Vector Borne Disease
2025 Surveillance Report

Summit County Public Health

Report Weeks 1 and 2 (May 18 to May 31, 2025)
MMWR Weeks 21 and 22

This report will be issued from June through October of each year (or later if West Nile Virus disease is still a concern). Surveillance will include human and veterinary cases and testing of mosquito pools in Summit County. It will also include updates from Ohio and around the nation. It will include vector-borne diseases besides West Nile Virus.

SUMMIT COUNTY SURVEILLANCE

West Nile virus testing (Table 1): During surveillance period Weeks 1 and 2, there were 3 tests for West Nile virus ordered by Summit County hospitals, of which 0 were positive.

Table 1: West Nile virus (WNV) tests ordered in Summit County hospitals 2025

Week(s)	# of WNV tests ordered this period	# of positive WNV tests this period	Cumulative # of tests ordered this season	Cumulative # of positive tests this season	Percentage of positive tests
Weeks 1 & 2: 5/18 to 5/31	**3**	**0**	**3**	**0**	**0.0%**
Weeks 3 & 4: 6/1 to 6/14	-	-	-	-	-
Weeks 5 & 6: 6/15 to 6/28	-	-	-	-	-
Weeks 7 & 8: 6/29 to 7/12	-	-	-	-	-
Weeks 9 & 10: 7/13 to 7/26	-	-	-	-	-
Weeks 11 & 12: 7/27 to 8/9	-	-	-	-	-
Weeks 13 & 14: 8/10 to 8/23	-	-	-	-	-
Weeks 15 & 16: 8/24 to 9/6	-	-	-	-	-
Weeks 17 & 18: 9/7 to 9/20	-	-	-	-	-
Weeks 19 & 20: 9/21 to 10/4	-	-	-	-	-
Weeks 21 & 22: 10/5 to 10/18	-	-	-	-	-

Note: Reporting may not be completed each week. Numbers will be updated when reports are received

Lyme disease testing (Table 2): There were 19 diagnostic test series performed for Lyme disease during Weeks 1 and 2, 10 tests were positive and 0 were indeterminate. For information about Diagnosis and Testing, visit this link: https://www.cdc.gov/lyme/diagnosistesting/index.html.

Table 2. Lyme Disease Tests Ordered in Summit County Hospitals 2025

Week(s)	# of Lyme tests ordered this period	# of positive Lyme tests this period	Cumulative # of tests ordered this season	Cumulative # of positive tests this season	Percentage of positive tests
Weeks 1 & 2: 5/18 to 5/31	**19**	**10**	**19**	**10**	**52.63%**
Weeks 3 & 4: 6/1 to 6/14					
Weeks 5 & 6: 6/15 to 6/28	-	-	-	-	-
Weeks 7 & 8: 6/29 to 7/12	-	-	-	-	-
Weeks 9 & 10: 7/13 to 7/26	-	-	-	-	-
Weeks 11 & 12: 7/27 to 8/9	-	-	-	-	-
Weeks 13 & 14: 8/10 to 8/23	-	-	-	-	-
Weeks 15 & 16: 8/24 to 9/6	-	-	-	-	-
Weeks 17 & 18: 9/7 to 9/20	-	-	-	-	-
Weeks 19 & 20: 9/21 to 10/4	-	-	-	-	-
Weeks 21 & 22: 10/5 to 10/18	-	-	-	-	-

Note: Reporting may not be completed each week. Numbers will be updated when reports are received

Reported Vector-borne diseases in 2025 (Table 3): As of June 2, there were 21 reported cases of Lyme disease; 5 were confirmed and 16 were suspected status. There was also 1 confirmed case of Malaria among Summit County residents.

Table 3: Vector-borne diseases reported in Summit County, 2025 cumulative totals

	Confirmed	Suspected	Notes
Tick-borne diseases:			
Babesiosis	0	0	
Erhlichiosis / anaplasmosis	0	0	
Lyme disease	5	16	
Powassan virus disease	0	0	
Rocky Mountain spotted fever	0	0	
Mosquito-borne diseases:			
Chikungunya	0	0	
Dengue	0	0	
Eastern equine encephalitis	0	0	
LaCrosse virus disease	0	0	
Malaria	1	0	Travel Associated*
St. Louis encephalitis virus disease	0	0	
Zika virus infection	0	0	
West Nile virus infection	0	0	

Source: Ohio Disease Reporting System (ODRS); only confirmed, probable, and suspected cases are included.

