

# Louisiana Arbovirus Surveillance Summary 2017

CDC Week 33

From: 01/01/2017-08/19/2017

Contact- Infectious Disease Epidemiology phone: 504-568-8313 or email: cwaldron@la.gov

## Table of Contents

Topic:	Page Number:
Arboviral Report Summary 2017 (mosquito, avian, equine, human)	2
Comparison of Arboviral Activity for CDC week 01 to Present in 2016 and 2017	2
Arboviral Report Summary by Parish 2017 (mosquito, avian, equine, human)	3
WNV Human Clinical Picture: Aggregate Report by Disease Type, Age Group and Gender	4
WNV-NID, Fever and Asymptomatic Infections in Louisiana by Parish According to CDC Week (with EpiCurve)	5
Number of WNV Human Clinical Presentations by Year from 2002-Present (with Chart)	6
WNV-NID Cases by CDC Week for Each Year from 2002-Present	7
WNV-NID by Parish from 2002-Present (parishes highlighted in grey have cases each year)	8
Travel-Associated Arboviruses 2016	9
Travel-Associated Arboviruses 2017	10
CDC Weeks (Week Starting-Week Ending)	11

## 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.

# Arboviral Report Summary Presentation

Data from CDC Week 1-33 From: 01/01/2017-08/19/2017

Disease	Mosquito Pools	Avian	Equine	Human					
				Neuroinvasive NID	Fever F	Asymptomatic PRE	Total	Positive Blood Donors PVD ‡	Deaths
CAL									
EEE			2						
SLE									
WEE									
WNV	363	22	0	19	3	2	24	1	3
Total	363	22	2	19	3	2	24	1	3

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 1-33 From: 01/01/2016-08/20/2016

Disease	Mosquito Pools	Avian *	Equine	Human					
				Neuroinvasive NID	Fever F	Asymptomatic PRE	Total	Positive Blood Donors PVD ‡	Deaths
CAL									
EEE	1		6						
SLE									
WEE									
WNV	145	13	1	12	6	1	19	4	0
Total	146	13	7	12	6	1	19	4	0

# Arbovirus by Parish

Data from CDC Week: 1-33 From: 01/01/2017-08/19/2017

Parish	WNV							SLE				EEE				CAL
	M	A	E	Human				M	A	E	Human	M	A	E	Human	Human
				NID	F	PRE	Total									
Acadia							0									
Allen	12			1			1									
Ascension	3						0									
Assumption							0									
Avoyelles							0									
Beauregard							0									
Bossier	4			2		1	3									
Caddo	15			1			1									
Calcasieu	1						0									
De Soto							0									
East Baton Rouge	106	7		3	1		4									
East Feliciana							0									
Evangeline							0									
Franklin							0									
Iberia	2						0									
Iberville							0						1			
Jackson					1		1									
Jefferson	1	5					0									
Jefferson Davis							0									
Lafourche							0						1			
Lafayette	1						0									
Lincoln	1			2			2									
Livingston				1		1	2									
Morehouse				1			1									
Orleans	4						0									
Ouachita	53			1			1									
Plaquemines							0									
Rapides				5			5									
St. Bernard							0									
St. Charles	7	4					0									
St. John	2						0									
St. Landry							0									
St. Martin	4	4					0									
St. Mary		2					0									
St. Tammany	40			1	1		2									
Tangipahoa	7						0									
Vernon							0									
Washington				1			1									
Webster							0									
West Baton Rouge	100						0									
West Feliciana							0									
<b>Total</b>	<b>363</b>	<b>22</b>	<b>0</b>	<b>19</b>	<b>3</b>	<b>2</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>

