West Virginia Vectorborne Disease Surveillance Report

JANUARY 1 – NOVEMBER 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 November 14, 2025, there have been nine human cases of mosquito-borne disease reported (Table 1). All Dengue and Malaria cases were travel associated. Counties reporting mosquitoborne diseases are Berkeley (Malaria), Hampshire (West Nile), Harrison (West Nile), Jefferson (Malaria and West Nile), Marion (Dengue), Monongalia (Malaria), Raleigh (La Crosse) and Webster (La Crosse).

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 November 14, 2025)	Comments
Dengue	1	Travel associated – US Virgin Islands
La Crosse Encephalitis	2	Indigenous
Malaria	3	Travel associated – Kenya, Togo, and Peru
West Nile	3	Indigenous
Total	**9**	

[a]Table includes confirmed and probable cases meeting case definition.

BIRD AND HORSE SURVEILLANCE – MOSQUITOBORNE DISEASE

During the period of January 1 to November 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 November 14, 2025.

Type of Specimen	Total through November 14th, 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 November 14, 2025, 4215 confirmed and probable cases of tickborne diseases (TBDs) were reported in West Virginia (Table 3). The majority of cases (95.3%) were Lyme disease cases (n=4019) (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 November 14, 2025

Tickborne Disease	# Confirmed and Probable Cases through November 14, 2025	# of Counties Where Disease Reported
Alpha-Gal Syndrome	102	18
Anaplasmosis	51	22
Babesiosis	3	3
Ehrlichiosis	28	15
Lyme disease	4019	55
Spotted fever group rickettsiosis[b]	12	10
Total	**4215**	**--**

[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.

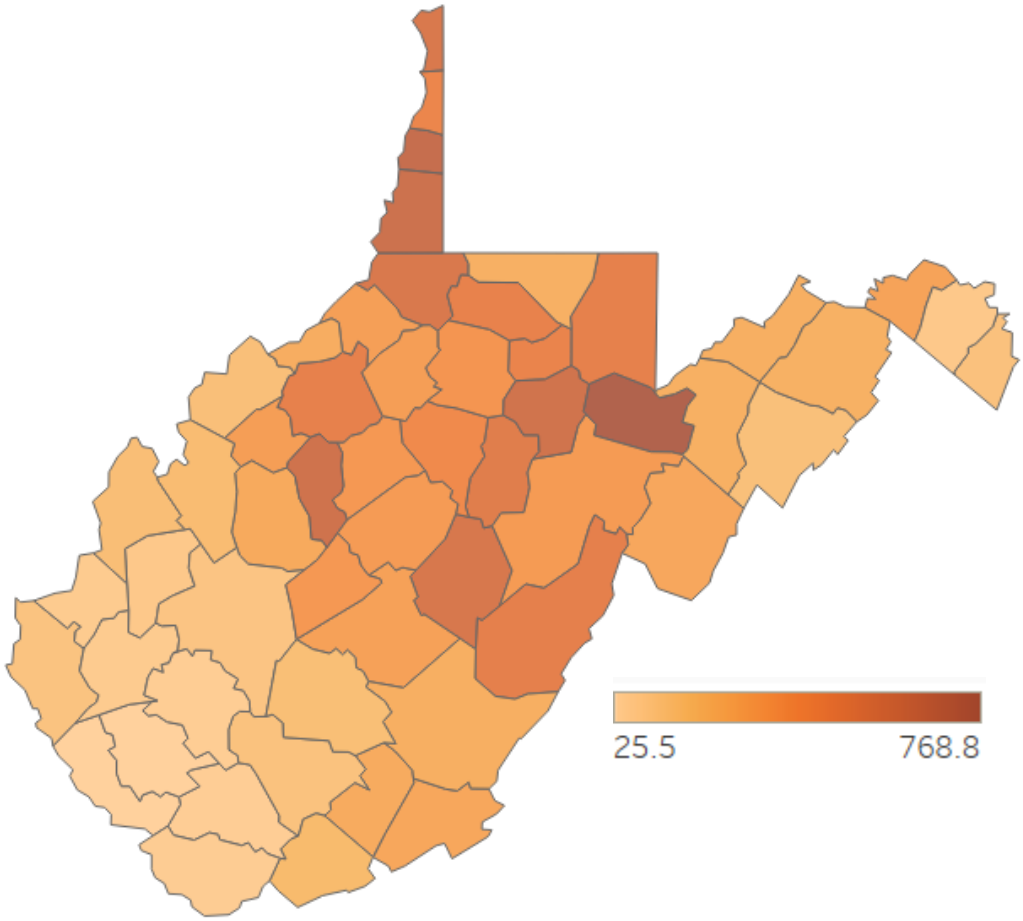

Figure 1. County incidence of probable Lyme disease cases (N=4019) through November 14, 2025, West Virginia.

