

# Arbovirus Surveillance Summary - Louisiana, 2007

Bulletin 7 CDC Week 52

Questions/Comments??

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## Table of Contents

Topic:	Page Number:
Report Summary	1
Summary of Arboviruses in Louisiana by Disease Type	2
WNV Human Clinical Picture: Aggregate Report by Disease Type, Age Group and Gender	3
WNV-NID Infections in Louisiana by Parish According to CDC Week (with EpiCurve)	4
WNV-NID by Parish from 2002-Present (parishes highlighted in red have cases each year)	6
WNV-NID Incidence Map by Parish	7
WNV-Fever Infections in Louisiana by Parish According to CDC Week (with EpiCurve)	8
WNV-Asymptomatic Infections in Louisiana by Parish According to CDC Week (with EpiCurve)	10
WNV-NID Cases by CDC Week for Each Year from 2002-Present	12
Proportion of Human Clinical Presentations by Year from 2002-Present	12
Sequence of WNV Detection in Animals, Mosquitoes and Humans	13
WNV Horse Infections in Louisiana by Parish According to CDC Week (with EpiCurve)	14
EEE Horse Infections in Louisiana by Parish According to CDC Week (with EpiCurve)	16
CDC Weeks (Week Starting-Week Ending)	18

## Report Summary

As of this report, 50 human WNV infections have been identified. There are 9 asymptomatic cases identified through screening of blood donors. Of the 40 WNV cases with symptoms, 27 are classified as WNV neuroinvasive disease (NID) cases, the most severe presentation of the disease, and 13 are classified as WNV fever cases, the WNV-related mild, febrile illness. There has been 2 WNV fatalities to date in Louisiana.

WNV fever cases make up almost 33% of all WNV infections reported in Louisiana to date in 2007.

There have been 0 cases of California group Encephalitis, most likely LaCrosse Encephalitis, 0 cases of Eastern Equine Encephalitis and 3 cases of St. Louis Encephalitis reported in 2007. These infections are not considered outbreaks since sporadic cases of these arboviruses often occur from year to year in the state.

### Horses:

There has been 17 confirmed cases of equine WNV and 42 confirmed cases of EEE in Louisiana in 2007.

### Sentinel Chickens:

There has been 76 sentinel chickens confirmed with WNV and 10 confirmed with SLE in Louisiana in 2007. Sentinel chickens are used as a statewide early warning system for arboviruses. These chickens in secure cages are strategically placed and bled regularly. Serologic tests performed on the sentinel chickens provide information of current and local transmission of many arboviruses.

### Dead Birds:

There has been 9/44 tested dead birds confirmed with WNV in Louisiana in 2007. Dead bird surveillance is conducted by parish or local mosquito abatement districts at their option. 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. Persons who encounter dead birds in Louisiana can contact their local parish health unit or mosquito control program.

### Mosquito Pools:

There have been over 24886 mosquito pools submitted for testing. 606 WNV positive pools have been found in 23 parishes, 101 SLE positive pools have been found in Iberia, St. Charles, Tangipahoa, EBR and WBR Parishes, and 7 EEE positive pools have been found in St. Tammany, EBR, Tangipahoa and Calcasieu.

### Wild Birds:

There have been over 2576 wild bird blood submitted for testing. There have been 117 positives among: East Baton Rouge (97) and Jefferson Davis (20).

## Arbovirus Summary - Louisiana, 2007

Definitions:	
WNV	West Nile Virus
NID	Neuroinvasive Disease
F	Fever
PRE	Asymptomatic Present Infections

Total Human West Nile Virus Clinical Presentation		
	2007	2006
NID	27	91
F	13	89
Asymptomatic	10	22
Positive Blood Donors	10	23

Eastern Equine Encephalitis Case			
CDC Week Onset	Parish	Age	Gender
	0		

LaCrosse Cases			
CDC Week Onset	Parish	Age	Gender
	0		

St. Louis Encephalitis Cases			
CDC Week Onset	Parish	Age	Gender
36	Tangipahoa	2	F
37	Tangipahoa	67	M
44	Jefferson	57	M

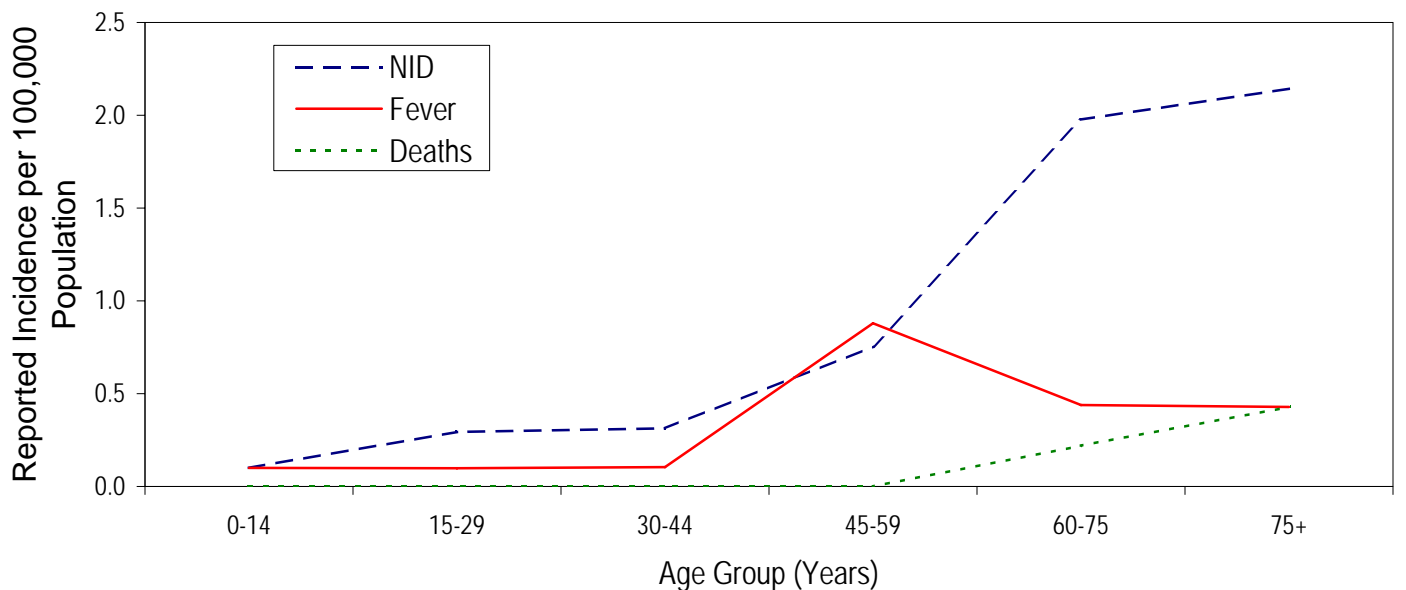
Total Human Arboviral Deaths	
EEE	0
WNV	2

