

Report Highlight:

- As of week 36, WNV positive mosquito pools have been reported in all 21 Counties.
- Two human cases of WNV have been reported from Atlantic County. Investigation determined one of the two cases was exposed out of state.
- To date in 2017, eight 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	125	174
Dengue	3	92	Ehrlichiosis/Anaplasmosis	174	193
Eastern equine encephalitis	-	1	Lyme disease	3279	4350
West Nile	2	13	Powassan	2	-
Zika	21	238	Rocky Mountain spotted fever	78	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 36: September 3-9, 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, 533 mosquito pools have tested positive for WNV. This is 19 percent higher than the total number of positive pools reported in 2016 ($n=447$).
- 93% ($n=493$) of the pools positive were *Culex spp.*
- A season high number of WNV positive pools was reported in week 34 and 35. Both weeks were 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.
- Compared with 2016, Counties reporting positive pools are detecting a moderate increase in WNV positive pools this season except for Atlantic, Monmouth and Passaic Counties.

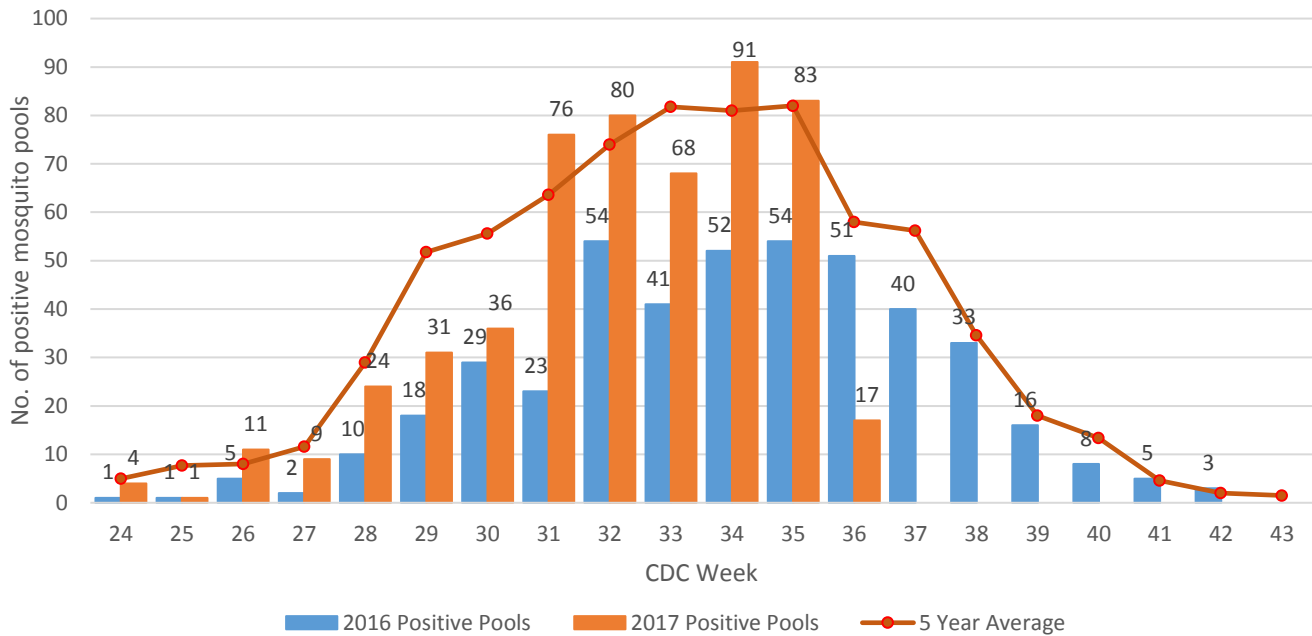
* Test results may be incomplete; Counties submit pools for testing on specific weekdays. Mosquito testing data reflects test results received from PHEL, CMBSL3 and US Army Public Health as of Sep 12, 2017

WNV Positive Mosquito Pools

County	Week 36		Cumulative Total (week 36)	
	2017*	2016	2017*	2016
Bergen		12	81	72
Union		3	74	63
Gloucester	4	5	51	29
Hunterdon		4	46	21
Middlesex	9	4	45	26
Hudson		4	43	25
Camden	2	1	32	5
Somerset		4	23	12
Warren			21	1
Burlington	3	2	20	7
Morris			20	8
Mercer		3	16	15
Sussex			15	5
Cape May			11	2
Ocean			11	
Salem	1	1	8	1
Essex		1	6	2
Monmouth		2	6	15
Passaic		5	2	21
Atlantic		1	1	11
Cumberland			1	1
Total	19	52	533	342

Week 36: September 4-10, 2016; September 3-9, 2017

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



Eastern equine encephalitis virus (EEE):

- To date, mosquito pools from 14 counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Sussex, and Warren) have been tested for EEE.
- As of week 36, a total of 8 mosquito pools in 4 Counties (Burlington, Cape May, Cumberland and Salem) have tested positive for EEE.
- All EEE positive pools were *Culiseta melnura* species.

EEE Positive Mosquito Pools

County	Week 36		Cumulative Total (week 36)	
	2017	2016	2017	2016
Atlantic				1
Bergen				
Burlington	1	1	3	1
Camden		1		2
Cape May			1	2
Cumberland			1	
Essex				
Gloucester				1
Hudson				
Hunterdon				
Mercer				
Middlesex				2
Monmouth				1
Morris				
Ocean				
Passaic				
Salem	2		3	
Somerset				
Sussex				
Union				
Warren				
Total	3	2	8	10

Week 36: September 4-10, 2016; September 3-9, 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	19	0	14	0						
Camden										
Cape May	597	0			432	0		0	447	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	616	0	38	0	440	0	8	0	455	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 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 36		Cum. Total (Year)	
	2017	2016	2017	2016
Equine (EEE)			1	4
Avian				
Other				
Total	-	-	1	4

Surveillance Maps*

Week 36 WNV Activity (2017)

WNV Positive Pools

> 50

31 - 50

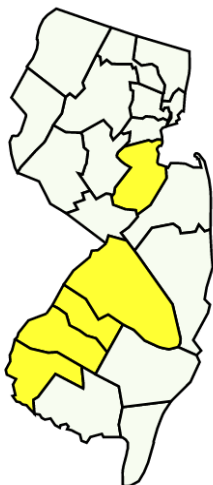
21 - 30

11 - 20

< 10

0

★ WNV human infection



Cumulative WNV Activity 2017



2016 EEE Activity

Positive mosquito pool

● Equine case

★ Human case



Cumulative EEE Activity 2017



* Data reflects mosquito test results received from PHEL, CMBSL3 and US Army Public Health as of Sep 12, 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/>