



Louisiana Arbovirus Surveillance Summary 2021

CDC Week 45

From January 3 - November 13, 2021

Contact Infectious Disease Epidemiology Section at:

(504) 568-8313

julius.tonzel@la.gov, sean.simonson@la.gov, or emma.ortega@la.gov

This report presents currently available information about arboviral diseases in Louisiana. Cases of human infection and instances of positive mosquito testing can be used to understand the burden, risk, timing, and geographic distribution of arboviral diseases in the state.

Arboviral diseases can be divided into two main categories: imported and endemic. **Imported arboviral diseases** are instances where individuals test positive for an infection after travelling to another country. These diseases are not typically transmitted within Louisiana and are not circulating in local mosquito populations. The imported arboviral diseases included in this report are chikungunya, dengue, and Zika. **Endemic arboviral diseases** are infections which occur in Louisiana, such as Eastern Equine Encephalitis, St. Louis Encephalitis, and West Nile Virus. West Nile (WN) is the most common arboviral disease in the state and has been actively transmitted since it was first detected in 2002.

Laboratories and health care providers report cases of arboviral diseases to the Office of Public Health under the State Sanitary Code. However, not all cases are able to be detected. Between 80-90% of all WN cases are asymptomatic, meaning these individuals would not seek testing. Occasionally these asymptomatic cases are detected through blood donation testing (**PVD**). Many symptomatic cases can be mild to moderate flu-like illnesses (**West Nile Fever**), and might not seek medical care or be tested. Only a small fraction of cases develop neuroinvasive disease (**NID**), which includes meningitis and encephalitis. People ages 65 and older are at higher risk for NID. Due to the severe nature of these cases, they are consistently detected and reported.

Since such a small percentage of human infections are detected, it is also important to monitor mosquito populations. Every year 20,000-50,000 mosquito pools (aggregate samples of 50+ mosquitoes from the same sample site) from approximately 30 parishes are submitted for testing. These mosquitos are tested for endemic viruses in order to detect when and where viruses are transmitted.

[Please review the WNV Annual Report for historical data.](#)

Table 1. 2021 Arbovirus Activity, Louisiana, Week 45

| Arbovirus | Mosquito | Avian | Equine | Human | | | | |
|-----------------------------|------------|----------|-----------|-----------|----------|-----------|----------|----------|
| | | | | NID | F | Total | Deaths | PVD |
| California Serogroup | | | | | | | | |
| Chikungunya | | | | | 1 | 1 | | |
| Dengue | | | | | 1 | 1 | | |
| Eastern Equine Encephalitis | 9 | 1 | 34 | | | | | |
| St. Louis Encephalitis | 14 | | | 1 | | | | |
| West Nile | 467 | 4 | 1 | 15 | 5 | 20 | 1 | 1 |
| Zika | | | | | | | | |
| Total | 490 | 5 | 35 | 16 | 7 | 22 | 1 | 1 |

NID - neuroinvasive disease F - fever PVD - presumptive viremic donor

Table 2. Imported Arbovirus Activity by Parish, Week 45

| Parish | CHIKV [*] | DENV [*] | ZIKV | |
|--------------|--------------------|-------------------|----------|----------|
| | H | H | H | |
| | | | F | PVD |
| Iberia | 1 | | | |
| Vermilion | | 1 | | |
| Total | 1 | 1 | 0 | 0 |

