

Report Highlight:

- New Jersey's first positive EEE mosquito pool in 2018 was confirmed on June 28 in Salem county.
- To date in 2018, a total of 8 mosquito pools have tested positive for WNV.
- There have been no WNV or EEE positive cases detected in humans or animals this season.
- Overall, the number of reported human vector-borne diseases is lower compared to the same period last year.

Human Testing

New Jersey Administrative Code (N.J.A.C.) Title 8 Chapter 57 mandates public health reporting of specified vector-borne diseases to prevent further disease spread.

Human Cases^a

Mosquito-borne diseases			Tickborne Diseases		
	2018 ^b	2017		2018 ^b	2017
Chikungunya	3	12	Anaplasmosis	20	154
Dengue	3	25	Babesiosis	16	193
Eastern equine encephalitis	-	-	Ehrlichiosis	14	102
Malaria	31	125	Lyme disease	1199	5107
West Nile	-	8	Powassan	-	4
Zika	4	37	Spotted fever group rickettsioses	30	137

^a Data for 2018 reflect confirmed and probable cases that have been approved by NJDOH. This does not include cases under investigation. All 2018 numbers are preliminary and are subject to change.

^b Cumulative through week 26: June 24-30, 2018.

Mosquito Testing*

The New Jersey Department of Health Public Health and Environmental Laboratories (PHEL) and the Cape May County Department of Mosquito Control Bio-safety Level 3 Laboratory (CMBSL3) perform arboviral testing on mosquito pools collected by county mosquito control agencies throughout New Jersey.

West Nile virus (WNV):

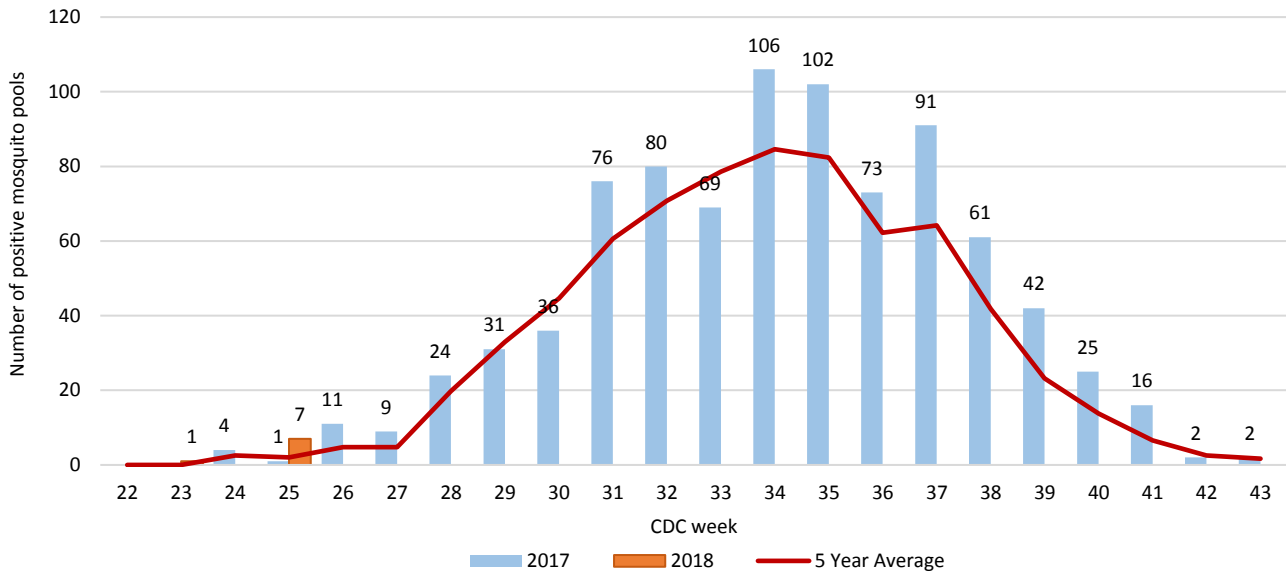
- To date, 1402 mosquito pools from 19 counties (Atlantic, Bergen, Burlington, Camden, Cape May, Cumberland, Gloucester, Hudson Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Sussex and Warren) have been tested for WNV.
- To date, 8 mosquito pools have tested positive for WNV. This is lower than the cumulative number of positive pools at week 26 in 2017.
- 4 Counties (Bergen, Hunterdon, Somerset, and Warren) have identified WNV positive pools earlier this season compared with 2017.

