

Infectious Diseases

TICK-BORNE DISEASES The situation in Estrie* in 2023

Monitoring Human Cases of Lyme Disease

- For several years now, the Estrie region has had the province's highest rate of Lyme disease. By 2023, the region's incidence rate (56.4/100,000) will be 13 times higher than that of the rest of Quebec (Figure 1).
- A total of 652 cases of Lyme disease were reported in the province in 2023, compared to 585 in 2022.
- In 2023, Estrie had 295 cases, which represents 45.2% of all cases in the province. The number of cases reported in 2022 in the region is similar (296).
- The Pommeraiie and Haute-Yamaska local service networks (LSNs) had the highest incidence rates in Estrie in 2023 (215.8/100,000 and 84.5/100,000, respectively). These two LSNs account for a total of 245 cases, or 83% of all cases in the region (Figure 2).
- Gender breakdown shows that men were more affected than women (57.5% vs. 42.5% of cases).
- The 60–69 age group had the highest number of cases, with an incidence rate of 90.7/100,000.

Figure 1. Annual incidence rate of Lyme disease cases (confirmed or probable) by place of residence, Estrie, and the rest of Quebec from 2016 to 2023

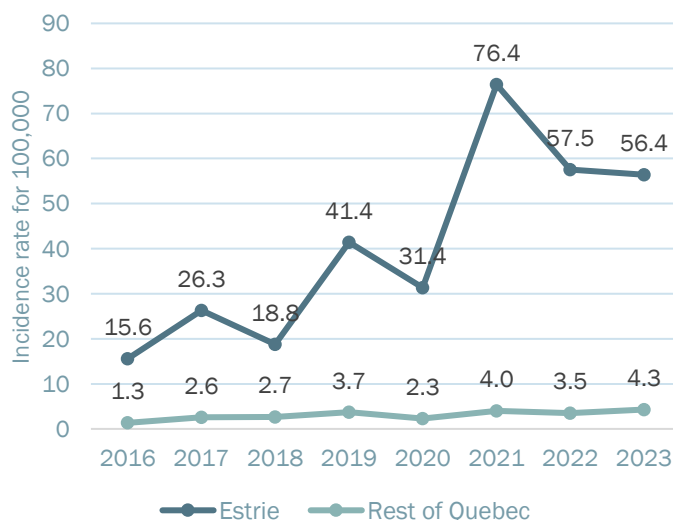
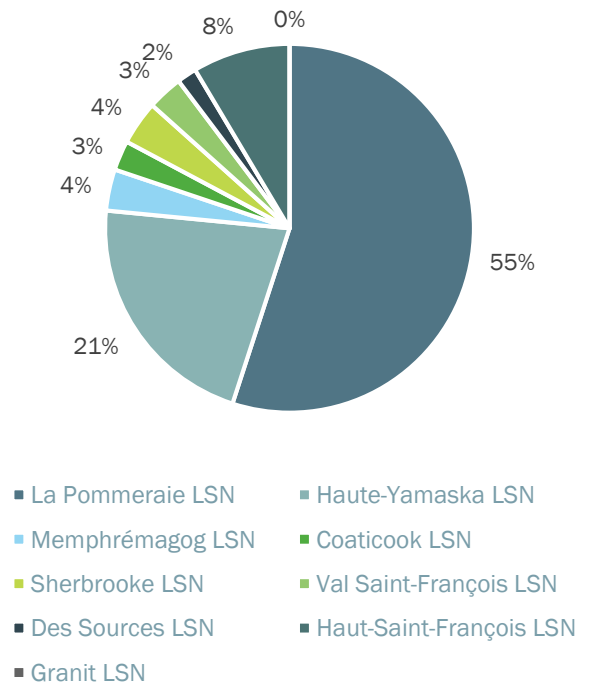


