



Reported WNV disease cases

To date, 708 human WNV disease cases have been reported from 309 counties in 40 states and the District of Columbia [**Table 1**]. Dates of illness onset for cases ranged from April–September [**Figure 2**].

Of these, 422 (60%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 286 (40%) were classified as non-neuroinvasive disease [**Figure 3**]. Additional demographic and clinical characteristics of reported cases are provided [**Table 7**].

Presumptive viremic donors (PVDs)

One hundred and seventy WNV PVDs have been reported from 32 states and the District of Columbia [**Table 1**].

Table 1. West Nile virus infections in humans reported to ArboNET, 2015

State	Human disease cases reported to CDC*				Presumptive viremic blood donors
	Neuroinvasive	Non-neuroinvasive	Total	Deaths	
Alabama	2	1	3	0	0
Arizona	30	17	47	2	15
Arkansas	10	1	11	0	0
California	73	50	123	2	24
Colorado	32	25	57	1	3
Connecticut	2	1	3	0	0
Delaware	0	1	1	0	4
District of Columbia	1	0	1	0	1
Florida	6	0	6	0	0
Georgia	5	1	6	0	1
Idaho	4	3	7	0	4
Illinois	6	4	10	0	3
Indiana	4	4	8	1	2
Iowa	0	2	2	0	2
Kansas	5	6	11	2	5
Kentucky	0	0	0	0	1
Louisiana	20	2	22	0	12
Maryland	14	15	29	1	3
Massachusetts	1	1	2	0	2
Michigan	4	0	4	0	2
Minnesota	0	2	2	0	7
Mississippi	17	8	25	1	3
Missouri	11	2	13	3	2
Montana	0	1	1	0	1
Nebraska	8	27	35	0	16
Nevada	3	2	5	0	5
New Jersey	9	2	11	2	0
New Mexico	2	0	2	0	1
New York	10	1	11	1	0
North Carolina	3	0	3	1	0
North Dakota	4	6	10	0	1
Ohio	13	6	19	1	1
Oklahoma	12	16	28	4	5
Oregon	1	0	1	0	5
Pennsylvania	10	8	18	0	2
South Carolina	0	0	0	0	2
South Dakota	7	22	29	0	1
Tennessee	2	1	3	0	1
Texas	77	28	105	6	25
Virginia	5	4	9	0	0
Washington	7	13	20	1	8
Wisconsin	0	1	1	0	0
Wyoming	2	2	4	0	0
Totals	422	286	708	29	170

*Includes confirmed and probable cases

Figure 2. WNV disease cases reported to ArboNET, by week of onset — United States, 2015