* Test results may be incomplete; Counties submit pools for testing on specific weekdays. Mosquito testing data reflects test results received from PHEL, CMBSL3 and US Army Public Health as of July 2, 2018

WNV Positive Mosquito Pools

County	Week 26		Cumulative Total (week 26)	
	2018*	2017	2018*	2017
Atlantic				
Bergen			1	
Burlington				1
Camden				1
Cape may		1		
Cumberland				
Essex				
Gloucester				
Hudson				
Hunterdon			1	
Mercer				
Middlesex		8		8
Monmouth				
Morris		1		2
Ocean				
Passaic				
Salem		1		1
Somerset			2	
Sussex				1
Union				
Warren			4	2
Total	-	11	8	16

West Nile Virus Positive Mosquito Pools, NJ



Eastern equine encephalitis virus (EEE)

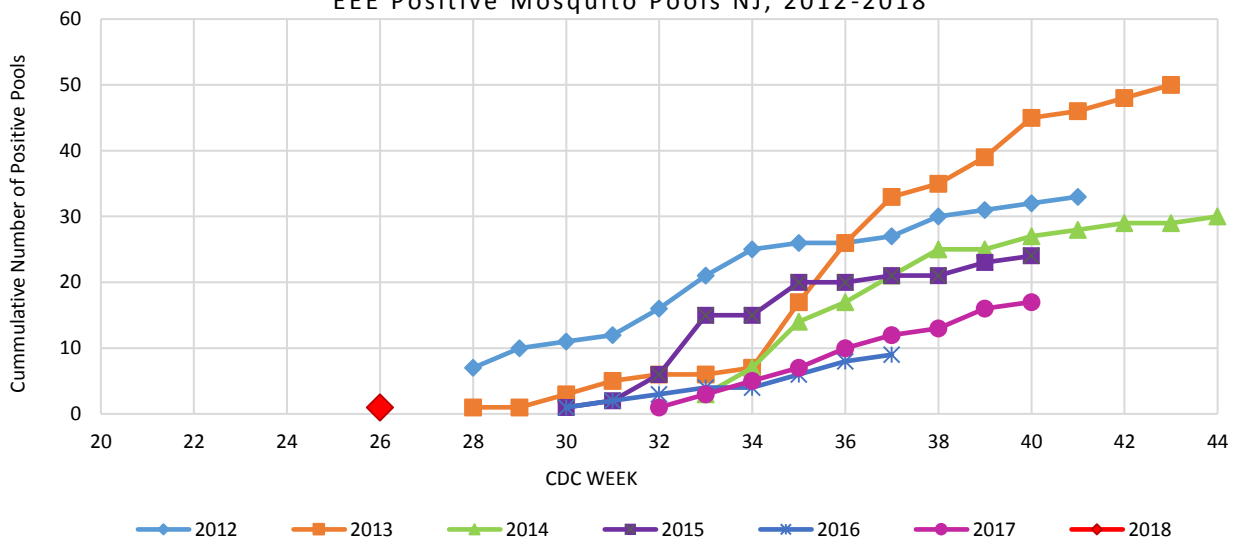
- To date, 345 mosquito pools from 13 counties (Atlantic, Bergen, Burlington, Camden, Cape May, Cumberland, Gloucester, Middlesex, Monmouth, Ocean, Passaic, Salem and Sussex) have been tested for EEE.
- The first EEE positive mosquito pool this season was confirmed in Salem county in week 26. This is the earliest EEE positive pool identified in the state since 2012 (see chart below). In 2017, the first EEE positive mosquito pool was confirmed week 32.

EEE Positive Mosquito Pools

County	Week 26		Cumulative Total (week 26)	
	2018	2017	2018	2017
Salem	1		1	
Atlantic				
Burlington				
Cape May				
Camden				
Gloucester				
Total	1	-	1	-

Week 26: June 25- July 1, 2017; June 24-30, 2018

EEE Positive Mosquito Pools NJ, 2012-2018



Other viruses:

To date in 2018, mosquito pools from 3 counties (Burlington, Cape May and Middlesex) have been tested for other arboviruses. No positive mosquito pools were identified.

Cumulative 2018 Mosquito Pool Testing (Other Viruses ^a)

County	SLE		LAC		CHIKV		DENV		ZIKV	
	Pools	Positives	Pools	Positives	Pools	Positives	Pools	Positives	Pools	Positives
Burlington	14		1							
Cape May	168								62	
Middlesex					2		2		2	
Total	182	-	1	-	2	-	2	-	64	-

^a St. Louis encephalitis virus (SLE), La Crosse encephalitis virus (LAC), Chikungunya virus (CHIKV), Dengue virus (DENV), Zika Virus (ZIKV)

Numbers in white columns represent number of pools tested to date in 2018

Numbers in green shaded columns represent positive pools in 2018

Equine/Avian /Other Animal Testing

Equine testing for WNV and EEE is conducted at the New Jersey Department of Agriculture's Animal Health and Diagnostic Laboratory.

- No animals have tested positive for WNV or EEE in 2018.
- Routine avian testing has been discontinued but is available upon request at PHEL.

