

Report Highlight:

- A total of 180 mosquito pools have tested positive for WNV. This is higher than the number of pools reported during the same period in 2017
- Two mosquito pools from Camden and Salem County have tested positive for EEE.
- 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 the 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	5	12	Anaplasmosis	37	154
Dengue	4	25	Babesiosis	59	193
Eastern equine encephalitis	-	-	Ehrlichiosis	32	102
Malaria	35	125	Lyme disease	1558	5107
West Nile	-	8	Powassan	-	4
Zika	6	37	Spotted fever group rickettsioses	61	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 30: July 22-28, 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):

- 180 mosquito pools from 19 counties have tested positive for WNV. This is 55 percent higher than the cumulative number of positive pools at week 30 in 2017.
- 82% (n=149) of the positive pools were *Culex sp.*
- 23% of WNV positive pools were in Bergen county.
- A record number of 58 WNV positive pools was reported in week 28. This is twice the cumulative number of pools reported at the same time last year and higher than the 5-year average of WNV positive pools at week 28.
- There has not been any WNV positive pools in Passaic County.

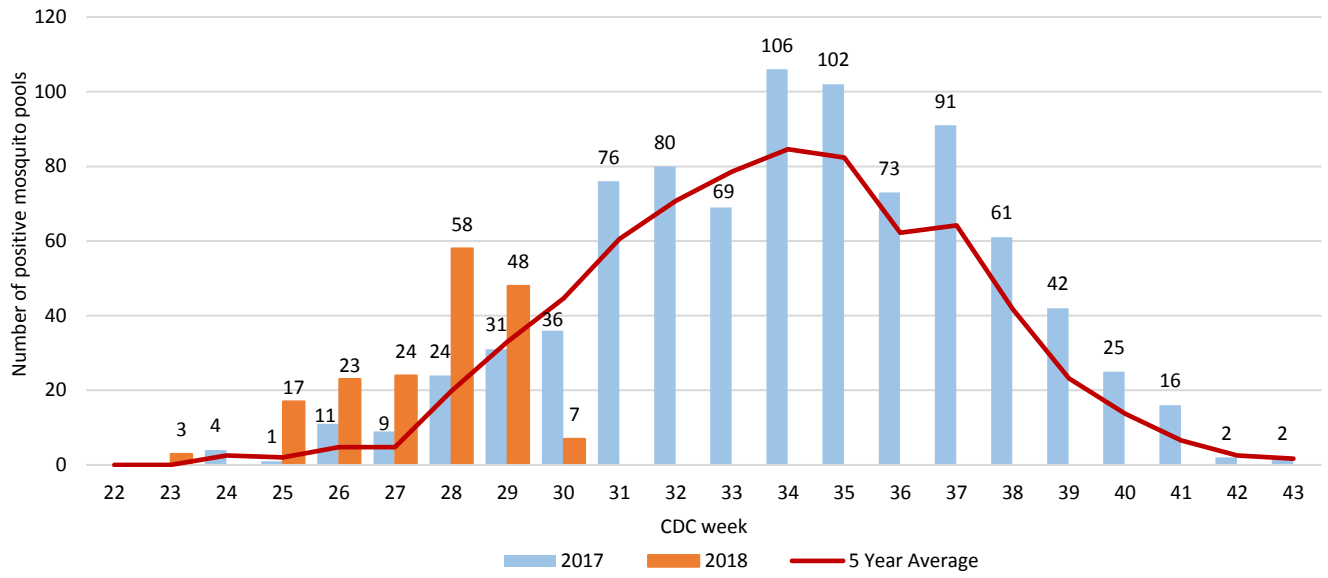
* Test results may be incomplete; Counties submit pools for testing on specific weekdays. Mosquito testing data reflects test results received from PHEL, CMBSL3 and US Army Public Health as of August 1, 2018

WNV Positive Mosquito Pools

County	Week 30		Cumulative Total (week 30)	
	2018*	2017	2018*	2017
Bergen	5	5	42	19
Middlesex		7	16	18
Camden	2	4	14	5
Gloucester			14	2
Hunterdon		6	14	13
Warren		1	13	6
Burlington			10	4
Mercer		1	9	2
Monmouth			8	1
Morris			8	6
Somerset		1	7	4
Ocean		1	5	2
Cumberland			4	
Essex		1	4	1
Atlantic			3	
Cape May		2	3	5
Hudson		6	3	16
Sussex		1	2	3
Salem			1	1
Passaic				1
Union				7
Total	7	36	180	116

