

# West Virginia Vectorborne Disease Surveillance Report

JANUARY 1 – AUGUST 14, 2025



The purpose of this report is to share descriptive surveillance data related to vectorborne disease activity with public health partners in West Virginia. All information in this report is considered provisional. For questions or comments, contact either Michael Abshire or Eric Dotseth at the Zoonotic Disease Program in the Division of Communicable Disease Epidemiology at 304-558-5358.

## HUMAN SURVEILLANCE – MOSQUITOBORNE DISEASE

During the period of January 1 to August 14, 2025, there have been two human cases of mosquito-borne disease reported (Table 1).

**Table 1.** Summary of human cases of mosquito-borne diseases for the current reporting period in West Virginia.

Mosquito-borne Disease	# Confirmed and Probable Human Cases <sup>a</sup> (Total through August 14, 2025)	Comments
Dengue	1	Travel associated – US Virgin Islands
Malaria	1	Travel related
<b>Total</b>		

<sup>a</sup>Table includes confirmed and probable cases meeting case definition, but still under review by Regional Epidemiologist

## BIRD AND HORSE SURVEILLANCE – MOSQUITOBORNE DISEASE

During the period of January 1 to August 14, 2025, there have been no animal specimens tested for arboviral infection (Table 2).

**Table 2.** Summary of surveillance specimens submitted for dead birds and horses (serum) through August 14, 2025.

Table 2: Summary of surveillance specimens submitted for dead birds and horses (serum) through August 14, 2025.					
Type of Specimen	Total through August 14 <sup>th</sup> , 2025				Comments
	# specimens submitted	Arbovirus-positive <sup>a</sup>			
		WNV	SLE	EEE	
-	-	-	-	-	

<sup>a</sup>Note: Horse specimens are tested for WNV and EEE only.

## HUMAN SURVEILLANCE – TICKBORNE DISEASE

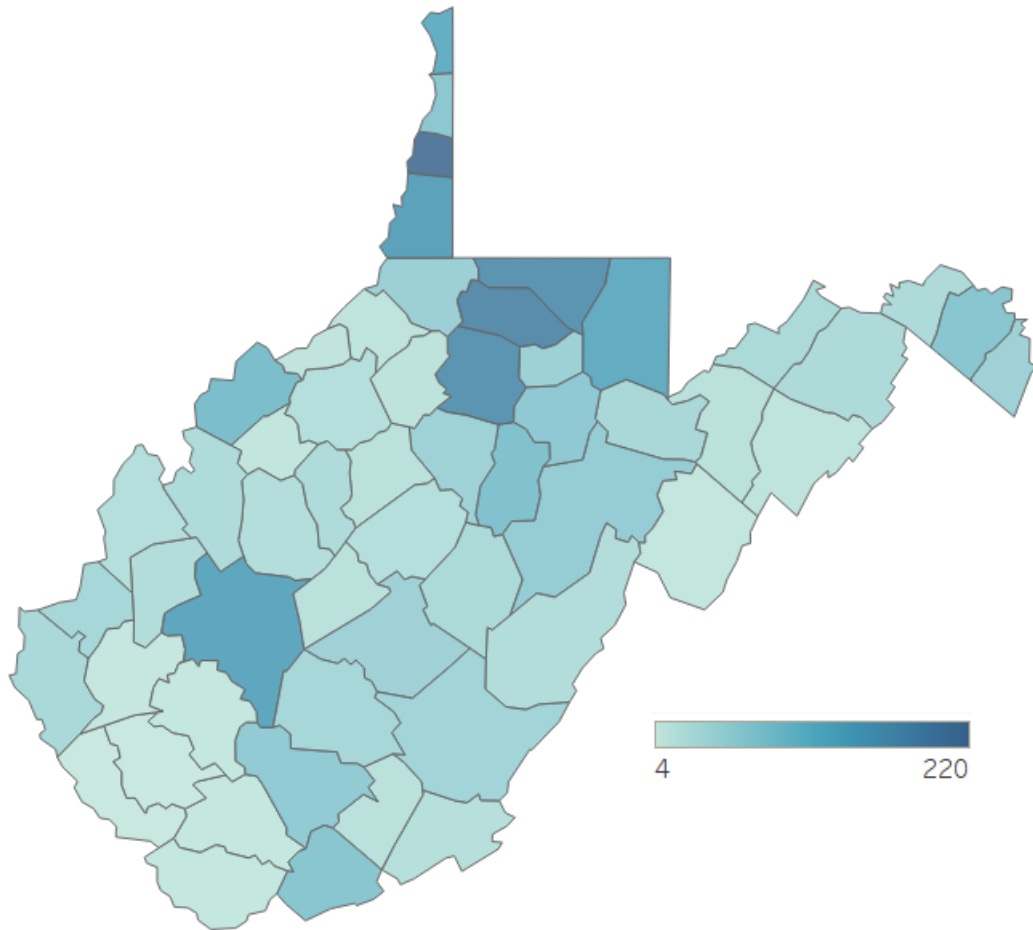
Through August 14, 2025, 3011 confirmed and probable cases of tickborne diseases (TBDs) were reported in West Virginia (Table 3). The majority of cases (98.6%) were Lyme disease cases (n=2969) (Figure 1). Several other tickborne diseases (TBD) were also reported (Figure 2). All of West Virginia's 55 counties have reported human TBD activity.