WNV/EEE Positive Test Results

	Week 26		Cum. Total (Year)	
	2018	2017	2018	2017
Equine (EEE)				
Equine (WNV)				
Avian				
Other				
Total	-	-	-	-

Week 26: June 25- July 1, 2017; June 24-30, 2018

Surveillance Maps*

Week 26 WNV Activity (2018)

Cumulative WNV Activity 2018

WNV Positive Pools

- > 50
- 31 - 50
- 21 - 30
- 11 - 20
- < 10
- 0

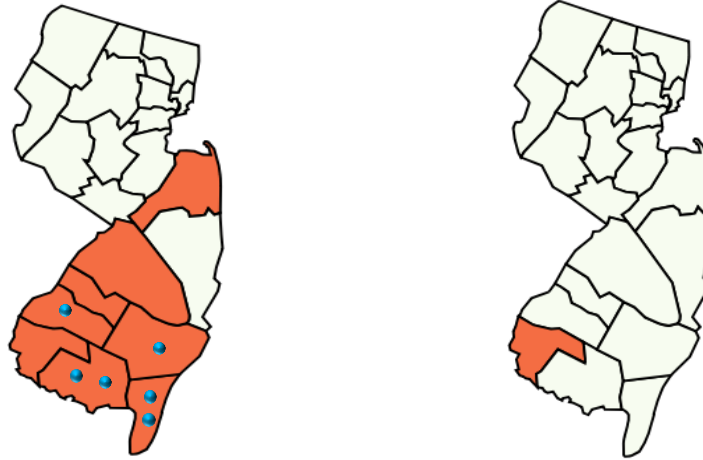
- ★ WNV human case
- WNV equine case



2017 EEE Activity

Cumulative EEE Activity 2018

- Positive mosquito pool
- Equine case
- ★ Human case

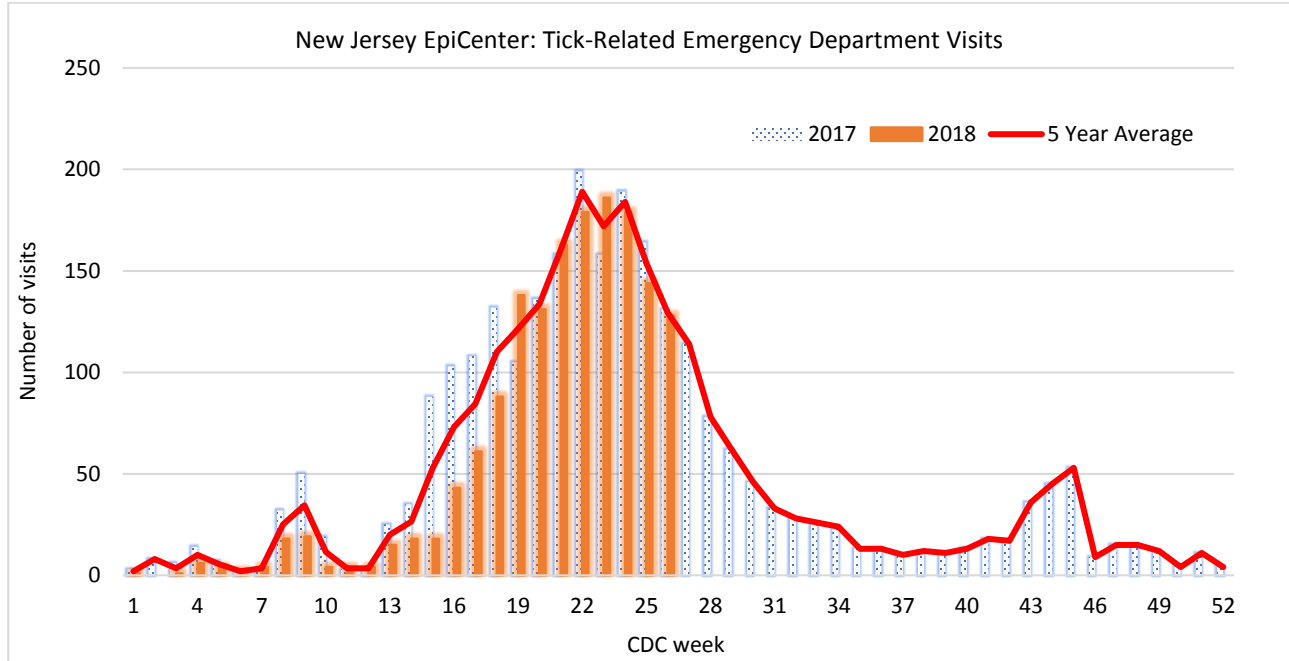


* Data reflects mosquito test results received from PHEL, CMBSL3 and US Army Public Health as of July 2, 2018

Syndromic Surveillance for Tick-related Emergency Department Visits

EpiCenter is a syndromic surveillance system developed and maintained by Health Monitoring Systems, Inc, for monitoring by health departments in the United States. New Jersey’s EpiCenter receives real time Emergency Department (ED) data from 78 acute care and satellite health (99 percent reporting) facilities statewide. The system collects “chief complaint” information and limited patient registration data from existing ED computer systems.

The chart below represents NJ residents seen at emergency departments state wide with a tick-bite complaint or signs/symptoms associated with a reported tick-bite.



Data reflects ED visits downloaded from EpiCenter as of July 1, 2018

For More Information

- NJDOH Communicable Disease Service: <http://nj.gov/health/cd/topics/vectorborne.shtml>
- NJDEP Office of Mosquito Control Coordination: <http://www.nj.gov/dep/mosquito/>
- NJDA Division of Animal Health: <http://www.nj.gov/agriculture/divisions/ah/>
- Rutgers Center for Vector Biology: <http://vectorbio.rutgers.edu/>