Week 30: July 23-29, 2017; July 22-28, 2018

West Nile Virus Positive Mosquito Pools, NJ



Eastern equine encephalitis virus (EEE)

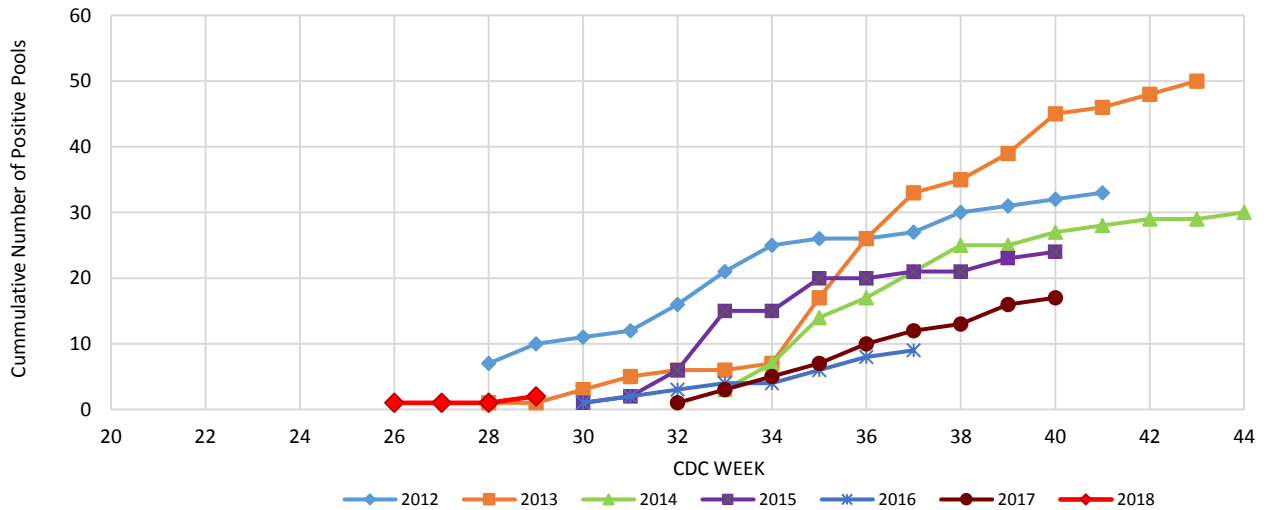
- To date, 860 mosquito pools from 15 counties (Atlantic, Bergen, Burlington, Camden, Cape May, Cumberland, Gloucester, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Sussex and Warren) have been tested for EEE.
- Two EEE positive mosquito pools have been identified this season. The first positive was in Salem County (week 26) and the second in Camden County (week 29). This is the earliest EEE positive pools identified in the state in the past 7 years (see chart below).

EEE Positive Mosquito Pools

County	Week 30		Cumulative Total (week 30)	
	2018	2017	2018	2017
Camden			1	
Salem			1	
Atlantic				
Burlington				
Cape May				
Cumberland				
Gloucester				
Monmouth				
Total	-	-	2	-

Week 30: July 23-29, 2017; July 22-28, 2018

EEE Positive Mosquito Pools in 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					6		6		6	
Burlington	29		6							
Cape May	407								158	
Middlesex					2		2		2	
Ocean			4		19		19		19	
Sussex			3		1		1		1	
Total	436	-	13	-	28	-	28	-	186	-

^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 30		Cum. Total (Year)	
	2018	2017	2018	2017
Equine (EEE)				
Equine (WNV)				
Avian				
Other				
Total	-	-	-	-

Week 30: July 23-29, 2017; July 22-28, 2018

Surveillance Maps*

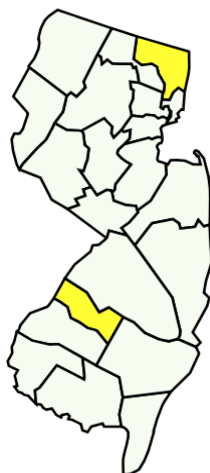
Week 30 WNV Activity (2018)

