# Louisiana Arbovirus Surveillance Summary 2018

**CDC Week  40          From:  01/01/2018-10/06/2018**

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## Report Summary

**Prevention** - Not in my house, not in my yard, not on my skin, day and night, I'll fight the bite!

**The goal of the surveillance** for West Nile (WN) Infections in humans is to describe the disease burden of the West Nile infection on the human population. Only West Nile Neuroinvasive diseases (NID) including encephalitis or meningitis get reliably reported. For every NID case there are about 10 cases of Fever and about 90 completely asymptomatic infections. Only one percent of the WN-Fever (WN-F) and asymptomatic (WN-PRE) cases are reported. Although we show the number of cases of all WN infections, it is important to remember that only WN-NID cases are useful for monitoring disease burden and trends in WN in humans.

**Humans:** Detailed information on the number of arboviral infections can be found within this report, please refer to the Table of Contents.

**Equines:** Horses can be infected by WN and Eastern Equine Encephalitis (EEE) virus and do develop encephalitis. Horse's viremia is too low to infect mosquitoes and does not play a role in transmission. However, since horses live outside surveillance of horse infections is a good indicator of arboviral transmission. Contact the Louisiana Department of Agriculture and Forestry (LDAF) for the most up to date statistics on horse infections.

**Sentinel Chickens:** Have been used in the past as a statewide early warning system to detect arbovirus transmission. These chickens in secure cages were strategically placed and bled regularly.  Serologic tests performed on the sentinel chickens provided information of current and local transmission of many arboviruses. However, experience shows that this was not very effective in providing information about local transmission.

**Dead Birds:**  Are no longer collected statewide because testing of dead birds does not provide information on where and when the bird was infected or of local transmission.  Dead birds can only indicate that the bird died at a particular location of an arbovirus endemic to Louisiana.

**Mosquito Pools:** This is the most effective surveillance system to monitor arboviral transmission. Arboviruses are detected through nucleic acid testing of pools of 50 or more mosquitoes of the same species. A positive mosquito pool is an indicator of recent transmission, between mosquitoes and birds, horses or humans. Every year 20,000-50,000 mosquito pools from approximately 30 parishes are submitted for testing. Detailed information on the number of positive pools can be found within this report, please refer to the Table of Contents.

**Explanation of Clinical Disease:** WN infections have occurred each year in Louisiana for the last 10 years.  Persons of all ages are considered equally susceptible to infection.  The majority of all persons infected and immuno-competent are completely asymptomatic (80-90%). A smaller proportion of persons (10-20%) present with influenza-like illness with abrupt onset of fever.  A minority of people develop a serious neurologic illness such as aseptic meningitis or encephalitis (0.2% younger than 65 years old, 2% older than age 65).

**Explanation of Deaths:**  About 10% of people who develop neuroinvasive disease can die. The reporting of deaths caused by WN-NID is not mandated by the Louisiana Sanitary code so it is inconsistently reported. It is limited to being included in this report to only those deaths occurring within two weeks for onset. For the preservation of confidentiality, OPH will not report details about WN deaths (such as date, parish, gender and age).

**Limitations:** Human data have very limited usefulness for mosquito control purposes. Only two percent of all WN infections are reported (because most WN infections are asymptomatic or WN fever cases do not get medical care, they never get diagnosed nor are reported). The reporting of those cases is delayed. From the time a mosquito bites a bird infected with WN viruses, it takes 1 to 2 weeks depending on temperatures and other environmental conditions for the virus to multiply in the mosquito vector (extrinsic incubation period); then it takes 3 to 14 days for the virus to multiply in the human host (intrinsic incubation period); it then takes several days from onset of disease to seeking medical care; then a few more days for a physician to order a confirmatory lab test and get the result back (one week from onset, if all goes well); then any where from a few days to a week or two to get the report to Department of Health Office of Public Health (LDH OPH). All in all, from the initial mosquito infection to the reporting of the infection it may take from 3 to 6 weeks. In summary, human data are too little too late to be of major use for mosquito control. To provide mosquito control program with data on location of human cases that may be of limited use for correlating infection rates in mosquitoes and human cases and of use to address public and media concern, general geographical location of cases and weeks of onset are provided to mosquito control who request the information. This information must remain strictly confidential. The LDH OPH Laboratory is a reference laboratory used for epidemiologic purposes. Its role in diagnosis of cases is limited since the great majority of physicians and hospitals use private laboratories for their diagnosis.

**Data from CDC Week  1-40        From:  01/01/2018-10/06/2018**

| Disease | Mosquito Pools | Avian | Equine | Human | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | Neuroinvasive NID | Fever F | Asymptomatic PRE | Total | Positive Blood Donors PVD ‡ | Deaths |
| CAL | | | | | | | | | |
| EEE | 1 | 0 | 6 | | | | | | |
| SLE | 17 | 0 | 0 | | | | | | |
| WEE | | | | | | | | | |
| WNV | 1063 | 98 | 5 | 52 | 24 | 11 | 87 | 12 | 4 |
| Total | 1081 | 98 | 11 | 52 | 24 | 11 | 87 | 12 | 4 |

CAL = California serogroup viruses (including La Crosse)
EEE = Eastern Equine Encephalitis virus
SLE = St. Louis Encephalitis virus
WEE = Western Equine Encephalitis virus
WNV = West Nile virus

* Avian includes any wild bird or sentinel chicken samples

‡ PVD are people who had no symptoms at the time of donating blood with a blood collection agency, but whose blood tested positive when screened for the presence of virus. If they become symptomatic and meet the case definition reporting criteria, they are counted as a case and are included in the appropriate disease category case tallies.

