West Nile virus and other nationally notifiable arboviruses Final data reported to ArboNET, United States, 2024

These are final 2024 data reported to ArboNET for nationally notifiable arboviruses, excluding dengue. Data for dengue are released separately by the CDC Dengue Branch.

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 non-neuroinvasive 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 non-neuroinvasive 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:
https://www.cdc.gov/ncezid/divisions-offices/about-dvbd.html

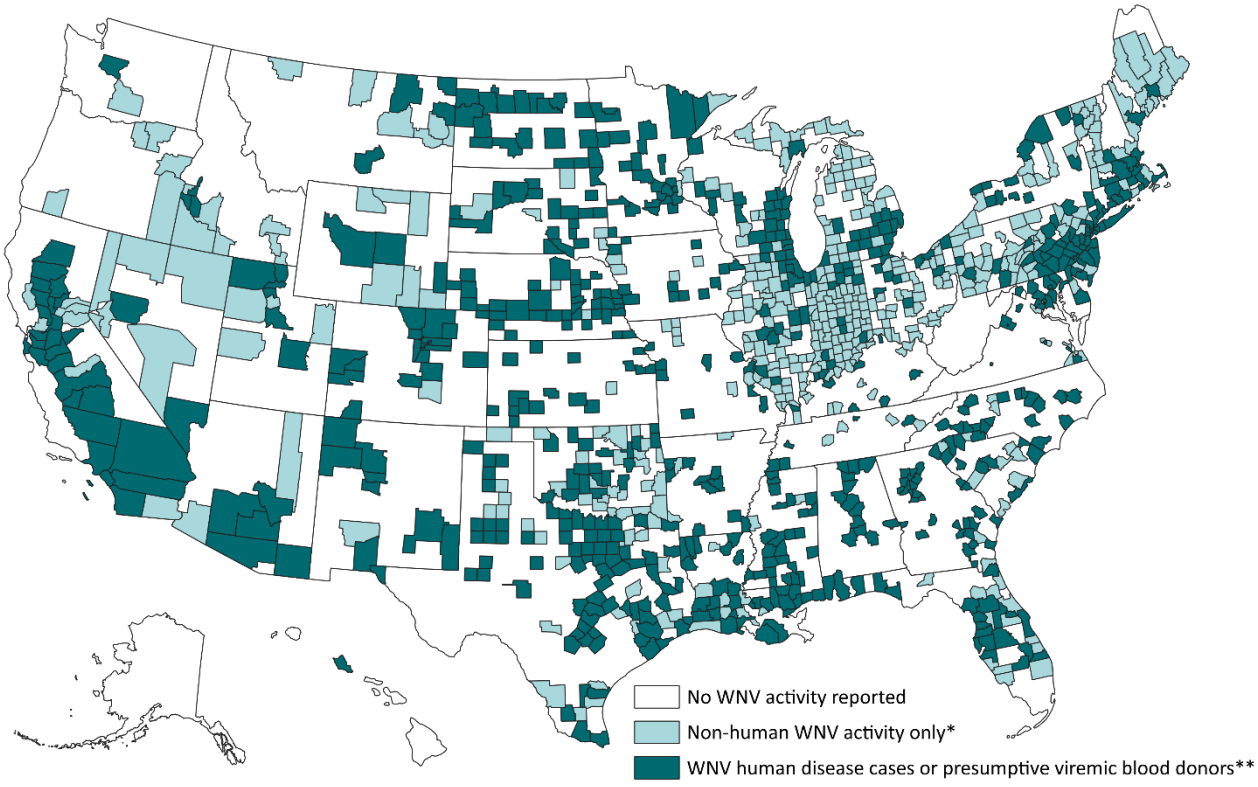
National Notifiable Diseases Surveillance System:
https://www.cdc.gov/nndss/about/index.html

Data dashboards for domestic viruses:
https://www.cdc.gov/west-nile-virus/data-maps/index.html
https://www.cdc.gov/eastern-equine-encephalitis/data-maps/index.html
https://www.cdc.gov/jamestown-canyon/data-maps/index.html
https://www.cdc.gov/la-crosse-encephalitis/data-maps/index.html
https://www.cdc.gov/powassan/data-maps/index.html
https://www.cdc.gov/sle/data-maps/index.html

West Nile virus (WNV) activity in 2024

A total of 1,113 counties from 49 states and the District of Columbia reported WNV activity to ArboNET for 2024 **[Figure 1]**. Forty-eight states and the District of Columbia reported WNV human infections (i.e., disease cases or viremic blood donors).

Figure 1. West Nile virus activity reported to ArboNET by county — United States, 2024



*WNV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals
**WNV human disease cases or presumptive viremic blood donors. Presumptive viremic blood donors have a positive screening test which has not necessarily been confirmed. These areas might also include reports of non-human WNV activity (see https://www.cdc.gov/west-nile-virus/data-maps/index.html for more details).

Reported WNV disease cases

In 2024, a total of 1,808 human WNV disease cases were reported from 591 counties in 48 states and the District of Columbia **[Table 1]**. Dates of illness onset for cases ranged from January–December **[Figure 2]**.

