Chester County Health Department

DISEASE SPOTLIGHT:
LYME DISEASE, 2022

- Lyme Disease is common in the Northeast region of the United States. Of all the counties in Pennsylvania, Chester County ranked third highest in number of Lyme Disease cases reported in 2022.

- Individuals who spend time outdoors, particularly in wooded or grassy areas, are at an increased risk of exposure to tick-borne disease.

- Anyone who has symptoms consistent with Lyme Disease, with or without a rash, should seek medical attention immediately. Early testing and treatment are critical to preventing long-term health consequences.

- Healthcare providers are encouraged to ask questions regarding outdoor risk activity in persons with clinically compatible symptoms throughout the year, but particularly in the summer months.

Lyme disease is endemic to the Northeast region of the United States and is the most commonly reported tick-borne illness in Pennsylvania. The CDC estimates that each year, nearly 100,000 Pennsylvania residents are diagnosed with Lyme disease. The disease is caused by the bacterium *Borrelia burgdorferi* and is transmitted by the black-legged tick, *Ixodes scapularis*. Symptoms can include fever, headache, fatigue, aches and swollen glands. A skin rash called erythema migrans is present in 70-80% of cases. If left untreated, the infection can cause problems with joints, the heart, and nervous system. Early diagnosis and antibiotic treatment are important to prevent serious, long-term complications.

### Annual Trends

In 2022, Chester County residents accounted for 7.1% of all reported Lyme disease cases in Pennsylvania. Of Pennsylvania’s 67 counties, Chester County ranked third highest in the total number of cases reported. Chester County typically observes a higher incidence of Lyme disease than the state of Pennsylvania. In 2022, 8,413 Lyme disease cases were reported in Pennsylvania (incidence of 64.9 cases per 100,000 residents). That same year, 601 Lyme disease cases were reported in Chester County (incidence of 110.1 cases per 100,000 residents.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Pennsylvania Number of Cases (Incidence rate per 100,000)</th>
<th>Chester County Number of Cases (Incidence rate per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>8,998 (70.3)</td>
<td>470 (89.5)</td>
</tr>
<tr>
<td>2020</td>
<td>3,334 (25.7)</td>
<td>310 (58.0)</td>
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<tr>
<td>2021</td>
<td>2,900 (22.4)</td>
<td>342 (63.5)</td>
</tr>
<tr>
<td>2022</td>
<td>8,413 (64.9)</td>
<td>601 (110.1)</td>
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</tbody>
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Geographic Distribution
In 2022, Lyme disease was reported among residents living throughout Chester County. The areas with the highest number of reported Lyme disease cases consisted of the following zip codes:

19320 – Coatesville
19335 – Downingtown
19355 – Malvern
19380 – West Chester
19382 – West Chester
19465 - Pottstown

Seasonality
Lyme disease cases are diagnosed throughout the year. Chester County observed a notable increase of reported Lyme disease cases during the summer months. In 2022, 43.7% of cases were reported during the peak season of June, July, and August. *Ixodes scapularis* nymphs are most active in late spring and early summer which may attribute to increased transmission in summer months.

Case Characteristics
Lyme disease is diagnosed in individuals of all ages. However, higher case counts were reported in older individuals, ages between 60-69 (22.3%) and 70-79 (16.0%) years old. While Lyme disease affects individuals of all genders, males comprised 59.2% of all reported cases.

Notes
Lyme disease case counts prior to 2022 include confirmed and probable cases. In 2022, the case definition for Lyme disease changed. The case counts for 2022 include probable cases only, as confirmed cases are no longer applicable in high-incidence jurisdictions.

Population data for the calculation of incidence rates are sourced from the Census American Community Survey.
Resources

1. Lyme Disease Information – Chester County Health Department
2. Tickborne Diseases – PA Department of Health
3. Lyme Disease Classification and Testing – PA Department of Health