

Report Highlight:

- A total of 65 mosquito pools have tested positive for WNV. This is higher than the number of pools reported during the same period in 2017
- One mosquito pool tested positive for EEE in Salem county.
- There have been no WNV or EEE positive cases detected in humans or animals this season.
- The number of tick related ED visits continue to decline following seasonal trends observed in past 5 years.

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	4	25	Babesiosis	16	193
Eastern equine encephalitis	-	-	Ehrlichiosis	14	102
Malaria	33	125	Lyme disease	1204	5107
West Nile	-	8	Powassan	-	4
Zika	6	37	Spotted fever group rickettsioses	31	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 28: July 8-14, 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):

- 65 mosquito pools from 17 counties have tested positive for WNV. This is higher than the cumulative number of positive pools at week 27 in 2017.
- 11 of the 17 counties with WNV positive pools are identifying the first positive pools an average of 2 weeks earlier compared with 2017.
- Cumberland county identified its first positive pool 10 weeks earlier this season compared with 2017.
- WNV has been detected in the following species: *Aedes albopictus*, *Aedes japonicus*, *Aedes vexans*, *Culex erraticus*, *Culex pipiens*, *Culex sp.*, *Culex restuans*, *Culiseta melanura*, *Coquillettia perturbans*.

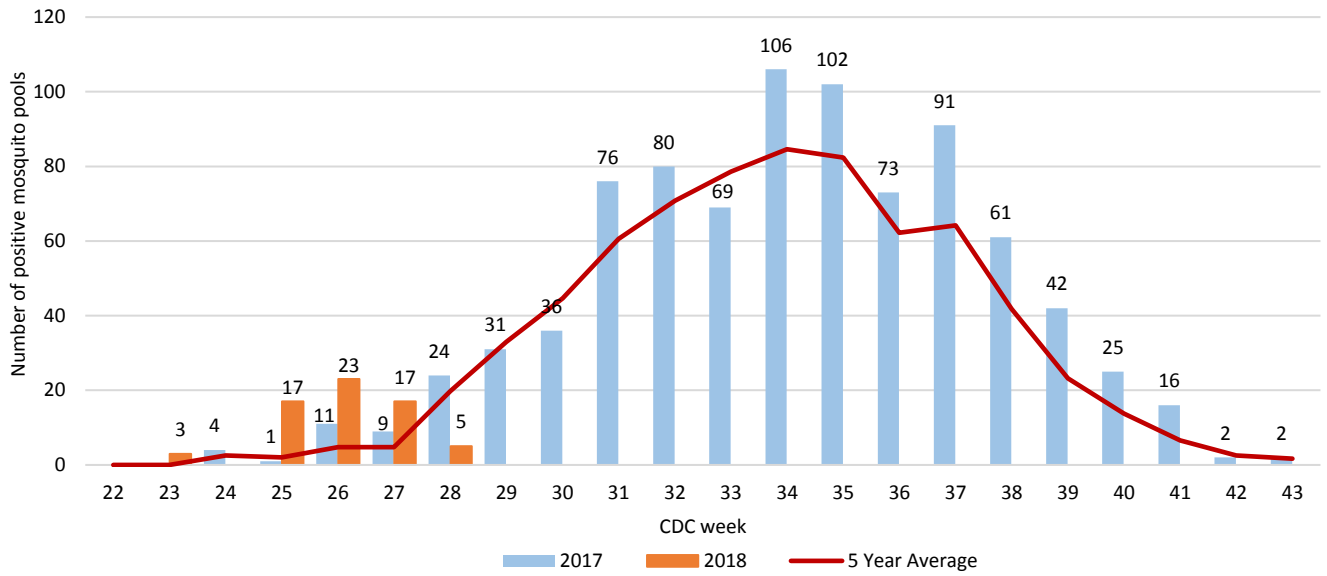
* Test results may be incomplete; Counties submit pools for testing on specific weekdays. Mosquito testing data reflects test results received from PHEL, CMBSL3 and US Army Public Health as of July 17, 2018

WNV Positive Mosquito Pools

County	Week 28		Cumulative Total (week 28)	
	2018*	2017	2018*	2017
Bergen	1	5	9	5
Burlington	4	1	8	2
Middlesex			7	9
Camden			6	
Ocean		1	5	1
Somerset			4	1
Warren		1	4	4
Gloucester		2	4	2
Cumberland			4	
Hunterdon		4	4	4
Monmouth		1	2	1
Atlantic			2	
Mercer			2	
Salem			1	1
Cape May		1	1	2
Morris			1	4
Hudson		4	1	8
Essex				
Passaic				
Sussex		1		2
Union		3		3
Total	5	24	65	49

