

### Report Highlight:

- To date in 2017, a total of 49 mosquito pools tested positive for WNV. This is higher than the number of positive pools reported during the same period in 2016.
- There have been no human cases of WNV in 2017.
- There have been no EEE human cases or positive mosquito pools 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<sup>a</sup>

| Mosquito-borne diseases     |                   |            | Tick-borne Diseases          |                   |            |
|-----------------------------|-------------------|------------|------------------------------|-------------------|------------|
|                             | 2017 <sup>b</sup> | 2016 Cases |                              | 2017 <sup>b</sup> | 2016 Cases |
| Chikungunya                 | 3                 | 11         | Babesiosis                   | 58                | 174        |
| Dengue                      | 2                 | 92         | Ehrlichiosis/Anaplasmosis    | 107               | 193        |
| Eastern equine encephalitis | -                 | 1          | Lyme disease                 | 1903              | 4350       |
| West Nile                   | -                 | 13         | Powassan                     | 1                 | -          |
| Zika                        | 10                | 238        | Rocky Mountain spotted fever | 36                | 64         |

<sup>a</sup> 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.

<sup>b</sup> Cumulative through week 29: July 16- 22, 2017.

### Mosquito Testing\*

The New Jersey Department of Health Public Health and Environmental Laboratories (PHEL) and the Cape May County Department of Mosquito Control Biosafety 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 in 2017, mosquito pools from all NJ counties have been tested for WNV. 49 mosquito pools in 15 counties have tested positive for WNV.
- The number of positive pools to date in 2017 is higher than the cumulative positive pools at week 29 last year.
- 8 Counties (Cape May, Hunterdon, Morris, Ocean, Salem, Somerset, Sussex and Warren) have identified WNV positive pools earlier this season compared with 2016.
- As of week 29, Hudson and Union County have the highest number of positive pools identified to date.

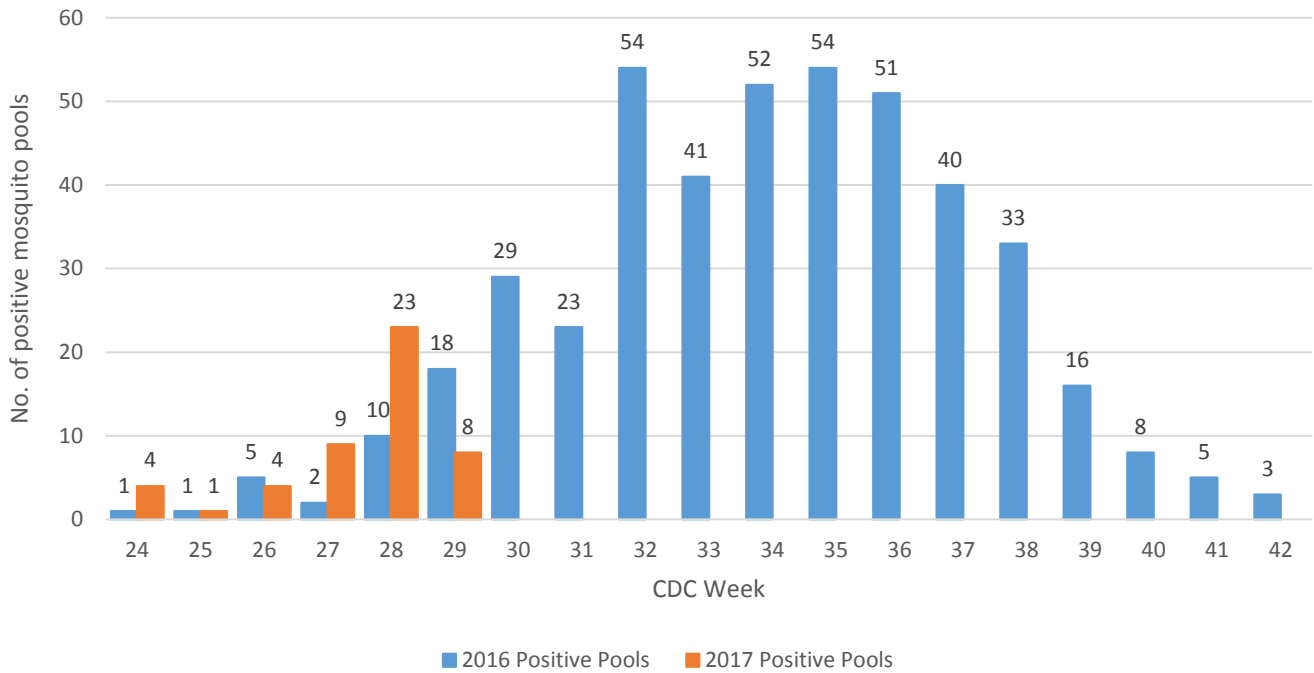
\* Mosquito testing data reflects test results received from PHEL and CMBSL3 as of July 25, 2017

#### WNV Positive Mosquito Pools

| County       | Week 29  |      | Cumulative Total (week 29) |      |
|--------------|----------|------|----------------------------|------|
|              | 2017*    | 2016 | 2017*                      | 2016 |
| Atlantic     |          | 2    |                            | 4    |
| Bergen       |          | 2    | 5                          | 5    |
| Burlington   | 1        | 1    | 3                          | 2    |
| Camden       |          |      |                            | 2    |
| Cape May     |          |      | 2                          |      |
| Cumberland   |          |      |                            |      |
| Essex        |          | 1    |                            | 1    |
| Gloucester   |          |      | 2                          | 1    |
| Hudson       |          | 2    | 8                          | 3    |
| Hunterdon    |          |      | 4                          |      |
| Mercer       | 1        | 1    | 1                          | 1    |
| Middlesex    | 2        | 2    | 4                          | 3    |
| Monmouth     |          | 1    |                            | 5    |
| Morris       |          |      | 4                          |      |
| Ocean        |          |      | 1                          |      |
| Passaic      |          | 4    |                            | 8    |
| Salem        |          |      | 1                          |      |
| Somerset     |          | 1    | 1                          | 1    |
| Sussex       |          | 1    | 2                          | 1    |
| Union        | 4        |      | 7                          | 1    |
| Warren       |          |      | 4                          |      |
| <b>Total</b> | <b>8</b> | 18   | <b>49</b>                  | 38   |