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

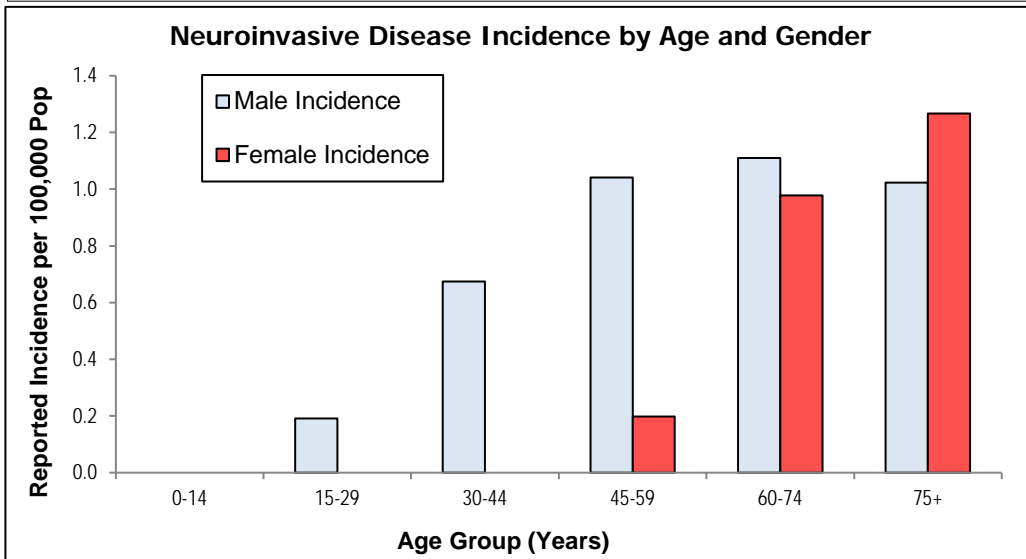
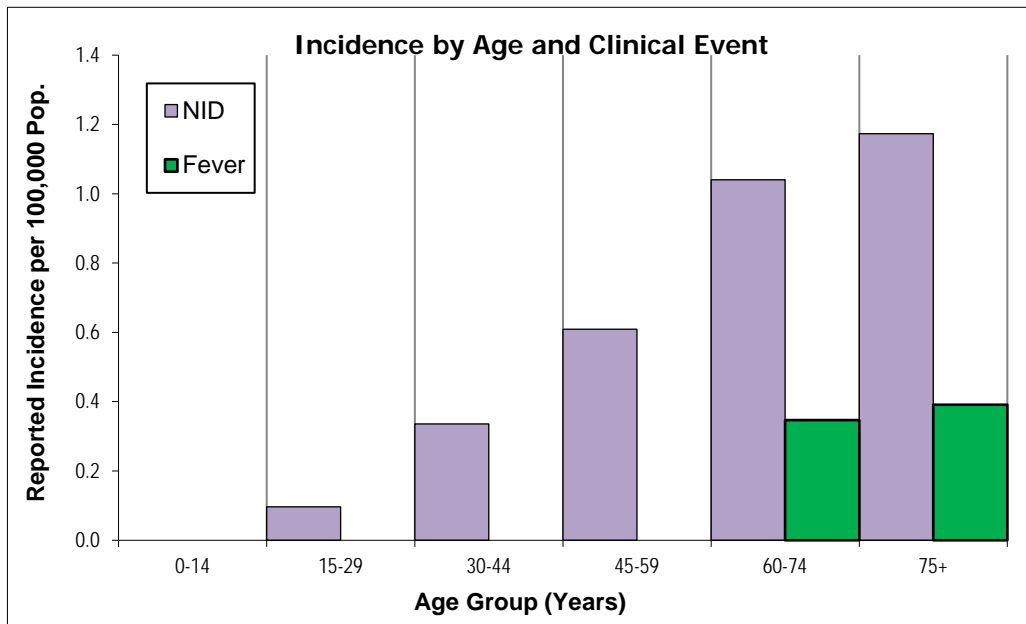
WNV = West Nile virus

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.