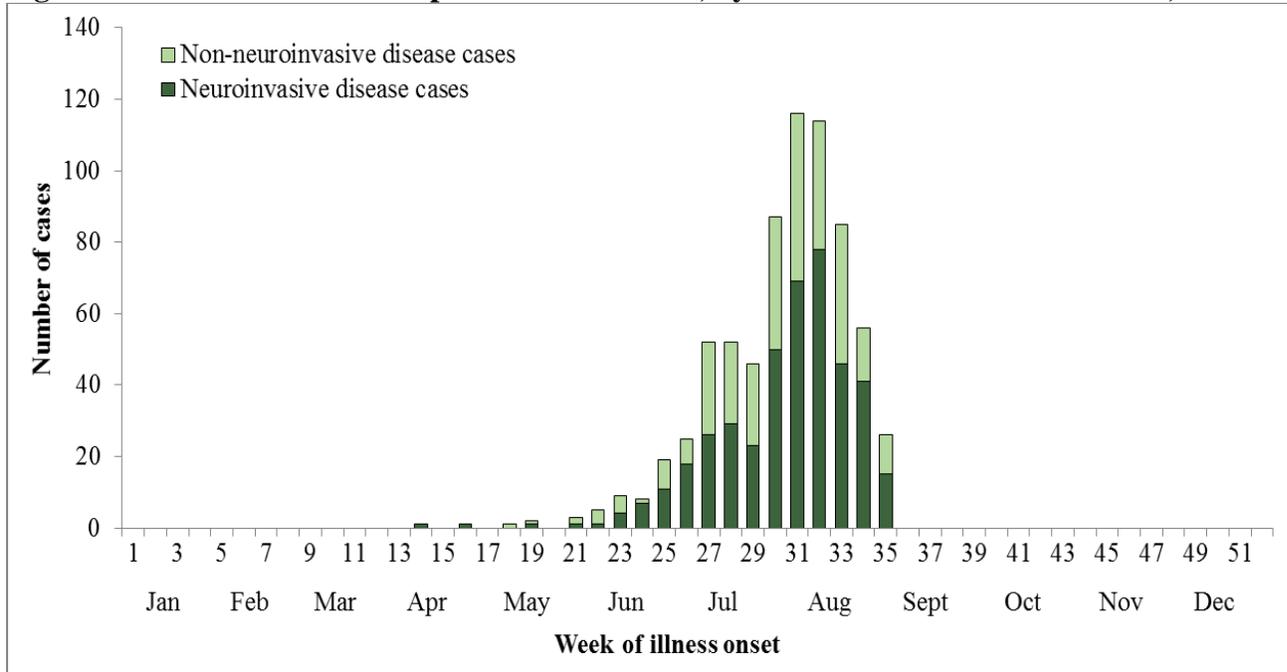
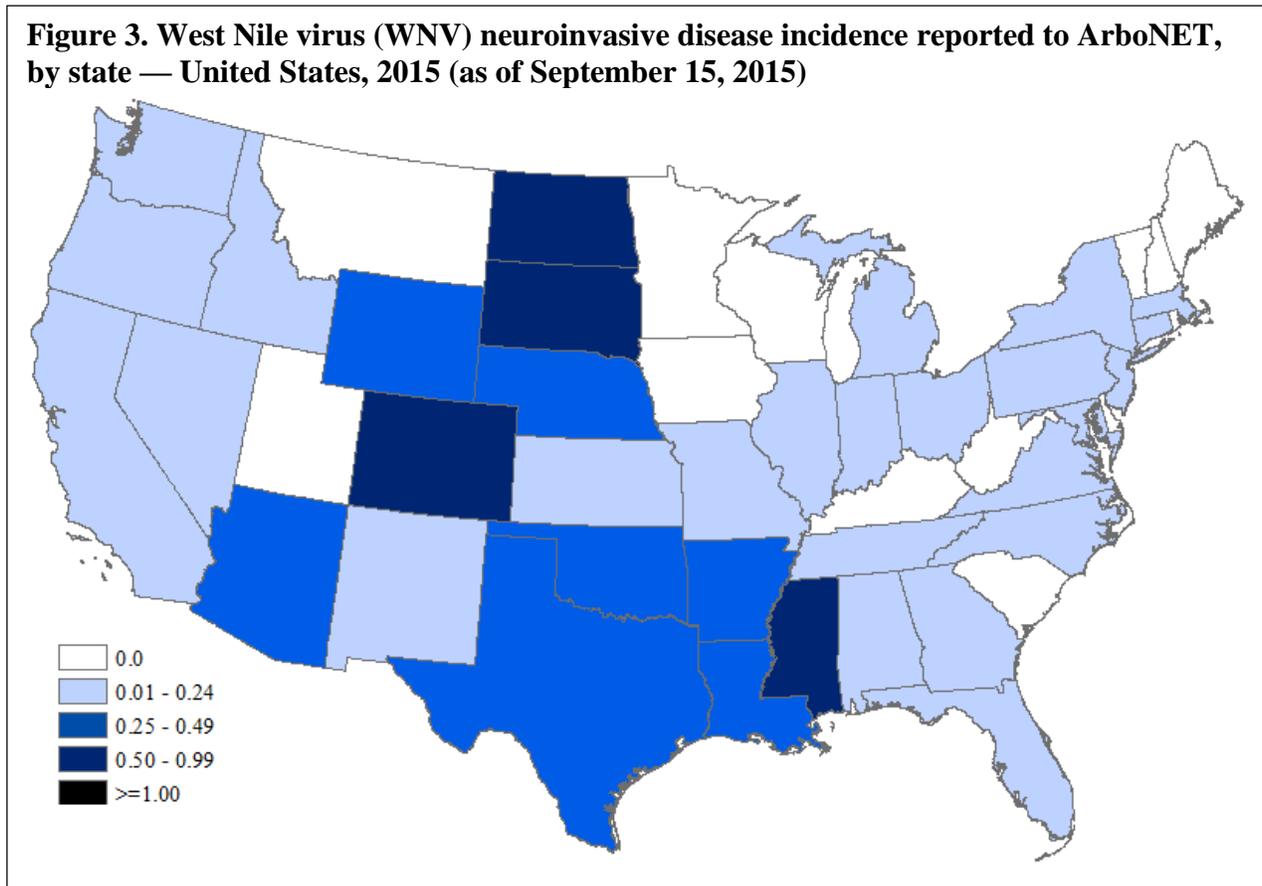


Figure 3. West Nile virus (WNV) neuroinvasive disease incidence reported to ArboNET, by state — United States, 2015 (as of September 15, 2015)



Eastern equine encephalitis virus (EEEV) activity in 2015

As of September 15th, two counties in two states reported human cases of EEEV disease to ArboNET for 2015 [Figure 4 and Table 2]. Fifty five additional counties in nine states have reported EEEV activity in non-human species only.