Table 4. Notable mosquito and tick species identifications in Summit County (as of May 28, 2025)			
Species name	**Diseases associated**	**Summit County**	**Ohio**
Mosquito species			
Aedes albopictus	Chikungunya, dengue fever, yellow fever	0	3
Aedes triseriatus	La Crosse encephalitis	0	0
Coquillettidia perturbans	Eastern equine encephalitis, West Nile virus	0	0
Tick species			
Amblyomma americanum	Ehrlichiosis, tularemia, red meat allergy	-	-
Dermacentor variabilis	Rocky Mountain spotted fever, tularemia	-	-
Ixodes scapularis	Lyme disease, babesiosis, anaplasmosis	-	-
Source: Ohio Department of Health (Identification via mailed specimens, emailed photos and iNaturalist observations)			

Table 5. Reported Aseptic/Viral Meningitis Cases in Summit County in 2025 (confirmed & probable)

Reporting Week(s)	Cases reported this period	Cumulative cases for the season
Aseptic meningitis cases reported prior to season (1/1 to 5/18/2025)	**2**	-
Weeks 1 & 2: 5/18 to 5/31	**0**	**0**
Weeks 3 & 4: 6/1 to 6/14	-	-
Weeks 5 & 6: 6/15 to 6/28	-	-
Weeks 7 & 8: 6/29 to 7/12	-	-
Weeks 9 & 10: 7/13 to 7/26	-	-
Weeks 11 & 12: 7/27 to 8/9	-	-
Weeks 13 & 14: 8/10 to 8/23	-	-
Weeks 15 & 16: 8/24 to 9/6	-	-
Weeks 17 & 18: 9/7 to 9/20	-	-
Weeks 19 & 20: 9/21 to 10/4	-	-
Weeks 21 & 22: 10/5 to 10/18	-	-

Source: Ohio Disease Reporting System (ODRS)

Reported aseptic/viral meningitis cases (Table 5): Prior to the reporting season, there were 2 reported cases of aseptic meningitis, and no confirmed or probable cases were reported up to week 2 of the surveillance season. Aseptic/viral meningitis is the most common type of meningitis and occurs predominately in the summer and fall. While most aseptic/viral meningitis cases are due to gastrointestinal or respiratory viruses, similar symptoms m ay be present with arthropod-borne diseases.

Mosquito testing by the Ohio Department of Health: Based on the ODH mosquito testing summary released on May 28, 2025, Summit County data for mosquitoes is not yet available.

Table 6. Mosquito Testing in Summit County (*samples processed by noon on 5/28/2025*)	
Mosquitoes identified	-
Pooled samples tested	-
Positive WNV pooled samples	-
Note: All mosquitoes pools tested were *Culex spp.*	

Ohio Department of Health Mosquito-borne Disease Surveillance- As of May 29, 2025

Mosquito surveillance:

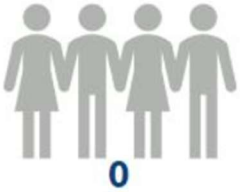
2,044

Mosquitoes tested from 6 agencies in 7 counties, pooled into 3,014 samples.

0

West Nile virus positive mosquito pools.

Human surveillance:



0

West Nile virus disease human cases.

Map will be available when WNV+ Mosquito pools are identified.

Ohio Department of Health Tick-borne Disease Surveillance- As of May 29, 2025

Blacklegged ticks identified.

Human cases of Associated Tick-borne Diseases:

- 237 Lyme disease -Ashtabula (4), Athens (6), Auglaize (1), Butler (1), Champaign (13), Clark (5), Clinton (4), Crawford (1), Cuyahoga (1), Darke (11), Defiance (1), Delaware (1), Erie (8), Fairfield (46), Fayette (23), Franklin (51), Gallia (50), Geauga (3), Greene (7), Hamilton (3), Hardin (1), Harrison (1), Highland (8), Hocking (42), Holmes (117), Jackson (16), Knox (8), Lake (1), Licking (10), Logan (2), Lucas (1), Madison (1), Mahoning (3), Marion (2), Medina (4), Meigs (11), Miami (3), Monroe (2), Montgomery (2), Morrow (8), Muskingum (83), Noble (1), Ottawa (8), Perry (43), Pickaway (6), Pike (22), Richland (2), Ross (2), Sandusky (6), Scioto (3), Seneca (1), Shelby (7), Stark (3), Summit (7), Tuscarawas (1), Union (4), Vinton (32), Washington (3), Wayne (12), Wyandot (1).1 Anaplasmosis -Coshocton (1).
- 0 Babesiosis – N/A.

American dog ticks identified.

Human cases of Associated Tick-borne Diseases:

- 3 Rocky Mountain spotted fever (RMSF) - Clinton (1), Hamilton (1), Vinton (1).

Lone Star ticks identified.