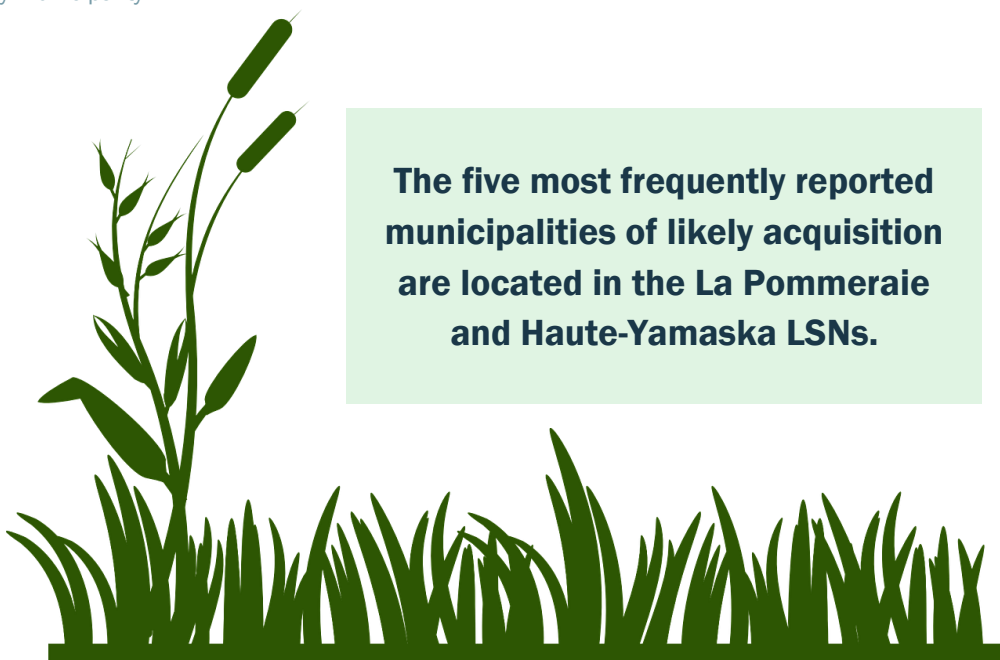
Figure 2. Distribution of Lyme disease cases (confirmed and probable) by place of residence, Estrie LSN, 2023



* In this leaflet, the municipality of Bromont is included in the La Pommeraiie LSN.

Table 1. Distribution of Lyme disease cases (confirmed or probable) by most likely municipality of acquisition in 2023

Municipality	%	N
Bromont	12.5	37
Granby	11.9	35
Sutton	8.1	24
Cowansville	6.4	19
Lac-Brome	6.1	18
Sherbrooke	5.8	17
Dunham	4.1	12
Roxton Pond	3.1	9
Shefford	3.0	9
Autre	39.0	115
Total	100.0	295



The five most frequently reported municipalities of likely acquisition are located in the La Pommeraie and Haute-Yamaska LSNs.

At-Risk Activities

- The main activities at risk of tick exposure reported by infected individuals were grounds maintenance (18.7% of cases) and outdoor recreation (18.5% of cases).

Tick Monitoring

- In 2023, passive surveillance collected 45 ticks of the *Ixodes scapularis* species. Nineteen were positive for the *Borrelia burgdorferi* bacterium (42%)
- Active surveillance at 23 sites collected a total of 252 ticks (larvae, nymphs, and adults), including 159 nymphs and adults. The 159 ticks were 16.3% positive for *Borrelia burgdorferi*.

Clinical Manifestations

- Of the clinical manifestations of all cases surveyed, 59.7% were diagnosed at the localized stage, 25.5% at the early disseminated stage, and 14.8% at the late disseminated stage.
- The reported manifestations are erythema migrans (58,5 %), arthralgia (34,7 %), facial paralysis (5,4 %), cardiac manifestations (1,7 %) and meningitis (0,7 %).

Other Emerging Tick-Borne Diseases

- In 2023, 31 cases of anaplasmosis (infectious disease) were reported in Estrie, compared to 12 in 2022 and 35 in 2021.
- People aged 60 or over are the most affected (24/31 or 77% of cases).
- The La Pommeraie and Haute-Yamaska LSNs had the most cases (21 and 5, respectively)

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Protecting Yourself

The best way to prevent tick-borne diseases is to avoid tick bites. With that in mind, the following personal prevention and protection measures are recommended for your outdoor activities:

- Wear long, light-colored clothing to help detect ticks.
- Wear a hat or cap and closed-toe boots or shoes.
- Apply a DEET- or icaridin-based mosquito repellent.
- Stay on trails and paths to avoid walking directly in wooded areas and tall grass.
- Check your body for ticks and quickly remove any after engaging in outdoor activities.

Prophylaxis

Prophylaxis Post-exposure prophylaxis (PEP) following a tick bite is available in certain areas of Estrie.

Call Info-Santé at **811** if you have been bitten by a tick.

For more information on preventing tick-borne diseases, visit <https://www.santeestrie.qc.ca/ticks>.



Public-Health Initiatives

Every year, the public-health department runs an awareness campaign to prevent tick-borne diseases.

During the summer of 2023, 31 awareness-raising activities took place at public markets, summer camps, municipal parks, festivals, and farms in Estrie. These activities enabled us to reach an estimated 2,500 people and distribute 3,000 information leaflets. Lastly, thanks to this campaign, nearly 60 awareness-raising panels on the prevention of tick-borne diseases were installed at the entrances to Estrie outdoor venues during the summer of 2023.

The public-health department's occupational health team also provides information and direct support to workplaces in applying effective measures to prevent tick-borne diseases among workers assigned to outdoor tasks at risk of exposure to tick bites.

Source: Registre MAD0 via the Infocentre de santé publique, accessed on February 27, 2024.