Figure 4. Eastern equine encephalitis virus (EEEV) activity reported to ArboNET, by state — United States, 2015 (as of September 15, 2015)

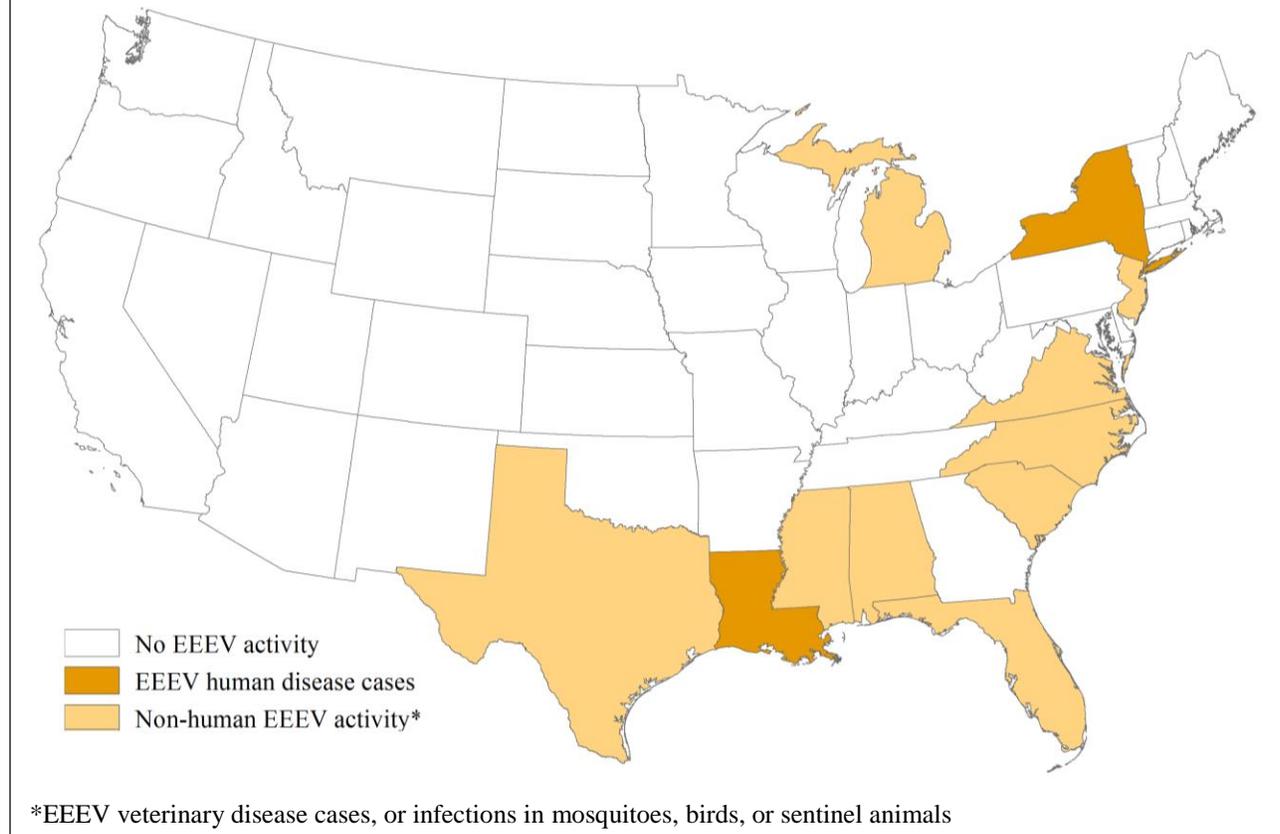


Table 2. Eastern equine encephalitis virus human disease cases reported to ArboNET, United States, 2015

	Neuroinvasive disease cases	Nonneuroinvasive disease cases	Total cases*	Deaths
Louisiana	1	0	1	0
New York	1	0	1	1
Totals	2	0	2	1

*Includes confirmed and probable cases.