**Data from CDC Week  1-40        From:  01/01/2017-10/07/2017**

| Disease | Mosquito Pools | Avian | Equine | Human | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | | Neuroinvasive NID | Fever F | Asymptomatic PRE | Total | Positive Blood Donors PVD ‡ | Deaths |
| CAL | | | | | | | | | |
| EEE | | | 5 | | | | | | |
| SLE | | | | | | | | | |
| WEE | | | | | | | | | |
| WNV | 419 | 46 | 1 | 34 | 8 | 5 | 47 | 2 | 3 |
| Total | 419 | 46 | 6 | 34 | 8 | 5 | 47 | 2 | 3 |

Data from    CDC Week: 40      From: 01/01/2018-10/06/2018

| Parish | WNV M | WNV A | WNV E | Human NID | Human F | Human PRE | Human Total | SLE M | SLE A | SLE E | SLE Human | EEE M | EEE A | EEE E | EEE Human | CAL Human |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acadia | 1 | | | | | | 0 | | | | | | | | | |
| Allen | 9 | | | | | | 0 | | | | | | | | | |
| Ascension | 117 | 0 | 1 | 4 | 5 | 2 | 11 | | | | | | | 1 | | |
| Assumption | 1 | | | | | | 0 | | | | | | | | | |
| Avoyelles | | | | 1 | | | 1 | | | | | | | | | |
| Beauregard | | | | | | | 0 | | | | | | | | | |
| Bossier | 26 | | | 0 | 2 | 0 | 2 | | | | | | | | | |
| Caddo | 27 | | | 4 | 2 | 3 | 9 | | | | | | | | | |
| Calcasieu | 3 | | | | | | 0 | 3 | | | | | | | | |
| Cameron | 1 | | | | | | 0 | | | | | | | | | |
| Claiborne | | | | 1 | | | 1 | | | | | | | | | |
| DeSoto | | | | 2 | 0 | 1 | 3 | | | | | | | | | |
| East Baton Rouge | 146 | 3 | 0 | 7 | 5 | 4 | 16 | | | | | | | | | |
| East Feliciana | | | | | | | 0 | | | | | | | | | |
| Evangeline | | | 1 | | | | 0 | | | | | | | 1 | | |
| Franklin | | | | | | | 0 | | | | | | | | | |
| Grant | | | | 1 | | | 1 | | | | | | | | | |
| Iberia | 31 | | | | | | 0 | | | | | | | | | |
| Iberville | | | | | | | 0 | | | | | | | | | |
| Jackson | | | | | | | 0 | | | | | | | | | |
| Jefferson | 39 | 59 | 0 | 2 | 0 | 0 | 2 | 6 | | | | | | | | |
| Jefferson Davis | | | | | | | 0 | | | | | | | | | |
| Lafayette | 14 | 0 | 1 | 1 | | | 1 | 1 | | | | | | | | |
| Lafourche | 6 | | | 3 | 0 | 0 | 3 | 2 | | | | | | | | |
| Lasalle | | | | | | | 0 | | | | | | | | | |
| Lincoln | 2 | | | | | | 0 | | | | | | | | | |
| Livingston | | | | 3 | 1 | 0 | 4 | | | | | | | | | |
| Morehouse | 1 | | | | | | 0 | | | | | | | | | |
| Natchitoches | | | | | | | 0 | | | | | | | 2 | | |
| Orleans | 101 | | | 2 | 1 | 0 | 3 | 1 | | | | | | | | |
| Ouachita | 59 | | | 5 | 3 | 0 | 8 | | | | | | | | | |
| Plaquemines | | | | | | | 0 | | | | | | | | | |
| Rapides | | | | 4 | 0 | 0 | 4 | | | | | | | 1 | | |
| St. Bernard | 4 | | | | | | 0 | | | | | | | | | |
| St. Charles | 30 | 31 | 0 | | | | 0 | | | | | | | | | |
| St. James | 6 | | | | | | 0 | | | | | | | | | |
| St. John | 67 | | | | | | 0 | | | | | | | | | |
| St. Landry | | | 1 | 1 | | | 1 | | | | | | | | | |
| St. Martin | 15 | 5 | 0 | 1 | | | 1 | | | | | | | | | |
| St. Mary | 3 | | | | | | 0 | | | | | | | | | |
| St. Tammany | 66 | | 1 | 7 | 3 | 0 | 10 | | | | | | | | | |
| Tangipahoa | 59 | | | 1 | | | 1 | | | | | | 1 | 1 | | |
| Terrebonne | 6 | | | 0 | 1 | 0 | 1 | 4 | | | | | | | | |
| Washington | | | | 1 | 0 | 1 | 2 | | | | | | | | | |
| West Baton Rouge | 223 | | | 1 | 1 | 0 | 2 | | | | | | | | | |
| West Feliciana | | | | | | | 0 | | | | | | | | | |
| **Total** | 1063 | 98 | 5 | 52 | 24 | 11 | 87 | 17 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 0 |