Of these, 1,347 (75%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 461 (25%) were classified as non-neuroinvasive disease.

Incidence of neuroinvasive disease in 2024 was highest across the West South Central and West North Central census divisions **[Figure 3]**.

Presumptive viremic donors (PVDs)

A total of 383 WNV PVDs were reported from 37 states and the District of Colombia for 2024 **[Table 1]**. Of these, 57 (15%) developed clinical illness and are also included as disease cases.

Table 1. West Nile virus disease cases* and presumptive viremic blood donors reported to ArboNET, 2024

State	Human Disease Cases Reported to CDC				Presumptive Viremic Blood Donors
	Neuroinvasive	Non-neuroinvasive	Total	Deaths	
Alabama	27	7	34	0	5
Arizona	23	10	33	2	5
Arkansas	12	1	13	1	1
California	103	29	132	12	23
Colorado	40	37	77	8	8
Connecticut	10	2	12	0	0
Delaware	1	1	2	0	5
District of Columbia	2	2	4	0	1
Florida	15	4	19	2	11
Georgia	39	14	53	6	30
Hawaii	1	0	1	0	0
Idaho	4	2	6	0	0
Illinois	56	13	69	12	10
Indiana	10	1	11	3	9
Iowa	16	5	21	1	1
Kansas	11	12	23	0	1
Kentucky	8	1	9	1	0
Louisiana	38	15	53	3	5
Maine	1	1	2	0	0
Maryland	24	4	28	2	2
Massachusetts	16	3	19	4	0
Michigan	24	7	31	4	4
Minnesota	26	9	35	1	8
Mississippi	42	17	59	8	13
Missouri	12	3	15	1	4
Montana	3	2	5	0	2
Nebraska	50	42	92	3	19
Nevada	15	12	27	0	4
New Hampshire	1	0	1	0	0
New Jersey	33	8	41	8	6
New Mexico	24	3	27	3	5
New York	69	31	100	4	16
North Carolina	27	0	27	3	13
North Dakota	22	16	38	0	8
Ohio	12	2	14	4	4
Oklahoma	37	5	42	4	11
Pennsylvania	47	12	59	6	9
Rhode Island	3	3	6	1	2
South Carolina	15	3	18	1	6
South Dakota	5	16	21	1	4
Tennessee	10	2	12	0	0
Texas	363	93	456	57	98
Utah	14	0	14	1	7
Vermont	1	0	1	0	0
Virginia	5	4	9	1	7
Washington	1	0	1	1	0
West Virginia	2	0	2	0	0
Wisconsin	26	6	32	3	13
Wyoming	1	1	2	1	3
Totals	**1,347**	**461**	**1,808**	**173**	**383**

* Includes confirmed and probable cases

Figure 2. West Nile virus disease cases reported to ArboNET by month of onset — United States, 2024

