

Louisiana Arbovirus Surveillance Summary 2006

Bulletin 12 CDC Week

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Report Summary

The total number of reported cases of WNV neuroinvasive disease (NID), the most severe presentation of the disease, and WNV-related mild, febrile illness were 91 and 88 respectively. There were 22 asymptomatic cases identified through screening of blood donors. While the numbers of these asymptomatic cases is higher than previous years, the number of cases identified has slowly increased since screening of blood donors began in 2003.

A similar seasonal pattern of WNV-NID disease cases has been observed from year to year from 2002 to 2006.

While sporadic cases have occurred throughout the state; some parishes experience large numbers of cases year after year.

WNV fever cases made up almost 50% of all WNV infections reported in Louisiana in 2006, a higher proportion than in any previous year. However since 2001, when the state's first case of WNV was reported, information on WNV fever cases and asymptomatic cases has been inconsistently reported. Therefore, the number of WNV-NID cases is considered the only true measure to monitor the progress of the endemic. The aforementioned inconsistency of case reporting should preclude the observer from attributing significance to this increase. As the diagnostic tests used in the laboratory become cheaper and their request by physicians increases, as a result of improved awareness of the disease across the state, an increase in the number of WNV fever cases reported is expected. The increase in the proportion of WNV fever to WNV-NID cases will likely continue since 99% of all symptomatic infections are characterized by mild disease, not the more severe neuroinvasive form.

There have been 3 cases of California group Encephalitis, most likely LaCrosse Encephalitis, 1 case of Eastern Equine Encephalitis and 2 cases of St. Louis Encephalitis reported in 2006. These infections are not considered outbreaks since sporadic cases of these arboviruses often occur from year to year in the state.

Arbovirus Summary

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

Total Human West Nile Virus Clinical Presentation		
	2006	2005
NID	91	118
F	89	54
Asymptomatic	22	16
Positive Blood Donors	23	16

Eastern Equine Encephalitis Case			
CDC Week Onset	Parish	Age	Gender
WK 30	EBatonRouge	47	M

LaCrosse Cases			
CDC Week Onset	Parish	Age	Gender
Wk 29	Plaquemines	3	F
Wk 31	St. Tammany	65	M
Wk 46	St Tammany	14	M

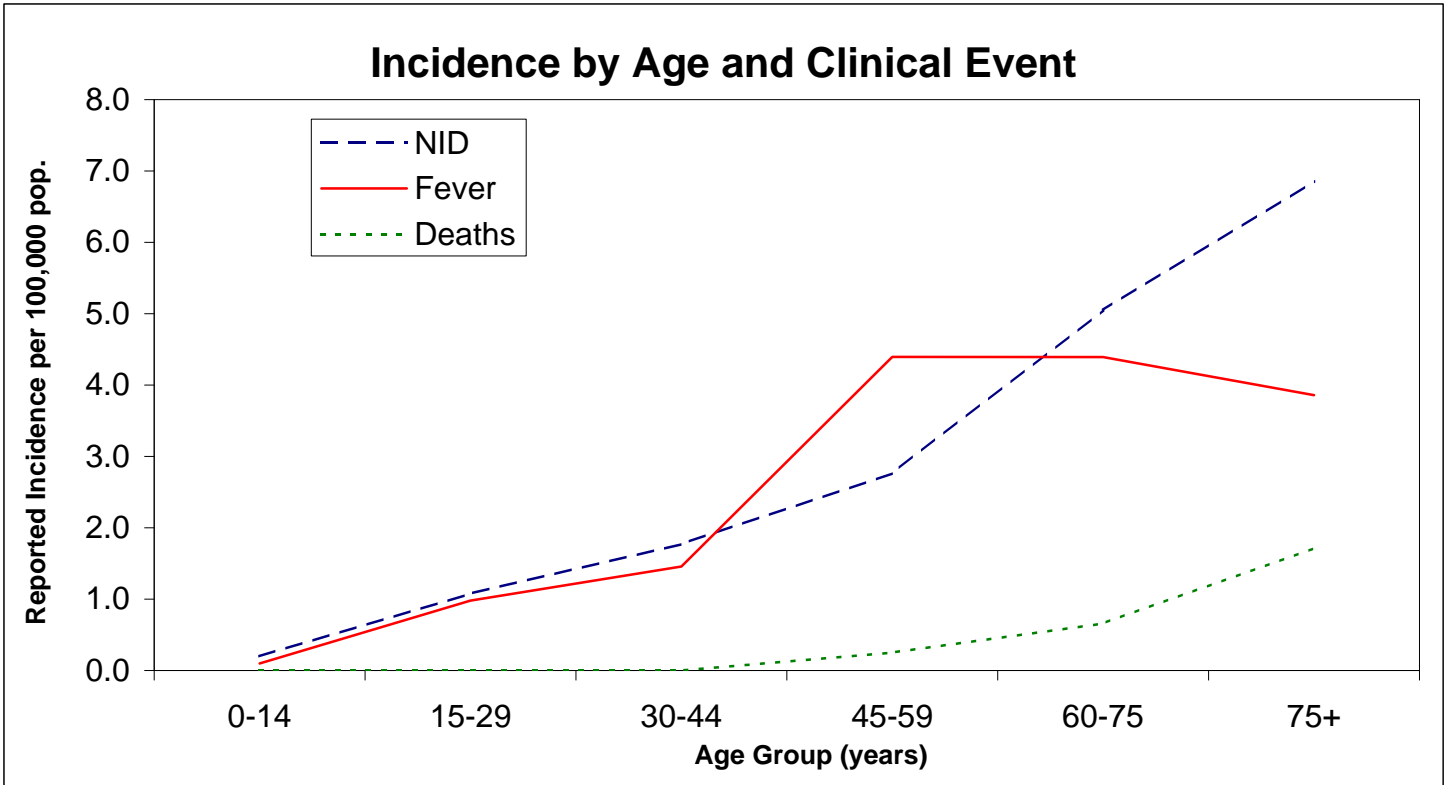
St. Louis Encephalitis Cases			
CDC Week Onset	Parish	Age	Gender
Wk 40	St. Bernard	19	M
Wk 34	Orleans	51	F