CAL = California serogroup viruses (including La Crosse)
EEE = Eastern Equine Encephalitis virus
SLE = St. Louis Encephalitis virus
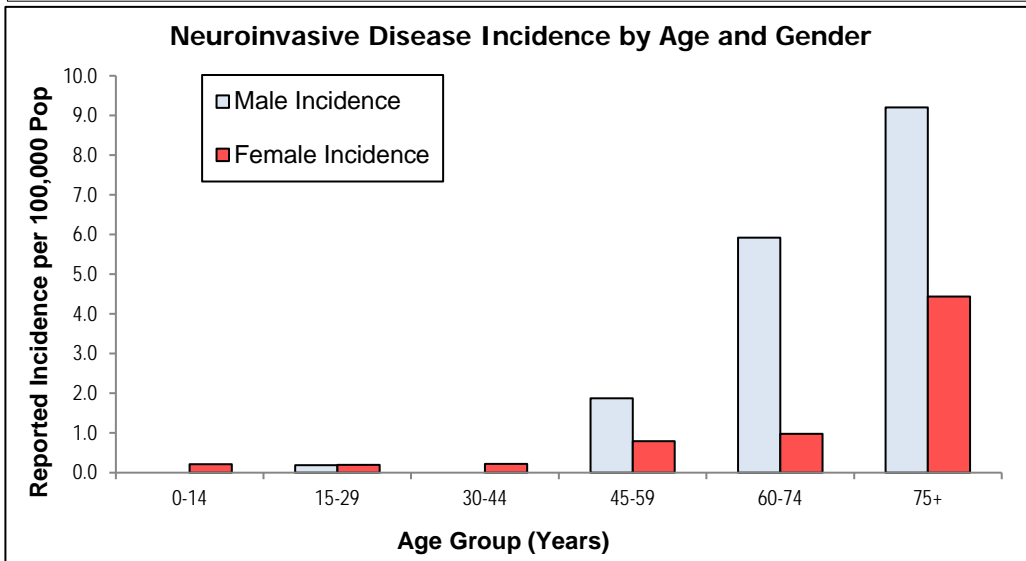WEE = Western Equine Encephalitis virus
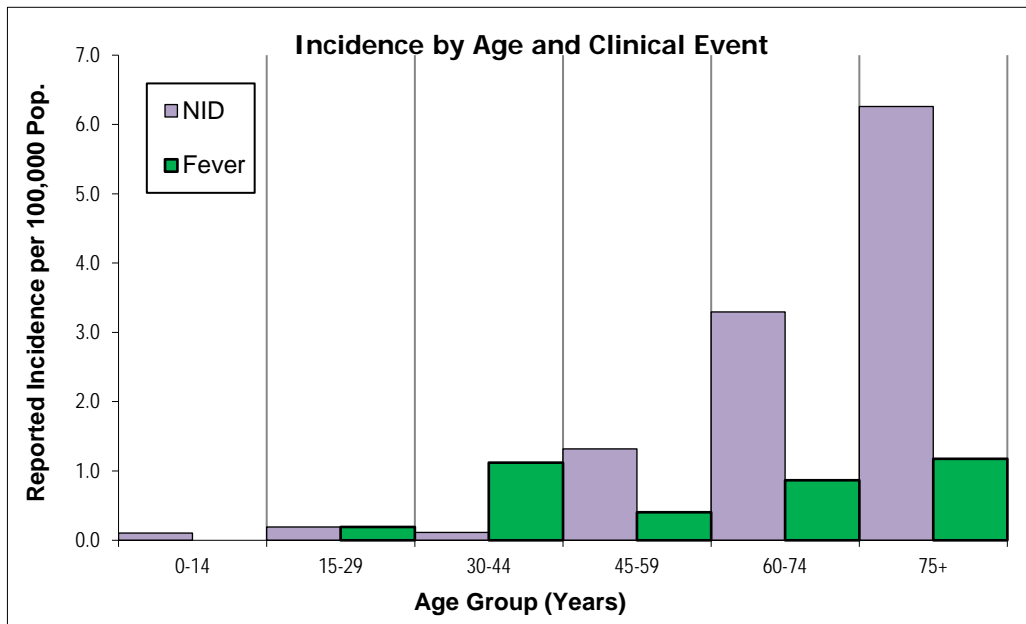
WNV = West Nile virus