Week 29: July 17-23, 2016; July 16-22, 2017

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



**Eastern equine encephalitis virus (EEE):**

- To date, mosquito pools from 12 counties have been tested for EEE (Atlantic, Burlington, Camden, Cumberland, Cape May, Gloucester, Middlesex, Monmouth, Ocean, Passaic, Salem and Sussex).
- No EEE positive mosquito pools have been identified in 2017.

EEE Positive Mosquito Pools

| County       | Week 29 |      | Cumulative Total (week 29) |      |
|--------------|---------|------|----------------------------|------|
|              | 2017    | 2016 | 2017                       | 2016 |
| Atlantic     |         |      |                            |      |
| Bergen       |         |      |                            |      |
| Burlington   |         |      |                            |      |
| Camden       |         |      |                            |      |
| Cape May     |         |      |                            |      |
| Cumberland   |         |      |                            |      |
| Essex        |         |      |                            |      |
| Gloucester   |         |      |                            |      |
| Hudson       |         |      |                            |      |
| Hunterdon    |         |      |                            |      |
| Mercer       |         |      |                            |      |
| Middlesex    |         |      |                            |      |
| Monmouth     |         |      |                            |      |
| Morris       |         |      |                            |      |
| Ocean        |         |      |                            |      |
| Passaic      |         |      |                            |      |
| Salem        |         |      |                            |      |
| Somerset     |         |      |                            |      |
| Sussex       |         |      |                            |      |
| Union        |         |      |                            |      |
| Warren       |         |      |                            |      |
| <b>Total</b> | -       | -    | -                          | -    |

Week 29: July 17-23, 2016; July 16-22, 2017

**Other viruses:**

To date in 2017, mosquito pools from 3 counties (Burlington, Cape May and Sussex) have been tested for other arboviruses. No positive mosquito pools were identified.

**Cumulative 2017 Mosquito Pool Testing (Other Viruses<sup>a</sup>)**

| County       | SLE   |           | LAC   |           | CHIKV |           | DENV  |           | ZIKV  |           |
|--------------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
|              | Pools | Positives | Pools | Positives | Pools | Positives | Pools | Positives | Pools | Positives |
| Atlantic     |       |           |       |           |       |           |       |           |       |           |
| Bergen       |       |           |       |           |       |           |       |           |       |           |
| Burlington   | 7     | 0         | 7     | 0         |       |           |       |           |       |           |
| Camden       |       |           |       |           |       |           |       |           |       |           |
| Cape May     | 267   | 0         |       |           | 129   | 0         |       |           | 129   | 0         |
| Cumberland   |       |           |       |           |       |           |       |           |       |           |
| Essex        |       |           |       |           |       |           |       |           |       |           |
| Gloucester   |       |           |       |           |       |           |       |           |       |           |
| Hudson       |       |           |       |           |       |           |       |           |       |           |
| Hunterdon    |       |           |       |           |       |           |       |           |       |           |
| Mercer       |       |           |       |           |       |           |       |           |       |           |
| Middlesex    |       |           |       |           |       |           |       |           |       |           |
| Monmouth     |       |           |       |           |       |           |       |           |       |           |
| Morris       |       |           |       |           |       |           |       |           |       |           |
| Ocean        |       |           |       |           |       |           |       |           |       |           |
| Passaic      |       |           |       |           |       |           |       |           |       |           |
| Salem        |       |           |       |           |       |           |       |           |       |           |
| Somerset     |       |           |       |           |       |           |       |           |       |           |
| Sussex       |       |           | 14    | 0         |       |           |       |           |       |           |
| Union        |       |           |       |           |       |           |       |           |       |           |
| Warren       |       |           |       |           |       |           |       |           |       |           |
| <b>Total</b> | 274   | 0         | 21    | 0         | 129   | 0         |       |           | 129   | 0         |

<sup>a</sup> 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.
- No animals have tested positive for WNV or EEE in 2017.
- 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**

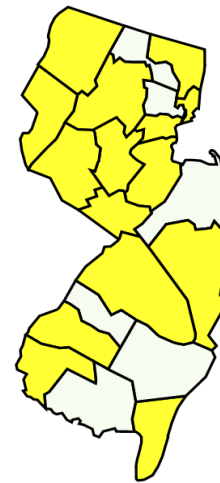
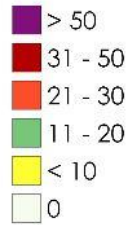
|              | Week 29 |      | Cum. Total (Year) |      |
|--------------|---------|------|-------------------|------|
|              | 2017    | 2016 | 2017              | 2016 |
| Equine (EEE) |         |      |                   | 4    |
| Avian        |         |      |                   |      |
| Other        |         |      |                   |      |
| <b>Total</b> | -       | -    | -                 | 4    |

## Surveillance Maps

Week 29 WNV Activity (2017)

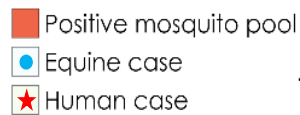
Cumulative WNV Activity 2017

### WNV Positive Pools



2016 EEE Activity

Cumulative EEE Activity 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/>