Jamestown Canyon virus (JCV) activity in 2015

As of September 15th, five counties in four states reported human cases of JCV disease to ArboNET for 2015 [Figure 5 and Table 3]. Seven additional counties in Connecticut have reported JCV activity in non-human species only. Additional demographic and clinical characteristics of reported cases are provided [Table 7].

Figure 5. Jamestown Canyon virus (JCV) activity reported to ArboNET, by state — United States, 2015 (as of September 15, 2015)

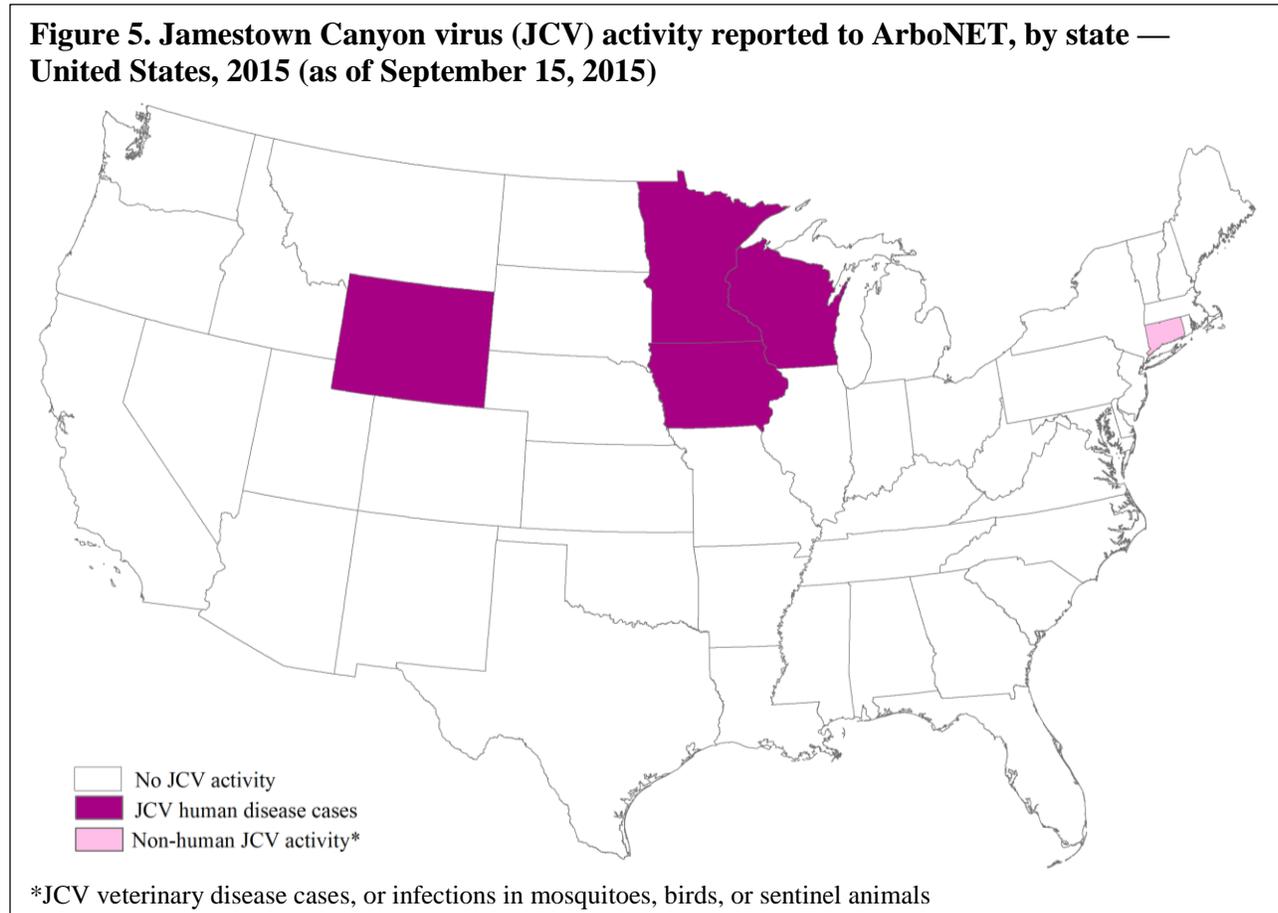


Table 3. Jamestown Canyon virus human disease cases reported to ArboNET, United States, 2015

	Neuroinvasive disease cases	Nonneuroinvasive disease cases	Total cases*	Deaths
Iowa	0	1	1	0
Minnesota	1	1	2	0
Wisconsin	0	1	1	0
Wyoming	0	1	1	0
Totals	1	4	5	0

*Includes confirmed and probable cases.

