West Virginia Vectorborne Disease Surveillance Report

JANUARY 1 – SEPTEMBER 5, 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 September 5, 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[a] (Total through September 5, 2025)	Comments
Dengue	1	Travel associated – US Virgin Islands
Malaria	2	Travel related
Total		

[a]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 September 5, 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 September 5, 2025.

Type of Specimen	Total through September 5th, 2025				Comments
	# specimens submitted	Arbovirus-positive[a]			
		WNV	SLE	EEE	
-	-	-	-	-	

[a]Note: Horse specimens are tested for WNV and EEE only.

HUMAN SURVEILLANCE – TICKBORNE DISEASE

Through September 5, 2025, 3311 confirmed and probable cases of tickborne diseases (TBDs) were reported in West Virginia (Table 3). The majority of cases (98.1%) were Lyme disease cases (n=3247) (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 September 5, 2025

Tickborne Disease	# Confirmed and Probable Cases through September 5, 2025	# of Counties Where Disease Reported
Alpha-Gal Syndrome	12	7
Anaplasmosis	34	17
Babesiosis	2	2
Ehrlichiosis	11	9
Lyme disease	3247	55
Spotted fever group rickettsiosis[b]	5	4
Total	**3311**	**--**

[a]Table includes only confirmed or probable cases that have been reviewed and closed by the Vectorborne Disease Epidemiologist.

[b]Includes Rocky Mountain spotted fever.