## WNV Human Clinical Presentation - Louisiana, 2007

LA Population	Age Group	Clinical Classification					
		NID Cases	Incidence	Fever Cases	Incidence	PRE Cases	Deaths
1,003,732	0-14	1	0.1	1	0.1	0	
1,020,267	15-29	3	0.3	1	0.1	2	
959,936	30-44	3	0.3	1	0.1	3	
796,372	45-59	6	0.8	7	0.9	3	
455,389	60-75	9	2.0	2	0.4	2	1
233,281	75+	5	2.1	1	0.4	0	1
	Undetermined						
<b>4,468,976</b>	<b>Total</b>	<b>27</b>	<b>0.6</b>	<b>13</b>	<b>0.3</b>	<b>10</b>	<b>2</b>

LA Population		Age Group	Neuroinvasive Disease Cases by Gender			
Males	Females		Male	M Incidence	Female	F Incidence
512,259	489,825	0-14	1	0.2	0	0.0
490,881	496,796	15-29	3	0.6	0	0.0
486,816	510,151	30-44	2	0.4	1	0.2
384,845	410,187	45-59	4	1.0	2	0.5
204,617	248,595	60-75	4	2.0	5	2.0
83,485	150,519	75+	1	1.2	4	2.7
		Undetermined				
<b>2,162,903</b>	<b>2,306,073</b>	<b>Total</b>	<b>15</b>	<b>0.7</b>	<b>12</b>	<b>0.5</b>

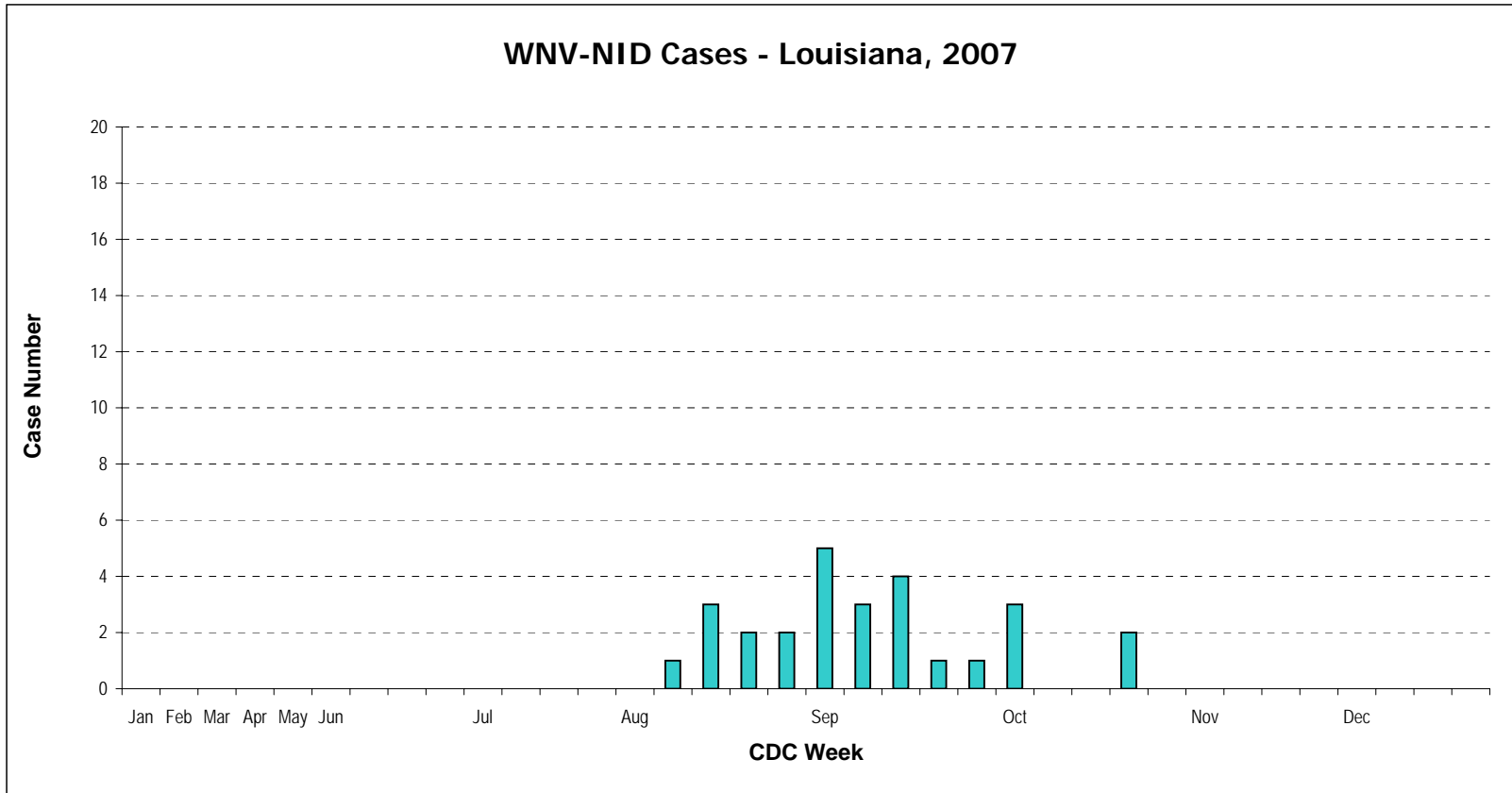
### Incidence by Age and Clinical Event - Louisiana, 2007





