

The Increasing Incidence of Lyme's Disease: A Preventative Approach to Attenuate Infection Risk in Staten Island Adults

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Part One: Introduction and Community in Need

The vector-borne illness caused by *B. Burgdorferi*, commonly known as Lyme disease is causing flu-like symptoms and rashes that may progress to cardiac, nervous and joint complications. Staten Island adults are at risk of contracting Lyme. With thirty-five cases being reported in 2012, that number has increased nearly four-fold to 123 cases in 2017. The increase in incidence on Staten Island can be attributed to climate change but there is a more prevalent factor influencing the contraction of Lyme Disease; Deer. There are an estimated 2,000 deer on Staten Island, and they are causing this public health risk.

Part Three: Problem in the Community

Lyme disease (*Borrelia burgdorferi*), also known as Lyme Borreliosis, is the most common vector borne illness in the United States. The disease is transmitted by the deer tick. These ticks will latch onto new hosts such as deer, rodents and humans. The incidence of increasing Lyme disease can be attributed to the change in climate and the increasing deer population on SI.

Part Four: Proposed Solution

To combat the increasing rate of Lyme in SI, we as nursing students can promote health and reduce disease by educating our audience in the following points:

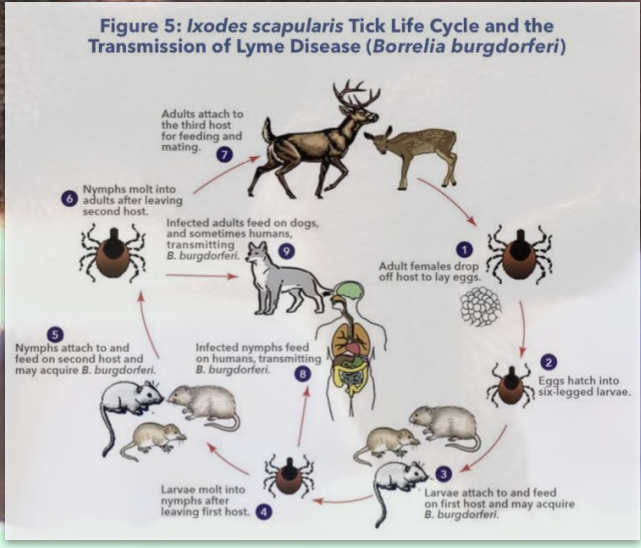
- 1) Deer Tick information (size, shape, where to find)
- 2) Disease process/transmission
- 3) Medications for Lyme Disease
- 4) Prevention and Tick removal

We implement this education into 5 minute videos using YouTube. 4 episodes with own teaching points, questions and answers will be available for the viewer



Part Two: Community Assessment and Analysis

The population of Staten Island as of July 1st, 2018 is 476,179 people. There are 166,150 households in Staten Island with 2.82 persons averaging per household. 81% of Staten Island residents identify their own health as “excellent,” “very good”, or “good” with an average life expectancy is 80 years old. Lyme disease is the most common tick-borne infection in New York City as well as the U.S. In the year 2000 there was 215 reported Lyme disease cases in NYC. In 2017, that number skyrocketed to 1,083 cases. This increase can be attributed to the rise in the deer population on Staten Island. However, Staten Island has a plethora of resources to combat this issue. Health Care is the most common industry on Staten Island (13.5%). There are 27,320 Health care jobs on Staten Island with those jobs increasing at a rate of 13.6%. Of all Staten Islanders, 93% are insured and have access to health care. (New York City Department of Health, 2018) Staten Island also offers 15 public libraries, 43 hospitals and clinics (urgent cares, diagnostic and treatment centers, school-based health facilities). With this availability, people infected with Lyme disease have satisfactory access to treatment and education.



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