

# Current Lyme Reporting in Non-Endemic States Needs Tick-Bite Reporting

Data from a survey of respondents with self-reported tick bite encounters who concurrently reported a clinical or serological Lyme disease (LD) diagnosis from non-endemic states for Lyme disease was published in the journal *Healthcare*, June 21, 2021.



Focusing on Texas, which due to large size, diverse climate, and ecological conditions, reflects environments that promote ticks, the scientists compared data from the self-reported LD patients with county-level confirmed cases of LD from the Centers for Disease Control & Prevention (CDC), and from serological canine reports. CDC has characterized states as low-incidence or non-endemic for Lyme, including Texas.

The findings indicated that “tick bite reports accurately overlapped with the geographic patterns of those patients previously known to be CDC-positive for serological LD and with canine-positive tests for *Borrelia burgdorferi*, anaplasmosis, and ehrlichiosis, as well as within neighboring counties and ecological regions. LD patient-reported tick bite encounters, corrected for population density, also accurately aligned with official CDC county hot-spots.”

Human LD cases that meet CDC surveillance criteria are compiled and reported. However, no agency or organization tracks LD cases from patients who do not meet CDC criteria. The CDC publishes LD cases by county, but the data is not always captured by county of exposure. Some cases may have been acquired during travel and not locally acquired in the county of diagnosis.

Some patients diagnosed with LD will have co-infections from other tick-borne diseases (TBDs) – “...the CDC and many states do not provide human TBD data at the county level for use in research or analysis.” The lack of this data available, coupled with a difficult-to-diagnose disease such as LD underscore the importance of using patient self-reported disease and official counts of disease as “epidemiological tools when disease can be linked to an event, such as a tick bite,” even though these methods are not widely used methods of surveillance.

“Tick-Borne Surveillance Patterns in Perceived Non-Endemic Geographic Areas: Human Tick Encounters and Disease Outcomes” by Sarah P. Maxwell, Connie L. McNeely, Kevin Thomas, and Chris Brooks indicates the following, “A finding of self-reported LD cases (via clinical or serological diagnosis), supported by known tick bites in CDC-positive ecological regions (eco-regions), provides an indicator that patient-reported LD and CDC-confirmed cases are strongly tied. This study uses county level, human, canine, and ecological data, providing an investigative snapshot of geographic overlap in Texas.”

**[Read full article here](#)**

**[More information on Diagnosis by Geography here \(LDA website\)](#)**

**[Read CDC Lyme Surveillance Criteria here](#)**