Total Human Arboviral Deaths	
EEE	1
WNV	9

WNV Human Clinical Presentation

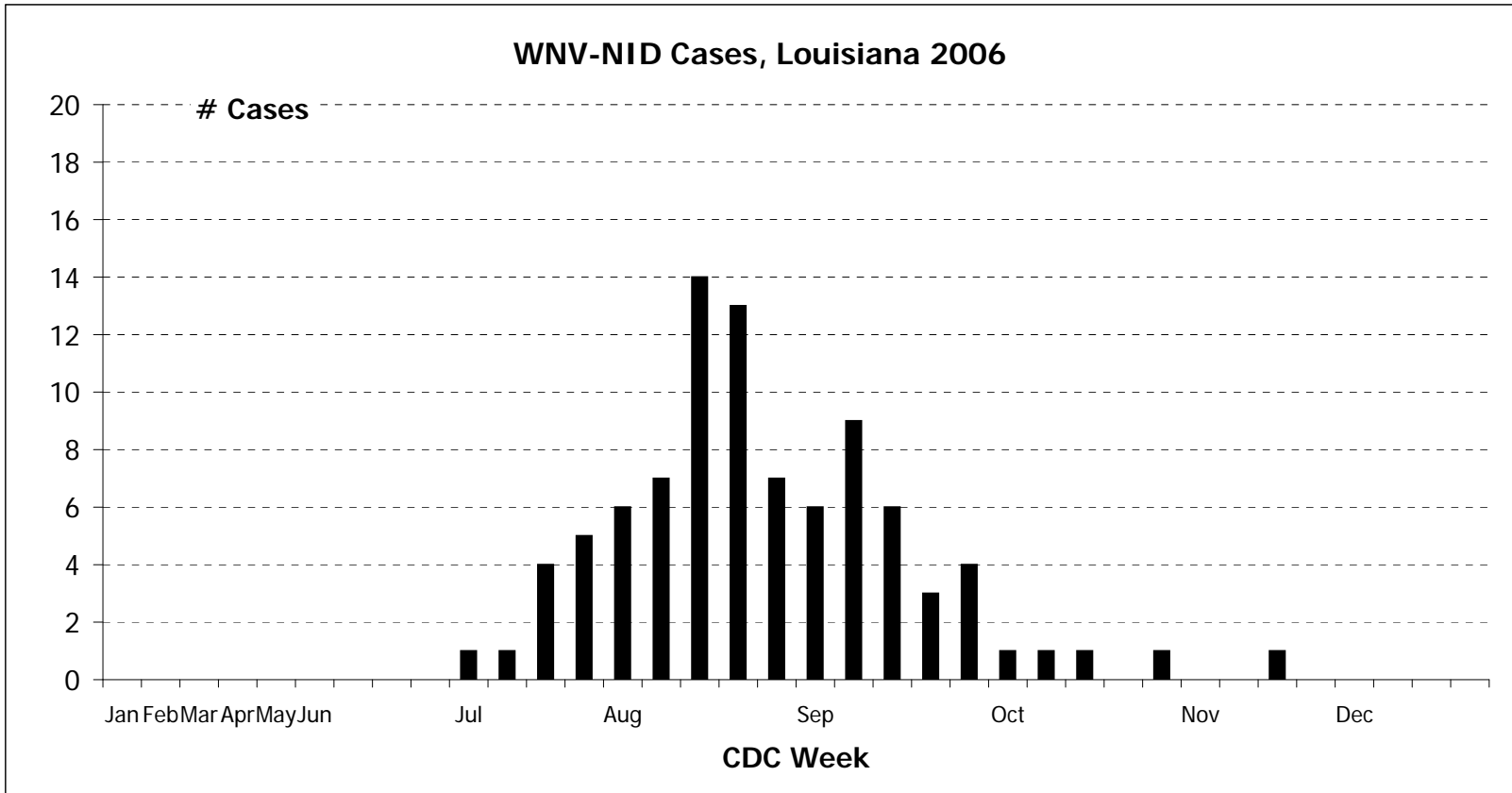
LA Population	Age Group	Clinical Classification					
		NID Cases	Incidence	Fever Cases	Incidence	PRE Cases	Deaths
1,003,732	0-14	2	0.2	1	0.1	0	
1,020,267	15-29	11	1.1	10	1.0	2	
959,936	30-44	17	1.8	14	1.5	6	
796,372	45-59	22	2.8	35	4.4	10	2
455,389	60-75	23	5.1	20	4.4	3	3
233,281	75+	16	6.9	9	3.9	0	4
	Undetermined					1	
4,468,976	Total	91	2.0	89	2.0	22	9

