | 5.7 |
| 2021 | 8 | 1.9 | 1,671 | 11.3 |
| 2022 | 11 | 2.5 | 1,447 | 9.6 |
| 2023 | 9 | 2.1 | 1,836 | 11.9 |
| 2024 | 17 | 3.8 | 2,051 | 13.1 |
| **Total** | **75** | **1.6** | **11,399** | **7.1** |

**1 case in 2015 and 2 cases in 2017 were identified as species Borrelia afzelii*

***Incidence rate is a calculation of the frequency of the occurrence of Lyme disease within the population*

The WECHU conducts active tick surveillance (tick-dragging) twice per year, in the spring and fall, to track the migration of tick populations throughout our region and identify tick-borne diseases they are carrying.

Residents that find ticks on the body, on animals or in the environment can take a picture of the tick and submit it to etick.ca, which is a free online service that aids in the identification of the tick species. This data is utilized by Public health Ontario to create updated Public Health Ontario blacklegged tick risk area map.

Factors contributing to the increased risk of tick bites and Lyme disease in WEC include expanding tick populations, habitat fragmentation (i.e. human activities like deforestation, road construction, or natural events like fires or floods etc.), climate change affecting tick lifecycles, increased awareness among residents leading to more diagnoses, and greater participation in outdoor activities during times when ticks are most actively seeking hosts. People can encounter Lyme infected ticks in many places, including their own yards, their neighbor's yard, and outdoor public areas.[1] According to Government of Canada, the high-risk groups for acquiring Lyme disease include children (5 -14 years), adults (55–79 year), pregnant women and people who work or spend lot of time outdoors.[2]

At an individual level, in order reduce the risk of Lyme disease, its important to focus on preventing tick bites by avoiding tick habitats, using insect repellent, wearing protective clothing, and performing regular tick checks. If bitten, properly remove the tick and monitor for symptoms. Early diagnosis and treatment with antibiotics can significantly reduce the risk of complications.

At the community level, public awareness campaigns that focus on risk awareness and personal protection measures can be effective strategies to reduce overall risk. Developing and maintaining comprehensive maps of tick habitats that are used as communication tools in risk-based areas (i.e. trail signs) can help residents remain vigilant and take appropriate precautions.

Evidence also shows that landscape management is effective in reducing tick populations in public spaces, such as parks, trails, and playgrounds. These strategies include modifying the vegetation to make the environment less desirable for ticks and animal hosts, reducing overgrown vegetation and leaf litter as well as clearing brush and weeds along trails and around recreational areas, and using wood chips or gravel paths to separate wooded areas from grassy areas to deter ticks from entering private or recreational spaces.

Healthcare providers play a crucial role in preventing, diagnosing, and treating Lyme disease, a tick-borne illness. They should be aware of the risk factors, clinical manifestations, and diagnostic approaches to effectively manage patients.

## PROPOSED MOTION

**WHEREAS,** the incidence of Lyme disease has been steadily increasing in WEC and posing a significant health risk to residents; and

**WHEREAS,** Lyme disease affects vulnerable populations such as children, older adults, pregnant women and people who work or spend time outdoors disproportionately; and

**WHEREAS,** comprehensive tick bite and Lyme disease prevention strategies are crucial for minimizing the risk of infection and protecting the health of residents; and

**WHEREAS,** municipal governments play a significant role in promoting and protecting health, and environmental risk management; and

**THEREFORE, BE IT RESOLVED THAT**, that the Windsor-Essex County Board of Health recommends that all WEC municipalities support pro-active education and prevention related to tick bite and Lyme disease management activities.

**AND FURTHER THAT**, the Windsor-Essex County Board of Health encourages all local municipalities to review, strengthen and adopt municipal bylaws to regulate landscape and vegetation management on public and private properties to reduce tick habitats in the region.

**References:**


1. Beard C. B. (2014). Lyme disease prevention and control - the way forward. *Canada communicable disease report = Releve des maladies transmissibles au Canada*, *40*(5), 91–94. https://doi.org/10.14745/ccdr.v40i05a04
2. Government of Canada (2023). *Lyme disease surveillance in Canada: Annual edition 2019.*Retrieved from https://www.canada.ca/en/public-health/services/publications/diseases-conditions/lyme-disease-surveillance-report-2019.html