Lyme disease cases more than double in Ottawa this year

168 confirmed human cases in Ottawa this year, up from 74 cases in 2016

By Joe Lofaro, CBC News Posted: Nov 16, 2017 5:00 AM ET Last Updated: Nov 16, 2017 5:00 AM ET

The number of reported human cases of Lyme disease in Ottawa has reached its highest level in a decade and experts say it's likely the infections will only increase in the years ahead.

New figures provided to CBC News by the city's public health department show cases have skyrocketed by 127 per cent this year compared to 2016.

As of Nov. 15, 2017, there were 168 confirmed human cases, a dramatic rise from the 74 cases recorded last year.

"This trend of large, year-to-year increases is continuing," said Dr. Monir Taha, associate medical officer of health at Ottawa Public Health (OPH).
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Confirmed Lyme disease cases in Ottawa (2007 -2017)


1 in 10
Ratio of ticks that tested positive for the bacteria that causes Lyme disease in 2013

1 in 5
Ratio of ticks that tested positive for the bacteria that causes Lyme disease in 2016

Source: Ottawa Public Health

• View an infographic of Lyme disease cases in Ottawa

Lyme disease was first detected in 1974 in Connecticut and has been expanding throughout Canada as the tick, the insect that carries the bacteria that causes the disease, has been heading north, Taha said.

In Ottawa, Taha said statistics show human cases of the disease seem to double every two or three years.

• So you've been bitten by a tick. Now what?
• Ottawa now at-risk area for Lyme disease

Greater awareness about the disease is a possible driver behind the increase in cases, but experts agree that a warming climate is the reason why tick populations are flourishing.

"I think we have to look at climate change and warming temperatures that's been allowing the spread of black-legged ticks and once they do spread, their numbers also can increase as the conditions are more
favourable," Taha said.

"Once those populations are there and established then this bacteria comes along with them. Not only are we keeping an eye on the number of human cases of Lyme disease that are reported to us, but also of the number of ticks that are submitted to us by the public and then they are tested for bacteria."

**More ticks testing positive**

Testing by OPH also shows that more ticks are carrying the disease.

In 2013, about one in 10 black-legged ticks tested positive for the bacteria that causes Lyme disease, according to OPH. Last year, the ratio doubled to one in five.

To put the figures in perspective, Taha said some areas of the U.S. have ratios of one in two.

"I think the future's going to be that we're going to see increases in black-legged tick populations for some time until we've reached some equilibrium," he said.

**Ticks surviving warmer winters**

Manisha Kulkarni, assistant professor in the school of epidemiology and public health at the University of Ottawa, said she wasn't surprised by the rapid increase this year.

Kulkarni studies the pattern of Lyme disease emergence in the region and collaborates with health agencies in the City of Ottawa, Leeds Grenville, Lanark, and Kingston to analyze human cases in those regions.

An expanding population, especially in newer subdivisions on the edges of wooded areas, means more people are being exposed to ticks, she said.

Like Taha, she said climate change is a key factor behind the increases in tick populations in Eastern Ontario.

"With warmer winters, ticks are able to …survive at higher latitudes and so we've seen that over the last decade, for example, average temperatures have increased within Canada, and Eastern Ontario in particular," Kulkarni said.

She recommended people take steps to protect themselves from Lyme disease in the summer months by wearing appropriate clothing outdoors, especially in places with long grass and wooded areas, to wear insect repellent, and to check your body for ticks after being outside.

*With files from Kimberley Molina*
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