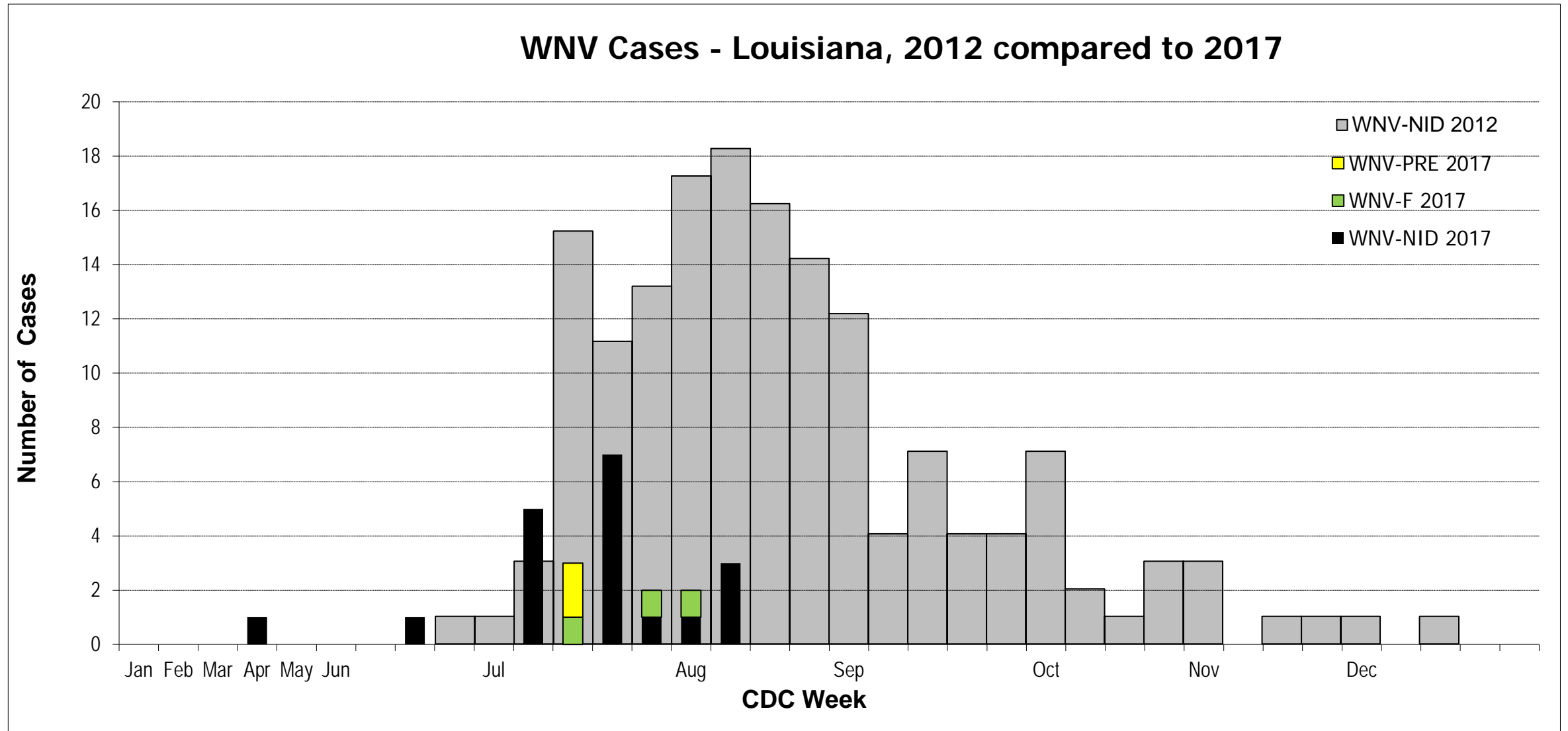
Age Group	Clinical Classification					
	NID Cases	Incidence	Fever Cases	Incidence	PRE Cases	Deaths
0-14	0	0.0	0	0.0	0	3
15-29	1	0.1	0	0.0	0	
30-44	3	0.3	0	0.0	1	
45-59	6	0.6	0	0.0	1	
60-74	6	1.0	2	0.3	0	
75+	3	1.2	1	0.4	0	
Undetermined						
<b>Total</b>	<b>19</b>	<b>0.4</b>	<b>3</b>	<b>0.1</b>	<b>2</b>	<b>0</b>