M = Mosquito
A = Avian
E = Equine

*All human and equine case tallies are reported by the case's parish of residence, not the parish where the exposure occurred.*
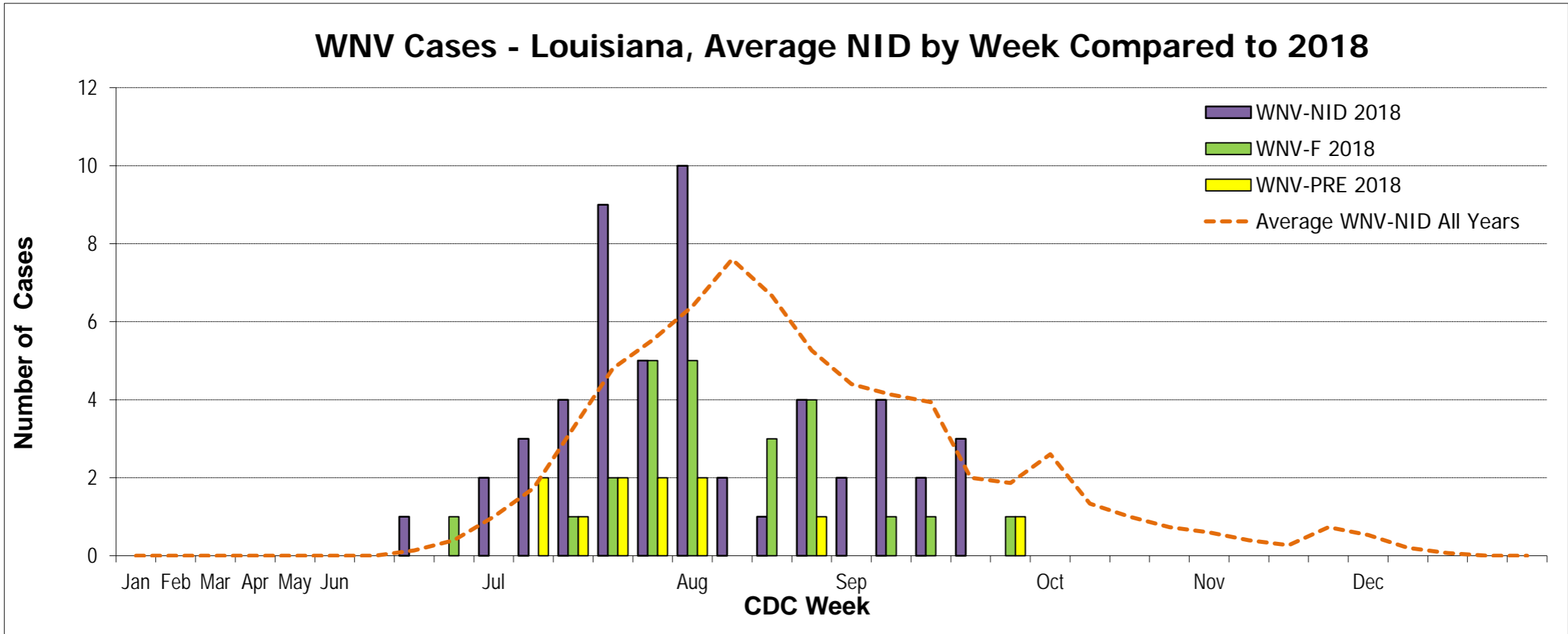
# WNV Human Clinical Presentation      Page 4

| Age Group | Clinical Classification | | | | | |
|---|---|---|---|---|---|---|
| | NID Cases | Incidence | Fever Cases | Incidence | PRE Cases | Deaths |
| 0-14 | 1 | 0.1 | 0 | 0.0 | 0 | |
| 15-29 | 2 | 0.2 | 2 | 0.2 | 2 | |
| 30-44 | 1 | 0.1 | 10 | 1.1 | 3 | |
| 45-59 | 13 | 1.3 | 4 | 0.4 | 3 | |
| 60-74 | 19 | 3.3 | 5 | 0.9 | 3 | |
| 75+ | 16 | 6.3 | 3 | 1.2 | 0 | |
| Undetermined | | | | | | |
| Total | 52 | 1.1 | 24 | 0.5 | 11 | 4 |

| Age Group | Neuroinvasive Disease Cases by Gender | | | |
|---|---|---|---|---|
| | Male | M Incidence | Female | F Incidence |
| 0-14 | 0 | 0.0 | 1 | 0.2 |
| 15-29 | 1 | 0.2 | 1 | 0.2 |
| 30-44 | 0 | 0.0 | 1 | 0.2 |
| 45-59 | 9 | 1.9 | 4 | 0.8 |
| 60-74 | 16 | 5.9 | 3 | 1.0 |
| 75+ | 9 | 9.2 | 7 | 4.4 |
| Undetermined | | | | |
| Total | 35 | 1.5 | 17 | 0.7 |



Incidence by Age and Clinical Event



Neuroinvasive Disease Incidence by Age and Gender

Month groupings: 1-4 = Jan, 5-8 = Feb, 9-12 = Mar, 13-17 = Apr, 18-21 = May, 22–25 = Jun, 26–30 = Jul, 31–34 = Aug, 35–39 = Sep, 40–43 = Oct, 44–47 = Nov, 48–52 = Dec.

