

Lyme Disease Modules

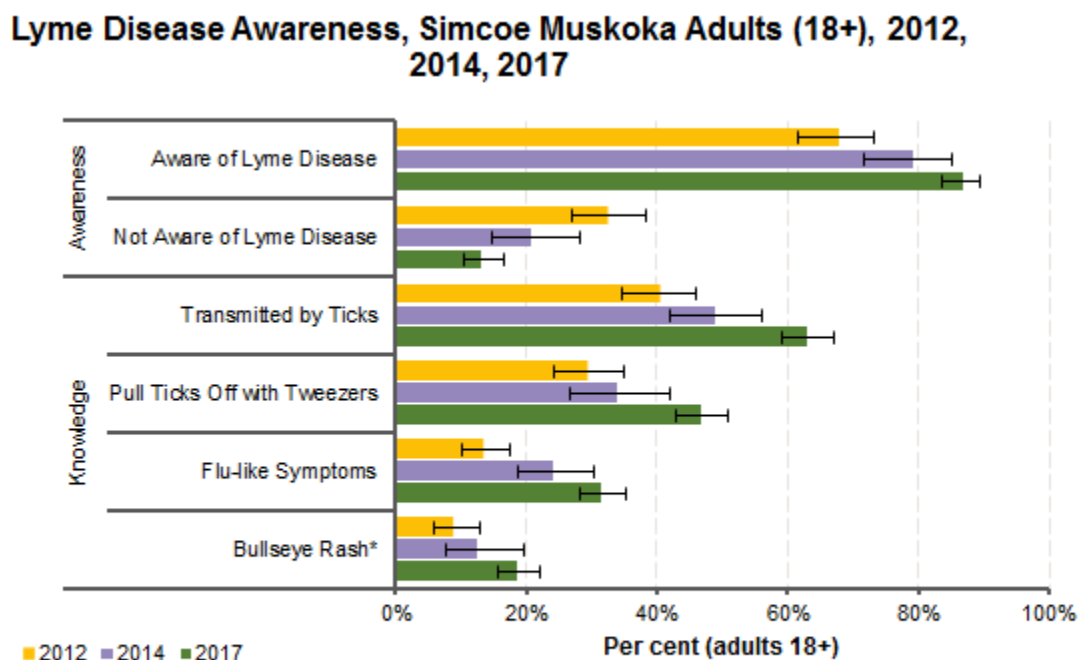
Awareness & Knowledge of Lyme disease

In 2017, between May to December, over 950 randomly selected adults (18 years and older) in Simcoe Muskoka were asked a series of questions related to their awareness and knowledge of Lyme disease as part of the Rapid Risk Factor Surveillance System (RRFSS). The majority (87% (83.5%, 89.5%)) of adults reported that they were aware of Lyme disease. Awareness of Lyme disease was higher in 2017 when compared to 2014 (not significant), where 79% (71.7%, 85.1%) of adults reported that they were aware of Lyme disease.

Respondents were also asked questions about their knowledge of how Lyme disease is transmitted, early symptoms of Lyme disease and ways to deal with ticks. Response options were not read for these questions in order to better assess true knowledge of the subject. Almost two-thirds of adults (63% (59.1%, 67.0%)) correctly stated that Lyme disease is transmitted to humans through tick bites. Approximately one-quarter of adults (27% (23.4%, 30.6%)) identified a rash (either 'red rash' and/or 'circular or bull's eye rash') as an early symptom of Lyme disease. Looking at these types of rashes individually, only 11% (8.3%, 13.1%) specified a red rash, and 19% (15.6%, 22.1%) specified that the rash is circular or 'bullseye' in appearance. Flu like symptoms, such as fever, chills, fatigue, headache and body aches, were identified by 32% (28.1%, 35.3%) of adults as early symptoms of Lyme disease.

When asked how they would remove a tick if they found one attached to their skin, almost half (47% (42.9%, 51.0%)) correctly said they would pull it off with tweezers or a similar tool; however, 6% (4.4%, 8.5%) incorrectly said they would try to remove it by applying heat or putting salt or alcohol on it. Ticks transmitting Lyme disease, and tick removal with tweezers were significantly higher in 2017 when compared with 2012 and 2014 (see [figure 1](#))

Figure 1: Percent of adults (18+) who report awareness and knowledge of Lyme disease Simcoe Muskoka District Health Unit, 2012, 2014 & 2017.