## WNV-NID Infections by Parish According to CDC Week - Louisiana, 2007

CDC Week		1-5	6-9	10-13	14-17	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							
8	Caldwell	0																																					
8	East Carroll	0																																					
8	Franklin	0																																					
8	Jackson	0																																					
8	Madison	0																																					
8	Morehouse	1																	1																				
8	Ouachita	1																			1																		
8	Richland	0																																					
8	Tensas	0																																					
8	Union	0																																					
8	West Carroll	1																																					
9	Livingston	1																																					
9	St Helena	0																																					
9	St Tammany	0																																					
9	Tangipahoa	1																																					
9	Washington	2																																					
	Undetermined	0																																					
	<b>WNV-NID Total</b>	<b>27</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>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>3</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>		



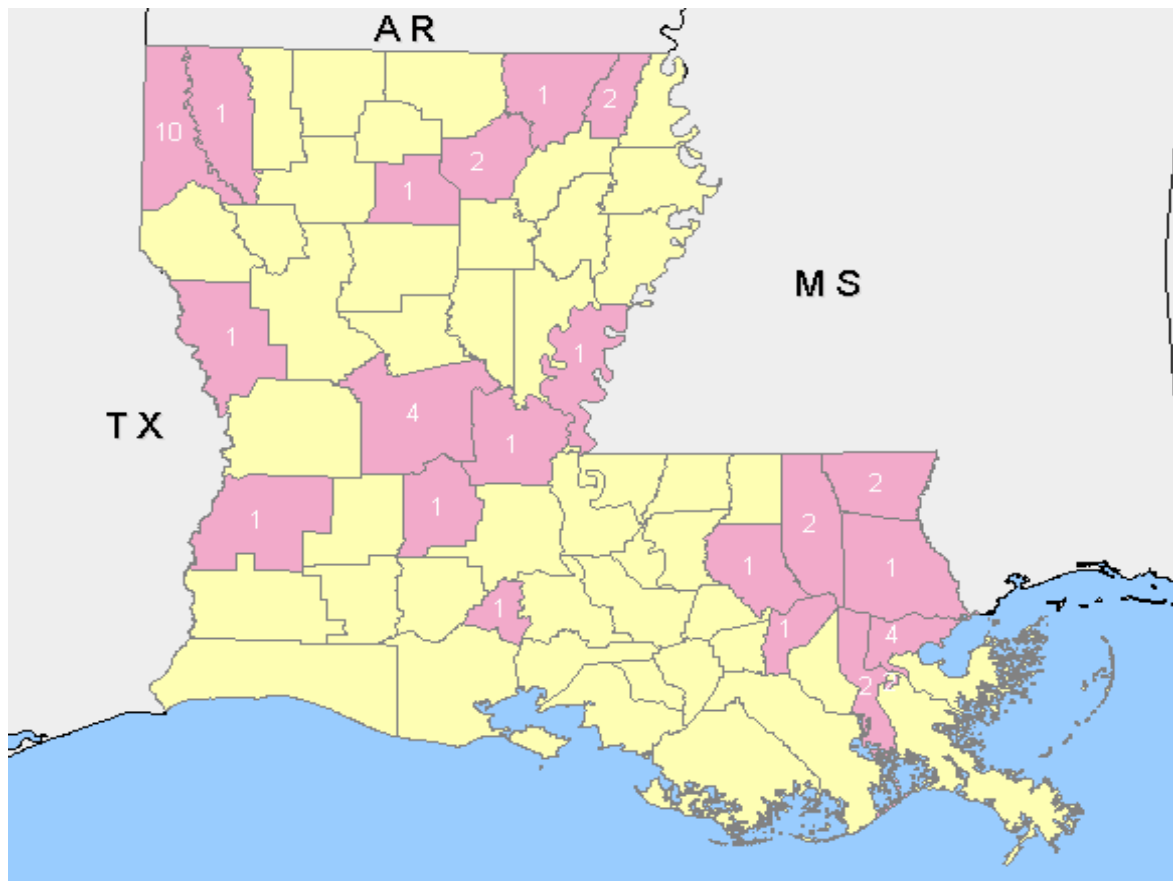
## NID by Parish - Louisiana, 2002-2007

Region	Parish	Population	Reported Infections 2007			Previously Reported NID Cases					
			NID Incidence	NID	Fever	PRE	2002	2003	2004	2005	2006
1	Jefferson	455,466	0.4	2		1	24	3	1	6	8
1	Orleans	484,674	0.4	2	2		10	2	1	6	12
1	Plaquemines	26,757	0.0				0	0	0	0	0
1	St Bernard	67,229	0.0				0	0	0	1	0
2	Ascension	76,627	0.0				6	2	1	3	10
2	East Baton Rouge	412,852	0.0			2	37	1	22	17	6
2	East Feliciana	21,360	0.0				2	1	1	0	0
2	Iberville	33,320	0.0				2	0	0	2	0
2	Pointe Coupee	22,763	0.0				6	0	0	2	0
2	West Baton Rouge	21,601	0.0				2	0	1	0	1
2	West Feliciana	15,111	0.0				0	0	0	0	0
3	Assumption	23,388	0.0				0	1	0	0	1
3	Lafourche	89,974	0.0				0	2	0	1	1
3	St Charles	48,072	0.0				0	0	0	0	0
3	St James	21,216	0.0				2	0	0	0	0
3	St John	43,044	2.3	1			2	0	0	0	0