La Crosse encephalitis virus (LACV) activity in 2015

As of September 15th, eight counties in five states have reported human cases of LACV disease to ArboNET for 2015 [Figure 6 and Table 4]. One additional county in Connecticut has reported LACV activity in non-human species only. Additional demographic and clinical characteristics of reported cases are provided [Table 7].

Figure 6. La Crosse encephalitis virus (LACV) activity reported to ArboNET, by state — United States, 2015 (as of September 15, 2015)

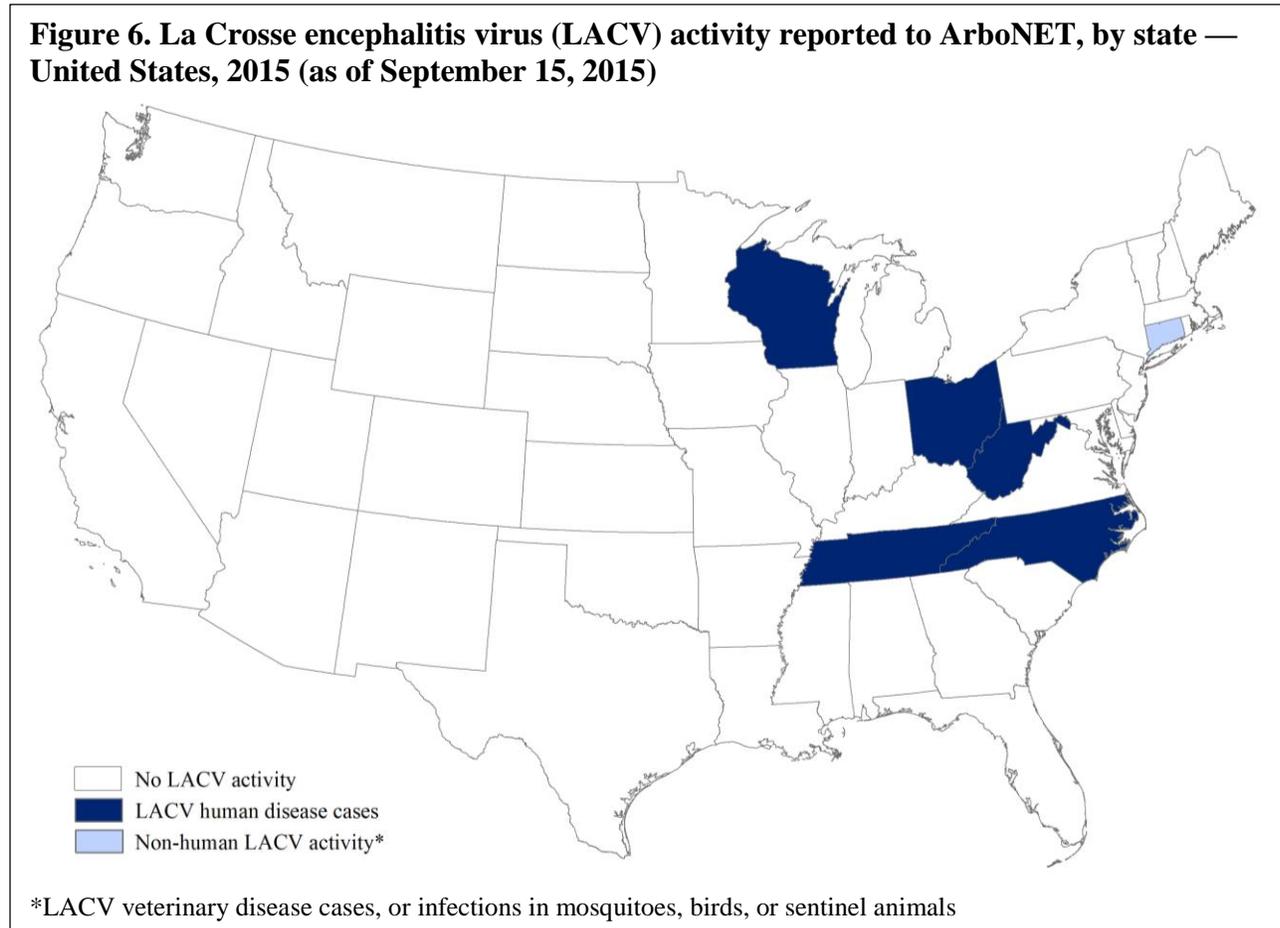


Table 4. La Crosse encephalitis virus human disease cases reported to ArboNET, United States, 2015

	Neuroinvasive disease cases	Nonneuroinvasive disease cases	Total cases*	Deaths
North Carolina	5	0	5	0
Ohio	1	0	1	0
Tennessee	1	0	1	0
West Virginia	1	1	2	0
Wisconsin	2	0	2	0
Totals	10	1	11	0

*Includes confirmed and probable cases.