H - human M - mosquito

F - fever PVD - presumptive viremic donor

CHIKV - Chikungunya virus DENV - Dengue virus ZIKV - Zika virus

* All travel-associated cases

Table 3. Endemic Arbovirus Activity by Parish, Week 45

| Parish | CAL | EEEV | | | | SLEV | | | | WNV | | | | | | | |
|----------------------|----------|----------|----------|-----------|----------|-----------|----------|----------|----------|------------|----------|----------|-----------|----------|-----------|----------|---|
| | H | M | A | E | H | M | A | E | H | M | A | E | H | | | | |
| | | | | | | | | | | | | | NID | F | Total | PVD † | |
| Acadia | | | | 1 | | | | | | | | | | | | | |
| Allen | | | | | | 1 | | | | 3 | | | | | | | |
| Ascension | | | | | | | | | | 4 | | | | | | | |
| Beauregard | | | | 6 | | | | | | | | 1 | | | | | |
| Bossier | | | | | | | | | | | | | 1 | | | 1 | |
| Caddo | | | | | | 3 | | | | 28 | | | 2 | 1 | | 3 | |
| Calcasieu | | | | 2 | | 9 | | | 1 | 22 | | | 1 | | | 1 | |
| De Soto | | | | | | | | | | | | | | 1 | | 1 | |
| East Baton Rouge | | 1 | | | | | | | | 64 | 3 | | 4 | | | 4 | |
| Evangeline | | | | 1 | | | | | | | | | | | | | |
| Iberia | | 2 | | | | | | | | 4 | | | | | | | |
| Iberville | | | | 1 | | | | | | | | | | | | | |
| Jefferson | | | | | | | | | | 11 | | | 1 | | | 1 | |
| Jefferson Davis | | | | 4 | | | | | | | | | | | | | |
| Lafayette | | | | 1 | | | | | | 7 | | | | | | | |
| Lafourche | | | | | | | | | | 1 | | | | | | | |
| Lincoln | | | | | | | | | | 39 | | | 1 | | | 1 | |
| Livingston | | | | | | | | | | | | | 1 | 1 | | 2 | |
| Orleans | | | | | | | | | | 14 | | | 1 | | | 1 | |
| Ouachita | | 2 | | | | 1 | | | | 203 | | | 1 | | | 1 | |
| Pointe Coupee | | | | 1 | | | | | | 5 | | | | | | | |
| Rapides | | | | 2 | | | | | | | | | 1 | | | 1 | |
| St. Bernard | | | | | | | | | | 1 | | | | | | | |
| St. John the Baptist | | | | | | | | | | 1 | | | | | | | |
| St. Landry | | | | 2 | | | | | | | | | | | | | |
| St. Martin | | | | 1 | | | | | | 3 | | | | | | | |
| St. Mary | | | | | | | | | | 2 | | | | | | | |
| St. Tammany | | 2 | 1 | 2 | | | | | | 17 | 1 | | 1 | 1 | | 2 | 1 |
| Tangipahoa | | 2 | | 3 | | | | | | 8 | | | | | | | |
| Terrebonne | | | | | | | | | | 3 | | | | | | | |
| Vermilion | | | | 4 | | | | | | | | | | | | | |
| Vernon | | | | 1 | | | | | | | | | | | | | |
| Webster | | | | 1 | | | | | | | | | | 1 | | 1 | |
| West Baton Rouge | | | | 1 | | | | | | 27 | | | | | | | |
| Total | 0 | 9 | 1 | 34 | 0 | 14 | 0 | 0 | 1 | 467 | 4 | 1 | 15 | 5 | 20 | 1 | |

A - avian E - equine H - human M - mosquito

NID - neuroinvasive disease F - fever PVD - presumptive viremic donor

CAL - California serogroup viruses EEEV - Eastern Equine Encephalitis virus SLEV - St. Louis Encephalitis virus WNV - West Nile virus

† PVDs are not included in the "Total" column

Figure 1. WNV-Positive Humans Reported in Louisiana, by MMWR Week of Onset 2019-2021, Week 45