LA Population	Age Group	Neuroinvasive Disease Cases by Gender			
		Male	M Incidence	Female	F Incidence
1,003,732	0-14	2	0.2	0	0.0
1,020,267	15-29	6	0.6	5	0.5
959,936	30-44	11	1.1	6	0.6
796,372	45-59	15	1.9	7	0.9
455,389	60-75	15	3.3	8	1.8
233,281	75+	7	3.0	9	3.9
	Undetermined				
4,468,976	Total	56	1.3	35	0.8



WNV-NID Infections by Parish According to CDC Week

		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	0																																								
8	Ouachita	3																																								
8	Richland	0																																								
8	Tensas	0																																								
8	Union	0																																								
8	West Carroll	0																																								
9	Livingston	1																																								
9	St Helena	0																																								
9	St Tammany	14																																								
9	Tangipahoa	6																																								
9	Washington	4																																								
	Undetermined	0																																								
WNV-NID Total		91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			



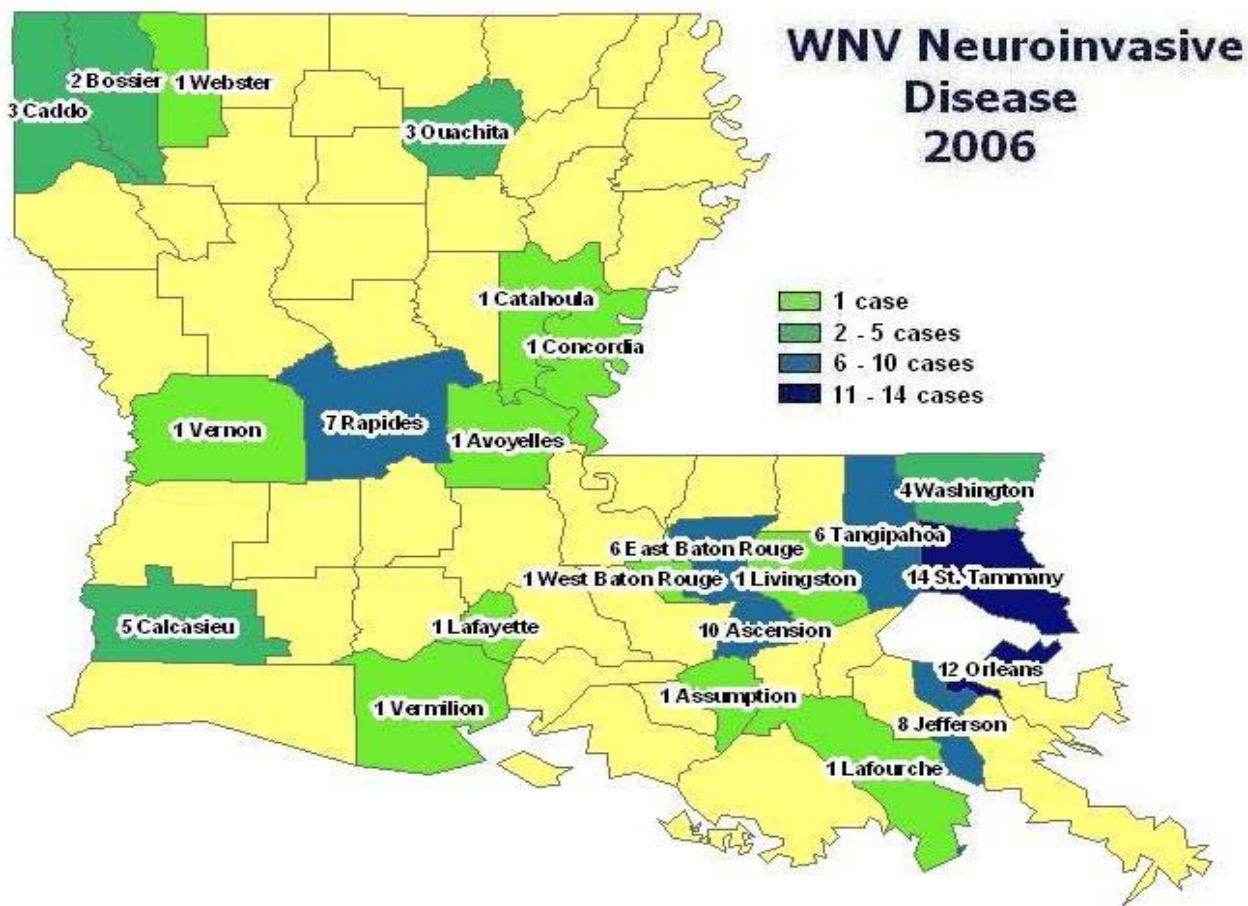
NID by Parish 2002-Present

Region	Parish	Population	Reported Infections 2006				Previously Reported NID Cases			
			NID Incidence	NID	Fever	PRE	2002	2003	2004	2005
1	Jefferson	455,466	1.8	8	6	1	24	3	1	6
1	Orleans	484,674	2.5	12	5		10	2	1	6
1	Plaquemines	26,757	0.0				0	0	0	0
1	St Bernard	67,229	0.0		2		0	0	0	1
2	Ascension	76,627	13.1	10	12	1	6	2	1	3
2	East Baton Rouge	412,852	1.5	6	10	1	37	1	22	17
2	East Feliciana	21,360	0.0				2	1	1	0
2	Iberville	33,320	0.0				2	0	0	2
2	Pointe Coupee	22,763	0.0				6	0	0	2
2	West Baton Rouge	21,601	4.6	1	1		2	0	1	0
2	West Feliciana	15,111	0.0				0	0	0	0
3	Assumption	23,388	4.3	1			0	1	0	0
3	Lafourche	89,974	1.1	1	2	1	0	2	0	1
3	St Charles	48,072	0.0				0	0	0	0
