

**Report Highlight:**

- *New Jersey's first positive West Nile virus (WNV) mosquito pool in 2018 was confirmed on June 15 in Warren county.*
- *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<sup>a</sup>**

Mosquito-borne diseases			Tickborne Diseases		
	2018 <sup>b</sup>	2017		2018 <sup>b</sup>	2017
Chikungunya	2	12	Anaplasmosis	20	154
Dengue	3	25	Babesiosis	16	193
Eastern equine encephalitis	-	-	Ehrlichiosis	14	102
Malaria	30	125	Lyme disease	1047	5107
West Nile	-	8	Powassan	-	4
Zika	4	37	Spotted fever group rickettsioses	30	137

<sup>a</sup> 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.

<sup>b</sup> Cumulative through week 25: June 17-23, 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):**

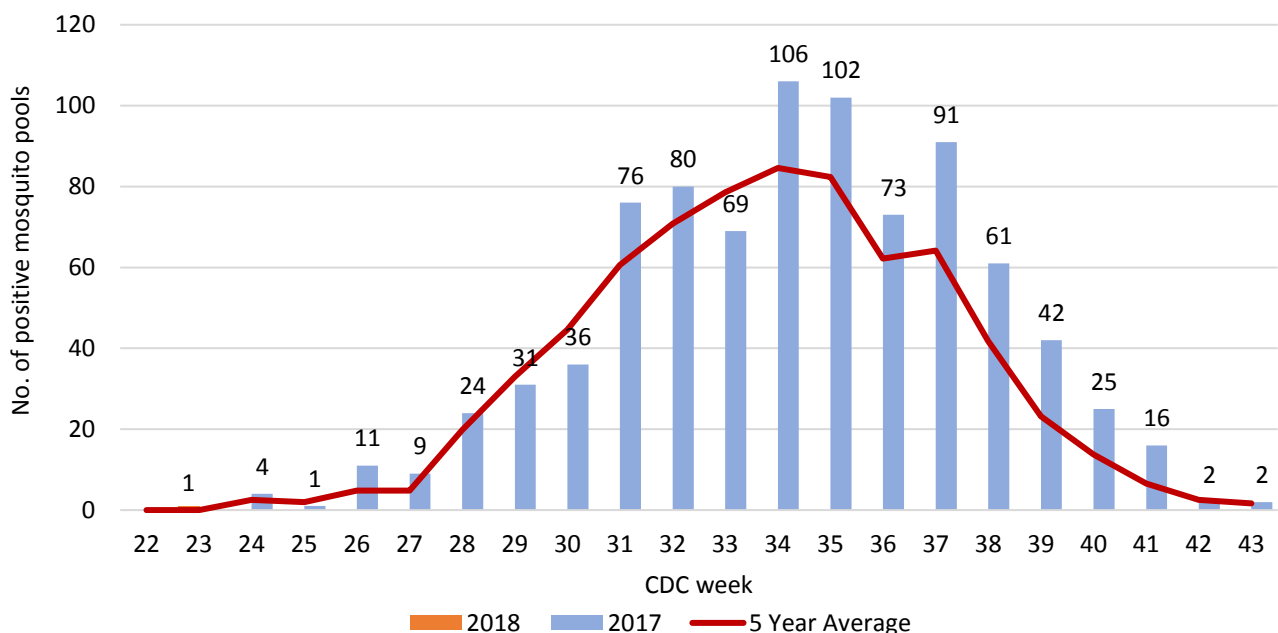
- To date, 1108 mosquito pools from 19 counties (Atlantic, Bergen, Burlington, Camden, Cape May, Cumberland, Gloucester, Hudson Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Sussex and Warren) have been tested for WNV.
- In week 23, 1 mosquito pool tested positive for WNV in Warren county.

**WNV Positive Mosquito Pools**

County	Week 25		Cumulative Total (week 25)	
	2018*	2017	2018*	2017
Atlantic				
Bergen				
Burlington		1		1
Camden				
Cape may				
Cumberland				
Essex				
Gloucester				
Hudson				
Hunterdon				
Mercer				
Middlesex				
Monmouth				
Morris				1
Ocean				
Passaic				
Salem				
Somerset				
Sussex				1
Union				
Warren			1	2
<b>Total</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>5</b>

\* 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 June 26, 2018

West Nile Virus Positive Mosquito Pools, NJ



**Eastern equine encephalitis virus (EEE)**

- To date, 302 mosquito pools from 12 counties have been tested for EEE (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Middlesex, Monmouth, Ocean, Passaic, Salem and Sussex).
- No EEE positive mosquito pools have been identified in 2018.

EEE Positive Mosquito Pools

County	Week 25		Cumulative Total (week 25)	
	2018	2017	2018	2017
Atlantic				
Burlington				
Cape May				
Camden				
Gloucester				
Ocean				
Salem				
<b>Total</b>	-	-	-	-

Week 25: June 18-24, 2017; June 17-23, 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<sup>a</sup>)

County	SLE		LAC		CHIKV		DENV		ZIKV	
	Pools	Positives	Pools	Positives	Pools	Positives	Pools	Positives	Pools	Positives
Burlington	14		1							
Cape May	144								50	
Middlesex					2		2		2	
<b>Total</b>	158	-	1	-	2	-	2	-	52	-

<sup>a</sup> 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.

