

Program/Service Information Report

2018 Tick and Lyme Disease Summary

To:	Board of Health
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Key Points

- Lyme disease is a bacterial infection transmitted through the bite of an infected blacklegged tick (BLT) and Ontario has recently seen an increase and expansion of BLT populations.
- In North America, Lyme disease continued to be the most commonly transmitted vector-borne disease in 2018.
- In 2018, there were six (6) confirmed cases of Lyme disease reported within Wellington-Dufferin-Guelph (WDG) (2.0 cases per 100,000 people), which is a decrease from 2017.
- Passive surveillance involved accepting ticks submitted by the public, taken from human and animal hosts for identification, and for surveillance only.
- Active surveillance continued in 2018 but yielded no ticks.
- Wellington-Dufferin-Guelph Public Health's (WDGPH) prevention and control program for Lyme disease focused on passive and active surveillance for BLTs, tick identification services, as well as education and communication efforts focused on the cause and symptoms of Lyme disease, ecological and biological characteristics of BLTs, preventing tick bites and tick removal.

Strategic Directions & Goals

Building Healthy Communities - We will work with communities to support the health and well-being of everyone.

- We will work to improve health services for priority populations.
- We will promote healthy environments that support physical and mental health and well-being.
- We will increase community awareness of public health programs and services.

Health Equity - We will provide programs and services that integrate equity principles to reduce or eliminate health differences between population groups.

- We will engage communities with more opportunities for collaboration.
- We will increase community awareness of public health programs and services.
- We will enhance our understanding of the local needs and priorities of the communities we serve and develop programs and services in response to those needs.

Operational Plan Objectives

- Provide public education on Tick control and avoidance.
- Distribute resources (tick ID wallet card / Tick remover).
- Work with University of Guelph to conduct blacklegged tick dragging.

Summary of OPHS Program Requirements

OPHS Program:

- Develop a local vector-borne management strategy based on surveillance data and emerging trends in accordance with the Infectious Diseases Protocol.

Goals:

- Public health practice responds effectively to current and evolving conditions and contributes to the public's health and well-being.
- To prevent or reduce the burden of infectious diseases of public health importance.
- To prevent or reduce the burden of illness from health hazards in the physical environment.

Strategy:

- Assessment and Surveillance
- Disease Prevention/Health Protection
- Health Protection

Requirements:

- # of ticks identified through passive surveillance
- # of ticks identified through active surveillance
- # Black-Legged Ticks sent to National Microbiology Laboratory
- # Lyme Disease cases acquired locally
- # positive Black-Legged Ticks

Accountability Indicators:

- None.

Performance variance or discrepancy identified:

- No.

Highlights

With the continued expansion of the range of blacklegged ticks in Ontario, Lyme disease is becoming a more serious public health threat. WDGPH's prevention and control program for Lyme disease focuses on passive and active surveillance for blacklegged ticks, as well as stakeholder communication and education.

Passive Tick Surveillance

Passive surveillance involved accepting ticks submitted by the public, taken from human and animal hosts for identification. Results of tick identification are communicated with residents, usually within 2 business days. Submissions in 2018 are summarized below:

- Total number of ticks submitted = 193 (18% decrease from 2017)
- Total number of BLTs submitted = 82
- Total number of BLTs from WDG submitted = 52
- Total number of BLTs from WDG Positive for *Borrelia burgdorferi* = 1 (Guelph)

Active Tick Surveillance

Active Tick Surveillance continued in 2018 but yielded no ticks. Areas where active surveillance was conducted included:

- Island Lake Conservation Area, Orangeville;
- Luther Marsh, Grand Valley;
- Smith Loop Property, Puslinch;
- Belwood Conservation Area, East Garafraxa;
- Preservation Park, Guelph; and
- Guelph Lake Conservation Area, Guelph-Eramosa.

Communication and Education

Tick Identification Workshops

In 2018, WDGPH hosted five (5) tick identification workshops in partnership with the University of Guelph's Department of Environmental Biology, as well as with the North Bay and Parry Sound District Health Unit and Canadore College. A total of 100 individuals were trained in how to identify between species of Ontario's common ticks. Workshops were provided for the following:

- Public Health Inspectors from various health units in Ontario (2 workshops);
- Ontario Association of Veterinary Technicians (2 workshops); and
- North Bay and Parry Sound District Health Unit Public Health Inspectors (1 workshop).

Communication with Physicians

Two (2) Physician's Advisories were distributed that included:

- Information about BLTs;
- Tick submission process for identification;
- Information about Lyme disease; and
- Lyme disease and treatment guidelines.

Public Education

In 2018, several strategies were used to raise awareness among the community regarding Lyme disease and steps for preventing tick bites:

- Tick identification cards were distributed at community events (e.g. safe Kids Days);
- WDGPH Website updated with accessible tick submission form;

- WDGPH Website Tick and Lyme disease page had 2,046 unique page views;
- Social Media Promoted web content, how to do a full-body check, & remove a tick safely; and
- Media Exposure:
 - [Public health: Wellington could be endemic area for Lyme disease by end of 2018](#) (Wellington Advertiser, May 24)
 - [Tick talk: preventing against Lyme disease as ticks move towards Guelph](#) (Guelph Mercury, June 12).

Conclusion

In 2018, WDGPH saw a decrease in overall tick submissions and human cases of Lyme disease. However, there was an increase in the number of BLTs that were submitted from within WDG. As in previous years, this increase is likely due to the continued expansion of BLTs into new areas of Ontario, as well as increased awareness of ticks and Lyme disease among the public. The geographic range of BLTs is expanding in Ontario and is expected to continue. This reinforces the importance of and need for WDGPH's tick and Lyme disease program to focus on active and passive surveillance, as well as stakeholder communication and education.

Related Reports

- BOH Report BH.01.APR0418.R09 - 2017 Tick and Lyme Disease Summary.

Appendices

None.