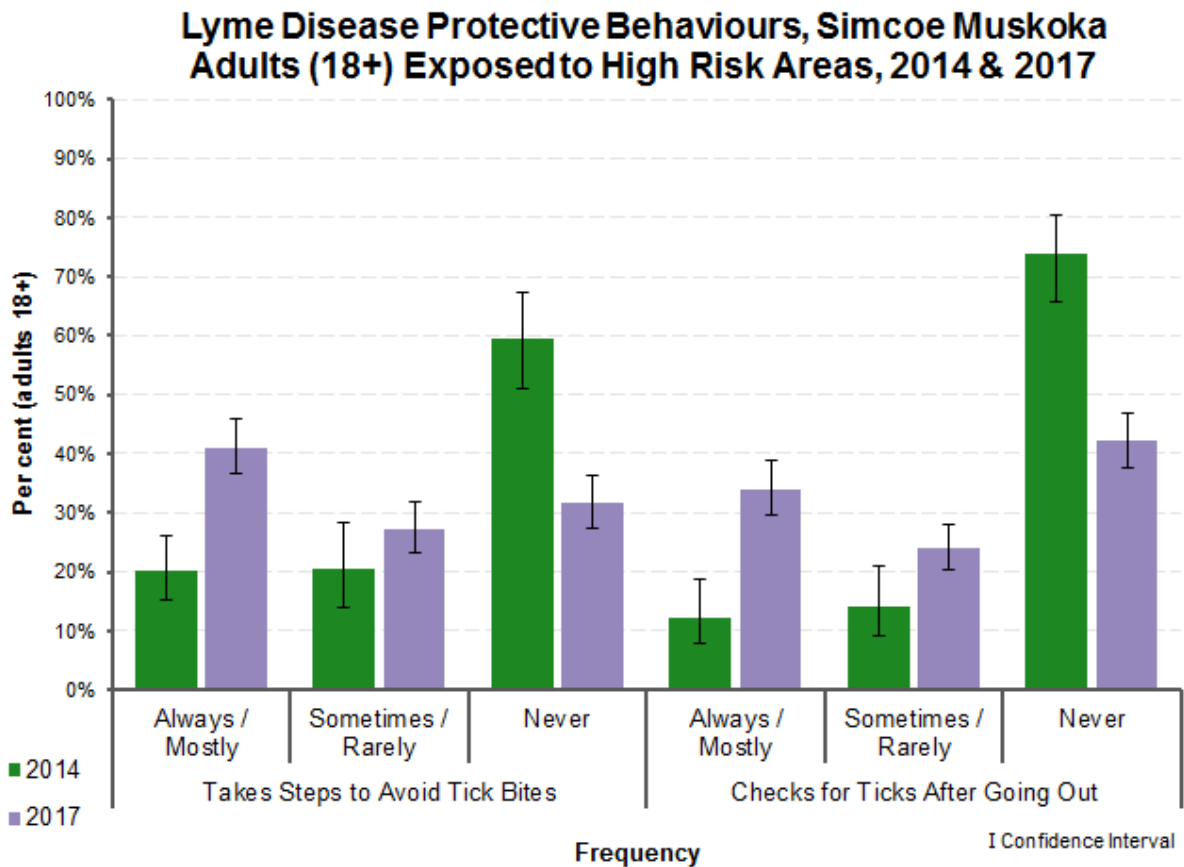
*Interpret with caution, high variability.
 Data Sources: Rapid Risk Factor Surveillance System (RRFSS), Simcoe Muskoka District Health Unit, Cycle 10 (Jan-Apr 2012), Cycle 17 (May-Aug, 2014) & Cycle 26-27 (May - Dec, 2017). Data collected on behalf of the health unit by the Institute for Social Research at York University, Toronto, Ontario.
 Post Stratification weights applied based on the Population Estimates from Statistics Canada for the given year (Revised July 17, 2019)

Personal Protective Behaviours

Nearly three-quarters (71% (67.2%, 74.4%)) of Simcoe Muskoka adults (18+) reported spending time outdoors in grassy fields or wooded areas, which are higher risk areas for getting bitten by ticks that could carry Lyme disease. Among those that spend time in these higher risk areas, 41% (36.5%, 45.8%) reported taking steps to avoid tick bites every time or most times and about one-third (32% (27.4%, 36.4%)) reported never taking steps to avoid tick bites when in higher risk areas. Taking steps to avoid tick bites every time or most times was significantly higher in 2017, when compared to 2014 (20% (15.3%, 26.1%)). The most commonly reported measure taken to avoid tick bites include clothing measures, such as long pants, long sleeves, having pants tucked in or pant cuffs taped, or having closed footwear and socks, where 48% (43.7%, 53.1%) of those that spend time in higher risk areas reported this. 24% (19.8%, 28.0%) reported using insect repellent or DEET.

In 2017, approximately one-third (34% (29.5%, 38.7%)) of those that go outside in grassy fields or wooded areas reported checking for ticks afterwards every time or most times, which is significantly higher when compared to 2014, where only 12% (7.8%, 18.6%) reported checking for ticks afterwards every time or most times. (see [figure 2](#))

Figure 2: Percent of adults (18+) who report the frequency of practicing Lyme disease protective behaviours, Simcoe Muskoka District Health Unit, 2014 & 2017



*Interpret with caution, high variability.

Data Sources: Rapid Risk Factor Surveillance System (RRFSS), Simcoe Muskoka District Health Unit. Cycle 17 (May-Aug, 2014), Cycle 26-27 (May-Dec, 2017). Data collected on behalf of the health unit by the Institute for Social Research at York University, Toronto, Ontario. High Risk Areas include grassy fields and wooded areas.

Post Stratification weights applied based on the Population Estimates from Statistics Canada for the given year (Revised July 17, 2019)