3	St Mary	53,500	0.0				0	1	0	0	0
3	Terrebonne	104,503	0.0				0	3	0	0	0
4	Acadia	58,861	0.0				0	0	0	1	0
4	Evangeline	35,434	2.8	1			1	0	1	0	0
4	Iberia	73,266	0.0				2	1	0	4	0
4	Lafayette	190,503	0.5	1			4	0	1	1	1
4	St Landry	87,700	0.0			1	1	0	3	0	0
4	St Martin	48,583	0.0				0	0	0	0	0
4	Vermillion	53,807	0.0				0	0	0	0	1
5	Allen	25,440	0.0				0	0	0	0	0
5	Beauregard	32,986	3.0	1		1	0	0	1	1	0
5	Calcasieu	183,577	0.0			2	8	1	3	2	5
5	Cameron	9,991	0.0				0	1	0	0	0
5	Jefferson Davis	31,435	0.0				0	0	1	0	0
6	Avoyelles	41,481	2.4	1			2	0	0	0	1
6	Catahoula	10,920	0.0				0	1	0	0	1
6	Concordia	20,247	4.9	1			1	0	0	0	1
6	Grant	18,698	0.0				1	0	0	0	0
6	Rapides	126,337	1.6	2	2	1	14	2	8	7	7
6	Lasalle	14,282	0.0				0	0	0	0	0
6	Vernon	52,531	0.0				0	0	0	0	1
6	Winn	16,894	0.0				1	0	0	1	0
7	Bienville	15,752	0.0				0	0	0	0	0
7	Bossier	98,310	0.0		1		3	8	9	6	2
7	Caddo	252,161	2.8	7	3	1	5	38	8	16	3
7	Claiborne	16,851	0.0				0	1	0	0	0
7	DeSoto	25,494	0.0				0	1	0	0	0
7	Natchitoches	39,080	0.0				1	1	0	2	0
7	Red River	9,622	0.0				0	0	0	0	0
7	Sabine	23,459	4.3	1			1	0	0	0	0
7	Webster	41,831	0.0			1	0	0	1	0	1
8	Caldwell	10,560	0.0				0	0	1	0	0
8	East Carroll	9,421	0.0				0	0	0	0	0
8	Franklin	21,263	0.0				0	0	1	1	0
8	Jackson	15,397	0.0		1		0	1	0	0	0
8	Lincoln	42,509	0.0				0	2	0	1	0
8	Madison	13,728	0.0				0	0	1	0	0
8	Morehouse	31,021	3.2	1			0	2	2	1	0
8	Ouachita	147,250	0.7	1	1		6	2	5	15	3
8	Richland	20,981	0.0				2	1	1	0	0
8	Tensas	6,618	0.0				0	0	0	0	0
8	Union	22,803	0.0				1	1	1	0	0
8	West Carroll	12,314	8.1	1	1		0	2	2	0	0

## NID by Parish - Louisiana, 2002-2007

Region	Parish	Population	Reported Infections 2007			
			NID Incidence	NID	Fever PRE	
9	Livingston	91,814	1.1	1		
9	St Helena	10,525	0.0			
9	St Tammany	191,268	0.0		1	
9	Tangipahoa	100,588	1.0	1	1	
9	Washington	43,926	4.6	2		
	Undetermined					
	<b>Total</b>	<b>4,468,976</b>	<b>0.6</b>	<b>27</b>	<b>13</b>	<b>10</b>

Previously Reported NID Cases				
2002	2003	2004	2005	2006
12	5	6	11	1
0	2	0	2	0
27	4	0	3	14
12	6	1	2	6
6	2	0	3	4
0	0	0	0	0
<b>204</b>	<b>101</b>	<b>84</b>	<b>118</b>	<b>91</b>