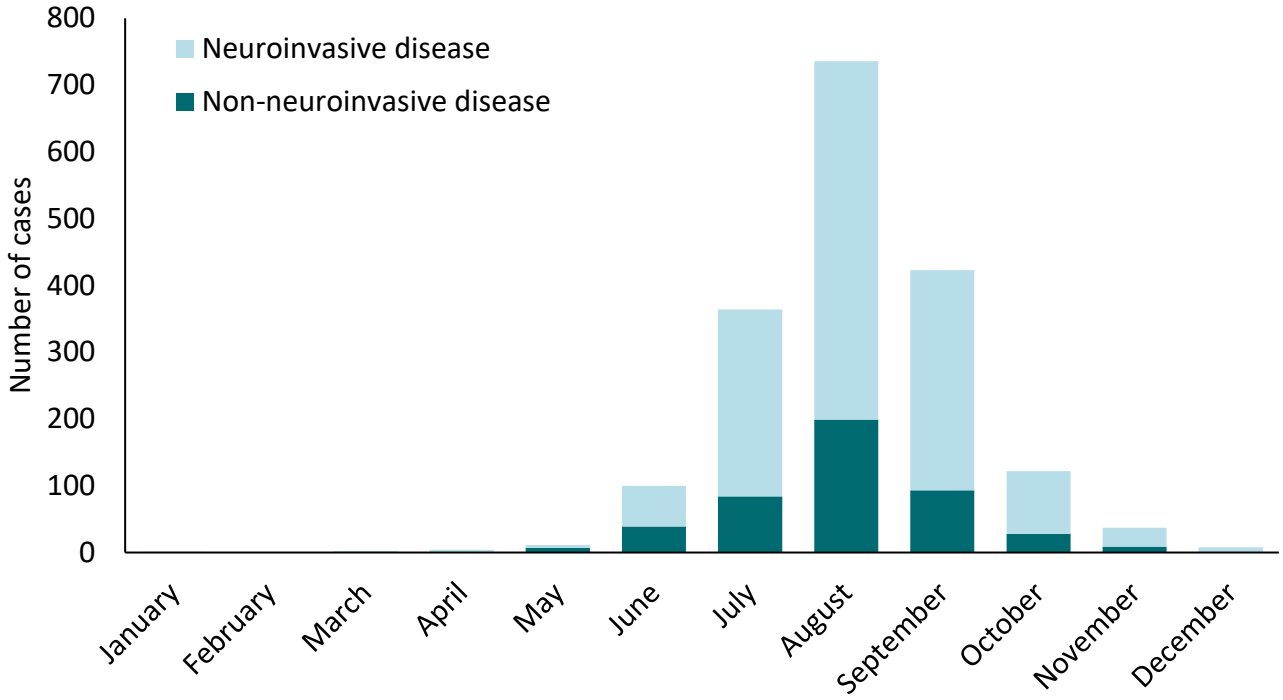
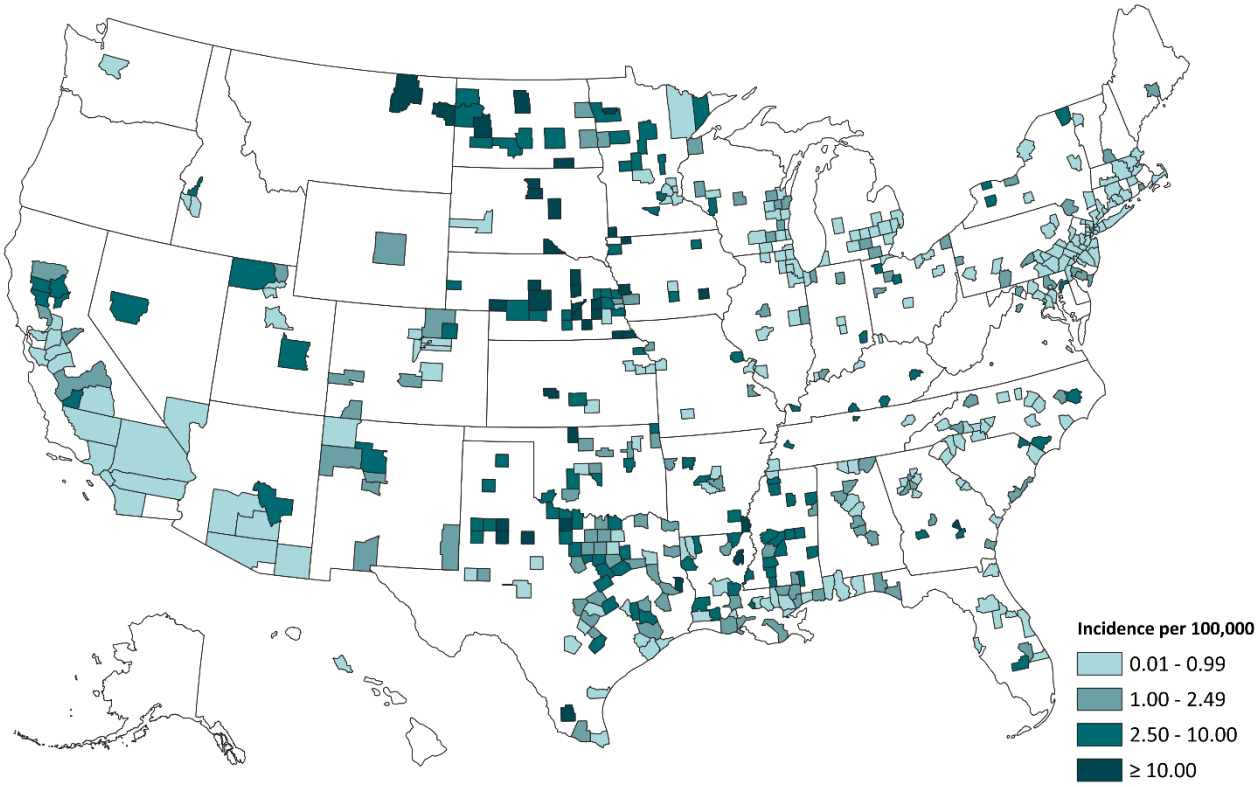