| Region | Parish | Total | 1-4 | 5-8 | 9-12 | 13-17 | 18-21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Jefferson | 2 | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| 2 | Orleans | 2 | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | | | | | |
| 2 | Ascension | 4 | | | | | | | | | | | 1 | | 1 | | 1 | | | | | | | 1 | | | | | | | | | | | | | | |
| 2 | East Baton Rouge | 7 | | | | | | | | | | | | | 1 | 2 | | 1 | | 1 | 2 | | | | | | | | | | | | | | | | | |
| 2 | West Baton Rouge | 1 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| 3 | Lafourche | 3 | | | | | | | | | | | | | | 1 | | | | | | | | 2 | | | | | | | | | | | | | | |
| 4 | Lafayette | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| 4 | St. Landry | 1 | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | St. Martin | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Avoyelles | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| 6 | Grant | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| 6 | Rapides | 4 | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | |
| 7 | Caddo | 4 | | | | | | | | | | | | 1 | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | |
| 7 | Claiborne | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | DeSoto | 2 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Ouachita | 5 | | | | | | | | | | | | 1 | 1 | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | |
| 9 | Livingston | 3 | | | | | | | | 1 | | | | | | | | | 1 | | | 1 | | | | | | | | | | | | | | | | |
| 9 | St. Tammany | 7 | | | | | | | | | | 2 | | | 2 | | 1 | | | 2 | | | | | | | | | | | | | | | | | | |
| 9 | Tangipahoa | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| 9 | Washington | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| | **WNV-NID 2018** | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 4 | 9 | 5 | 10 | 2 | 1 | 4 | 2 | 4 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **WNV-F 2018** | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 5 | 5 | 0 | 3 | 4 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **WNV-PRE 2018** | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Average WNV-NID All Years** | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 5 | 6 | 6 | 8 | 7 | 5 | 4 | 4 | 4 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |



WNV Cases - Louisiana, Average NID by Week Compared to 2018

| Total Human WNV Clinical Presentation by Year | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | Total |
| NID Cases | 204 | 101 | 84 | 118 | 91 | 27 | 19 | 11 | 20 | 6 | 160 | 34 | 61 | 41 | 37 | 38 | 52 | 1104 |
| Fever | 124 | 23 | 24 | 54 | 89 | 13 | 30 | 10 | 7 | 4 | 191 | 24 | 59 | 10 | 20 | 11 | 24 | 717 |
| Asymptomatic | 0 | 4 | 7 | 16 | 22 | 10 | 9 | 8 | 7 | 2 | 46 | 4 | 20 | 18 | 7 | 8 | 11 | 199 |
| Proportion of NID | 0.62 | 0.81 | 0.78 | 0.69 | 0.51 | 0.68 | 0.39 | 0.52 | 0.74 | 0.60 | 0.46 | 0.59 | 0.51 | 0.80 | 0.65 | 0.78 | 0.68 | |
| Deaths | 24 | 7 | 7 | 11 | 9 | 2 | 1 | 0 | 0 | 0 | 21 | 4 | 12 | 5 | 2 | 4 | 4 | |
| Total Disease | 328 | 128 | 115 | 188 | 202 | 50 | 58 | 29 | 34 | 12 | 397 | 62 | 140 | 69 | 64 | 57 | 87 | |