Powassan virus (POWV) activity in 2015

As of September 15th, two counties in two states have reported human cases of POWV disease to ArboNET for 2015 [Figure 7 and Table 5].

Figure 7. Powassan virus (POWV) activity reported to ArboNET, by state — United States, 2015 (as of September 15, 2015)

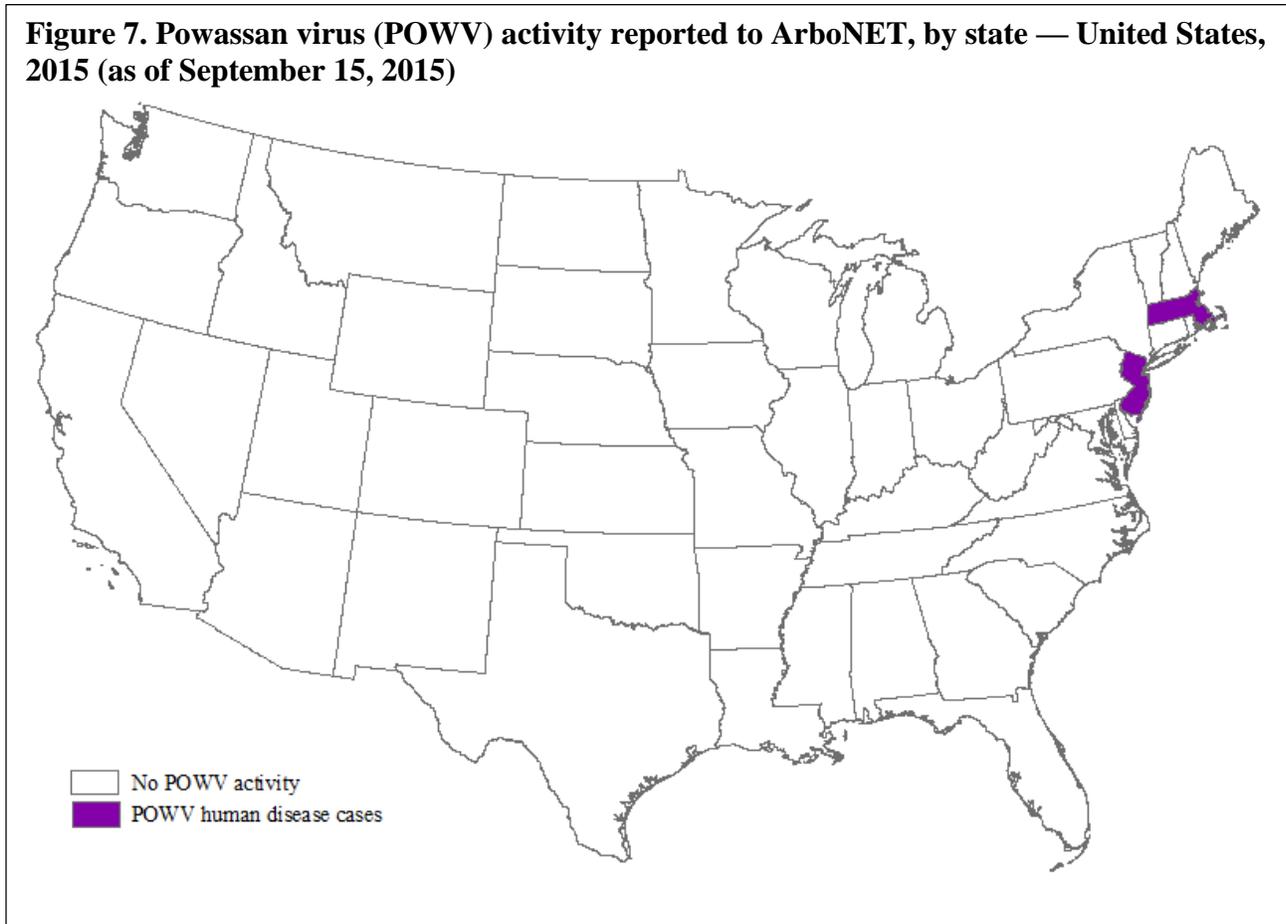


Table 5. Powassan virus human disease cases reported to ArboNET, United States, 2015

	Neuroinvasive disease cases	Nonneuroinvasive disease cases	Total cases*	Deaths
Massachusetts	1	0	1	0
New Jersey	1	0	1	0
Totals	2	0	2	0

*Includes confirmed and probable cases.