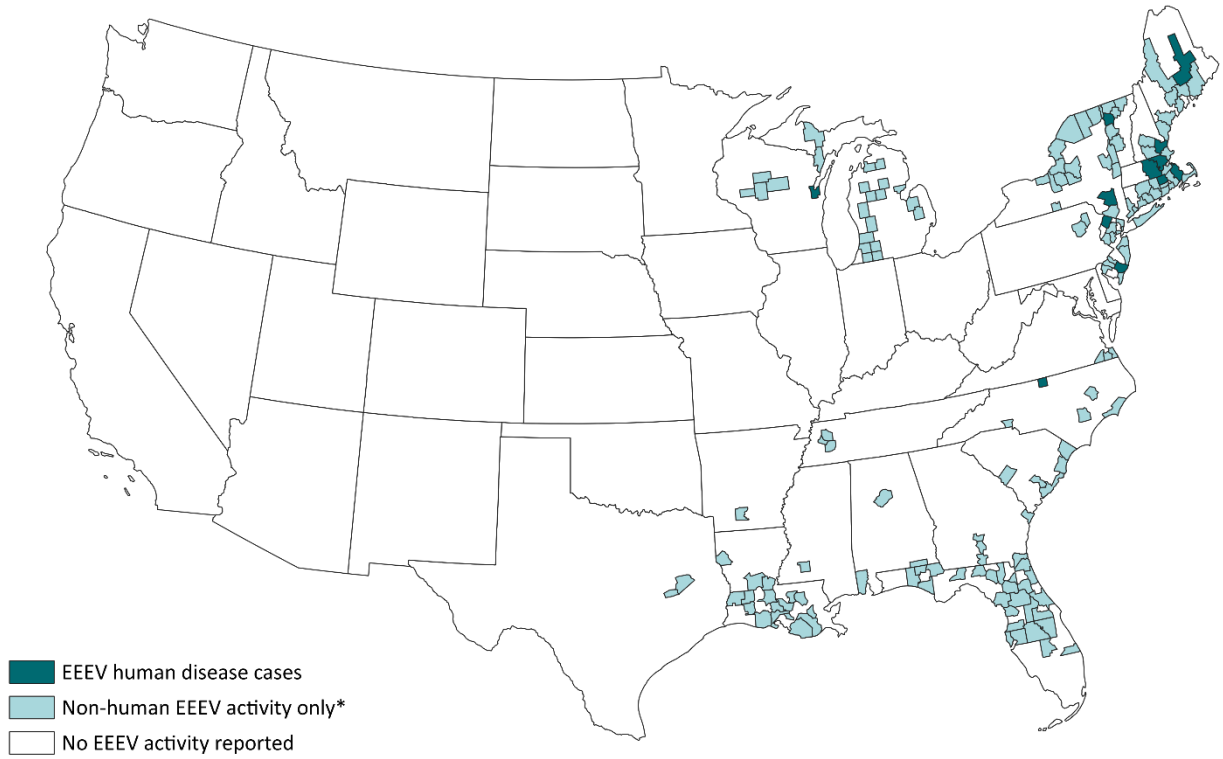
Figure 3. West Nile virus neuroinvasive disease incidence reported to ArboNET by county — United States, 2024



Eastern equine encephalitis virus (EEEV) activity in 2024

Twelve counties in nine states reported human cases of EEEV disease to ArboNET for 2024 **[Figure 4 and Table 2]**. One hundred fifty counties in 22 states reported EEEV activity in non-human species only.

Figure 4. Eastern equine encephalitis virus activity reported to ArboNET by county — United States, 2024



* EEEV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals

Table 2. Eastern equine encephalitis virus human disease cases* reported to ArboNET— United States, 2024

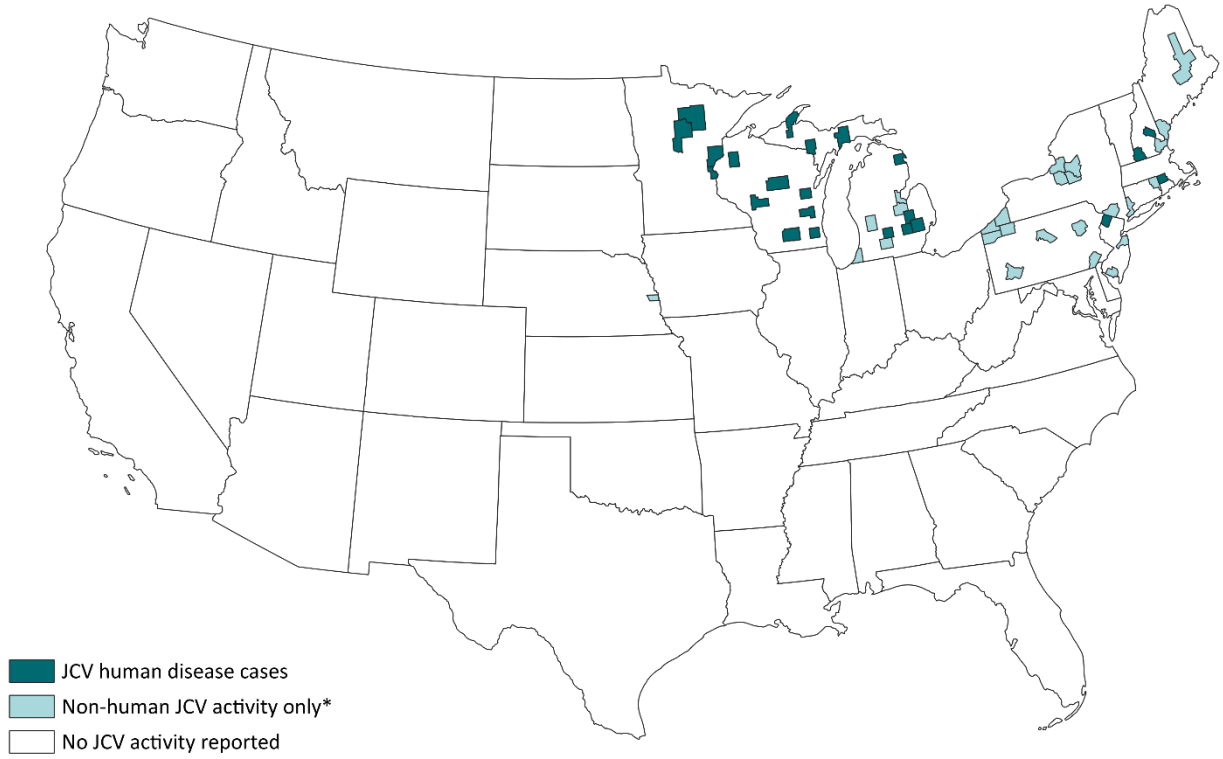
State	Neuroinvasive disease cases	Non-neuroinvasive disease cases	Total cases	Deaths
Maine	1	0	1	0
Massachusetts	4	0	4	1
New Hampshire	5	0	5	2
New Jersey	2	0	2	0
New York	2	0	2	1
North Carolina	1	0	1	0
Rhode Island	1	0	1	0
Vermont	2	0	2	1
Wisconsin	1	0	1	0
Totals	**19**	**0**	**19**	**5**