3	St James	21,216	0.0				2	0	0	0
3	St John	43,044	0.0				2	0	0	0
3	St Mary	53,500	0.0			1	0	1	0	0
3	Terrebonne	104,503	0.0				0	3	0	0
4	Acadia	58,861	0.0				0	0	0	1
4	Evangeline	35,434	0.0				1	0	1	0
4	Iberia	73,266	0.0				2	1	0	4
4	Lafayette	190,503	0.5	1	1		4	0	1	1
4	St Landry	87,700	0.0				1	0	3	0
4	St Martin	48,583	0.0				0	0	0	0
4	Vermillion	53,807	1.9	1			0	0	0	0
5	Allen	25,440	0.0				0	0	0	0
5	Beauregard	32,986	0.0				0	0	1	1
5	Calcasieu	183,577	2.7	5	4	3	8	1	3	2
5	Cameron	9,991	0.0				0	1	0	0
5	Jefferson Davis	31,435	0.0				0	0	1	0
6	Avoyelles	41,481	2.4	1			2	0	0	0
6	Catahoula	10,920	9.2	1			0	1	0	0
6	Concordia	20,247	4.9	1			1	0	0	0
6	Grant	18,698	0.0			1	1	0	0	0
6	Rapides	126,337	5.5	7	2	2	14	2	8	7
6	Lasalle	14,282	0.0				0	0	0	0
6	Vernon	52,531	1.9	1			0	0	0	0
6	Winn	16,894	0.0				1	0	0	1
7	Bienville	15,752	0.0				0	0	0	0
7	Bossier	98,310	2.0	2	2		3	8	9	6
7	Caddo	252,161	1.2	3	3	3	5	38	8	16
7	Claiborne	16,851	0.0				0	1	0	0
7	DeSoto	25,494	0.0		1		0	1	0	0
7	Natchitoches	39,080	0.0			1	1	1	0	2
7	Red River	9,622	0.0				0	0	0	0
7	Sabine	23,459	0.0				1	0	0	0
7	Webster	41,831	2.4	1	1		0	0	1	0
8	Caldwell	10,560	0.0				0	0	1	0
8	East Carroll	9,421	0.0				0	0	0	0
8	Franklin	21,263	0.0		1		0	0	1	1
8	Jackson	15,397	0.0				0	1	0	0
8	Lincoln	42,509	0.0				0	2	0	1
8	Madison	13,728	0.0				0	0	1	0
8	Morehouse	31,021	0.0				0	2	2	1
8	Ouachita	147,250	2.0	3	3		6	2	5	15
8	Richland	20,981	0.0		1		2	1	1	0
8	Tensas	6,618	0.0				0	0	0	0
8	Union	22,803	0.0			1	1	1	1	0
8	West Carroll	12,314	0.0				0	2	2	0

NID by Parish 2002-Present

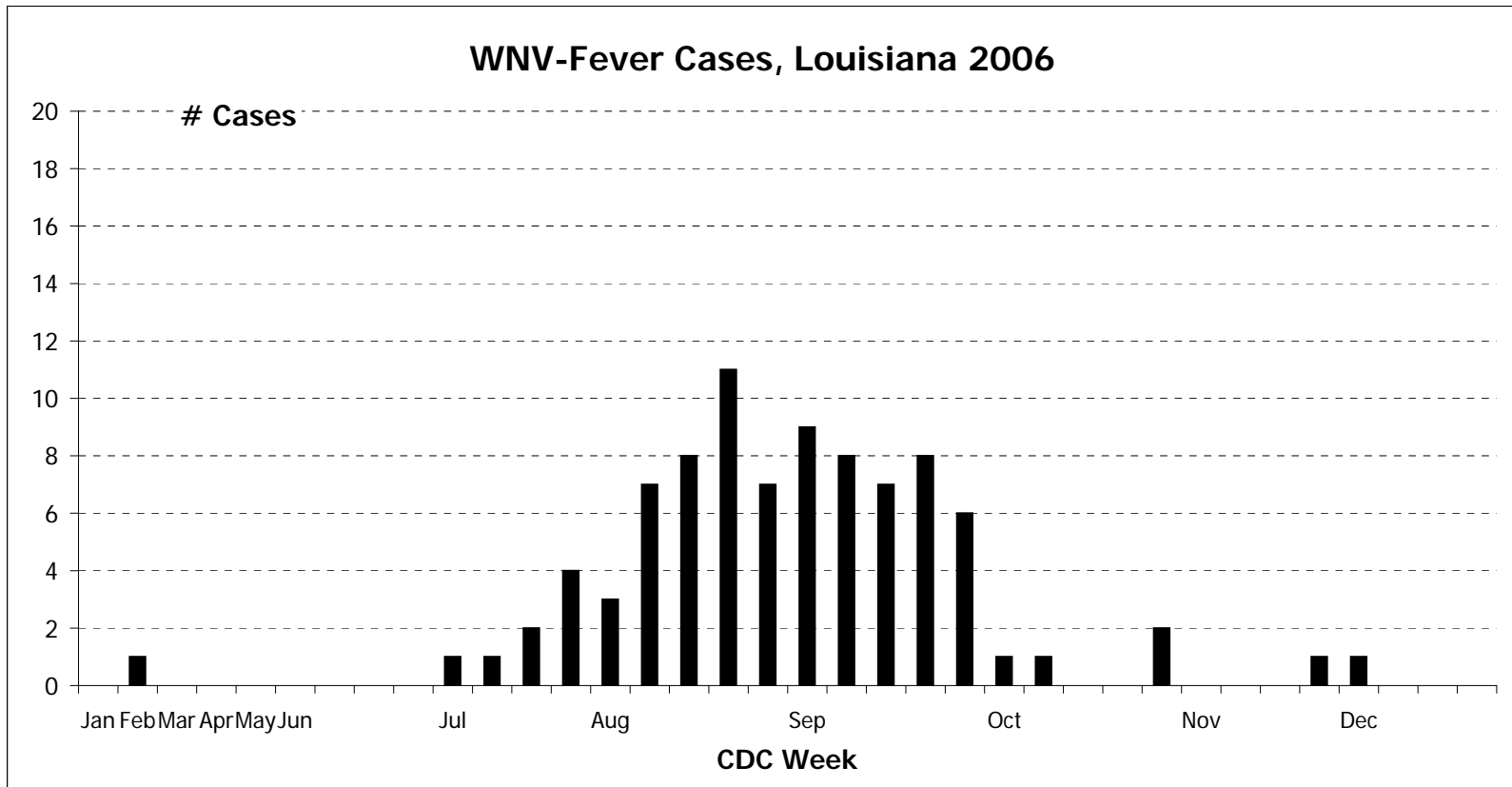
Region	Parish	Population	Reported Infections 2006			
			NID Incidence	NID	Fever	PRE
9	Livingston	91,814	1.1	1	4	
9	St Helena	10,525	0.0			
9	St Tammany	191,268	7.3	14	18	4
9	Tangipahoa	100,588	6.0	6	8	1
9	Washington	43,926	9.1	4	2	1
	Undetermined					
	Total	4,468,976	2.0	91	89	22