Human cases of Associated Tick-borne Diseases:

- 3 Ehrlichiosis - Franklin (1), Hocking (1), Jefferson (1).

Source: https://odh.ohio.gov/know-our-programs/zoonotic-disease-program/news/vectorborne-disease-update

Special note for travelers:

Ohioans traveling to areas where local transmission is occurring should be aware of the ongoing situation and make every effort to avoid mosquito bites. Additional information can be found from the Centers for Disease Control and Prevention (CDC)'s Travelers' Health and Pan-American Health Organization websites.

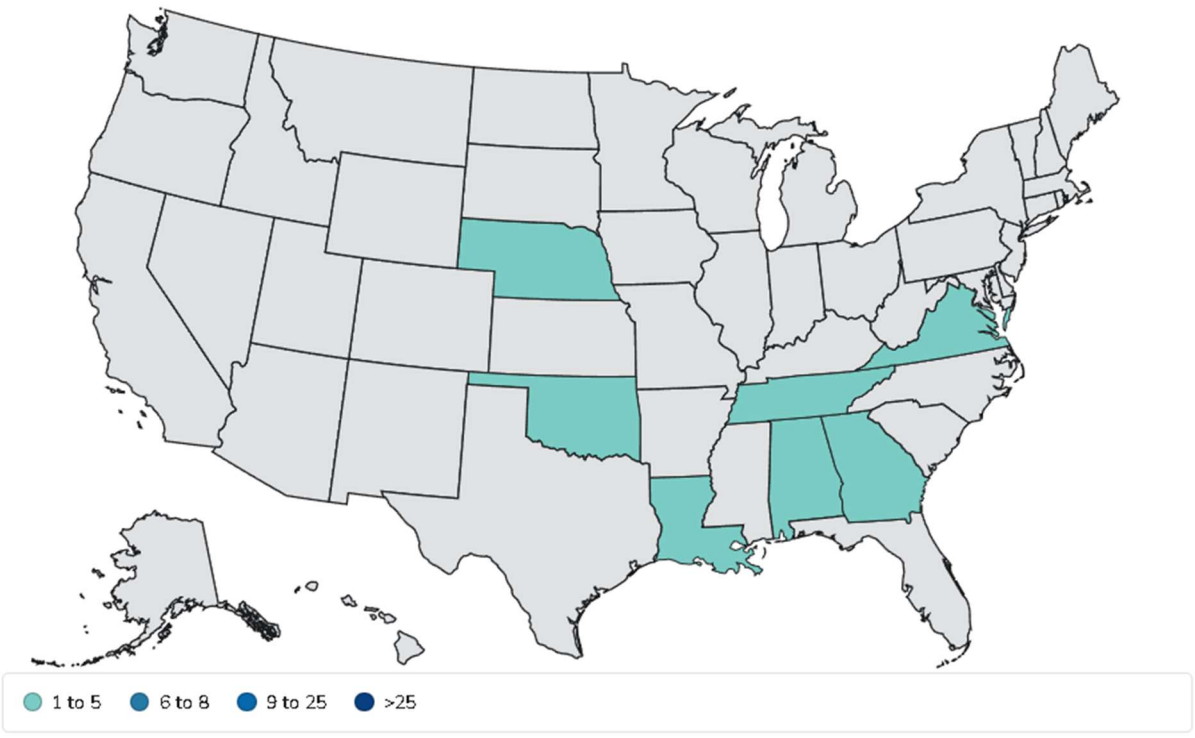
UNITED STATES SURVEILLANCE

Table 7. Reported Vector Borne disease in the United States, 2025

Disease	MMWR Weeks 20 and 21	2025 Cumulative (as of 5/24)
Babesiosis	Not reported weekly by CDC	
Chikungunya	0	23
Dengue (includes dengue-like illness)	2	315
Eastern equine encephalitis	0	0
Ehrlichiosis / anaplasmosis	Not reported weekly by CDC	
Jamestown Canyon virus disease	0	1
LaCrosse virus disease	0	0
Lyme Disease	Not reported weekly by CDC	
Malaria	17	380
Powassan virus disease	0	1
Spotted fever rickettsiosis	Not reported weekly by CDC	
St. Louis encephalitis virus disease	0	0
West Nile virus infection	0	11
Zika virus infection, non-congenital	0	0
Note: Data is provisional and subject to change **NR**: Not Reported		

Source: https://stacks.cdc.gov/

Figure 1. West Nile virus activity by state – United States, 2025 (as of June 3, 2025)



