

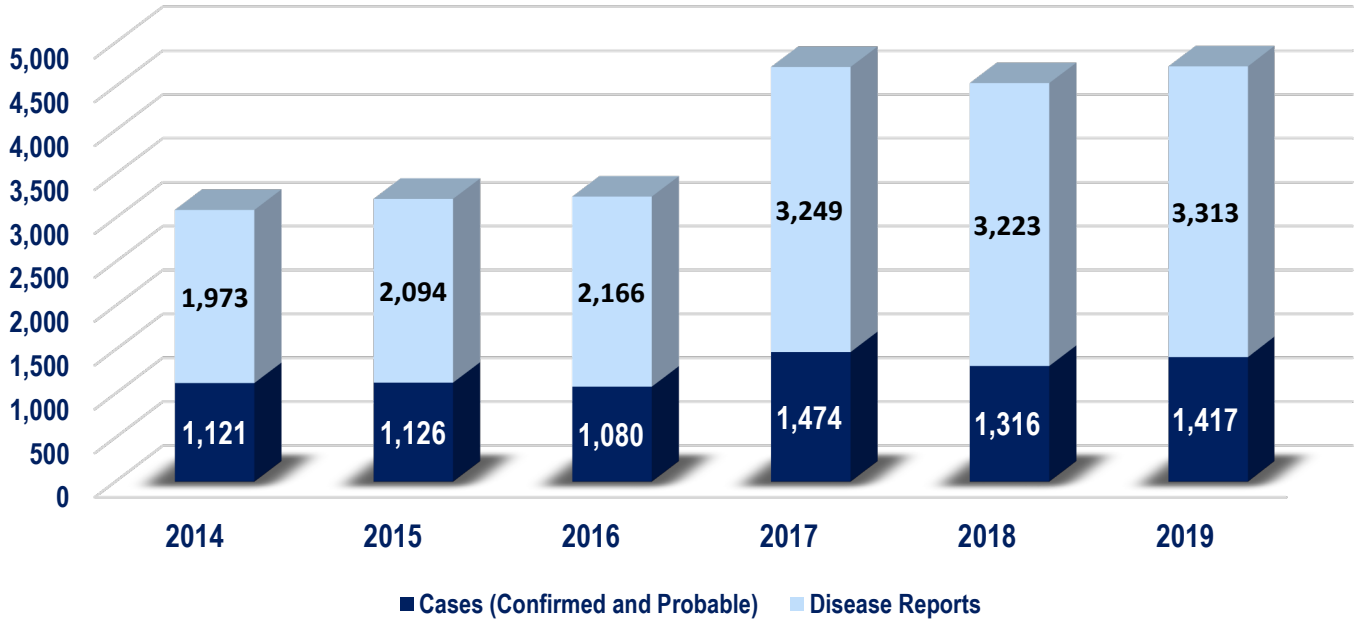


Tickborne Disease in Arkansas

Arkansas faces several vector-borne disease threats that significantly jeopardize the health of our citizens. Over a thousand cases of Rickettsial diseases (SFR, Ehrlichiosis, anaplasmosis) are seen annually in Arkansas.

In 2017, Arkansas had the third highest reported cases of Tularemia, the second highest reported cases of Ehrlichiosis, and the highest reported cases of Spotted Fever Rickettsiosis in the U.S.

Tickborne Disease Cases, 2014-2019



*Includes: Anaplasma phagocytophilum, Babesiosis, Ehrlichiosis, Lyme disease, Spotted Fever Rickettsiosis, Tularemia

Tickborne Disease Cases by Disease, 2015-2019

Disease	2015	2016	2017	2018	2019
<i>Anaplasma phagocytophilum</i>	16	14	6	8	9
Babesiosis, <i>Babesia microti</i>	0	1	0	2	3
Bourbon Virus	-	-	-	-	1
Ehrlichiosis, <i>Ehrlichia chaffeensis</i>	193	200	198	167	236
Ehrlichiosis, <i>Ehrlichia ewingii</i>	1	4	9	5	6
Heartland Virus	-	-	2	1	1
Lyme Disease	1	7	9	11	13
Rickettsial Disease – Spotted Fever	891	821	1,218	1,066	1,063
Tularemia	24	33	32	56	85
Total	1,126	1,080	1,474	1,316	1,417

*2019 preliminary data

Source: National Electronic Disease Surveillance System

Tickborne Disease in Arkansas

The landscape of tickborne diseases in Arkansas has changed significantly in the last 10 years, and there is a continuing need to inform the state's health care community about the latest tickborne disease developments to improve the timeliness and accuracy of diagnoses. The ADH zoonotic disease section receives money from the CDC Epidemiology and Laboratory Capacity (ELC) grant to fund tick and tickborne disease surveillance. Work includes:

- Tick surveillance to monitor trends in presence, abundance, and infection prevalence in medically important ticks to direct public health action.
- Identifying the distribution and abundance of ticks and tickborne pathogens that change over time.
- Detecting which pathogens are present in ticks and quantifying infection prevalence.
- Assuming the likelihood of human encounters with ticks and tickborne pathogens change over time and space.
- Collecting and analyzing surveillance data to provide actionable, evidence-based information to clinicians.
- Sharing current, evidence-based information with Arkansans so they are aware of their risk and can use the best strategies to protect themselves against tickborne diseases.

Recently Identified Novel and Emerging Ticks and Tickborne Disease Pathogens

- In 2017, an emerging viral TBD, Heartland Virus, was diagnosed in two Arkansas residents.
- In 2018, an invasive tick species, *Haemaphysalis longicornis* (Asian Longhorned Tick or ALT), was identified.
- In 2019, another emerging viral tickborne pathogen was identified from a pool of *Amblyomma americanum* (Lone Star ticks).
- In 2019, an Arkansas resident was diagnosed with active infection of three TBD pathogens (Heartland virus, Bourbon virus, and Ehrlichiosis) at the same time.

Spotted Fever Incidence, 2019