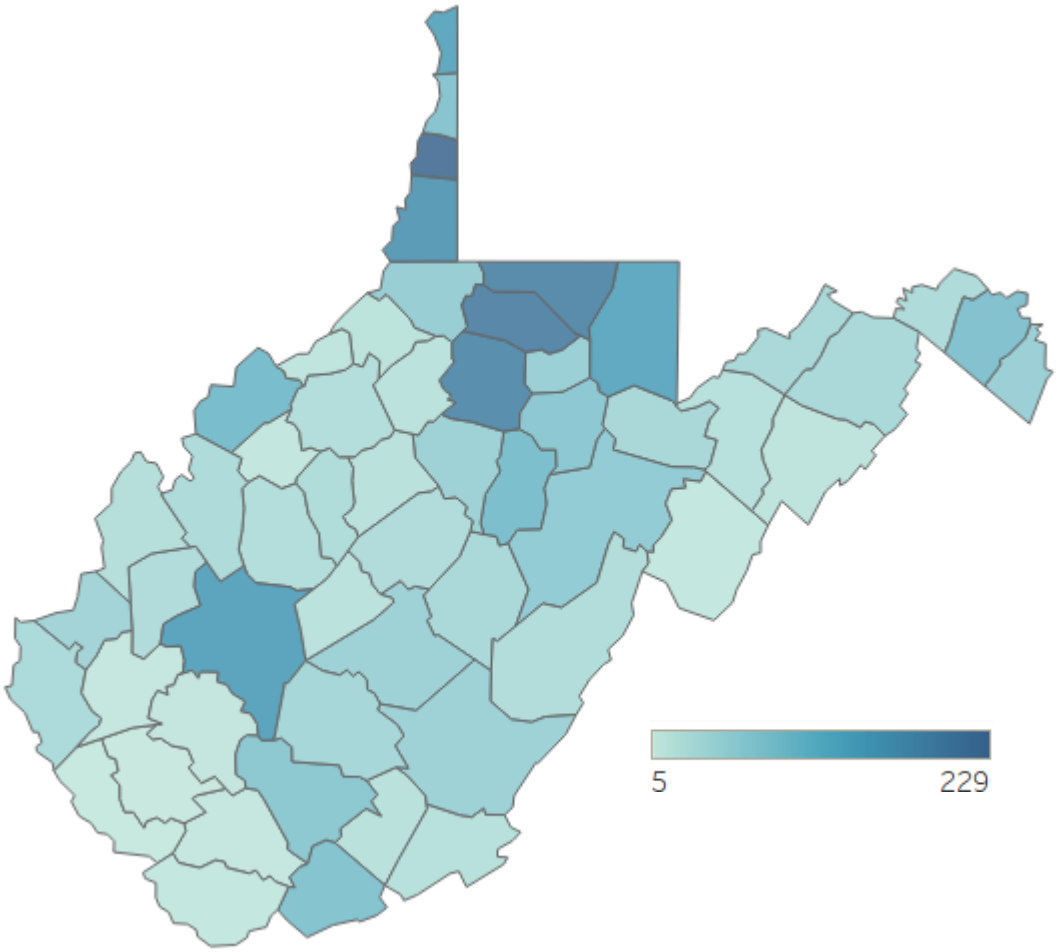

Figure 1. County distribution of probable Lyme disease cases (N=3247) through September 5, 2025, West Virginia.

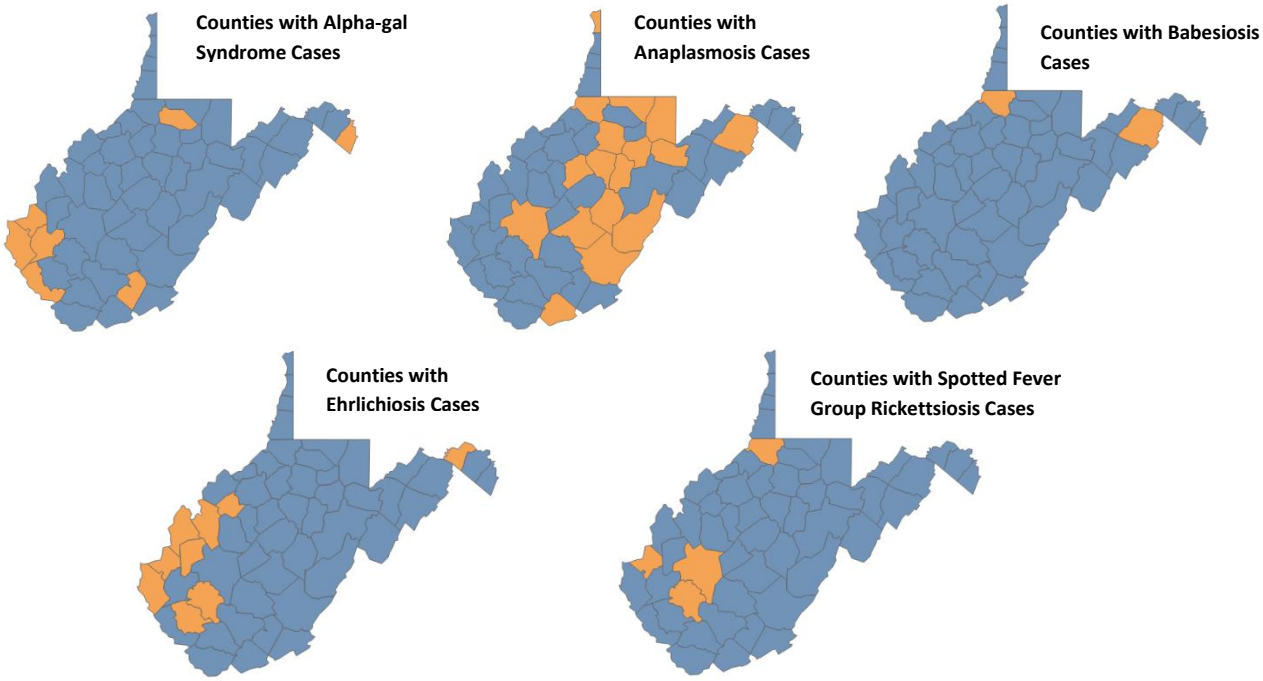

Figure 2. Counties with the following disease cases in orange as of September 5, 2024: alpha-gal syndrome, anaplasmosis, babesiosis, ehrlichiosis, and spotted fever group.

