

Report Highlight:

- As of week 37, WNV positive mosquito pools have been reported in all 21 Counties.
- To date in 2017, three human cases of WNV have been reported (2 Atlantic County, 1 Mercer County). Investigation determined one of the two cases from Atlantic County was exposed out of state.
- To date in 2017, eleven mosquito pools and one horse 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	3	11	Babesiosis	128	174
Dengue	3	92	Ehrlichiosis/Anaplasmosis	178	193
Eastern equine encephalitis	-	1	Lyme disease	3409	4350
West Nile	3	13	Powassan	2	-
Zika	23	238	Rocky Mountain spotted fever	80	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 37: September 10-16, 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):

- All NJ Counties have reported WNV positive mosquito pools. To date this year, 657 mosquito pools have tested positive for WNV. This is 47 percent higher than the total number of positive pools reported in 2016 ($n=447$).
- 92% ($n=605$) of the pools positive were *Culex spp.*
- Compared with 2016, Counties reporting pools positive are all detecting a moderate increase in WNV positive pools this season except for Atlantic, Monmouth and Passaic Counties.
- The number of WNV positive pools reported from week 34 through week 36 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.

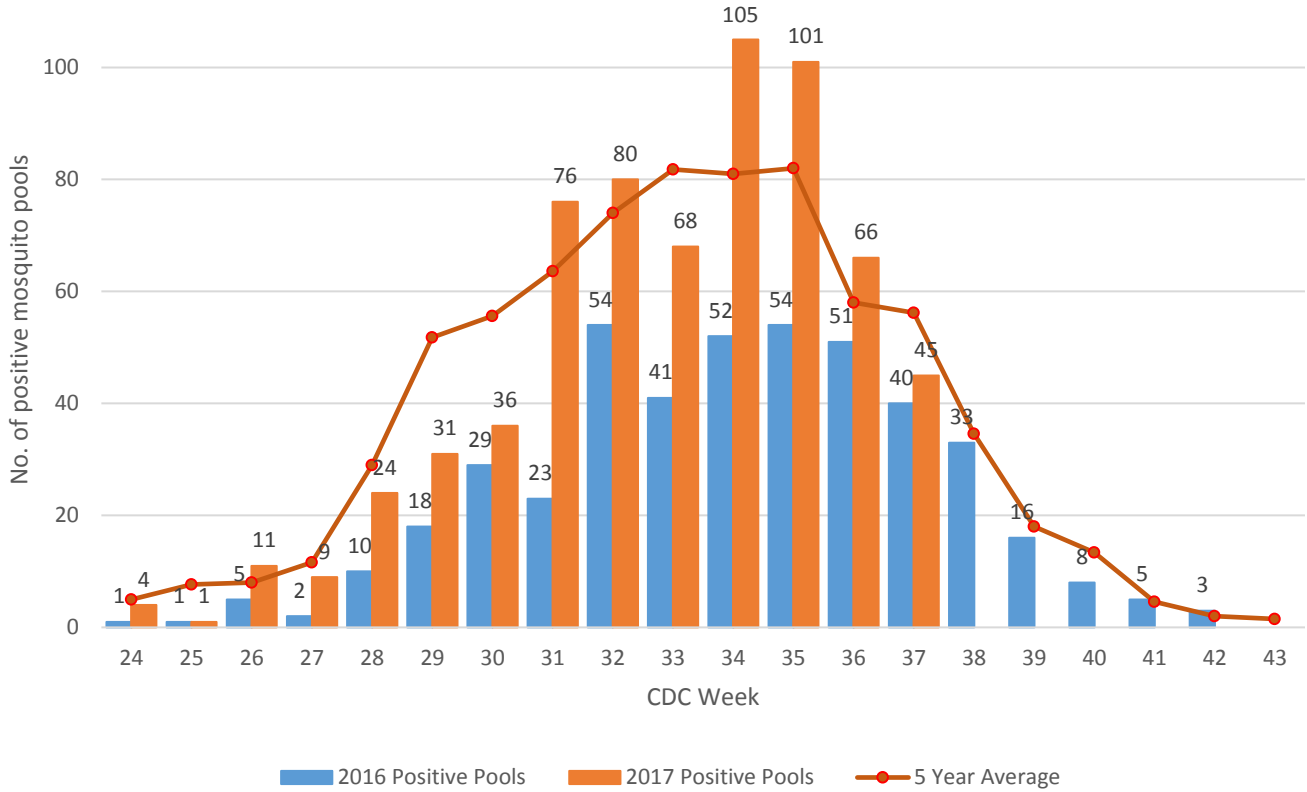
* Test results may be incomplete; Counties submit pools for testing on specific weekdays. Mosquito testing data reflects test results received from PHEL, CMBSL3 and US Army Public Health as of Sep 19, 2017