*Includes confirmed and probable cases.

Jamestown Canyon virus (JCV) activity in 2024

A total of 23 counties in six states reported human cases of JCV disease to ArboNET for 2024 **[Figure 5 and Table 3]**. Twenty-six counties in eight states reported JCV activity in non-human species only.

Figure 5. Jamestown Canyon virus activity reported to ArboNET by county — United States, 2024



* JCV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals

Table 3. Jamestown Canyon virus human disease cases* reported to ArboNET— United States, 2024

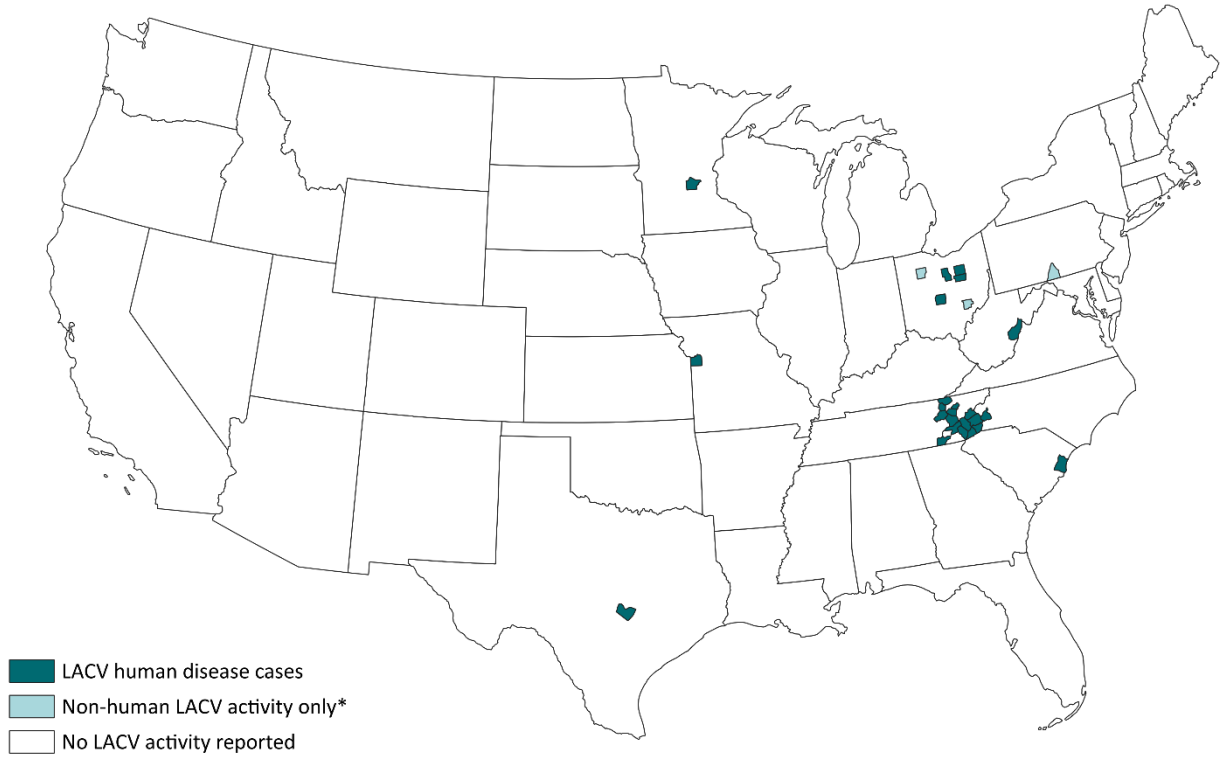
State	Neuroinvasive disease cases	Non-neuroinvasive disease cases	Total cases	Deaths
Michigan	8	0	8	1
Minnesota	2	2	4	0
New Hampshire	2	1	3	0
New Jersey	1	0	1	0
Rhode Island	1	0	1	0
Wisconsin	6	4	10	1
Totals	**20**	**7**	**27**	**2**

*Includes confirmed and probable cases.