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 14th, 2025			
	# collected	Life Stage		
		Larva	Nymph	Adult
Amblyomma americanum	2252	1885	284	83
Amblyomma maculatum	4	0	0	4
Dermacentor variabilis	40	0	0	40
Haemaphysalis longicornis	163	2	143	18
Ixodes scapularis	406	155	229	22
Total	**2865**	**2042**	**656**	**167**

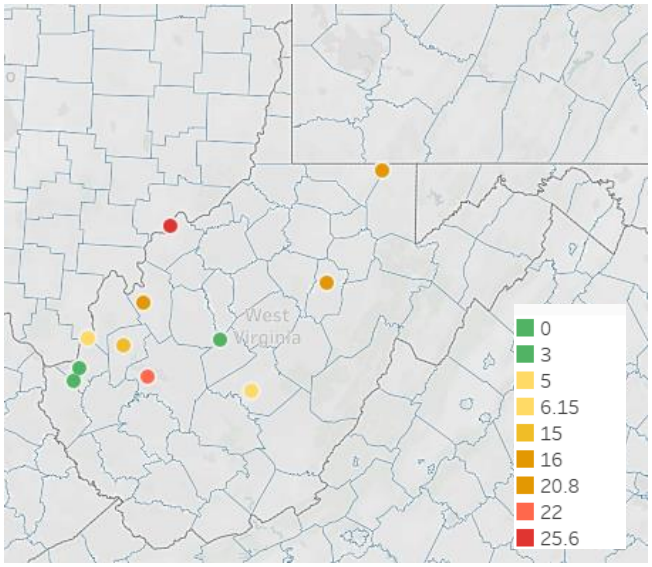

Figure 3. Tick collection sites (N = 11) in 10 counties, showcasing density of *Ixodes scapularis* per 1000m^2, or blacklegged tick nymphs. *Ixodes scapularis* transmits Anaplasmosis, Babesiosis, and Lyme Disease.

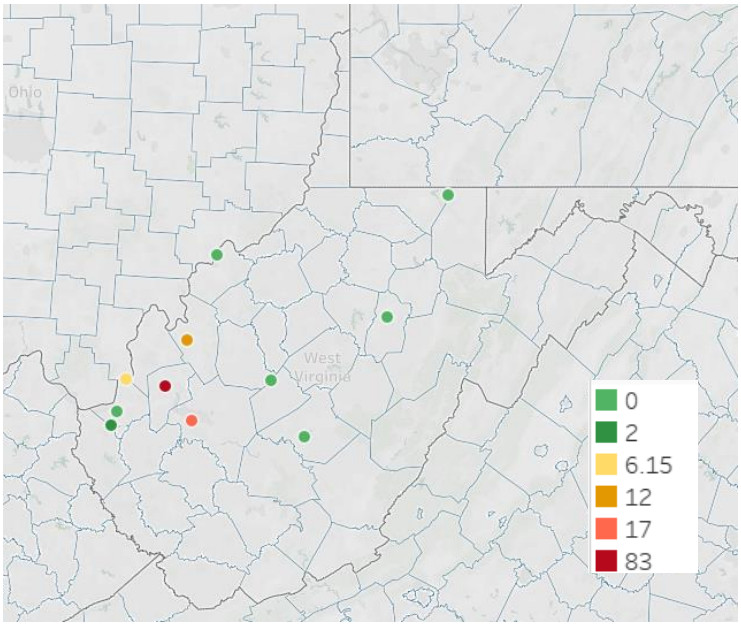

Figure 4. Tick collection sites (N = 11) in 10 counties, showcasing density of *Amblyomma americanum* per 1000m^2, or lone star tick nymphs. *Ammblyomma americanum* transmits Alpha-gal Syndrome, Ehrlichiosis, and Spotted Fever Group Rickettsiosis.