Cumulative WNV Activity 2018

WNV Positive Pools

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

- ★ WNV human case
- WNV equine case

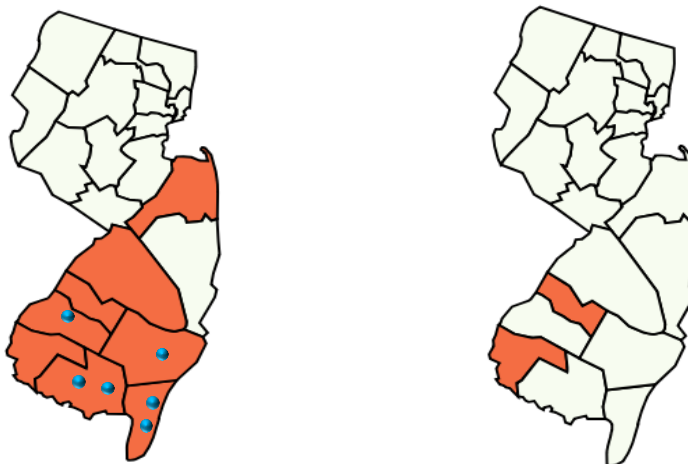


*Testing results may be incomplete. Data reflects mosquito test results received from PHEL, CMBSL3 and US Army Public Health as of August 1, 2018

2017 EEE Activity

Cumulative EEE Activity 2018

- Positive mosquito pool
- Equine case
- ★ Human case

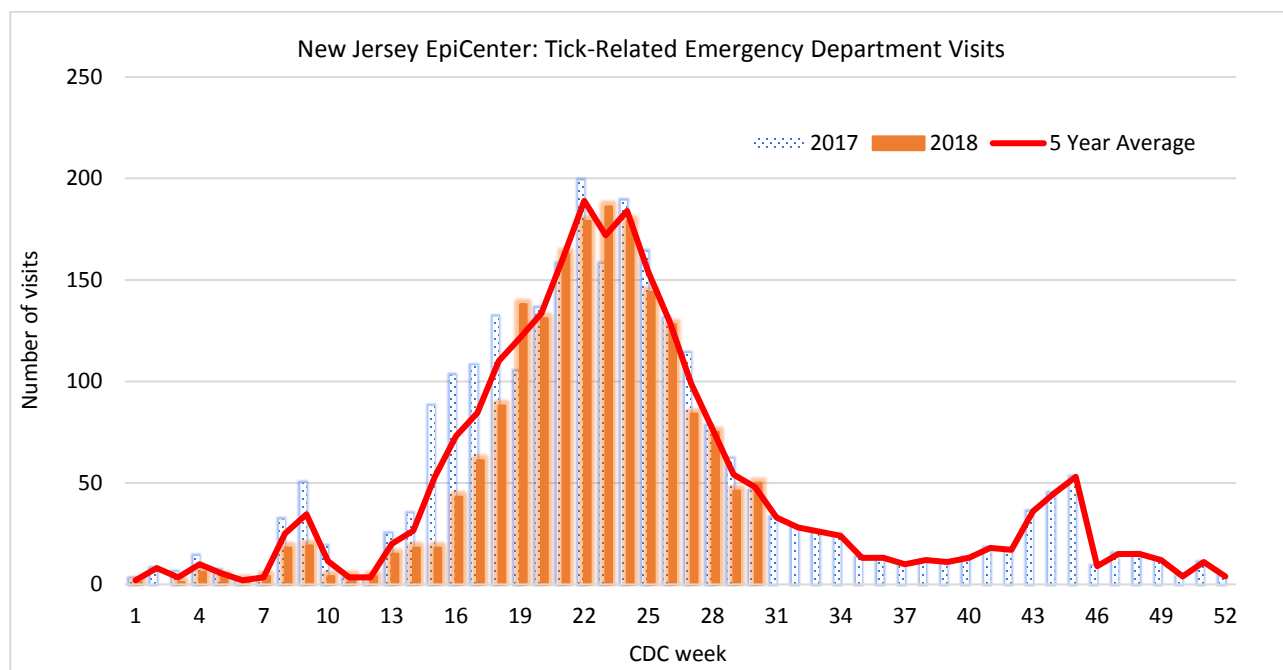


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Syndromic Surveillance for Tick-related Emergency Department Visits

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 August 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/>