La Crosse encephalitis virus (LACV) activity in 2024

A total of 24 counties in eight states reported human cases of LACV disease to ArboNET for 2024 **[Figure 6 and Table 4]**. Three additional counties in two states reported LACV activity in non-human species.

Figure 6. La Crosse encephalitis virus activity reported to ArboNET by county — United States, 2024



*LACV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals

Table 4. La Crosse encephalitis virus human disease cases* reported to ArboNET — United States, 2024

State	Neuroinvasive disease cases	Non-neuroinvasive disease cases	Total cases	Deaths
Minnesota	1	0	1	0
Missouri	1	0	1	0
North Carolina	15	0	15	0
Ohio	4	0	4	0
South Carolina	1	0	1	0
Tennessee	12	1	13	0
Texas	1	0	1	0
West Virginia	1	0	1	0
Totals	**36**	**1**	**37**	**0**

*Includes confirmed and probable cases.

Powassan virus (POWV) activity in 2024

A total of 45 counties in 10 states reported human cases of POWV disease to ArboNET for 2024 **[Figure 7 and Table 5].**

Figure 7. Powassan virus activity reported to ArboNET by county — United States, 2024

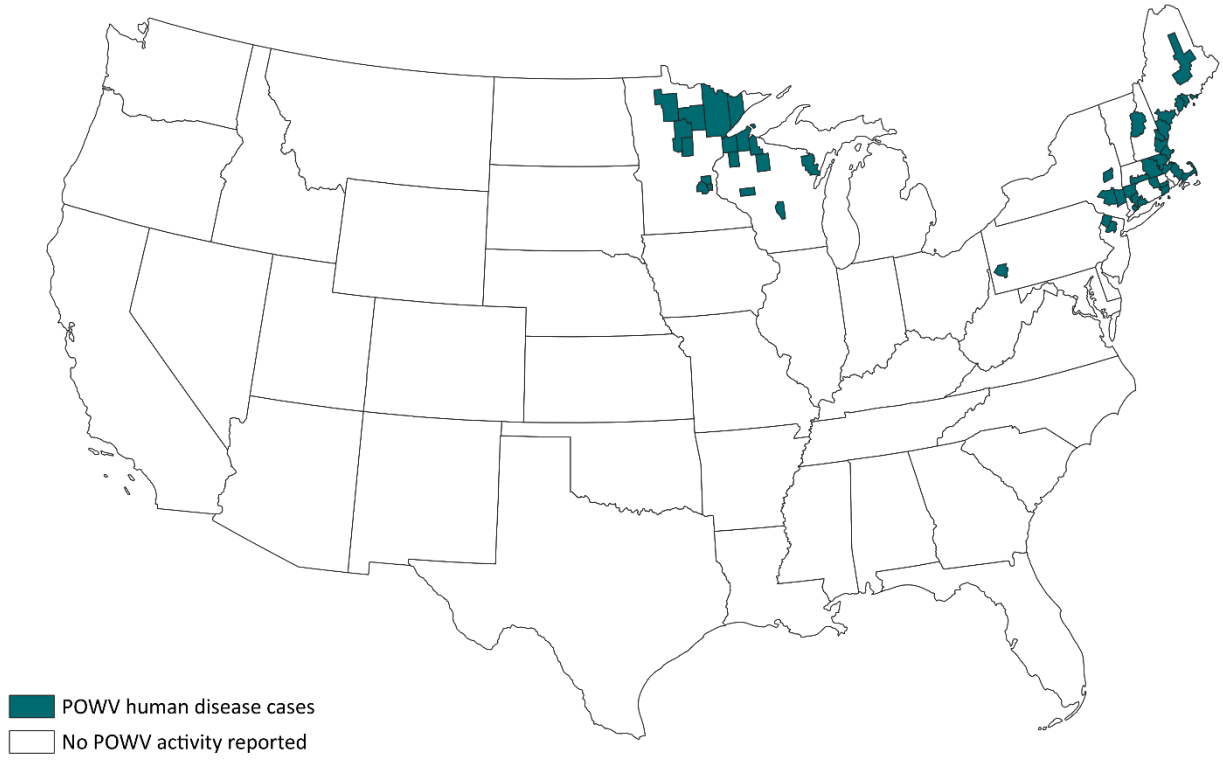


Table 5. Powassan virus human disease cases* reported to ArboNET — United States, 2024