Age Group	Neuroinvasive Disease Cases by Gender			
	Male	M Incidence	Female	F Incidence
0-14	0	0.0	0	0.0
15-29	1	0.2	0	0.0
30-44	3	0.7	0	0.0
45-59	5	1.0	1	0.2
60-74	3	1.1	3	1.0
75+	1	1.0	2	1.3
Undetermined				
<b>Total</b>	<b>13</b>	<b>0.6</b>	<b>6</b>	<b>0.2</b>

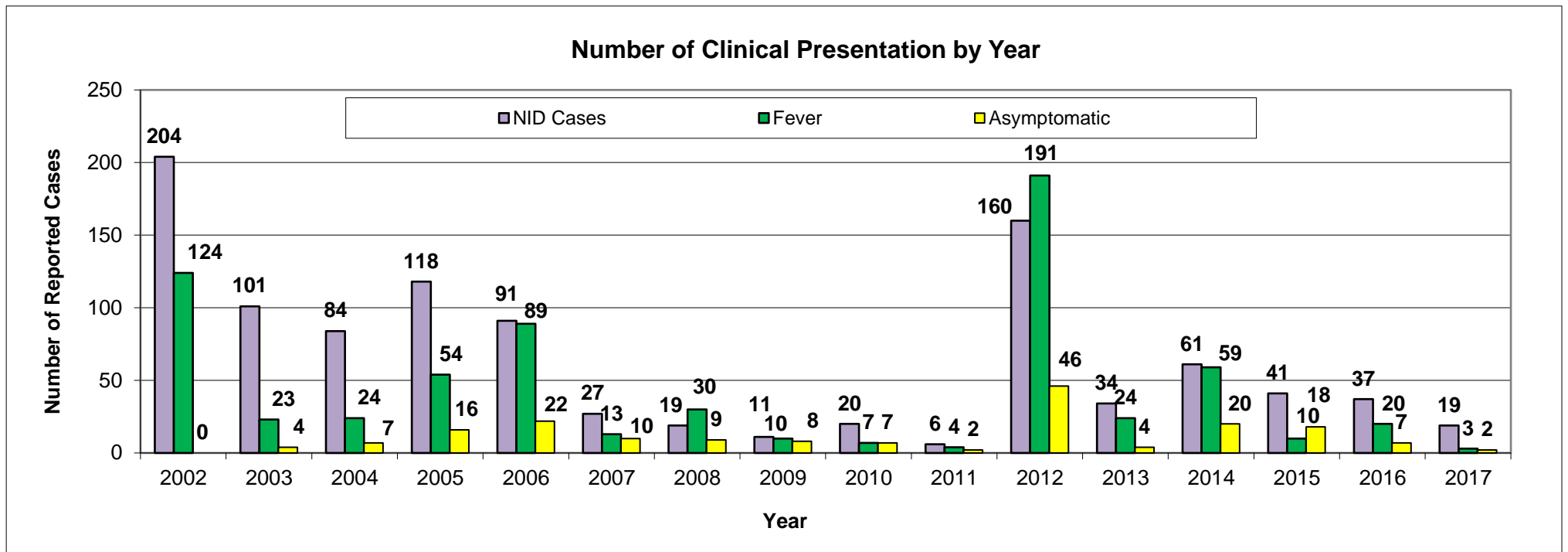


# WNV Infections by Parish According to CDC Week

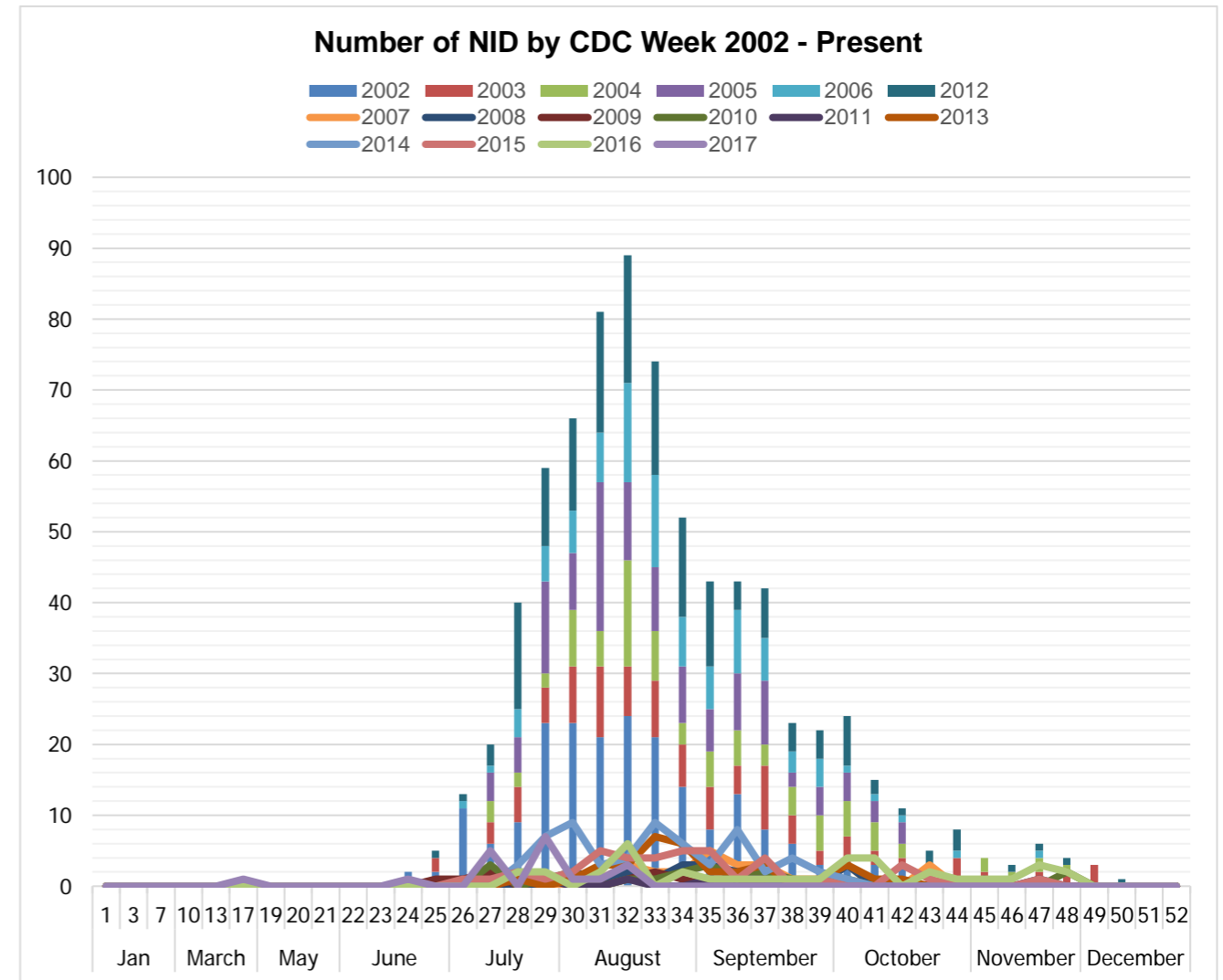
		CDC Week	1-4	5-8	9-12	13-17	18-21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52			
Region	Parish	Total	Jan	Feb	Mar	Apr	May	Jun	Jul			Aug			Sep			Oct			Nov			Dec																	
2	East Baton Rouge	3											1	2																											
3		0																																							
4		0																																							
5	Allen	1																																							
6	Rapides	5				1																																			
7	Bossier	2																																							
7	Caddo	1																																							
8	Lincoln	2																																							
8	Morehouse	1																																							
8	Ouachita	1																																							
9	Livingston	1																																							
9	St. Tammany	1																																							
9	Washington	1																																							
	<b>WNV-NID 2017</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>WNV-F 2017</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>WNV-PRE 2017</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>WNV-NID 2012</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>11</b>	<b>13</b>	<b>17</b>	<b>18</b>	<b>16</b>	<b>14</b>	<b>12</b>	<b>4</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>		