Previously Reported NID Cases			
2002	2003	2004	2005
12	5	6	11
0	2	0	2
27	4	0	3
12	6	1	2
6	2	0	3
0	0	0	0
204	101	84	118



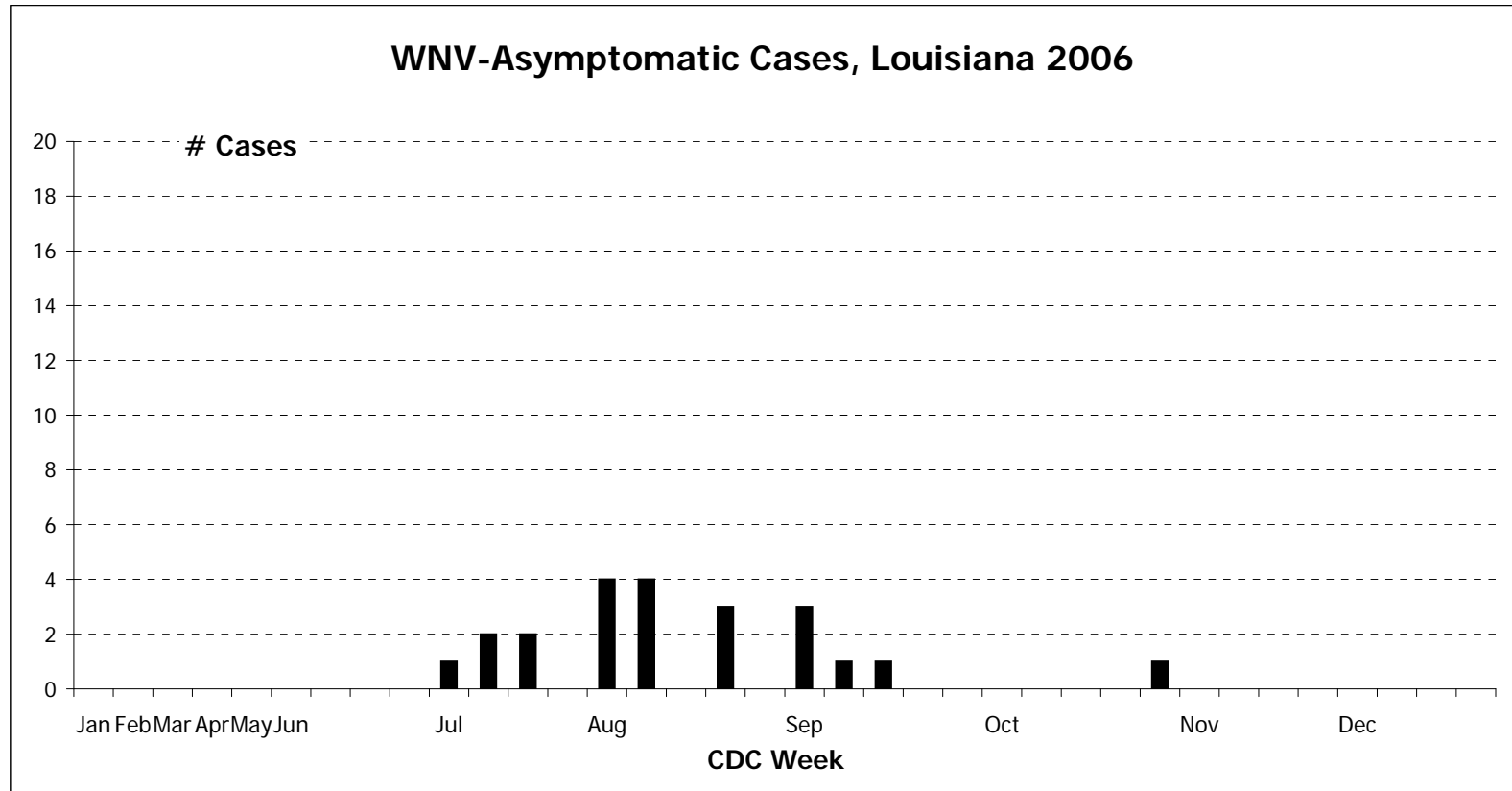
WNV-Fever Infections by Parish According to CDC Week