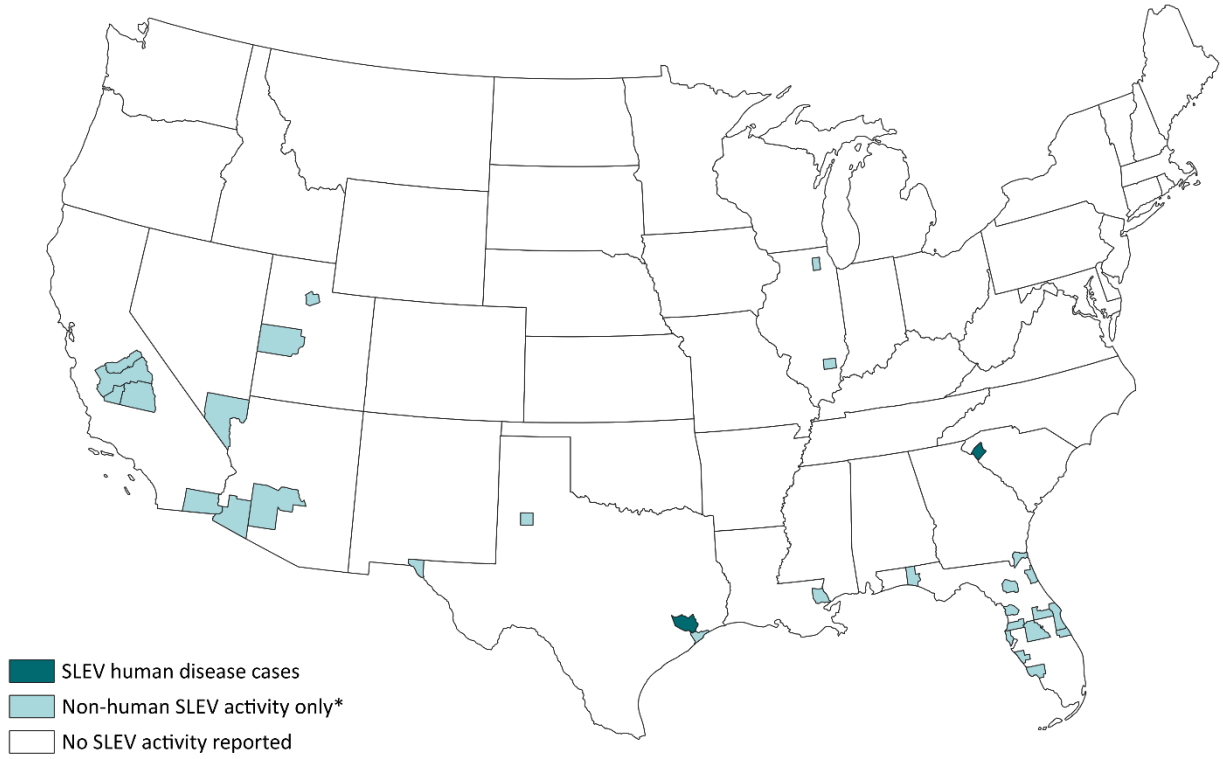
State	Neuroinvasive disease cases	Non-neuroinvasive disease cases	Total cases	Deaths
Connecticut	6	0	6	3
Maine	6	0	6	2
Massachusetts	11	0	11	1
Minnesota	14	0	14	3
New Hampshire	3	0	3	0
New Jersey	2	0	2	0
New York	3	0	3	0
Pennsylvania	1	0	1	0
Rhode Island	2	0	2	0
Wisconsin	12	0	12	0
Totals	**60**	**0**	**60**	**9**

*Includes confirmed and probable cases.

St. Louis encephalitis virus (SLEV) activity in 2024

A total of two counties in two states reported human cases of SLEV disease to ArboNET for 2024 **[Figure 8 and Table 6]**. Twenty-nine counties in eight states reported SLEV activity in non-human species only.

Figure 8. St. Louis encephalitis virus activity reported to ArboNET by county — United States, 2024



* SLEV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals

Table 6. St. Louis encephalitis virus human disease cases* reported to ArboNET — United States, 2024

State	Neuroinvasive disease cases	Non-neuroinvasive disease cases	Total cases	Deaths
South Carolina	0	1	1	0
Texas	1	0	1	0
Totals	**1**	**1**	**2**	**0**

*Includes confirmed and probable cases.

Chikungunya virus

A total of 241 chikungunya virus disease cases with illness onset in 2024 were reported to ArboNET from 29 states **[Figure 9 and Table 7]**. All reported cases occurred in travelers returning from areas outside of the continental United States or had laboratory exposure **[Table 8]**. No locally acquired cases of chikungunya virus disease were reported in 2024.

Figure 9. Chikungunya virus disease cases reported to ArboNET by states and territories – United States, 2024