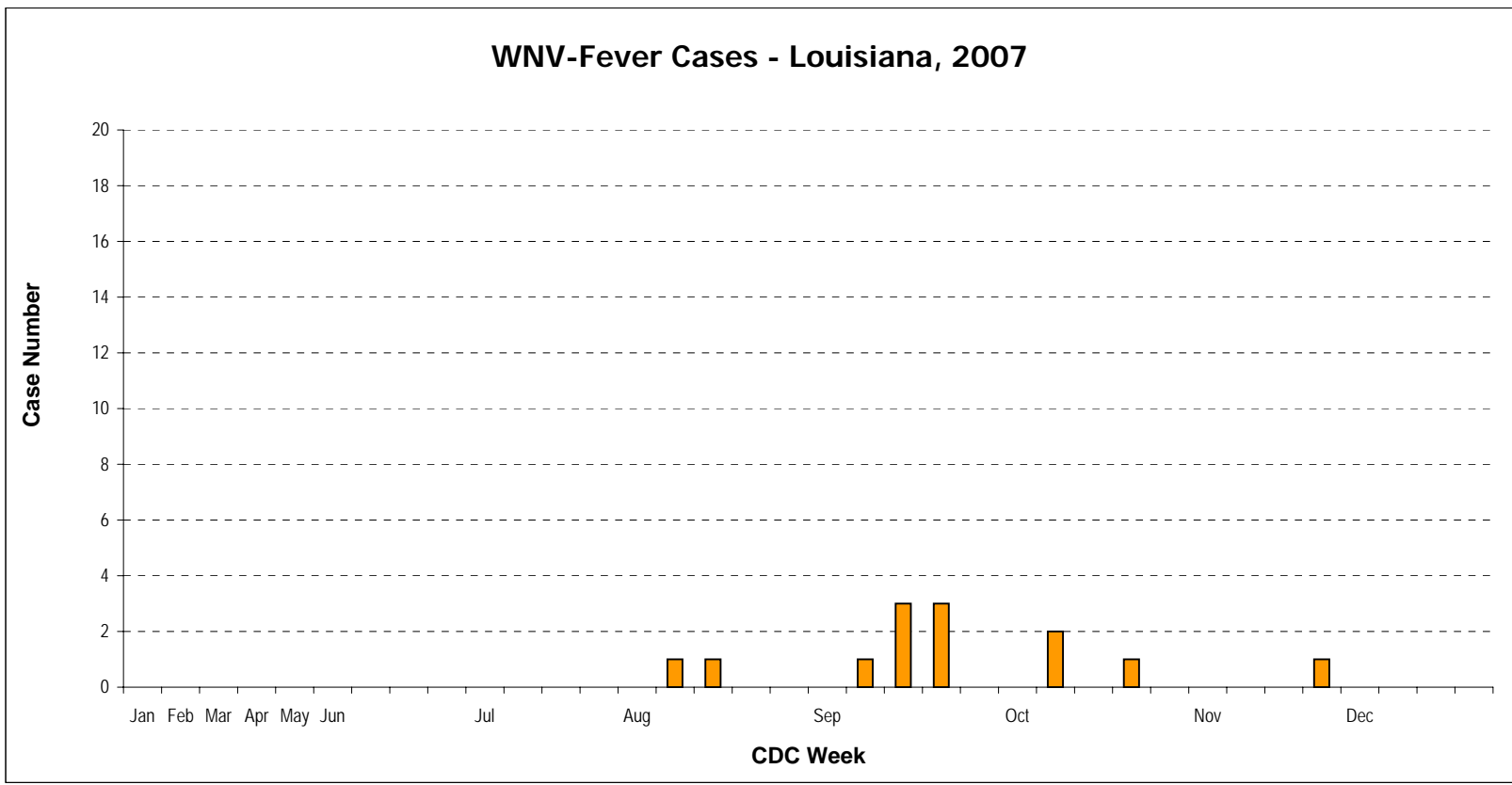
[http://diseasemaps.usgs.gov/wnv\\_la\\_human.html](http://diseasemaps.usgs.gov/wnv_la_human.html)





## WNV-Fever Infections by Parish According to CDC Week - Louisiana, 2007

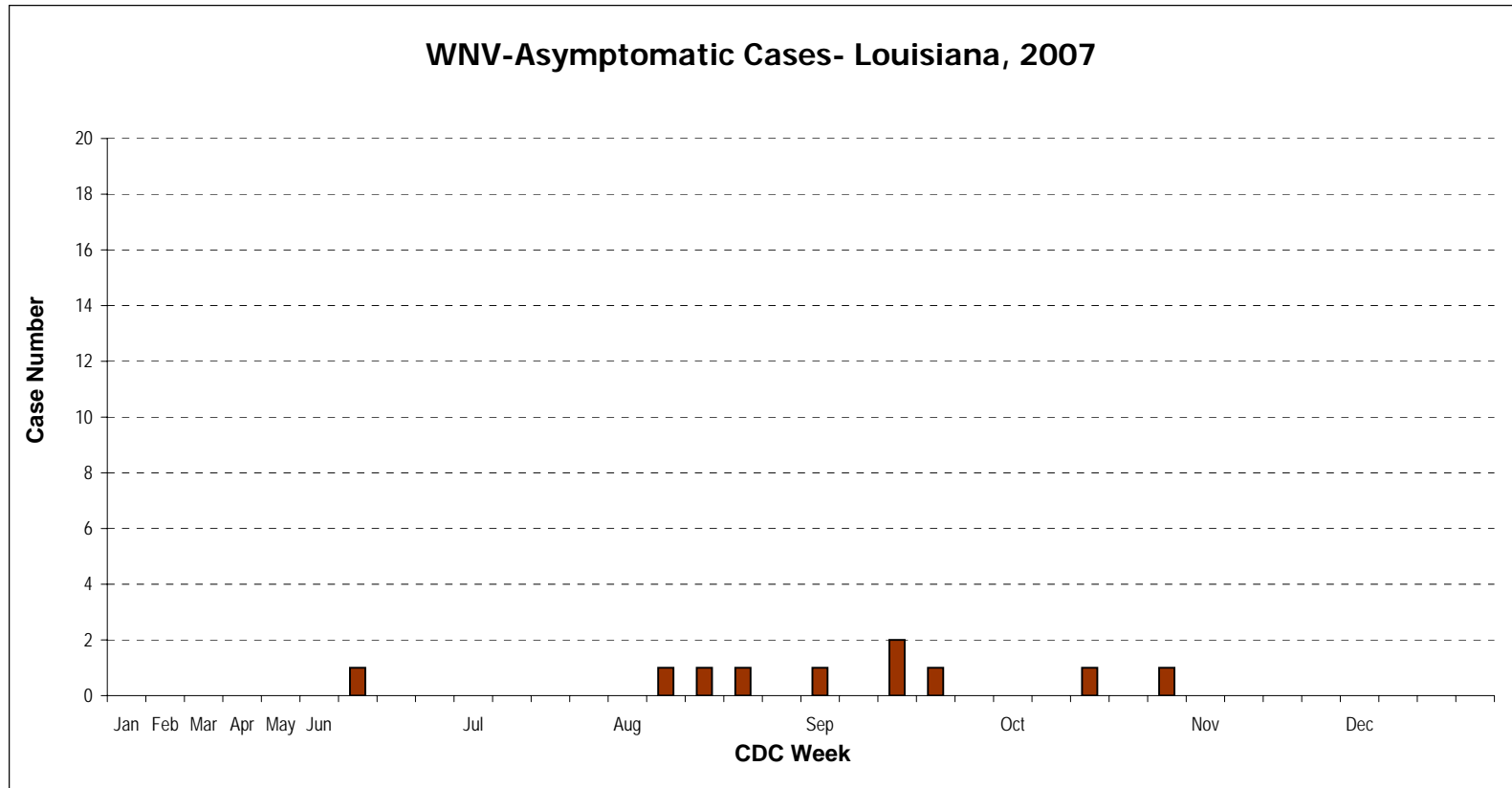
		CDC Week	1-5	6-9	10-13	14-17	18-21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
Region	Parish	Total	Jan	Feb	Mar	Apr	May	Jun				Jul				Aug				Sep				Oct				Nov				Dec							
8	Caldwell	0																																					
8	East Carroll	0																																					
8	Franklin	0																																					
8	Jackson	1																					1																
8	Madison	0																																					
8	Morehouse	0																																					
8	Ouachita	1																									1												
8	Richland	0																																					
8	Tensas	0																																					
8	Union	0																																					
8	West Caroll	1																					1																
9	Livingston	0																																					
9	St Helena	0																																					
9	St Tammany	1																																					
9	Tangipahoa	1																					1																
9	Washington	0																																					
	Undetermined	0																																					
<b>WNV-F Total</b>		<b>13</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>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	