Number of Clinical Presentation by Year
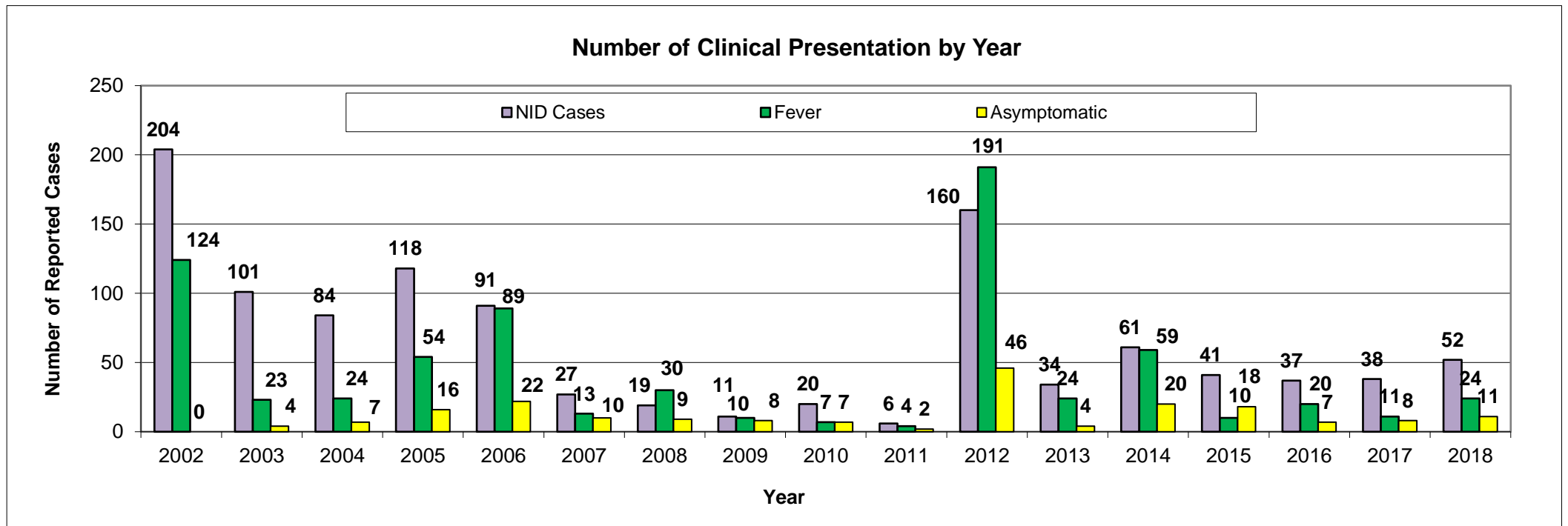
| | Week | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | WNV-NID Cases by CDC Week by Year |
| Jan | 1 | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | |
| March | 10 | | | | | | | | | | | | | | | | | |
| | 13 | | | | | | | | | | | | | | | | 0 | |
| | 17 | | | | | | | | | | | | | | | | 1 | |
| May | 19 | | | | | | | | | | | | | | | | 0 | |
| | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 24 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 25 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 26 | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| | 27 | 6 | 3 | 3 | 4 | 1 | 0 | 0 | 2 | 3 | 0 | 3 | 0 | 0 | 1 | 0 | 5 | 3 |
| | 28 | 9 | 5 | 2 | 5 | 4 | 0 | 0 | 0 | 0 | 1 | 15 | 1 | 3 | 2 | 2 | 0 | 4 |
| | 29 | 23 | 5 | 2 | 13 | 5 | 0 | 0 | 1 | 1 | 1 | 11 | 0 | 7 | 1 | 2 | 7 | 9 |
| August | 30 | 23 | 8 | 8 | 8 | 6 | 0 | 2 | 1 | 2 | 0 | 13 | 1 | 9 | 2 | 0 | 1 | 5 |
| | 31 | 21 | 10 | 5 | 21 | 7 | 1 | 1 | 0 | 0 | 0 | 17 | 3 | 3 | 5 | 2 | 1 | 10 |
| | 32 | 24 | 7 | 15 | 11 | 14 | 3 | 2 | 1 | 1 | 1 | 18 | 3 | 4 | 4 | 6 | 5 | 2 |
| | 33 | 21 | 8 | 7 | 9 | 13 | 2 | 1 | 2 | 1 | 0 | 16 | 7 | 9 | 4 | 0 | 2 | 1 |
| | 34 | 14 | 6 | 3 | 8 | 7 | 2 | 3 | 1 | 2 | 0 | 14 | 6 | 6 | 5 | 2 | 4 | 4 |
| September | 35 | 8 | 6 | 5 | 6 | 6 | 5 | 3 | 0 | 3 | 1 | 12 | 2 | 3 | 5 | 1 | 2 | 2 |
| | 36 | 13 | 4 | 5 | 8 | 9 | 3 | 2 | 0 | 1 | 1 | 4 | 2 | 8 | 1 | 1 | 0 | 4 |
| | 37 | 8 | 9 | 3 | 9 | 6 | 3 | 0 | 1 | 2 | 1 | 7 | 3 | 2 | 4 | 1 | 4 | 2 |
| | 38 | 6 | 4 | 4 | 2 | 3 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 4 | 0 | 1 | 1 | 3 |
| | 39 | 3 | 2 | 5 | 4 | 4 | 1 | 0 | 0 | 0 | 0 | 4 | 1 | 2 | 1 | 1 | 0 | 0 |
| October | 40 | 3 | 4 | 5 | 4 | 1 | 3 | 3 | 0 | 1 | 0 | 7 | 3 | 1 | 0 | 4 | 0 | 0 |
| | 41 | 3 | 2 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 4 | 0 | 0 |
| | 42 | 3 | 1 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 1 | 0 |
| | 43 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 2 | 2 | 0 |
| | 44 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 |
| November | 45 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 46 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 47 | 1 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 |
| | 48 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 |
| December | 49 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NID Total | | 204 | 101 | 84 | 118 | 91 | 27 | 19 | 11 | 20 | 6 | 160 | 34 | 61 | 41 | 37 | 38 | 52 |

