



# Infectious Disease Epidemiology Report

## Babesiosis Surveillance Report, Maine - 2015



### Background

Babesiosis is a parasitic disease transmitted through the bite of an infected deer tick (*Ixodes scapularis*). Patients may be asymptomatic or may experience symptoms including extreme fatigue, aches, fever, chills, sweating, dark urine, and anemia. Persons with underlying conditions such as asplenia are at higher risk of severe disease.

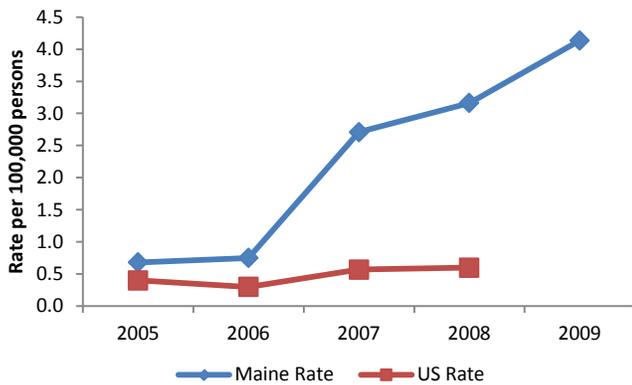
### Methods

Babesiosis is a reportable condition in Maine and standardized case report forms are completed for all cases. Confirmed and probable cases are reported to federal CDC. Cases are classified using CSTE's case definition.

### Results

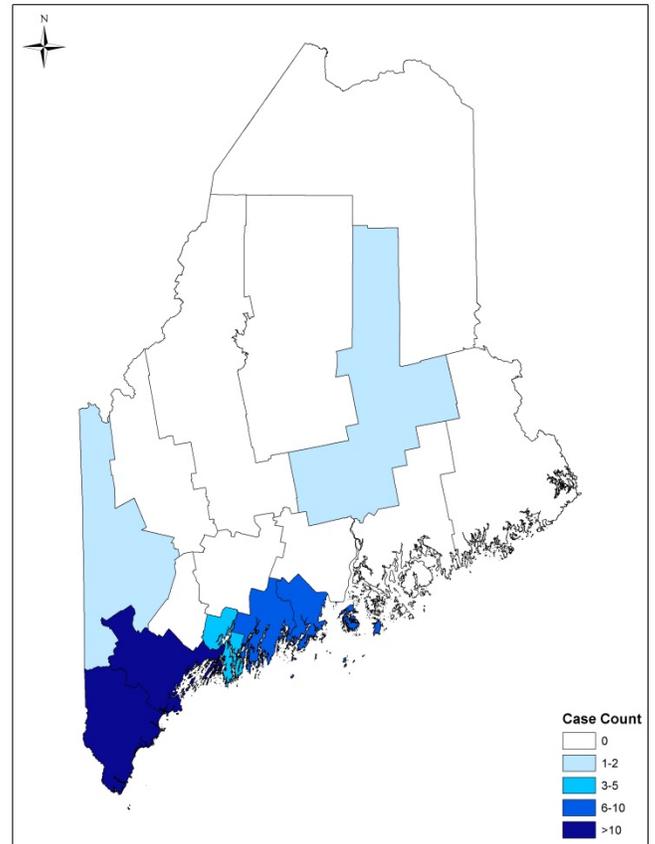
In 2015, a total of 56 confirmed and probable babesiosis cases were reported to Maine CDC. This represents a state case rate of 4.1 cases per 100,000 persons, a slight increase from 2014. (Figure 1).

Figure 1: Babesiosis incidence – Maine and US, 2011-2015



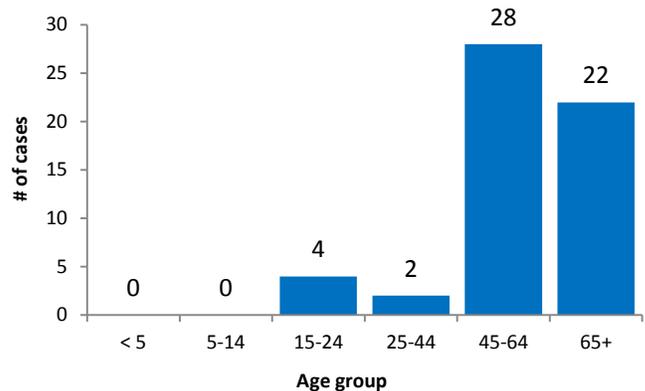
Babesiosis cases were reported in seven Maine counties (Figure 2). These counties demonstrate the expected expansion of disease area as it follows the habitat of the deer tick.

Figure 2: Confirmed and probable babesiosis cases, by county – Maine, 2015



Sixty-four percent of babesiosis cases were male. The median age was 62 years, with a range from 17 to 86 years. Babesiosis affects adults more than children with the 45 to 64 year old group having the most reported cases (Figure 3).

Figure 3: Babesiosis cases by age group – Maine 2015



Fourteen cases (25%) were hospitalized.

## Babesiosis – Maine, 2015

### Discussion

The agent that causes babesiosis is transmitted by the same tick that carries Lyme disease and anaplasmosis. The number of cases of babesiosis increased again from 2014 to 2015.

A single tick can carry more than one pathogen. In 2015, there were 22 reported co-infections (Table 1).

**Table 1: Tickborne disease co-infections – Maine, 2015**

Coinfections	2015*
Lyme and Anaplasma	10
Lyme and Babesia	8
Anaplasma and Babesia	1
Lyme, Anaplasma, Babesia	1
3Lyme and Ehrlichia	1
Babesia and Ehrlichia	1

Babesiosis is a risk to the blood supply, and not all blood donations are currently screened for this disease. In 2015, four cases of babesiosis in Maine had a history of blood donation, which required a trace forward to destroy potential infected units.

Health care providers are encouraged to consider tick-borne diseases in patients with appropriate clinical presentations. Polymerase Chain Reaction (PCR) is the preferred method of testing for babesiosis.

Treatment for babesiosis is different than treatment for Lyme disease or anaplasmosis and a two drug combination is recommended. IDSA's clinical guidance is available at <http://cid.oxfordjournals.org/content/43/9/1089.full> and federal CDC's guidance is available at [http://www.cdc.gov/parasites/babesiosis/health\\_professionals/index.html#tx](http://www.cdc.gov/parasites/babesiosis/health_professionals/index.html#tx).

### Prevention

To lower the chances of contracting a tick-borne disease, measures should be taken to prevent tick bites both at home and while traveling:

- Using caution in tick-infested areas
- Using EPA-approved repellents on uncovered skin and clothing

- Wearing long sleeved shirts and long pants
- Checking for ticks after being outside
- Removing attached ticks with tweezers or a tick spoon immediately to avoid them becoming engorged
- Using “tick-safe” landscaping such as removing leaf litter, tall grass and brush, creating borders between woods and lawn and discouraging deer with physical barriers

All cases of babesiosis in Maine must be reported within 48 hours by calling 1-800-821-5821, or by faxing reports to 207-287-6865.

Ticks can be identified for free by UMaine Cooperative Extension: <http://extension.umaine.edu/ipm/tickid/>. Ticks will not be tested for presence of disease.

Additional information about babesiosis can be found at:

- Maine CDC <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vector-borne/babesiosis/index.shtml>
- Federal CDC <http://www.cdc.gov/parasites/babesiosis/>