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	1																						1																		
8	Jackson	0																																								
8	Madison	0																																								
8	Morehouse	0																																								
8	Ouachita	3															1				2																					
8	Richland	1																					1																			
8	Tensas	0																																								
8	Union	0																																								
8	West Carroll	0																																								
9	Livingston	4	1																1					2																		
9	St Helena	0																																								
9	St Tammany	18								1			2		1	2	3	1			3	1	1	2												1						
9	Tangipahoa	8										1		1		2	1			1	1	1					1															
9	Washington	2								1					1																											
	Undetermined	0																																								
WNV-F Total		89	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2	4	3	7	8	11	7	9	8	7	8	6	1	1	0	0	2	0	0	0	1	1	0	0	0	



WNV-Asymptomatic Infections by Parish According to CDC Week

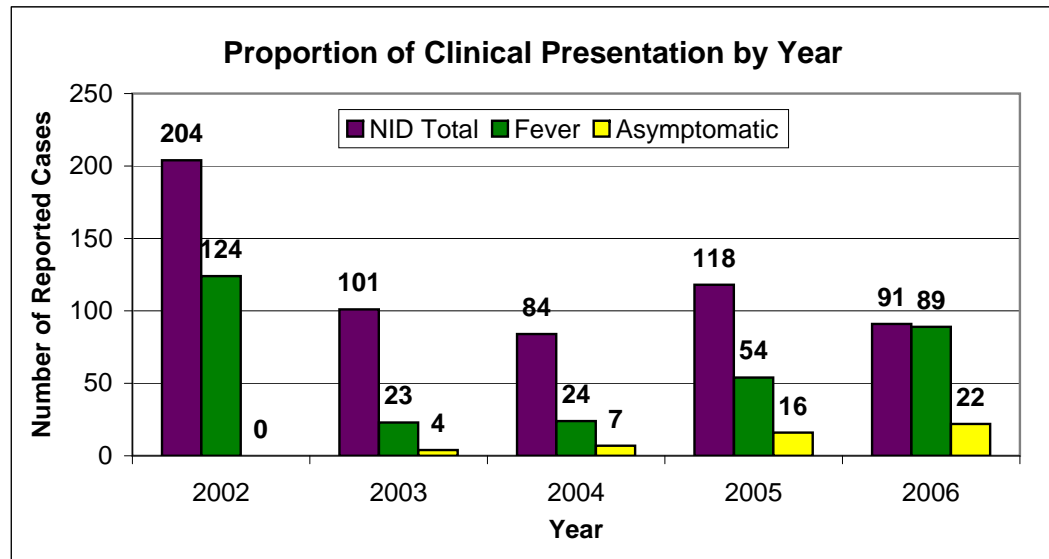
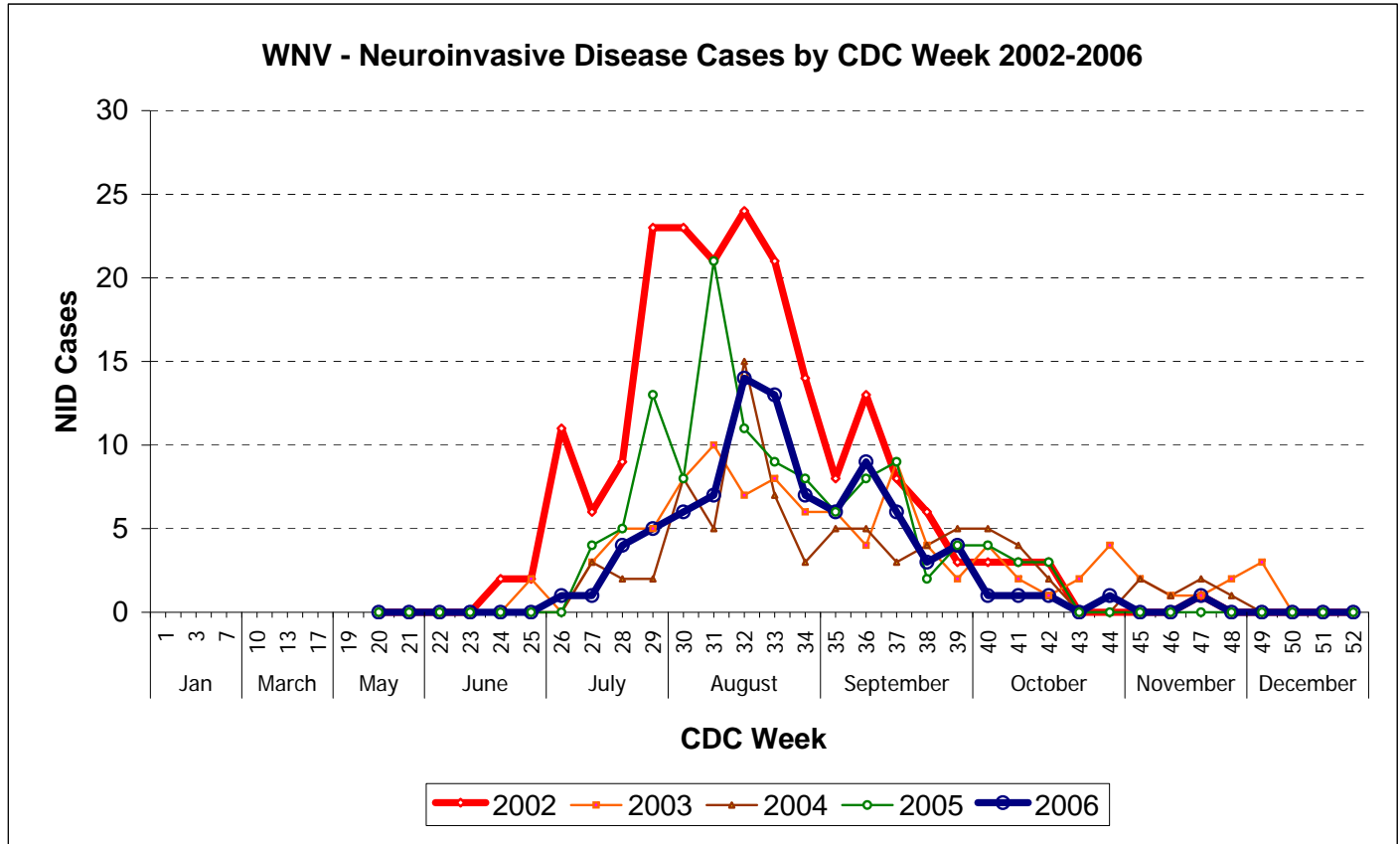
		CDC Week		1-5	6-9	10-13	14-17	18-21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52			
Region	Parish	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																												
8	Caldwell	0																																								
8	East Carroll	0																																								
8	Franklin	0																																								
8	Jackson	0																																								
8	Madison	0																																								
8	Morehouse	0																																								
8	Ouachita	0																																								
8	Richland	0																																								
8	Tensas	0																																								
8	Union	1																																								
8	West Carroll	0																																								
9	Livingston	0																																								
9	St Helena	0																																								
9	St Tammany	4																																								
9	Tangipahoa	1																																								
9	Washington	1																																								
	Undetermined	0																																								
WNV-PRE Total		22	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	4	4	0	3	0	3	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0				