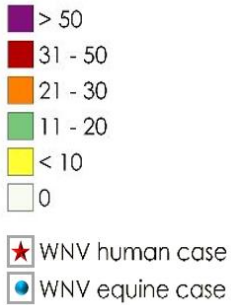
### WNV/EEE Positive Test Results

	Week 25		Cum. Total (Year)	
	2018	2017	2018	2017
Equine (EEE)				
Equine (WNV)				
Avian				
Other				
<b>Total</b>	-	-	-	-

Week 25: June 18-24, 2017; June 17-23, 2018

## Surveillance Maps\*

### WNV Positive Pools



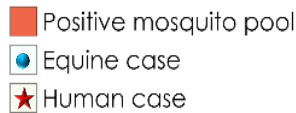
Week 25 WNV Activity (2018)



Cumulative WNV Activity 2018



2017 EEE Activity



Cumulative EEE Activity 2018



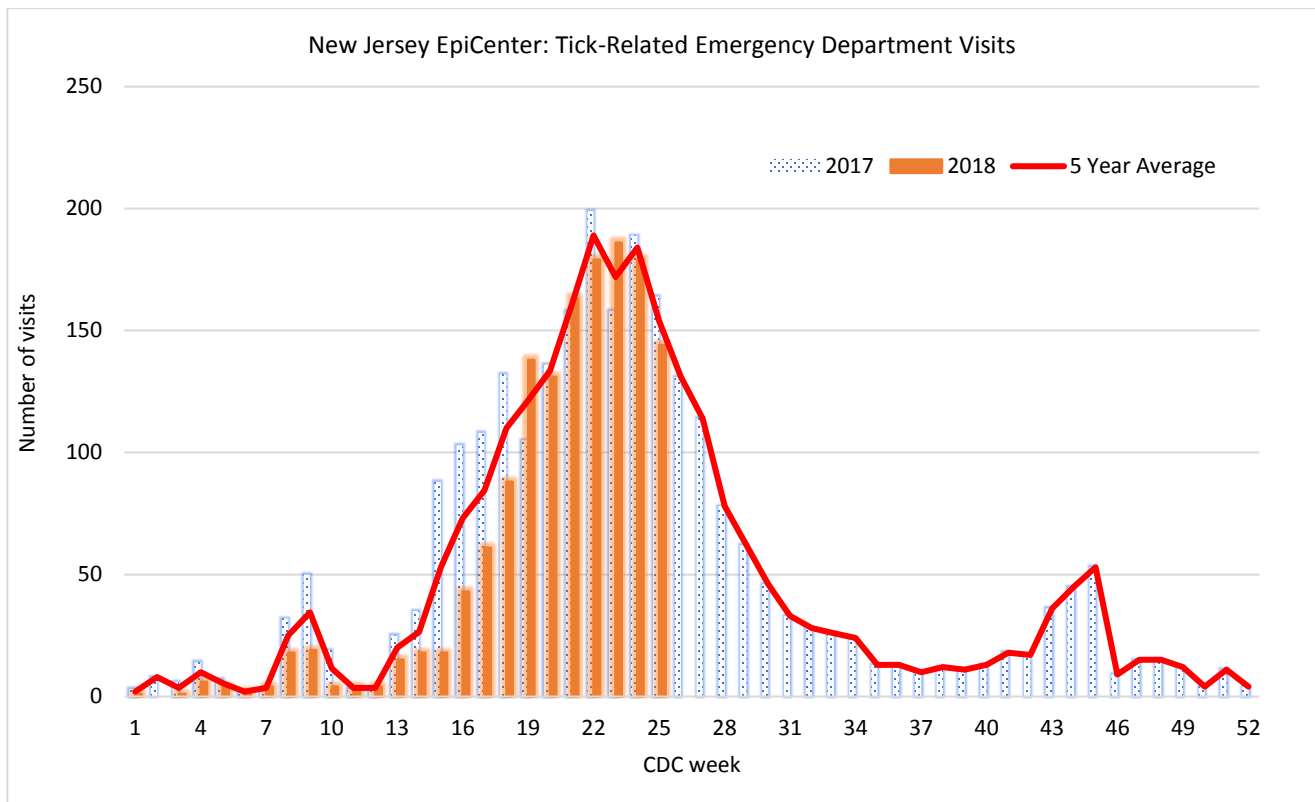
\* Data reflects mosquito test results received from PHEL, CMBLS3 and US Army Public Health as of June 26, 2018

## 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. EpiCenter monitors the health of the community for both culture-proven cases of disease as well as for abnormal incidences of select infectious disease syndromes by examining these data.

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 June 26, 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/>