Source: https://www.cdc.gov/west-nile-virus/data-maps/current-year-data.html

TRENDS IN VECTOR BORNE DISEASE IN SUMMIT COUNTY, 2014 - 2024

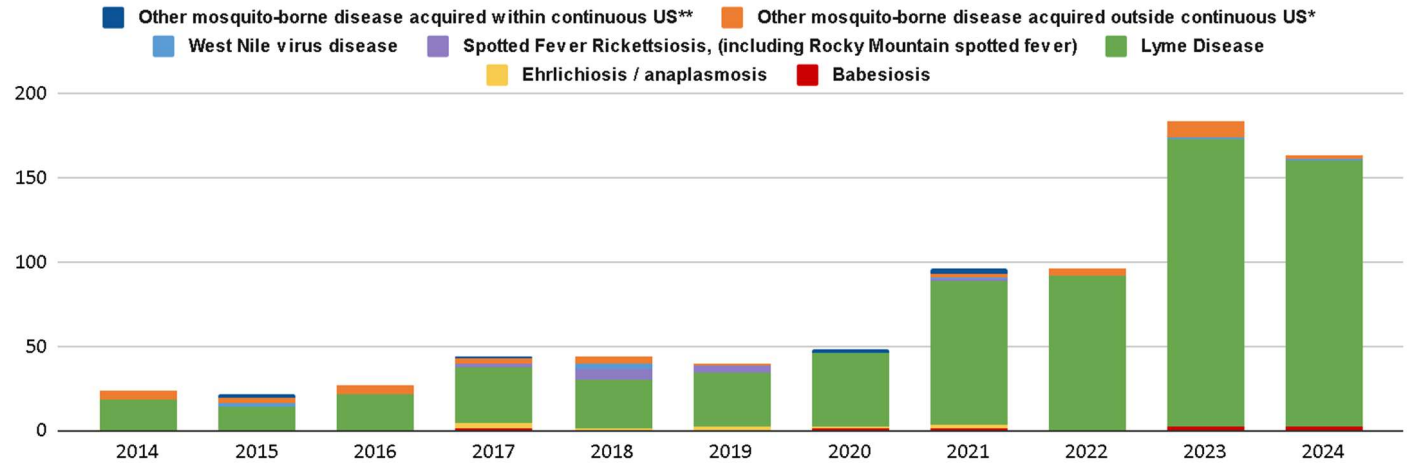
Table 8 provides data on the vector borne disease that were reported in Summit County from 2014 to 2024. The vector for Lyme disease, the blacklegged tick (*Ixodes scapularis*), was first identified in Ohio in 1989, but populations did not begin to increase dramatically until 2009. The blacklegged tick is now established throughout eastern and southern Ohio, and has been collected in all of Ohio's 88 counties.

Table 8. Reported vector-borne disease cases in Summit County, 1/1/2014 - 12/31/2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Babesiosis	0	0	0	1	0	0	1	1	0	2	2
Ehrlichiosis / anaplasmosis	0	0	0	3	1	2	1	2	0	0	0
Lyme Disease	18	14	21	33	29	32	44	86	92	171	158
Spotted Fever Rickettsiosis, (including Rocky Mountain spotted fever)	0	0	0	2	6	4	0	1	0	0	0
West Nile virus disease	0	2	0	1	3	0	0	1	0	1	1
Other mosquito-borne disease acquired outside continuous US*	6	3	6	3	5	2	0	2	4	10	2
Other mosquito-borne disease acquired within continuous US**	0	2	0	1	0	0	2	3	0	0	0
	24	21	27	44	44	40	48	96	96	184	163

Other notable events in vector borne disease surveillance were the increase in Chikungunya cases in 2014 (reported as other arthropod-borne diseases) and the Zika virus disease epidemic of 2016. Increases in Ehrlichiosis and spotted fever rickettsiosis were observed from 2017 to 2019. The incidence of other vector-borne diseases, including West Nile virus disease and other tick-borne illness have remained consistently low.

Figure 2. Reported vector-borne disease cases in Summit County, 2014 – 2024



Notes: * Includes imported cases of malaria, chikungunya, dengue, and Zika virus infection
** Includes LaCrosse virus disease and St. Louis encephalitis virus disease

Data Source: Ohio Disease Reporting System

About this report: *Reporting agencies include Summit County hospital laboratories and the Ohio Department of Health. Vector-borne disease case data for Summit County are obtained from the Ohio Disease Reporting System.*

Many thanks to all agencies who report vector-borne disease data weekly.

Reporting from participants may not be complete each week. Numbers may change as updated reports are received. For questions, please contact Julie Zidones (JZidones@schd.org) or the Summit County Public Health Communicable Disease Unit (330-375-2662). This report was issued on **June 5, 2025**.