Week 28: July 9-15, 2017; July 8-14, 2018

West Nile Virus Positive Mosquito Pools, NJ



Eastern equine encephalitis virus (EEE)

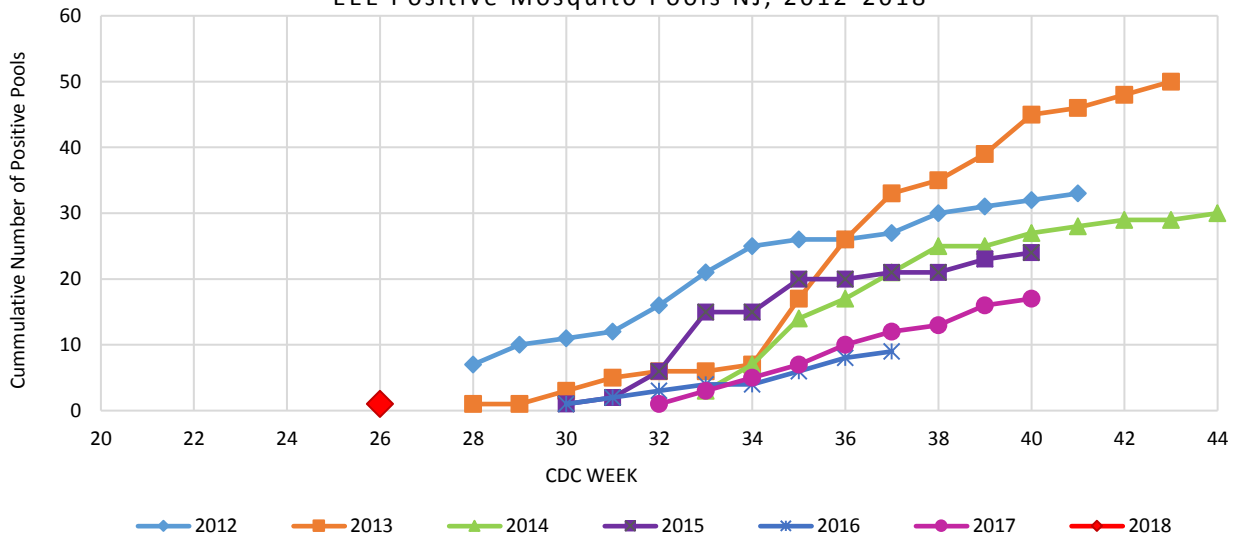
- To date, 657 mosquito pools from 14 counties (Atlantic, Bergen, Burlington, Camden, Cape May, Cumberland, Gloucester, Middlesex, Monmouth, Ocean, Passaic, Salem, Sussex and Warren) have been tested for EEE.
- The first EEE positive mosquito pool this season was confirmed in Salem county in week 26. This is the earliest EEE positive pool identified in the state in the past 7 years (see chart below). In 2017, the first EEE positive mosquito pool was confirmed in week 32.

EEE Positive Mosquito Pools

County	Week 28		Cumulative Total (week 28)	
	2018	2017	2018	2017
Salem			1	
Atlantic				
Burlington				
Cape May				
Camden				
Cumberland				
Gloucester				
Monmouth				
Total	-	-	1	-

Week 28: July 9-15, 2017; July 8-14, 2018

EEE Positive Mosquito Pools NJ, 2012-2018



Other viruses:

Mosquito pools from 6 counties (Atlantic, Burlington, Cape May, Middlesex, Ocean and Sussex) 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
Atlantic					2		2		2	
Burlington	28		5							
Cape May	322								105	
Middlesex					2		2		2	
Ocean			4		10		10		10	
Sussex			2							
Total	350	-	11	-	14	-	14	-	119	-

^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 28		Cum. Total (Year)	
	2018	2017	2018	2017
Equine (EEE)				
Equine (WNV)				
Avian				
Other				
Total	-	-	-	-

Week 28: July 9-15, 2017; July 8-14, 2018

Surveillance Maps*

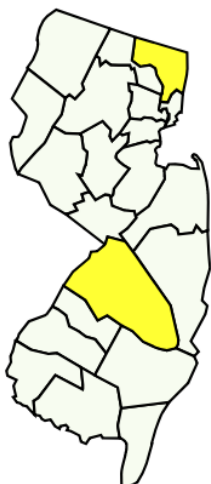
Week 28 WNV Activity (2018)