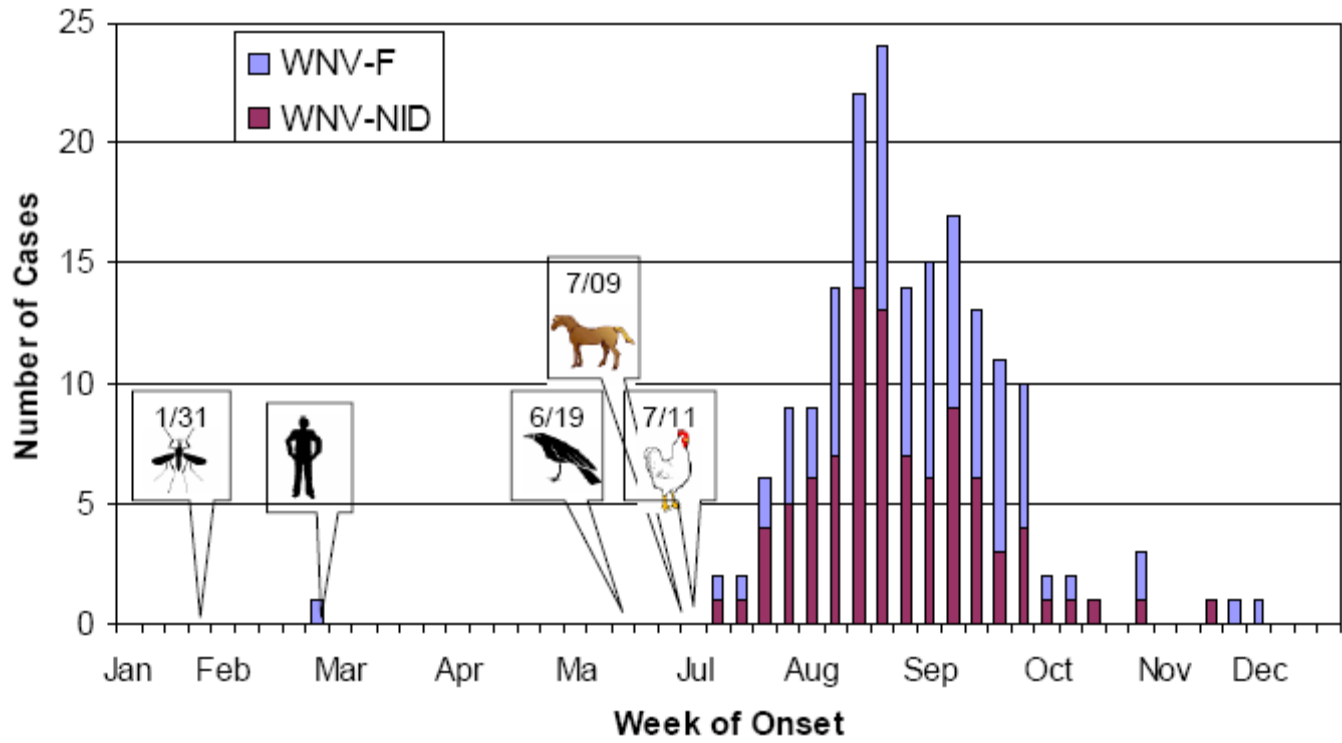
Human Summary 2002-Present

WNV-NID Cases by CDC Week by Year						
	Week	2002	2003	2004	2005	2006
Jan	1					
	3					
	7					
March	10					
	13					
	17					
May	19					
	20	0	0	0	0	0
	21	0	0	0	0	0
June	22	0	0	0	0	0
	23	0	0	0	0	0
	24	2	0	0	0	0
	25	2	2	0	0	0
July	26	11	0	0	0	1
	27	6	3	3	4	1
	28	9	5	2	5	4
	29	23	5	2	13	5
August	30	23	8	8	8	6
	31	21	10	5	21	7
	32	24	7	15	11	14
	33	21	8	7	9	13
	34	14	6	3	8	7
September	35	8	6	5	6	6
	36	13	4	5	8	9
	37	8	9	3	9	6
	38	6	4	4	2	3
	39	3	2	5	4	4
October	40	3	4	5	4	1
	41	3	2	4	3	1
	42	3	1	2	3	1
	43	0	2	0	0	0
	44	0	4	0	0	1
November	45	0	2	2	0	0
	46	0	1	1	0	0
	47	1	1	2	0	1
	48	0	2	1	0	0
December	49	0	3	0	0	0
	50	0	0	0	0	0
	51	0	0	0	0	0
	52	0	0	0	0	0
NID Total		204	101	84	118	91

Total Human WNV Clinical Presentation by Year					
	2002	2003	2004	2005	2006
NID Cases	204	101	84	118	91
Fever	124	23	24	54	89
Asymptomatic	NA	4	7	16	22
Proportion of F/NID	0.38	0.19	0.22	0.31	0.49