**Table 3.** Summary of human cases of tickborne diseases through August 14, 2025

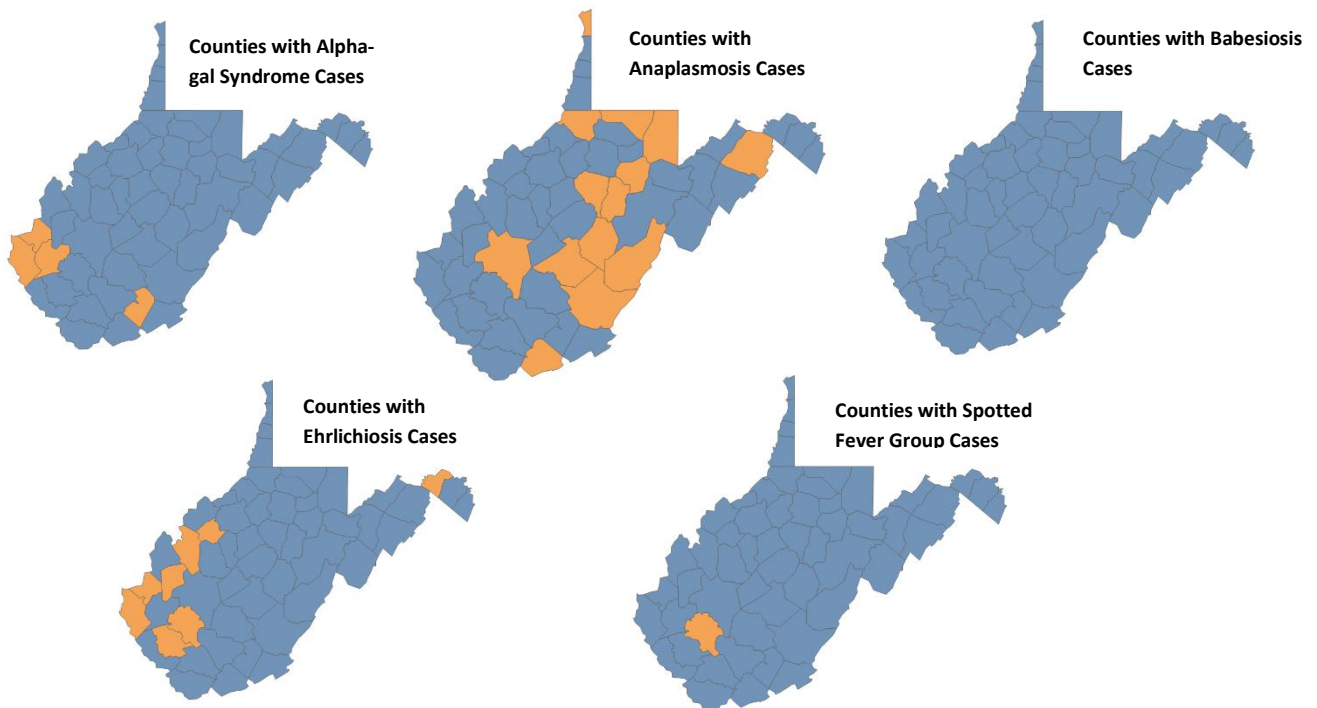
Tickborne Disease	# Confirmed and Probable Cases through August 14, 2025	# of Counties Where Disease Reported
Alpha-Gal Syndrome	6	4
Anaplasmosis	25	14
Babesiosis	0	0
Ehrlichiosis	10	8
Lyme disease	2969	55
Spotted fever group rickettsiosis <sup>b</sup>	1	1
<b>Total</b>	<b>3011</b>	<b>--</b>

<sup>a</sup>Table includes only confirmed or probable cases that have been reviewed and closed by the Vectorborne Disease Epidemiologist.

<sup>b</sup>Includes Rocky Mountain spotted fever.