Cumulative WNV Activity 2018

WNV Positive Pools

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

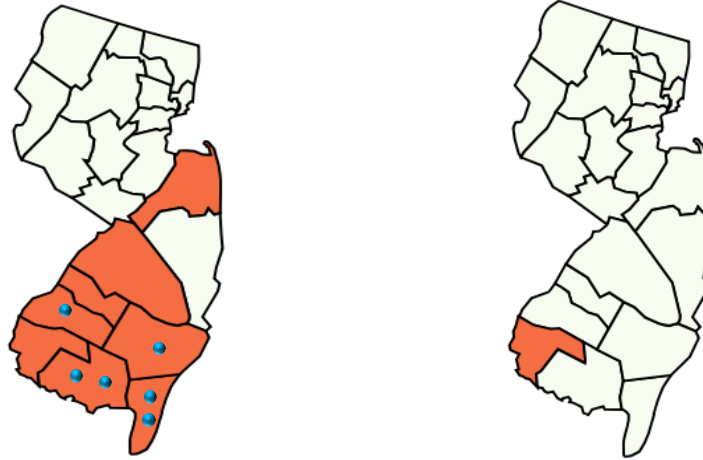
- WNV human case
- WNV equine case



2017 EEE Activity

Cumulative EEE Activity 2018

- Positive mosquito pool
- Equine case
- ★ Human case

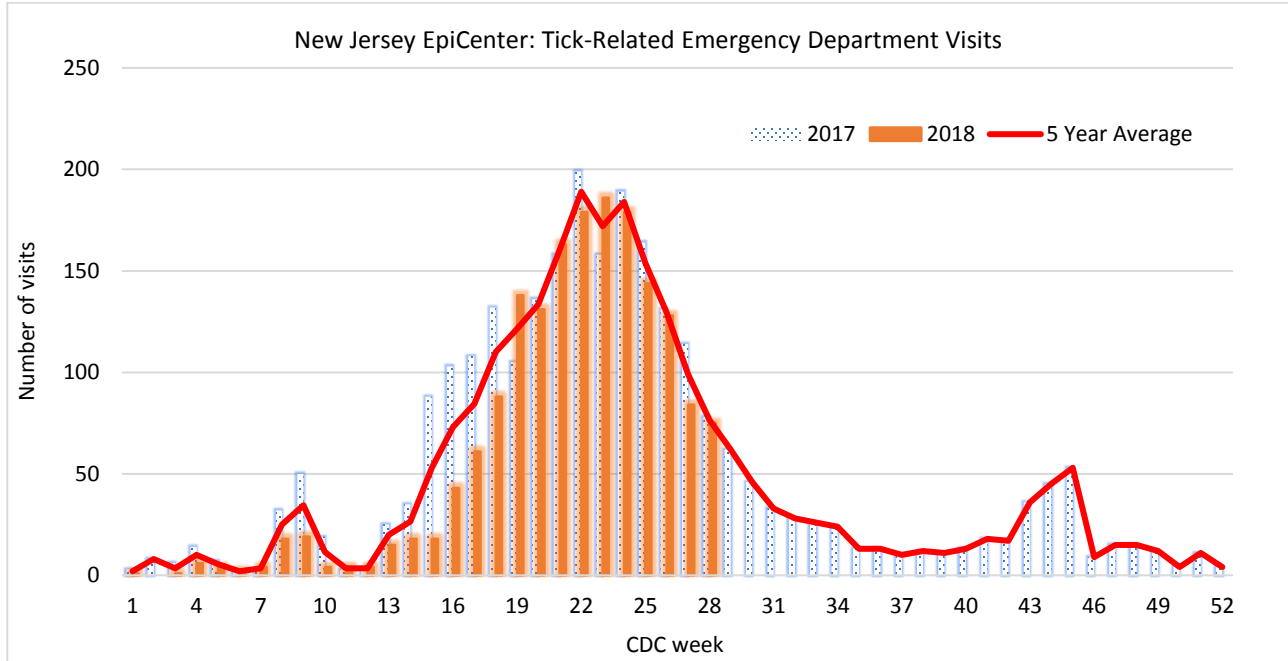


* Data reflects mosquito test results received from PHEL, CMBSL3 and US Army Public Health as of July 17, 2018

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 17, 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/>