

Report Highlight:

- As of week 38, WNV positive mosquito pools have been reported in all 21 Counties.
- To date in 2017, four human cases of WNV have been reported; 2 Mercer, 1 Atlantic, and 1 Monmouth. (Note: a previously reported case from Atlantic County exposed in Alabama will be reported by Alabama Dept. of Public Health).
- To date in 2017, twelve mosquito pools and two horses have tested positive for EEE.
- There have been no human cases of EEE in 2017.

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			Tick-borne Diseases		
	2017 ^b	2016 Cases		2017 ^b	2016 Cases
Chikungunya	7	11	Babesiosis	134	174
Dengue	5	92	Ehrlichiosis/Anaplasmosis	185	193
Eastern equine encephalitis	-	1	Lyme disease	3545	4350
West Nile	4	13	Powassan	2	-
Zika	23	238	Rocky Mountain spotted fever	82	64

^a Data for 2017 reflect confirmed and probable cases that have been approved by NJDOH. This does not include cases under investigation. All 2017 numbers are preliminary and are subject to change.

^b Cumulative through week 38: September 17-23, 2017.

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 this year, 742 mosquito pools have tested positive for WNV. This is 60 percent higher than the total number of positive pools reported in 2016 ($n=447$).
- 92% ($n=680$) of the pools positive were *Culex spp.*
- As of week 38, Bergen County has reported over 100 WNV positive pools. This is the first time since 2012 the County is reporting 100+ WNV positive pools.
- The number of WNV positive pools reported from week 34 through week 38 is higher than number of positive pools reported at the same time last year and higher than the 5-year average of WNV positive pools during the same period.

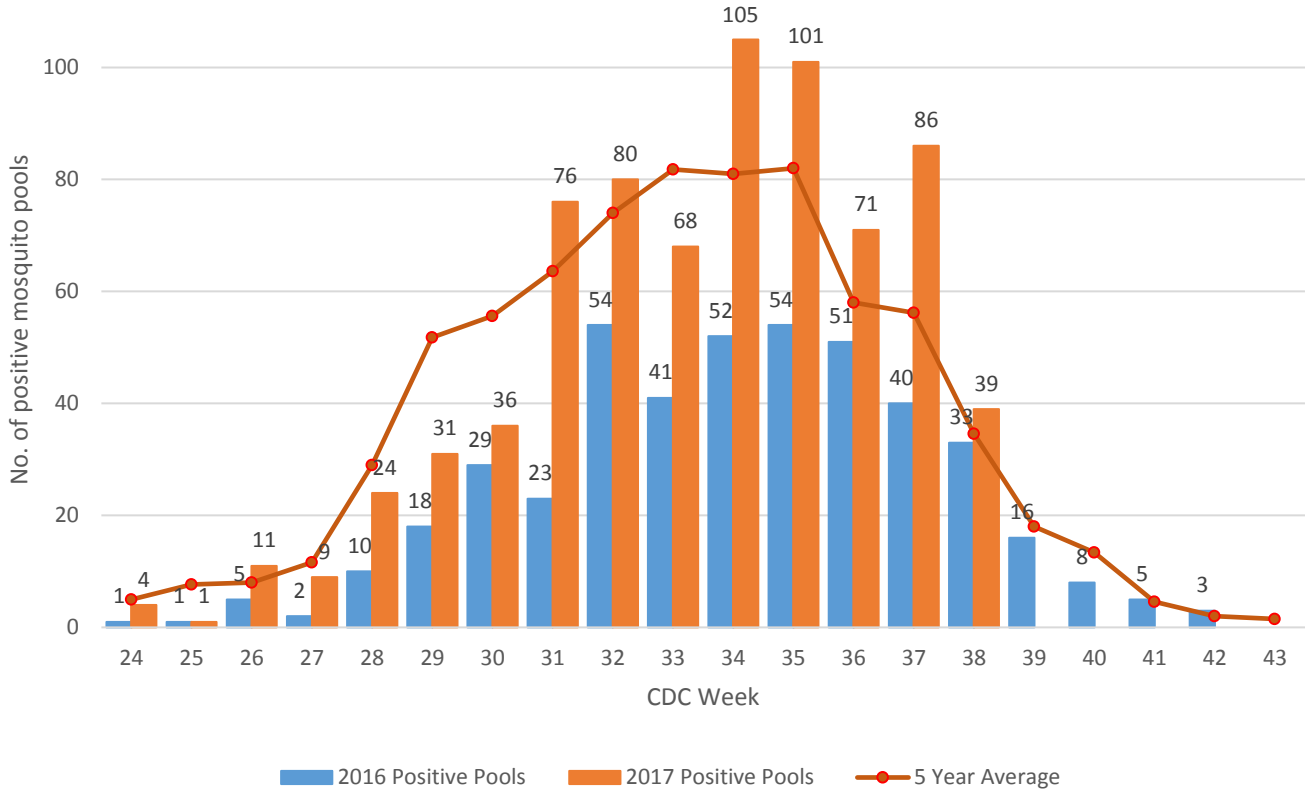
* Test results may be incomplete; Counties submit pools for testing on specific weekdays. Mosquito testing data reflects test results received from PHEL, CMBSL3 and US Army Public Health as of Sep 26, 2017