Total Human WNV Clinical Presentation by Year																	
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
NID Cases	204	101	84	118	91	27	19	11	20	6	160	34	61	41	37	19	1033
Fever	124	23	24	54	89	13	30	10	7	4	191	24	59	10	20	3	685
Asymptomatic	0	4	7	16	22	10	9	8	7	2	46	4	20	18	7	2	182
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	0.86	
Deaths	24	7	7	11	9	2	1	0	0	0	21	4	12	5	2	3	
Total Disease	328	128	115	188	202	50	58	29	34	12	397	62	140	69	64	24	



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



# NID by Parish 2002-Present

R e g	Parish	NID 2017		Previously Reported NID Cases														
		Incid	#	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
1	Jefferson	0.0		24	3	1	6	8	2	2	0	0	0	13	0	0	1	0
1	Orleans	0.0		10	2	1	6	12	2	2	0	0	0	11	0	0	1	0
1	Plaquemines	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
2	Ascension	0.0		6	2	1	3	10	0	0	0	2	0	3	0	4	2	0
2	East Baton Rouge	0.7	3	37	1	22	17	6	0	0	2	9	0	17	0	21	3	4
2	East Feliciana	0.0		2	1	1	0	0	0	0	0	0	0	2	0	0	0	2
2	Iberville	0.0		2	0	0	2	0	0	0	0	0	0	0	0	1	1	0
2	Pointe Coupee	0.0		6	0	0	0	0	0	0	0	0	0	0	0	2	1	0
2	West Baton Rouge	0.0		2	0	1	2	1	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
3	Assumption	0.0		0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
3	Lafourche	0.0		0	2	0	1	1	0	0	0	0	0	1	0	4	1	0
3	St Charles	0.0		0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
3	St James	0.0		2	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
3	St Mary	0.0		0	1	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
4	Acadia	0.0		0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
4	Evangeline	0.0		1	0	1	0	0	1	0	0	0	0	0	0	0	0	1
4	Iberia	0.0		2	1	0	4	0	0	0	0	3	0	1	0	0	0	0
4	Lafayette	0.0		4	0	1	1	1	1	0	0	0	2	9	0	0	0	1
4	St Landry	0.0		1	0	3	0	0	0	0	0	0	0	0	0	2	0	0
4	St Martin	0.0		0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
4	Vermillion	0.0		0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
5	Allen	3.9	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1
5	Beauregard	0.0		0	0	1	1	0	1	0	0	1	0	1	0	0	0	1
5	Calcasieu	0.0		8	1	3	2	5	0	1	0	0	2	8	1	0	0	5
5	Cameron	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