| Reg | Parish | NID 2018 Incid | # | Previously Reported NID Cases 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Jefferson | 0.4 | 2 | 24 | 3 | 1 | 6 | 8 | 2 | 2 | 0 | 0 | 0 | 13 | 0 | 0 | 1 | 0 | 0 |
| 1 | Orleans | 0.4 | 2 | 10 | 2 | 1 | 6 | 12 | 2 | 2 | 0 | 0 | 0 | 11 | 0 | 0 | 1 | 0 | 0 |
| 1 | Plaquemines | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | St Bernard | 0.0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2 | Ascension | 5.2 | 4 | 6 | 2 | 1 | 3 | 10 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 4 | 2 | 0 | 0 |
| 2 | East Baton Rouge | 1.7 | 7 | 37 | 1 | 22 | 17 | 6 | 0 | 0 | 2 | 9 | 0 | 17 | 0 | 21 | 3 | 4 | 6 |
| 2 | East Feliciana | 0.0 | | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| 2 | Iberville | 0.0 | | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 2 | Pointe Coupee | 0.0 | | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| 2 | West Baton Rouge | 4.6 | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | West Feliciana | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 3 | Assumption | 0.0 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 3 | Lafourche | 3.3 | 3 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 1 | 0 | 0 |
| 3 | St Charles | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 3 | St James | 0.0 | | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | St John | 0.0 | | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | St Mary | 0.0 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Terrebonne | 0.0 | | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 4 | Acadia | 0.0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 4 | Evangeline | 0.0 | | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4 | Iberia | 0.0 | | 2 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 4 | Lafayette | 0.5 | 1 | 4 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 0 | 1 | 0 |
| 4 | St Landry | 1.1 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 4 | St Martin | 2.1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 4 | Vermillion | 0.0 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Allen | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 5 | Beauregard | 0.0 | | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 5 | Calcasieu | 0.0 | | 8 | 1 | 3 | 2 | 5 | 0 | 1 | 0 | 0 | 2 | 8 | 1 | 0 | 0 | 5 | 0 |
| 5 | Cameron | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Jefferson Davis | 0.0 | | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |

* parishes highlighted in grey have cases each year

| Reg | Parish | NID 2018 Incid | # | Previously Reported NID Cases 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | Avoyelles | 2.4 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 6 | Catahoula | 0.0 | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Concordia | 0.0 | | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| 6 | Grant | 5.3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 |
| 6 | Rapides | 3.2 | 4 | 14 | 2 | 8 | 7 | 7 | 2 | 0 | 1 | 0 | 0 | 11 | 4 | 0 | 8 | 2 | 7 |
| 6 | Lasalle | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6 | Vernon | 0.0 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Winn | 0.0 | | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | Bienville | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | Bossier | 0.0 | | 3 | 8 | 9 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 2 | 1 | 1 | 2 |
| 7 | Caddo | 1.6 | 4 | 5 | 38 | 8 | 16 | 3 | 7 | 3 | 1 | 0 | 0 | 19 | 0 | 16 | 5 | 10 | 6 |
| 7 | Claiborne | 5.9 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | DeSoto | 7.8 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 |
| 7 | Natchitoches | 0.0 | | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |
| 7 | Red River | 0.0 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Sabine | 0.0 | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Webster | 0.0 | | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 |
| 8 | Caldwell | 0.0 | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 |
| 8 | East Carroll | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Franklin | 0.0 | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| 8 | Jackson | 0.0 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Lincoln | 0.0 | | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 8 | Madison | 0.0 | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8 | Morehouse | 0.0 | | 0 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 8 | Ouachita | 3.4 | 5 | 6 | 2 | 5 | 15 | 3 | 1 | 1 | 0 | 0 | 0 | 3 | 14 | 2 | 6 | 3 | 1 |
| 8 | Richland | 0.0 | | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8 | Tensas | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Union | 0.0 | | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8 | West Carroll | 0.0 | | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Livingston | 3.3 | 3 | 12 | 5 | 6 | 11 | 1 | 1 | 1 | 0 | 1 | 0 | 6 | 1 | 2 | 0 | 2 | 3 |
| 9 | St Helena | 0.0 | | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 9 | St Tammany | 3.7 | 7 | 27 | 4 | 0 | 3 | 14 | 0 | 3 | 4 | 1 | 1 | 10 | 1 | 2 | 2 | 0 | 2 |
| 9 | Tangipahoa | 1.0 | 1 | 12 | 6 | 1 | 2 | 6 | 1 | 3 | 1 | 0 | 1 | 12 | 0 | 0 | 1 | 0 | 0 |
| 9 | Washington | 2.3 | 1 | 6 | 2 | 0 | 3 | 4 | 2 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| | Total | 1.8 | 52 | 204 | 101 | 84 | 118 | 91 | 27 | 19 | 11 | 20 | 6 | 160 | 34 | 61 | 41 | 37 | 38 |

# Imported Arboviral Summary 2018

| Parish | CHIKV | DENV | ZIKV[1] | Total |
|---|---|---|---|---|
| Caddo | | 1 | | 1 |
| Orleans | 1 | | | 1 |
| St. Tammany | | 1 | | 1 |
| **Statewide Total** | **1** | **2** | **0** | **3** |

| Countries of Travel[2] | | |
|---|---|---|
| CHIKV | DENV | ZIKV[1] |
| Tanzania | | |
| | Guatemala | |
| | Sri Lanka | |

## Imported Arboviral Summary 2017

| Parish | CHIKV | DENV | ZIKV[1] | Total |
|---|---|---|---|---|
| Jefferson | 3 | | 1 | 4 |
| St. Tammany | | 1 | | 1 |
| **Statewide Total** | **3** | **1** | **1** | **5** |

| Countries of Travel | | |
|---|---|---|
| CHIKV | DENV | ZIKV[1] |
| India | India | USVI |