WNV Positive Mosquito Pools

County	Week 38		Cumulative Total (week 38)	
	2017*	2016	2017*	2016
Bergen		8	101	87
Union	6	5	95	77
Gloucester	8	2	80	36
Hunterdon	13	4	80	35
Hudson		4	65	29
Middlesex			49	28
Sussex	6		35	5
Camden		1	34	7
Somerset	1	1	34	13
Warren	1	1	27	2
Morris			26	10
Burlington	2	1	25	8
Mercer		2	20	19
Cape May		2	19	4
Ocean			13	1
Monmouth		1	12	16
Salem	1		10	1
Essex			6	2
Atlantic	1	1	4	12
Passaic			4	22
Cumberland			3	1
Total	39	33	742	415

Week 38: September 18-24, 2016; September 17-23, 2017

West Nile Virus Positive Mosquito Pools, NJ (2016 -2017)



Eastern equine encephalitis virus (EEE):

- To date, mosquito pools from 15 counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Sussex, and Warren) have been tested for EEE.
- As of week 38, a total of 12 mosquito pools in 5 Counties (Atlantic, Burlington, Cape May, Cumberland and Salem) have tested positive for EEE.
- All EEE positive pools were *Culiseta melanura* species.

EEE Positive Mosquito Pools

County	Week 38		Cumulative Total (week 38)	
	2017	2016	2017	2016
Burlington			3	1
Cape May			3	2
Salem			3	
Atlantic			2	1
Cumberland			1	
Bergen				
Camden				2
Essex				
Gloucester				1
Hudson				
Hunterdon				
Mercer				
Middlesex				3
Monmouth				1
Morris				
Ocean				
Passaic				
Somerset				
Sussex				
Union				
Warren				
Total	-	-	12	11

Week 38: September 18-24, 2016; September 17-23, 2017

Other viruses:

To date in 2017, mosquito pools from 4 counties (Burlington, Cape May, Mercer and Sussex) have been tested for other arboviruses. No positive mosquito pools were identified.

Cumulative 2017 Mosquito Pool Testing (Other Viruses^a)

County	SLE		LAC		CHIKV		DENV		ZIKV	
	Pools	Positives	Pools	Positives	Pools	Positives	Pools	Positives	Pools	Positives
Atlantic										
Bergen										
Burlington	20	0	16	0						
Camden										
Cape May	680	0	13	0	432	0		0	547	0
Cumberland										
Essex										
Gloucester										
Hudson										
Hunterdon										
Mercer					8	0	8	0	8	0
Middlesex										
Monmouth										
Morris										
Ocean										
Passaic										
Salem										
Somerset										
Sussex			26	0						
Union										
Warren										
Total	700	0	55	0	440	0	8	0	555	0

^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 2017

Numbers in blue shaded columns represent positive pools in 2017

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.

- One horse from Atlantic County tested positive for EEE in week 38. The horse was vaccinated 2 years ago and is recovering.
- To date in 2017, there have been 2 equine cases of EEE. The first case was reported from Cumberland County week 34 in an unvaccinated horse. The horse was euthanized August 28.
- Routine avian testing was discontinued in 2016 but is available upon request at PHEL. In 2017, 2 birds tested negative for WNV.

WNV/EEE Positive Test Results

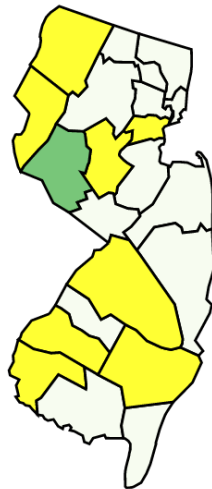
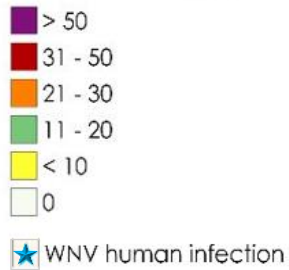
	Week 38		Cum. Total (Year)	
	2017	2016	2017	2016
Equine (EEE)	1		2	4
Avian				
Other				
Total	1	-	2	4

Surveillance Maps*

Week 38 WNV Activity (2017)

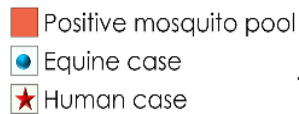
Cumulative WNV Activity 2017

WNV Positive Pools



2016 EEE Activity

Cumulative EEE Activity 2017



* Data reflects mosquito test results received from PHEL, CMBSL3 and US Army Public Health as of Sep 26, 2017

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/>