\* parishes highlighted in grey have cases each year

R e g	Parish	NID 2017		Previously Reported NID Cases														
		Incid	#	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
6	Avoyelles	0.0		2	0	0	0	1	1	1	0	0	0	1	0	0	1	0
6	Catahoula	0.0		0	1	0	0	1	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
6	Grant	0.0		1	0	0	0	0	0	0	0	0	0	3	0	0	0	0
6	Rapides	4.0	5	14	2	8	7	7	2	0	1	0	0	11	4	0	8	2
6	Lasalle	0.0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Vernon	0.0		0	0	0	0	1	0	0	0	0	0	1	1	0	0	0
6	Winn	0.0		1	0	0	1	0	0	0	0	0	0	1	0	0	0	0
7	Bienville	0.0		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7	Bossier	2.0	2	3	8	9	6	2	0	0	0	0	0	6	0	2	1	1
7	Caddo	0.4	1	5	38	8	16	3	7	3	1	0	0	19	0	16	5	10
7	Claiborne	0.0		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7	DeSoto	0.0		1	1	0	0	0	0	0	0	0	0	3	0	0	0	1
7	Natchitoches	0.0		0	1	0	2	0	0	0	0	0	0	2	0	1	0	0
7	Red River	0.0		1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7	Sabine	0.0		0	0	0	0	0	1	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
8	Caldwell	0.0		0	0	1	0	0	0	0	0	0	0	1	3	0	0	0
8	East Carroll	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	0	1
8	Jackson	0.0		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Lincoln	4.7	2	0	2	0	1	0	0	1	0	0	0	1	0	0	0	0
8	Madison	0.0		0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
8	Morehouse	3.2	1	0	2	2	1	0	1	0	0	0	0	1	0	0	0	0
8	Ouachita	0.7	1	6	2	5	15	3	1	1	0	0	0	3	14	2	6	3
8	Richland	0.0		2	1	1	0	0	0	0	0	0	0	1	0	0	0	0
8	Tensas	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
8	West Carroll	0.0		0	2	2	0	0	1	0	0	0	0	0	0	0	0	0
9	Livingston	1.1	1	12	5	6	11	1	1	1	0	1	0	6	1	2	0	2
9	St Helena	0.0		0	2	0	2	0	0	0	0	0	0	2	0	0	0	0
9	St Tammany	0.5	1	27	4	0	3	14	0	3	4	1	1	10	1	2	2	0
9	Tangipahoa	0.0		12	6	1	2	6	1	3	1	0	1	12	0	0	1	0
9	Washington	2.3	1	6	2	0	3	4	2	0	1	0	1	1	0	1	0	0
	<b>Total</b>	<b>0.7</b>	<b>19</b>	<b>204</b>	<b>101</b>	<b>84</b>	<b>118</b>	<b>91</b>	<b>27</b>	<b>19</b>	<b>11</b>	<b>20</b>	<b>6</b>	<b>160</b>	<b>34</b>	<b>61</b>	<b>41</b>	<b>37</b>



## Imported Arboviral Summary 2016

Parish	ZIKV	CHIKV	DENV
Ascension	1	0	0
Bienville	1	0	0
Beauregard	1	0	0
Bosier	0	1	0
Caddo	2	0	1
East Baton Rouge	4	0	0
Jefferson	7	0	1
Lafayette	1	0	1
Livingston	2	0	0
Orleans	16	0	2
Ouachita	1	0	0
St. Charles	1	0	0
St. James	1	0	0
St. Landry	4	0	0
St. Tammany	4	0	1
<b>Statewide Total</b>	<b>46</b>	<b>1</b>	<b>6</b>

ZIKV = Zika Virus

CHIKV = Chikungunya Virus

DENV = Dengue Virus

Countries of Travel		
ZIKV	CHIKV	DENV
Belize	Bolivia	Costa Rica
Colombia		Guatemala
Dominican Republic		Indonesia
El Salvador		Mexico
Grenada		Nigeria
Guatemala		Philippines
Haiti		
Honduras		
Jamaica		
Mexico		
Nicaragua		
Puerto Rico		
St. Lucia		
Trinidad		
USVI		
Venezuela		

ZIKV in Louisiana	Total
<b>Locally acquired mosquito-borne cases:</b>	<b>0</b>
Travel-associated disease cases:	38 <sup>a</sup>
Travel-associated asymptomatic infections:	8 <sup>b</sup>
Sexually transmitted	1
Guillain-Barré Syndrome	0
<b>Statewide Total</b>	<b>46</b>