# WNV-Asymptomatic Infections by Parish According to CDC Week - Louisiana, 2007

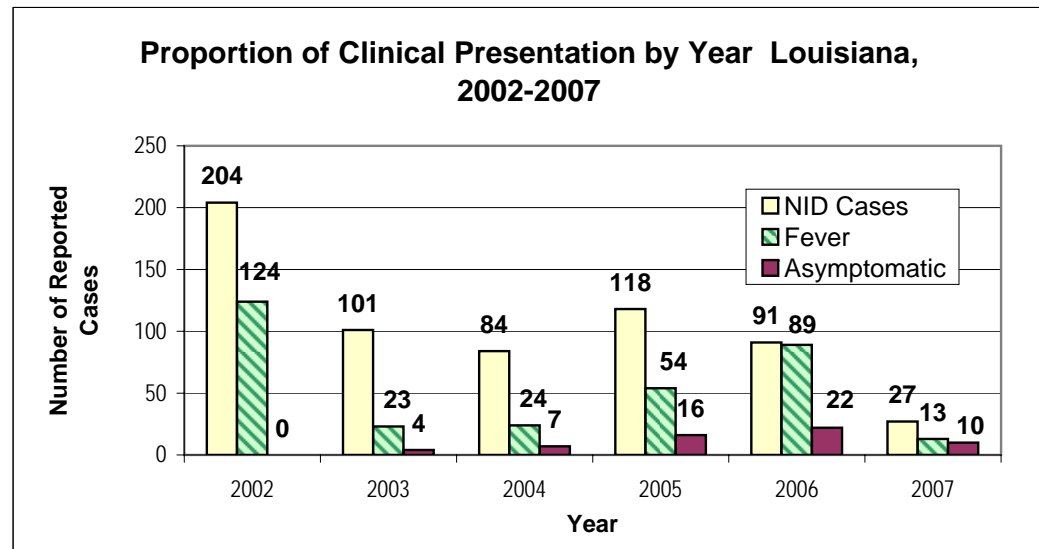
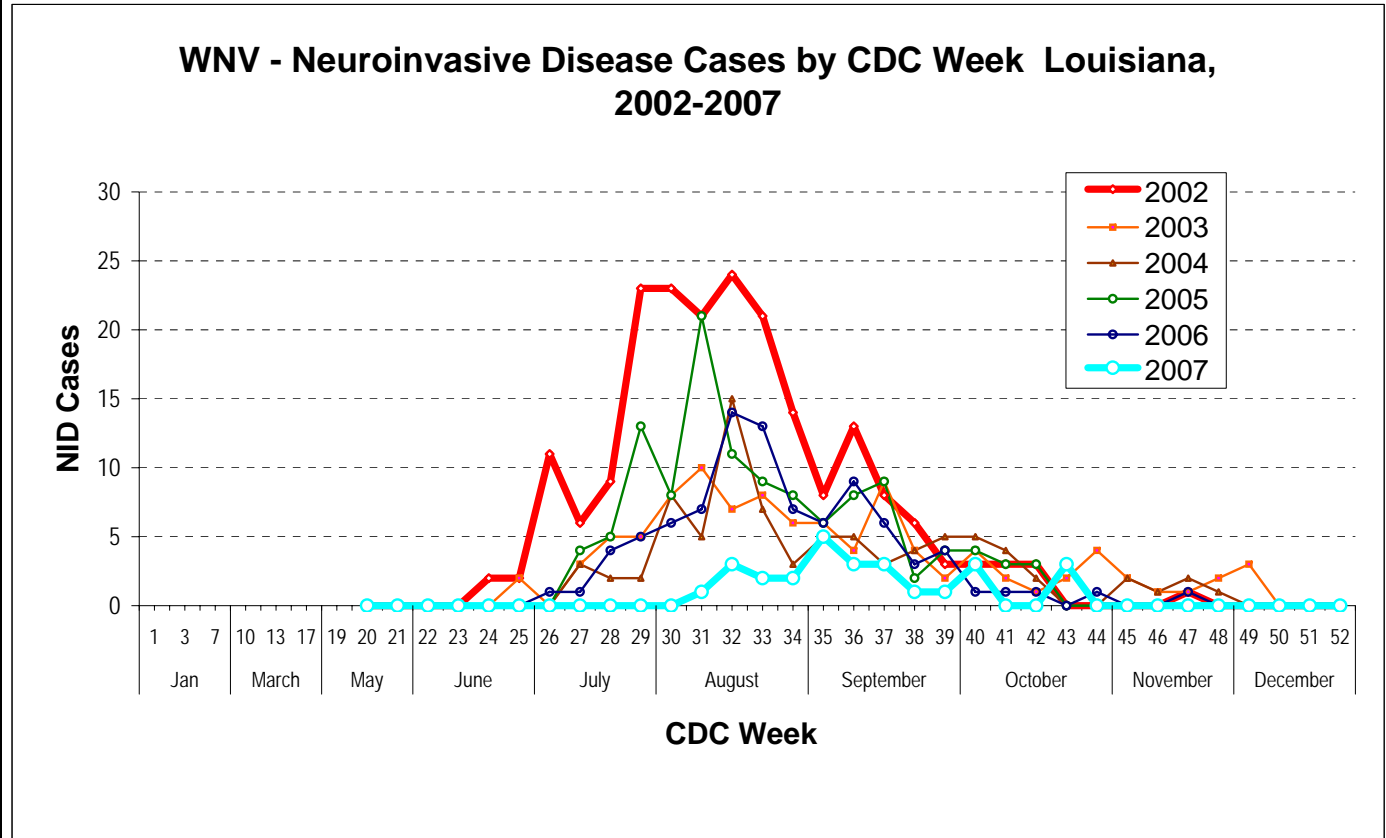
CDC Week		1-5	6-9	10-13	14-17	18-21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52		
Region	Parish	Total	Jan	Feb	Mar	Apr	May	Jun			Jul			Aug				Sep				Oct				Nov				Dec									
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8	Madison	0																																					
8	Morehouse	0																																					
8	Ouachita	0																																					
8	Richland	0																																					
8	Tensas	0																																					
8	Union	0																																					
8	West Carroll	0																																					
9	Livingston	0																																					
9	St Helena	0																																					
9	St Tammany	0																																					
9	Tangipahoa	0																																					
9	Washington	0																																					
	Undetermined	0																																					
	WNV-PRE Total	10	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0	1	0	2	1	0	0	0	1	0	1	0	0	0	0	0	0	0		