WNV Positive Mosquito Pools

County	Week 37		Cumulative Total (week 37)	
	2017*	2016	2017*	2016
Bergen	2	7	93	79
Union	15	9	89	72
Hunterdon	11	10	67	31
Gloucester	6	5	66	34
Hudson			61	25
Middlesex	4	2	49	28
Camden		1	34	6
Somerset			29	12
Warren	1		23	7
Burlington	3	2	23	10
Morris			23	1
Sussex			22	5
Mercer		2	17	17
Cape May			16	2
Ocean	1	1	13	1
Monmouth			10	15
Salem	1		9	1
Essex			6	2
Passaic		1	3	22
Atlantic	1		2	11
Cumberland			2	1
Total	45	40	657	382

Week 37: September 11-17, 2016; September 10-16, 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 37, a total of 11 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 37		Cumulative Total (week 37)	
	2017	2016	2017	2016
Burlington			3	1
Cape May			3	2
Salem			3	
Atlantic	1		1	1
Cumberland			1	
Bergen				
Camden				2
Essex				
Gloucester				1
Hudson				
Hunterdon				
Mercer				
Middlesex		1		3
Monmouth				1
Morris				
Ocean				
Passaic				
Somerset				
Sussex				
Union				
Warren				
Total	1	1	11	11

Week 37: September 11-17, 2016; September 10-16, 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	15	0						
Camden										
Cape May	647	0	8	0	432	0		0	503	0
Cumberland										
Essex										
Gloucester										
Hudson										
Hunterdon										
Mercer					8	0	8	0	8	0
Middlesex										
Monmouth										
Morris										
Ocean										
Passaic										
Salem										
Somerset										
Sussex			24	0						
Union										
Warren										
Total	667	0	47	0	440	0	8	0	511	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.

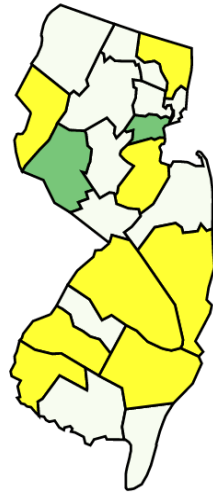
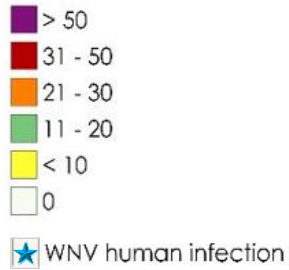
- One unvaccinated horse from Cumberland County tested positive for EEE in week 34. The horse was euthanized August 28.
- Routine avian testing was discontinued in 2016 but is available upon request at PHEL. In 2017, 2 birds tested negative for WNV.

WNV/EEE Positive Test Results

	Week 37		Cum. Total (Year)	
	2017	2016	2017	2016
Equine (EEE)			1	4
Avian				
Other				
Total	-	-	1	4

Week 37 WNV Activity (2017)

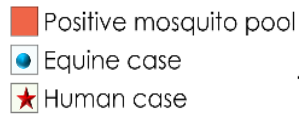
WNV Positive Pools



Cumulative WNV Activity 2017



2016 EEE Activity



Cumulative EEE Activity 2017



* Data reflects mosquito test results received from PHEL, CMBSL3 and US Army Public Health as of Sep 19, 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/>