**Figure 1.** County distribution of probable Lyme disease cases (N=2969) through August 14, 2025, West Virginia.



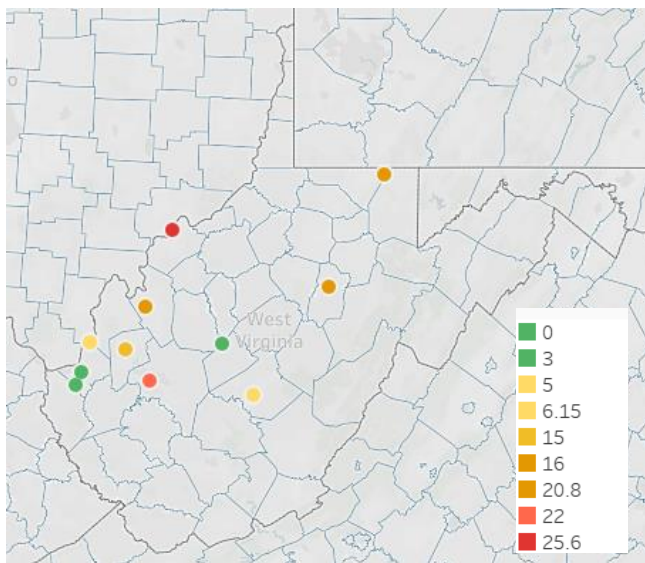
**Figure 2.** Counties with the following disease cases in orange as of August 14, 2024: alpha-gal syndrome, anaplasmosis, babesiosis, ehrlichiosis, and spotted fever group.

## TICK SURVEILLANCE

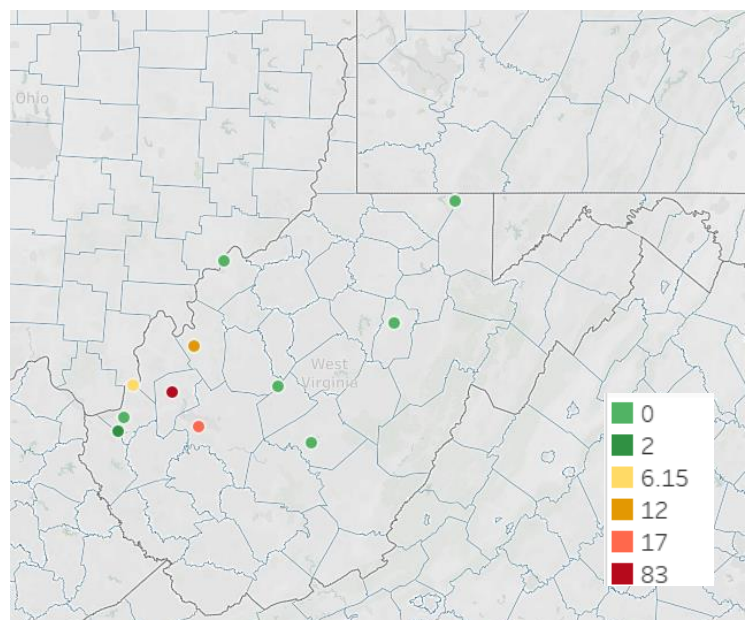
During the period of January 21, 2025 to August 14, 2025, 11 localities in the following 10 counties have served as active tick surveillance sites: Cabell, Jackson, Kanawha, Nicholas, Preston, Putnam, Roane, Upshur, Wayne and Wood counties (Figure 3, Figure 4). Through active tick surveillance and public submission to the Zoonotic Disease Program, five species of tick have been collected from January 21, 2025 to August 14, 2025 (Table 4).

**Table 4.** Summary of tick surveillance through August 14, 2025

Tick Species	Total through August 14 <sup>th</sup> , 2025			
	# collected	Life Stage		
		Larva	Nymph	Adult
<i>Amblyomma americanum</i>	2252	1885	284	83
<i>Amblyomma maculatum</i>	4	0	0	4
<i>Dermacentor variabilis</i>	40	0	0	40
<i>Haemaphysalis longicornis</i>	163	2	143	18
<i>Ixodes scapularis</i>	406	155	229	22
<b>Total</b>	<b>2865</b>	<b>2042</b>	<b>656</b>	<b>167</b>



**Figure 3.** Tick collection sites (N = 11) in 10 counties, showcasing density of *Ixodes scapularis* per 1000m<sup>2</sup>, or blacklegged tick nymphs



**Figure 4.** Tick collection sites (N = 11) in 10 counties, showcasing density of *Amblyomma americanum* per 1000m<sup>2</sup>, or lone star tick nymphs