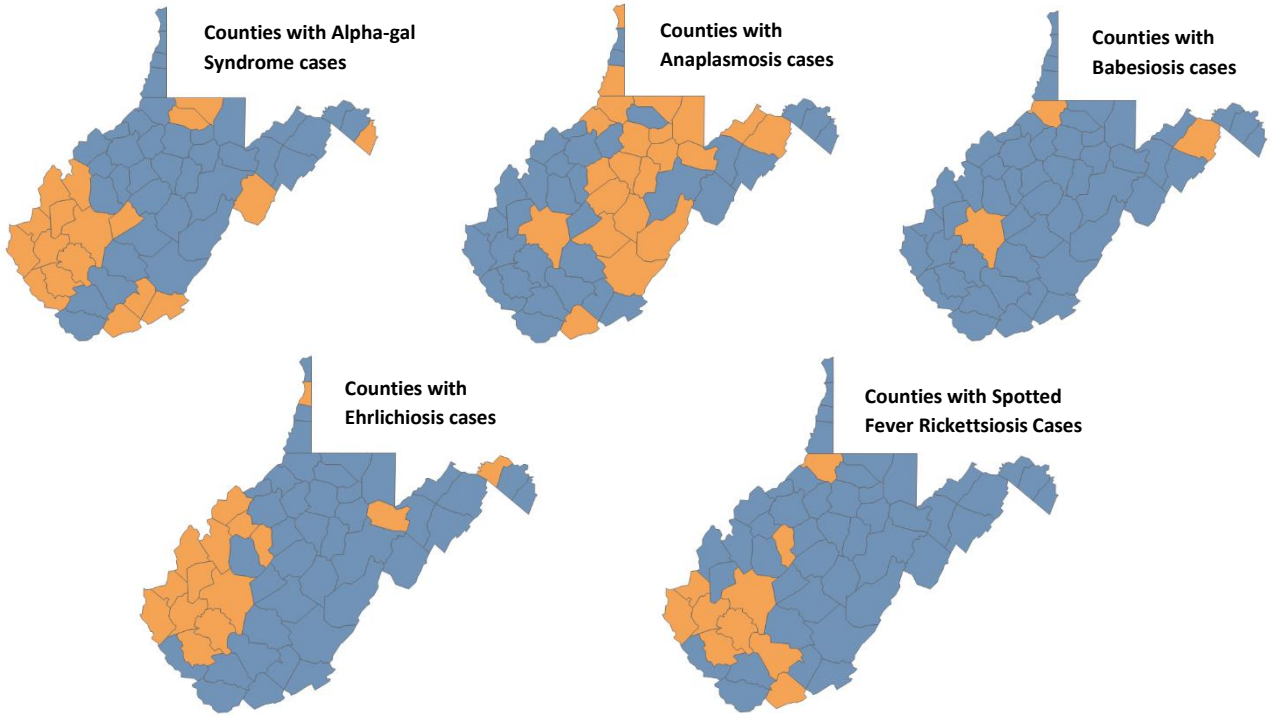

Figure 2. Counties with the following disease cases in orange as of November 14, 2025: alpha-gal syndrome, anaplasmosis, babesiosis, ehrlichiosis, and spotted fever group.

TICK SURVEILLANCE

During the period of January 21, 2025 to September 29, 2025, 13 localities in the following 11 counties have served as active tick surveillance sites: Cabell, Jackson, Kanawha, Mercer, 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 September 29, 2025 (Table 4).