St. Louis encephalitis virus (SLEV) activity in 2015

As of September 15th, two counties in Arizona reported human cases of SLEV disease to ArboNET for 2015 [Figure 8 and Table 6]. Fourteen additional counties in seven states have reported SLEV activity in non-human species only. Additional demographic and clinical characteristics of reported cases are provided [Table 7].

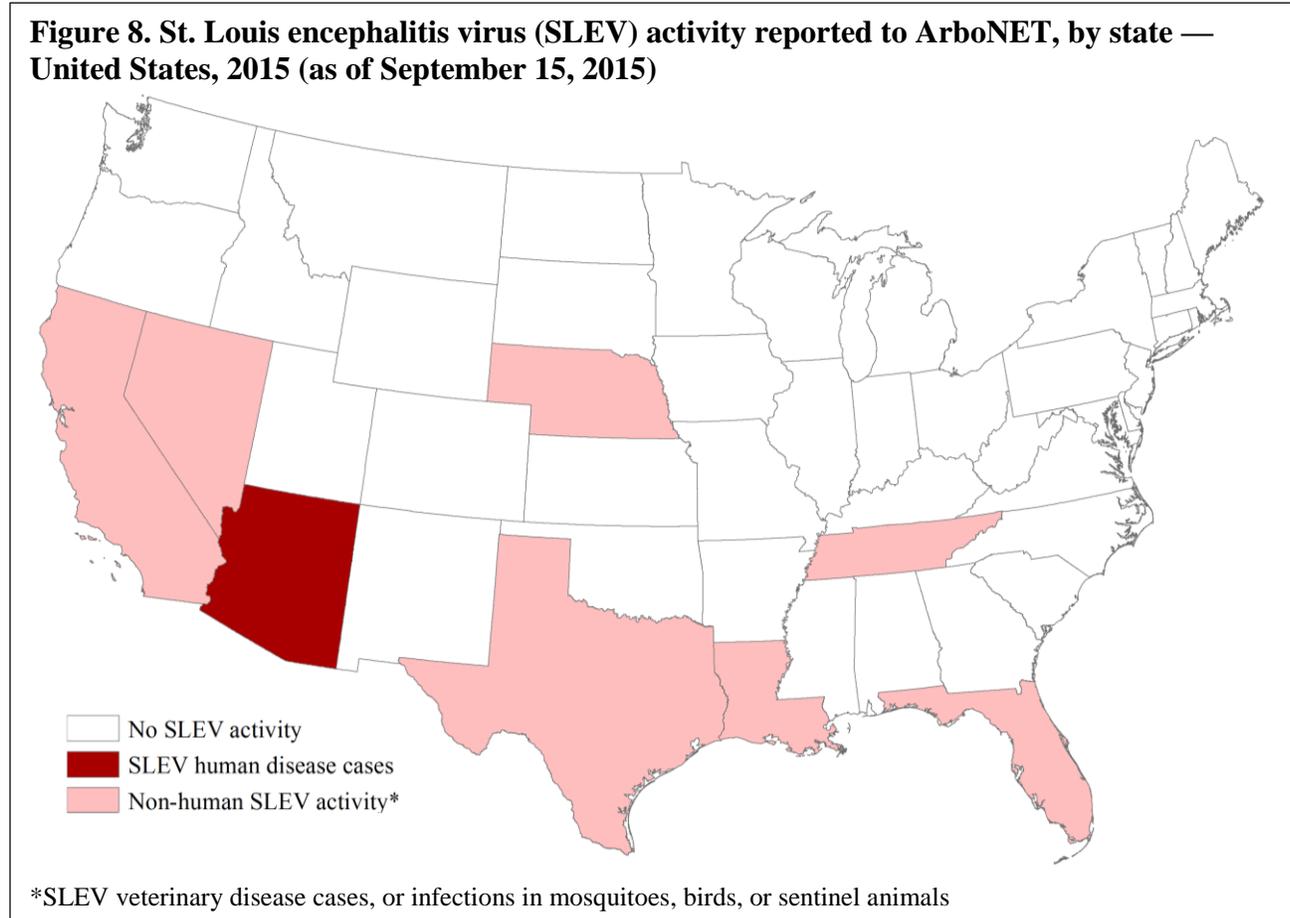


Table 6. St. Louis encephalitis virus human disease cases reported to ArboNET, United States, 2015

	Neuroinvasive disease cases	Nonneuroinvasive disease cases	Total cases*	Deaths
Arizona	10	2	12	1
Totals	10	2	12	1

*Includes confirmed and probable cases.