## Imported Arboviral Summary 2016

| Parish | CHIKV | DENV | ZIKV[1] | Total |
|---|---|---|---|---|
| Ascension | | | 1 | 1 |
| Bienville | | | 1 | 1 |
| Bossier | 1 | | | 1 |
| Caddo | | 1 | 1 | 2 |
| East Baton Rouge | | | 2 | 2 |
| Jefferson | | 1 | 5 | 6 |
| Lafayette | | 1 | 1 | 2 |
| Livingston | | | 2 | 2 |
| Orleans | | 2 | 16 | 18 |
| Ouachita | | | 1 | 1 |
| St. Charles | | | 1 | 1 |
| St. James | | | 1 | 1 |
| St. Landry | | | 4 | 4 |
| St. Tammany | | 1 | 2 | 3 |
| **Statewide Total** | **1** | **6** | **38** | **45** |

| Countries of Travel | | |
|---|---|---|
| CHIKV | DENV | ZIKV[1] |
| Costa Rica | Bolivia | Belize |
| | Guatemala | Colombia |
| | Indonesia | Costa Rica |
| | Mexico | Dominican Republic |
| | Nigeria | El Salvador |
| | Philippines | Grenada |
| | | Guatemala |
| | | Haiti |
| | | Honduras |
| | | Jamaica |
| | | Mexico |
| | | Nicaragua |
| | | Puerto Rico |
| | | Saint Lucia |
| | | Trinidad |
| | | USVI |
| | | Venezuela |

[1]Zika disease cases that had complaints of fever, rash, arthralgia, conjunctivitis, GBS or a birth defect

[2]For a comprehensive list of countries with active transmission of a specific arbovirus, please visit https://wwwnc.cdc.gov/travel/

| CDC Week | Week Starting | Week Ending |
|---|---|---|
| 01 | 12/31/2017 | 1/6/2018 |
| 02 | 1/7/2018 | 1/13/2018 |
| 03 | 1/14/2018 | 1/20/2018 |
| 04 | 1/21/2018 | 1/27/2018 |
| 05 | 1/28/2018 | 2/3/2018 |
| 06 | 2/4/2018 | 2/10/2018 |
| 07 | 2/11/2018 | 2/17/2018 |
| 08 | 2/18/2018 | 2/24/2018 |
| 09 | 2/25/2018 | 3/3/2018 |
| 10 | 3/4/2018 | 3/10/2018 |
| 11 | 3/11/2018 | 3/17/2018 |
| 12 | 3/18/2018 | 3/24/2018 |
| 13 | 3/25/2018 | 3/31/2018 |
| 14 | 4/1/2018 | 4/7/2018 |
| 15 | 4/8/2018 | 4/14/2018 |
| 16 | 4/15/2018 | 4/21/2018 |
| 17 | 4/22/2018 | 4/28/2018 |
| 18 | 4/29/2018 | 5/5/2018 |
| 19 | 5/6/2018 | 5/12/2018 |
| 20 | 5/13/2018 | 5/19/2018 |
| 21 | 5/20/2018 | 5/26/2018 |
| 22 | 5/27/2018 | 6/2/2018 |
| 23 | 6/3/2018 | 6/9/2018 |
| 24 | 6/10/2018 | 6/16/2018 |
| 25 | 6/17/2018 | 6/23/2018 |
| 26 | 6/24/2018 | 6/30/2018 |
| 27 | 7/1/2018 | 7/7/2018 |
| 28 | 7/8/2018 | 7/14/2018 |
| 29 | 7/15/2018 | 7/21/2018 |
| 30 | 7/22/2018 | 7/28/2018 |
| 31 | 7/29/2018 | 8/4/2018 |
| 32 | 8/5/2018 | 8/11/2018 |
| 33 | 8/12/2018 | 8/18/2018 |
| 34 | 8/19/2018 | 8/25/2018 |
| 35 | 8/26/2018 | 9/1/2018 |
| 36 | 9/2/2018 | 9/8/2018 |
| 37 | 9/9/2018 | 9/15/2018 |
| 38 | 9/16/2018 | 9/22/2018 |
| 39 | 9/23/2018 | 9/29/2018 |
| 40 | 9/30/2018 | 10/6/2018 |
| 41 | 10/7/2018 | 10/13/2018 |
| 42 | 10/14/2018 | 10/20/2018 |
| 43 | 10/21/2018 | 10/27/2018 |
| 44 | 10/28/2018 | 11/3/2018 |
| 45 | 11/4/2018 | 11/10/2018 |
| 46 | 11/11/2018 | 11/17/2018 |
| 47 | 11/18/2018 | 11/24/2018 |
| 48 | 11/25/2018 | 12/1/2018 |
| 49 | 12/2/2018 | 12/8/2018 |
| 50 | 12/9/2018 | 12/15/2018 |
| 51 | 12/16/2018 | 12/22/2018 |
| 52 | 12/23/2018 | 12/29/2018 |