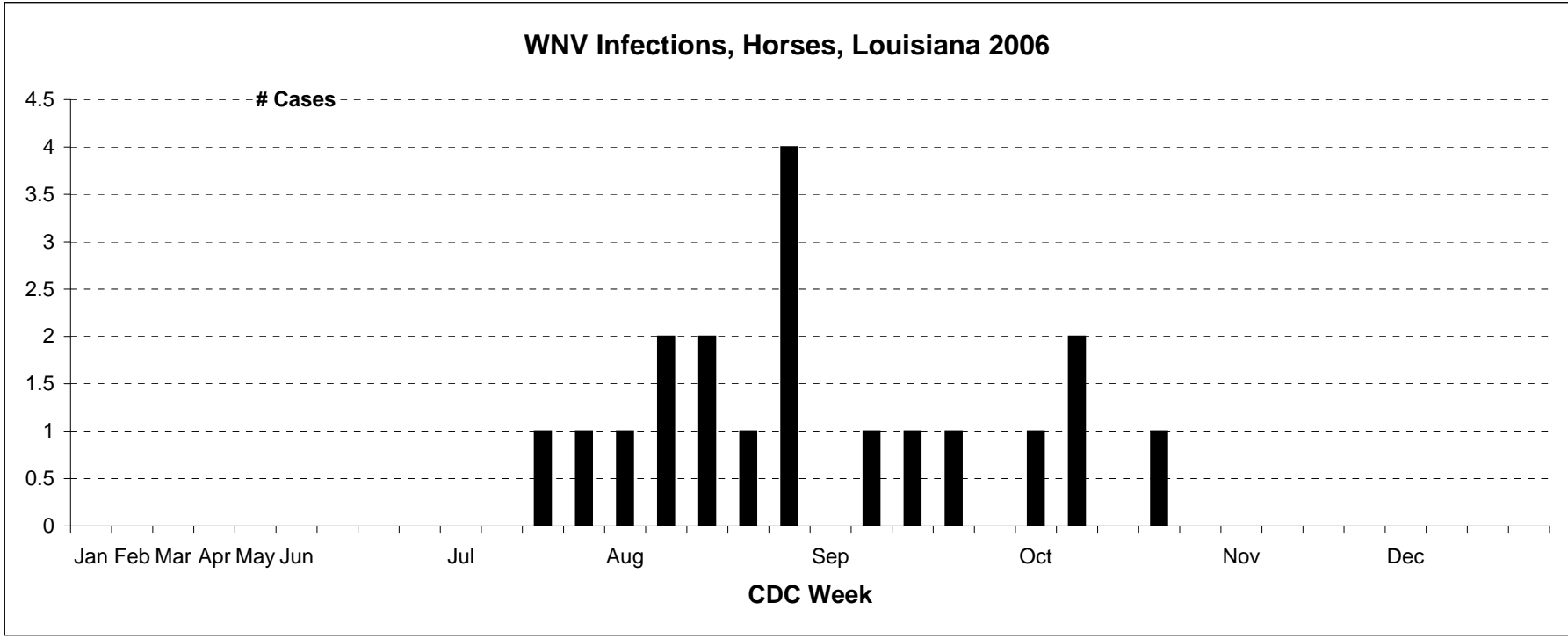


Sequence of WNV Detection



WNV Horses

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	0																																						
8	Ouachita	1																				1																		
8	Richland	0																																						
8	Tensas	0																																						
8	Union	0																																						
8	West Carroll	0																																						
9	Livingston	1																																						
9	St Helena	0																																						
9	St Tammany	3												1		1																								
9	Tangipahoa	3																1		1									1											
9	Washington	0																																						
	Undetermined	0																																						
	WNV-Horses Total	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	1	4	0	1	1	1	1	0	1	2	0	1	0	0	0	0	0	0	



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