Table 7. Characteristics of reported cases of arboviral disease, United States, 2015

	JCV (N=5)		LAC (N=11)		SLE (N=12)		WNV (N=708)	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Age group								
<20 years	0	(0)	10	(91)	0	(0)	29	(4)
20-39 years	0	(0)	0	(0)	0	(0)	124	(18)
40-49 years	1	(20)	0	(0)	2	(17)	95	(13)
50-59 years	2	(40)	0	(0)	2	(17)	165	(23)
≥60 years	2	(40)	1	(9)	8	(66)	294	(42)
Unknown	0	(0)	0	(0)	0	(0)	1	(<1)
Male sex								
	1	(20)	4	(36)	10	(83)	412	(58)
Onset of illness								
January	0	(0)	0	(0)	0	(0)	0	(0)
February	0	(0)	0	(0)	0	(0)	0	(0)
March	0	(0)	0	(0)	0	(0)	0	(0)
April	0	(0)	0	(0)	1	(9)	2	(<1)
May	1	(20)	1	(9)	1	(8)	6	(1)
June	3	(60)	5	(46)	1	(8)	52	(7)
July	1	(20)	4	(36)	8	(67)	231	(33)
August	0	(0)	1	(9)	1	(8)	404	(57)
September	0	(0)	0	(0)	0	(0)	13	(2)
Clinical syndrome								
Nonneuroinvasive	4	(80)	1	(9)	2	(17)	286	(40)
Neuroinvasive								
Encephalitis	1	(20)	9	(82)	6	(50)	200	(28)
Meningitis	0	(0)	1	(9)	4	(33)	184	(26)
Acute flaccid paralysis	0	(0)	0	(0)	0	(0)	28	(4)
Other neuroinvasive	0	(0)	0	(0)	0	(0)	10	(1)
Outcome								
Hospitalization	3	(60)	11	(100)	9	(75)	467	(66)
Death	0	(0)	0	(0)	1	(8)	29	(4)



About ArboNET

ArboNET is a national arboviral surveillance system managed by CDC and state health departments. In addition to human disease, ArboNET maintains data on arboviral infections among presumptive viremic blood donors (PVDs), veterinary disease cases, mosquitoes, dead birds, and sentinel animals. As with other national surveillance data, ArboNET data has several limitations that should be considered in analysis, interpretation, and reporting [**Box**].

Box: Limitations of ArboNET data

The following should be considered in the analysis, interpretation, and reporting of ArboNET data:

1. ArboNET is a passive surveillance system. It is dependent on clinicians considering the diagnosis of an arboviral disease and obtaining the appropriate diagnostic test, and reporting of laboratory-confirmed cases to public health authorities. Diagnosis and reporting are incomplete, and the incidence of arboviral diseases is underestimated.
2. Reported neuroinvasive disease cases are considered the most accurate indicator of arboviral activity in humans because of the substantial associated morbidity. In contrast, reported cases of nonneuroinvasive arboviral disease are more likely to be affected by disease awareness and healthcare-seeking behavior in different communities and by the availability and specificity of laboratory tests performed. Surveillance data for nonneuroinvasive disease should be interpreted with caution and generally should not be used to make comparisons between geographic areas or over time.

Additional resources

For additional arboviral disease information and data, please visit the following websites:

- CDC's Division of Vector-Borne Diseases:
<http://www.cdc.gov/ncezid/dvbd/>
- National Notifiable Diseases Surveillance System:
<http://wwwn.cdc.gov/nndss/conditions/arboviral-diseases-neuroinvasive-and-non-neuroinvasive/case-definition/2015/>
- U.S. Geological Survey (USGS):
<http://diseasemaps.usgs.gov/> or <http://diseasemaps.usgs.gov/mapviewer/>
- AABB (American Association of Blood Banks):
www.aabb.org/programs/biovigilance/Pages/wnv.aspx