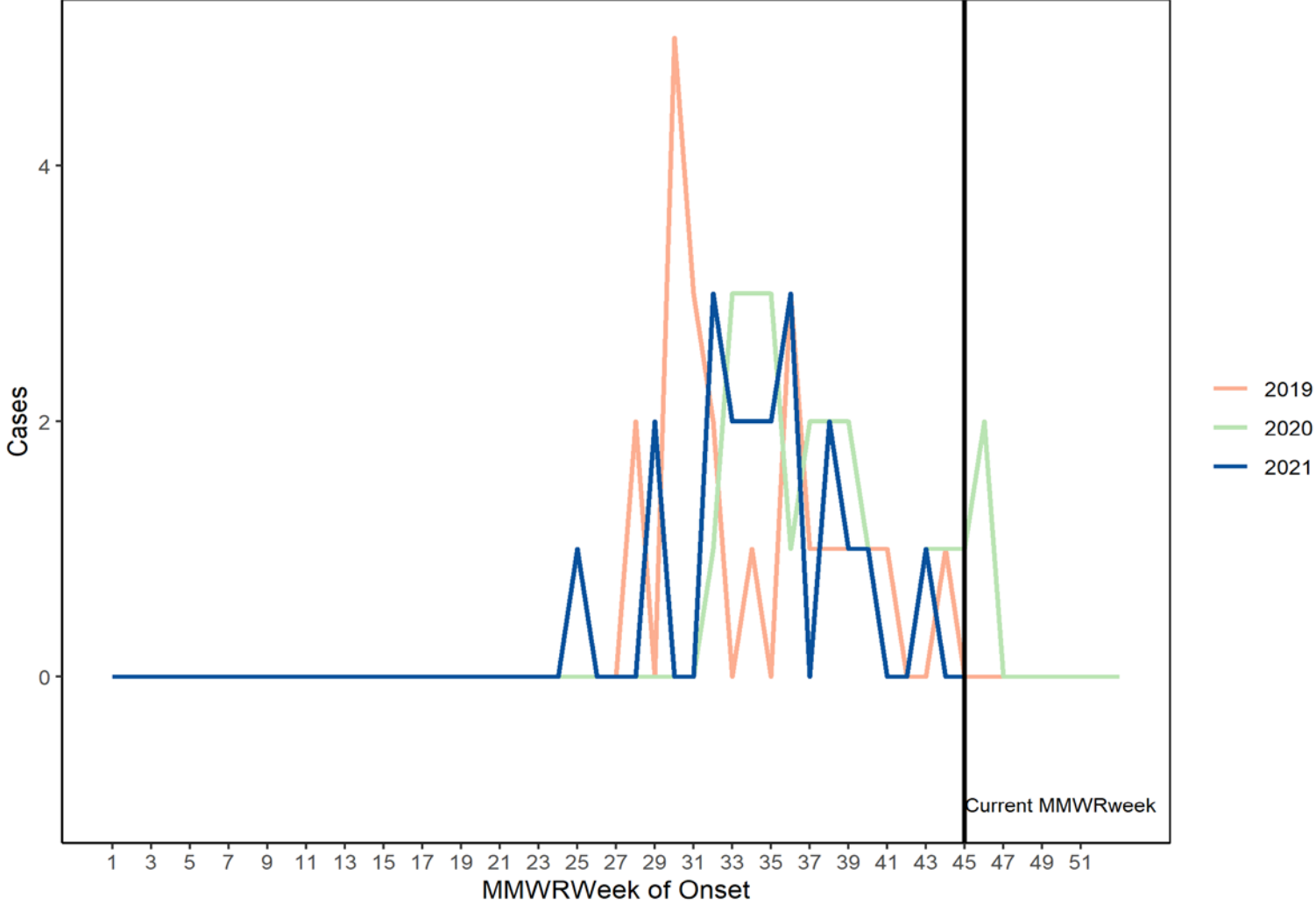


Figure 2. WNV-Positive Mosquito Pools Reported in Louisiana, by MMWR Week of Collection, 2019-2021, Week 45

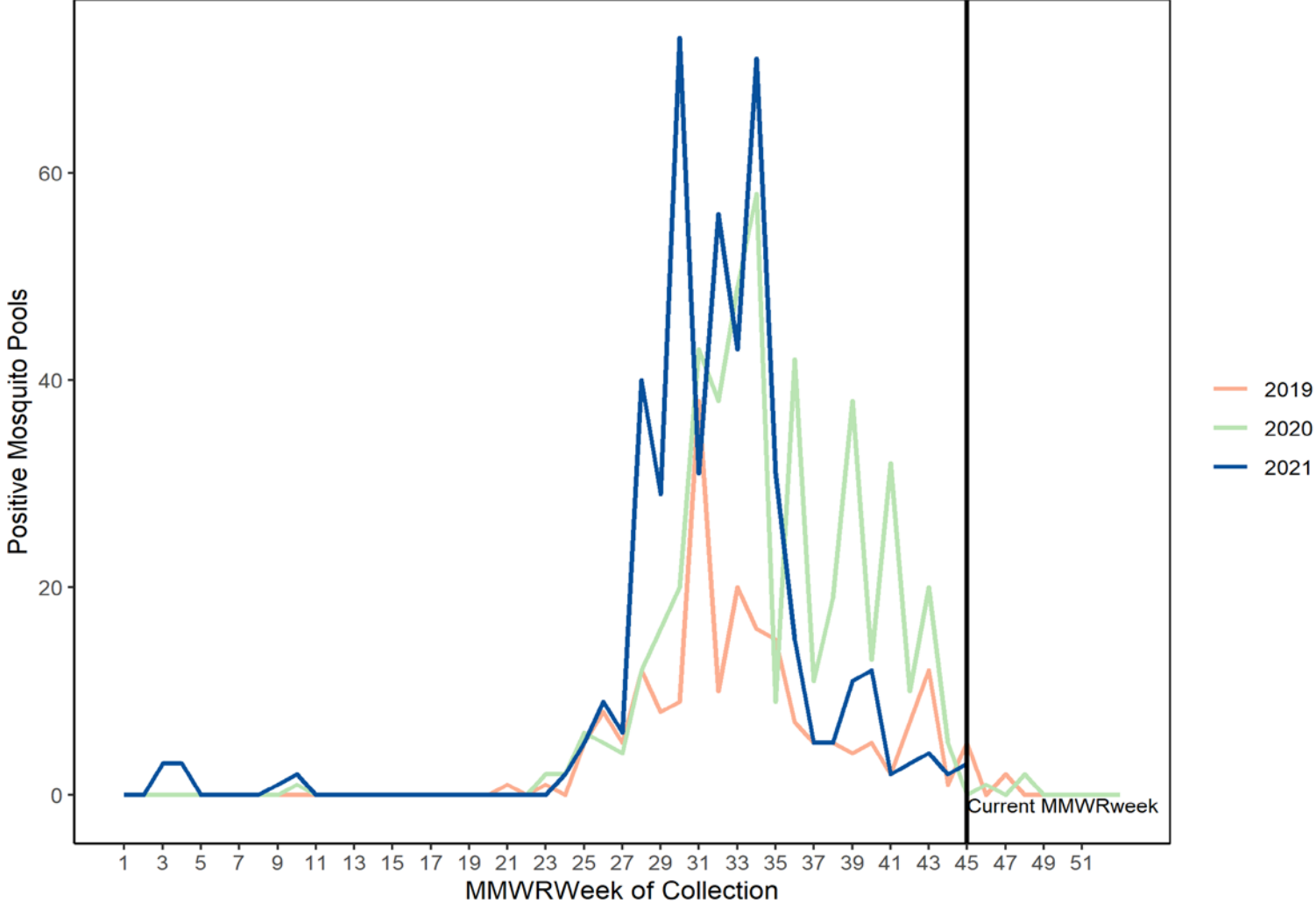


Figure 4. Louisiana Parishes Reporting St. Louis Encephalitis Activity, Week 45