Louisiana Data - U.S. Zika Pregnancy Registry	Total
Travel-acquired while pregnant	15

<sup>a</sup> This number includes 2 pregnant women who are also reported above as Zika disease cases"

<sup>b</sup> This number includes 8 pregnant women who are also reported above as Zika infections"

Gender	Total
<b>Female</b>	35
<b>Male</b>	11

Age Group	Total
<b>0-14</b>	0
<b>15-44</b>	34
<b>45-59</b>	10
<b>60+</b>	2
<b>Age Total</b>	<b>46</b>

Mosquito Pools	Total
Negative	336
Positive	0

Louisiana has reported any pregnant woman or newborn residing in Louisiana who has laboratory evidence of Zika infection to the CDC Pregnancy Registry. The U.S. Zika Pregnancy Registry casts a wide net - beyond reported Zika cases - to track and follow pregnancies that may have been impacted by Zika. Regardless of symptoms, pregnant women and newborns are included if testing for Zika virus infection yielded positive or inconclusive test results. Also this includes individuals who don't qualify as Zika cases because they have had no symptoms or if the infection couldn't be specifically identified as Zika virus but have some lab indication of a Flavivirus infection. Flaviviruses are known to cross-react during antibody testing, making it difficult to determine if the person was infected with Zika or some other flavivirus.

*Note: No other details will be provided about Louisiana pregnancies reported to CDC due to privacy concerns and it is not warranted from a public health standpoint.*

## Imported Arboviral Summary 2017

Parish	ZIKV	CHIKV	DENV
Orleans	1	0	0
Jefferson	2	0	0
St. Tammany	0	0	1
<b>Statewide Total</b>	<b>3</b>	<b>0</b>	<b>1</b>

ZIKV = Zika Virus

CHIKV = Chikungunya Virus

DENV = Dengue Virus

Countries of Travel		
ZIKV	CHIKV	DENV
USVI	Bolivia	India

ZIKV in Louisiana	
Locally acquired mosquito-borne cases:	0
Travel-associated disease cases:	1 <sup>a</sup>
Travel-associated asymptomatic infections:	2 <sup>b</sup>
Sexually transmitted	0
Guillain-Barre Syndrome	0
<b>Statewide Total</b>	<b>3</b>

Louisiana Data - U.S. Zika Pregnancy Registry	Total
Travel-acquired while pregnant	17 <sup>c</sup>

<sup>a</sup> This number includes 0 pregnant women who are also reported above as Zika disease cases"

<sup>b</sup> This number includes 2 pregnant women who are also reported above as Zika infections"

<sup>c</sup> This number includes women diagnosed in 2016, but are still being followed in 2017"

Gender	Total
Female	3
Male	0

Age Group	Total
0-14	0
15-44	3
45-59	0
60+	0
<b>Age Total</b>	<b>3</b>

Mosquito Pools	Total
Negative	7
Positive	0

Louisiana has reported any pregnant woman or newborn residing in Louisiana who has laboratory evidence of Zika infection to the CDC Pregnancy Registry. The U.S. Zika Pregnancy Registry casts a wide net - beyond reported Zika cases - to track and follow pregnancies that may have been impacted by Zika. Regardless of symptoms, pregnant women and newborns are included if testing for Zika virus infection yielded positive or inconclusive test results. Also this includes individuals who don't qualify as Zika cases because they have had no symptoms or if the infection couldn't be specifically identified as Zika virus but have some lab indication of a Flavivirus infection. Flaviviruses are known to cross-react during antibody testing, making it difficult to determine if the person was infected with Zika or some other flavivirus.

*Note: No other details will be provided about Louisiana pregnancies reported to CDC due to privacy concerns and it is not warranted from a public health standpoint.*

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