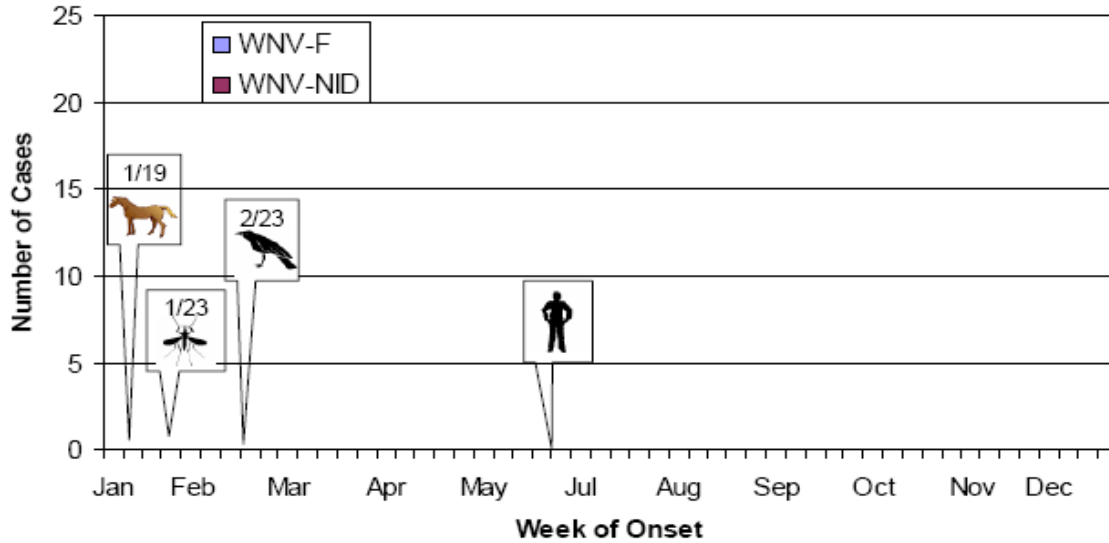
## Human Summary - Louisiana, 2002-2007

WNV-NID Cases by CDC Week by Year							
	Week	2002	2003	2004	2005	2006	2007
Jan	1						
	3						
	7						
March	10						
	13						
	17						
May	19						
	20	0	0	0	0	0	0
	21	0	0	0	0	0	0
June	22	0	0	0	0	0	0
	23	0	0	0	0	0	0
	24	2	0	0	0	0	0
	25	2	2	0	0	0	0
July	26	11	0	0	0	1	0
	27	6	3	3	4	1	0
	28	9	5	2	5	4	0
	29	23	5	2	13	5	0
August	30	23	8	8	8	6	0
	31	21	10	5	21	7	1
	32	24	7	15	11	14	3
	33	21	8	7	9	13	2
	34	14	6	3	8	7	2
September	35	8	6	5	6	6	5
	36	13	4	5	8	9	3
	37	8	9	3	9	6	3
	38	6	4	4	2	3	1
	39	3	2	5	4	4	1
October	40	3	4	5	4	1	3
	41	3	2	4	3	1	0
	42	3	1	2	3	1	0
	43	0	2	0	0	0	3
	44	0	4	0	0	1	0
November	45	0	2	2	0	0	0
	46	0	1	1	0	0	0
	47	1	1	2	0	1	0
	48	0	2	1	0	0	0
December	49	0	3	0	0	0	0
	50	0	0	0	0	0	0
	51	0	0	0	0	0	0
	52	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>