Table 4. Summary of tick surveillance through September 29, 2025

Tick Species	Total through September 29th, 2025			
	# collected	Life Stage		
		Larva	Nymph	Adult
Amblyomma americanum	6431	6050	298	83
Amblyomma maculatum	4	0	0	4
Dermacentor variabilis	41	0	0	41
Haemaphysalis longicornis	1459	1295	144	20
Ixodes scapularis	506	246	238	22
Total	**8441**	**7591**	**680**	**170**

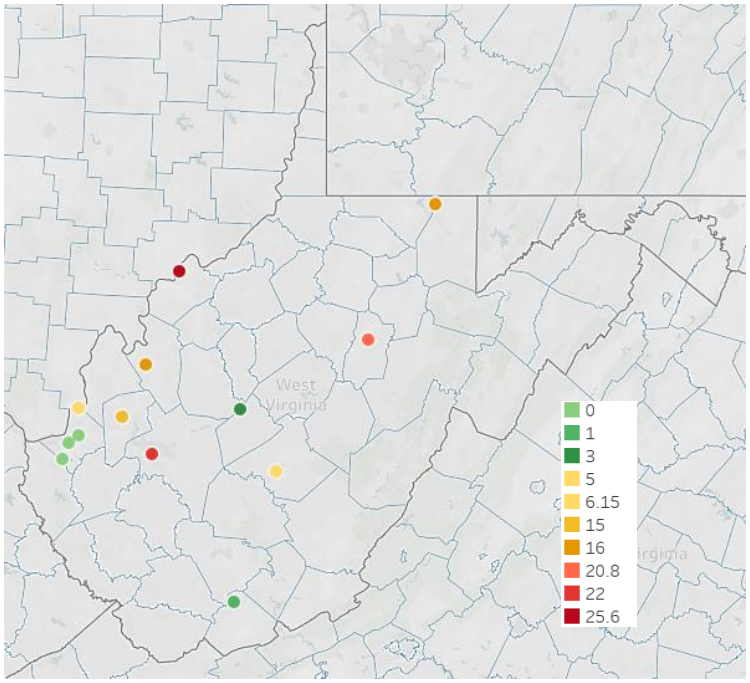

Figure 3. Tick collection sites (N = 13) in 11 counties, showcasing density of *Ixodes scapularis* per 1000m^2, or blacklegged tick nymphs. *Ixodes scapularis* transmits Anaplasmosis, Babesiosis, and Lyme Disease.

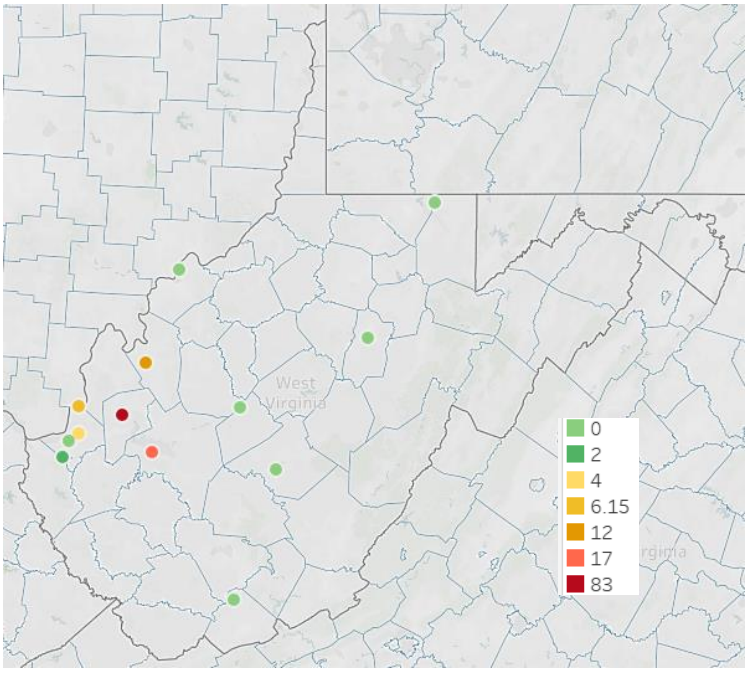

Figure 4. Tick collection sites (N = 13) in 11 counties, showcasing density of *Amblyomma americanum* per 1000m^2, or lone star tick nymphs. *Ammblyomma americanum* transmits Alpha-gal Syndrome, Ehrlichiosis, and Spotted Fever Group Rickettsiosis.