Total Human WNV Clinical Presentation by Year						
	2002	2003	2004	2005	2006	2007
NID Cases	204	101	84	118	91	27
Fever	124	23	24	54	89	13
Asymptomatic	NA	4	7	16	22	10
Proportion of NID/F	0.62	0.81	0.78	0.69	0.51	0.68



### Sequence of WNV Detection - Louisiana, 2007



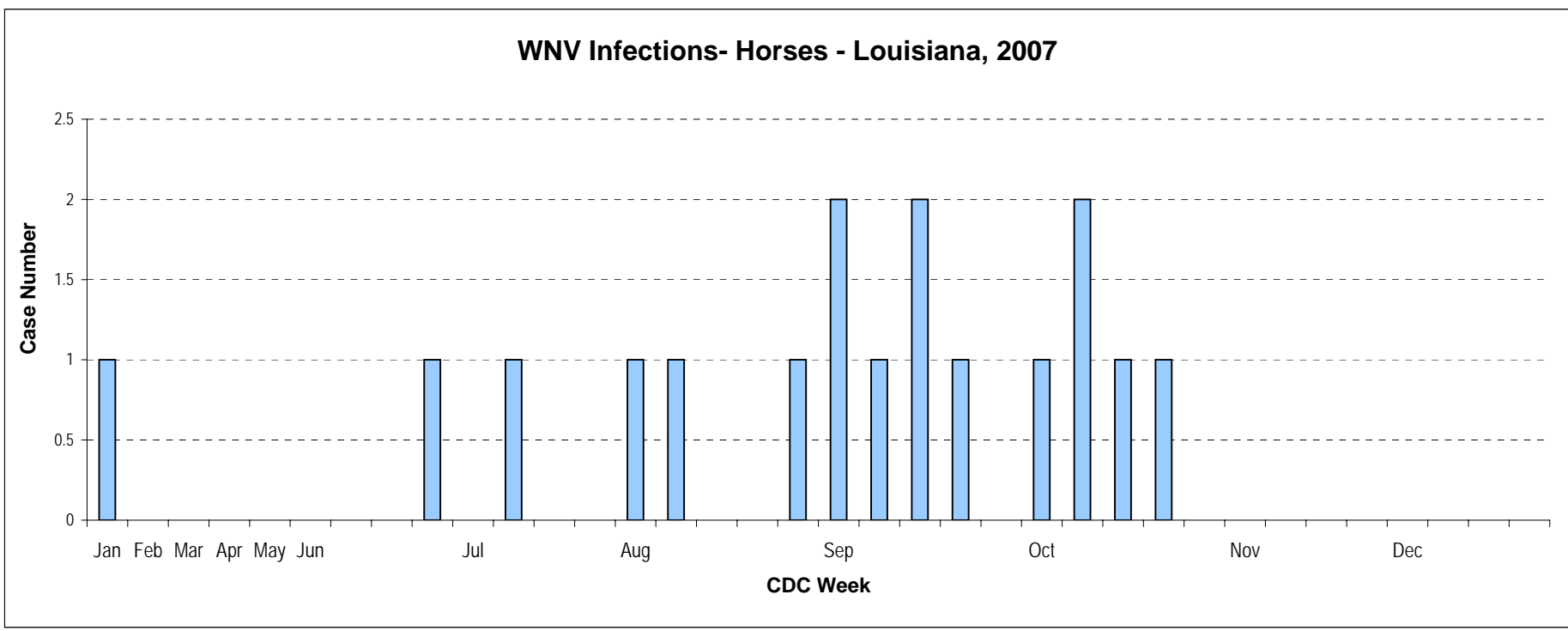
Parish	Humans		Horses		Mosquito Pools		Wild Birds			Dead Birds		Chickens	
	This Wk	YTD	This Wk	YTD	This Wk	YTD	This Wk	YTD	Submitted	YTD	Submitted	YTD	Submitted
Acadia						8							
Ascension						13						0	13
Avoyelles		1											
Beauregard		2											
Bienville				1									
Bossier		1											
Caddo		11		1		20							
Calcasieu		2		1		48				0	6		
Cameron						8							
Concordia		1											
East Baton Rouge		2				68	97	2242		1	8		
Evangeline		1		2									
Iberia						17				1	4		
Iberville						11							
Jackson		1											
Jefferson		3				23				0	1	34	495
Jefferson Davis						10	20	334		0	1	12	300
Lafayette		1										9	237
Lafourche				1		7							
Livingston		1								0	3		
Morehouse		1											
Orleans		4				11							
Ouachita		2		2		84				4	8		
Plaquemines						2							
Rapides		5		1									
Sabine		1											
St. Bernard						48						4	189
St. Charles				1		5						1	248
St. James						24							
St. John		1				6						1	275
St. Landry		1		2									
St. Martin						15						4	150
St. Mary												6	186
St. Tammany		1		2		69				0	3	2	168
Tangipahoa		2				63				0	4		
Terrebonne				1		8						0	408
Union													
Vermilion										2	5		
Vernon				1								3	199
Washington		2											
Webster		1											
West Baton Rouge				1		38							
West Carroll		2											
Unknown										1	1		
<b>Statewide Totals</b>													
Positives		50		17	0	606	0	117		9		76	
Number Tested		TBD		134		24886			2576		44		2868



# WNV Horses - Louisiana, 2007

CDC Week		1-5	6-9	10-13	14-17	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									
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9	St Helena	0																																					
9	St Tammany	2	1												1																								
9	Tangipahoa	0																																					
9	Washington	0																																					
	Undetermined	0																																					
	WNV-Horses Total	17	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	2	1	2	1	0	1	2	1	1	1	0	0	0	0	0	0		

## WNV Infections- Horses - Louisiana, 2007









## Sequence of WNV Detection - Louisiana, 2007

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