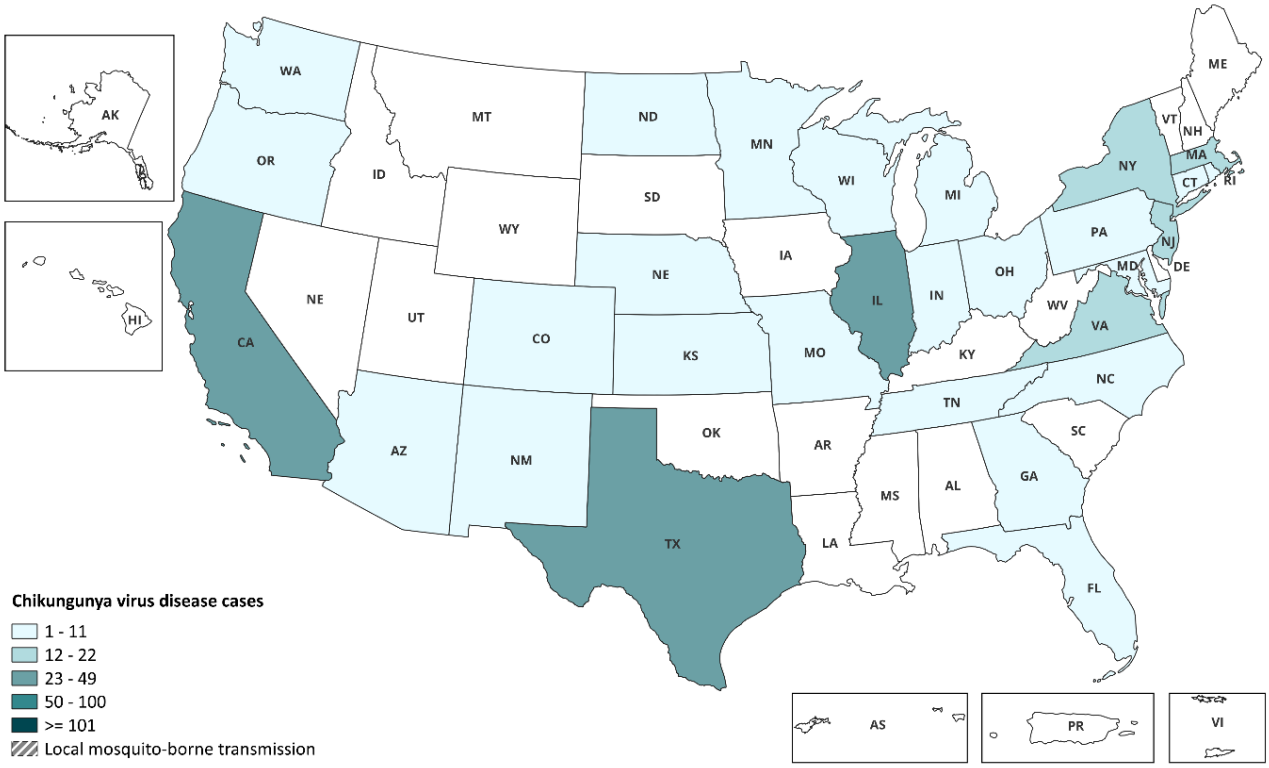


Table 7. Chikungunya virus disease cases* reported to ArboNET — United States, 2024

Jurisdiction	Travel-associated† No. (%)	Not imported No. (%)
Arizona	3 (1)	0 (0)
California	39 (16)	0 (0)
Colorado	7 (3)	0 (0)
Connecticut	3 (1)	0 (0)
Florida	9 (4)	0 (0)
Georgia	1 (0)	0 (0)
Illinois	26 (11)	0 (0)
Indiana	1 (0)	0 (0)
Kansas	3 (1)	0 (0)
Maryland	6 (2)	0 (0)
Massachusetts	22 (9)	0 (0)
Michigan	2 (1)	0 (0)
Minnesota	8 (3)	0 (0)
Missouri	2 (1)	0 (0)
Nebraska	2 (1)	0 (0)
New Jersey	17 (7)	0 (0)
New Mexico	1 (0)	0 (0)
New York	13 (5)	0 (0)
North Carolina	10 (4)	0 (0)
North Dakota	1 (0)	0 (0)
Ohio	5 (2)	0 (0)
Oregon	4 (2)	0 (0)
Pennsylvania	9 (4)	0 (0)
Rhode Island	1 (0)	0 (0)
Tennessee	2 (1)	0 (0)
Texas	24 (10)	0 (0)
Virginia	12 (5)	0 (0)
Washington	4 (2)	0 (0)
Wisconsin	4 (2)	0 (0)
Totals	**241 (100)**	**0 (0)**

*Includes confirmed and probable cases

†Includes cases acquired through other routes (e.g., laboratory transmission)

Table 8. Chikungunya virus human disease cases* reported to ArboNET by region of travel — United States, 2024

Region	Travel-associated (N=241) No. (%)
Africa	14 (6)
Asia	161 (67)
Caribbean	5 (2)
Central America	19 (8)
Oceania	1 (0)
South America	30 (12)
Unknown	11 (5)

*Includes confirmed and probable cases

Zika virus

A total of 22 Zika virus disease cases were reported from 10 states to ArboNET in 2024 **[Table 9 and Figure 10]**. All cases reported from US states occurred in travelers returning from areas outside of the continental United States **[Table 10]**.

In 2024, there were no confirmed Zika virus disease cases reported from U.S. territories. All cases reported were probable with none of the cases having tested positive using molecular testing, which detects the presence of the virus in the body and is the best indicator of a recent infection.

A total of 10 Zika virus diseases cases were reported from Puerto Rico **[Table 9 and Figure 10]**, and all were reported as acquired through presumed local transmission. The presumed locally acquired cases of Zika virus disease in Puerto Rico were diagnosed using serologic testing, which detects antibodies against Zika virus. Since antibodies against Zika virus can persist for years after infection, serology cannot distinguish between a recent or past infection. Additionally, Zika and dengue virus antibodies cross-react, making it difficult to diagnose which virus is the cause of the current illness.

Figure 10. Zika virus disease cases reported to ArboNET by states and territories – United States, 2024

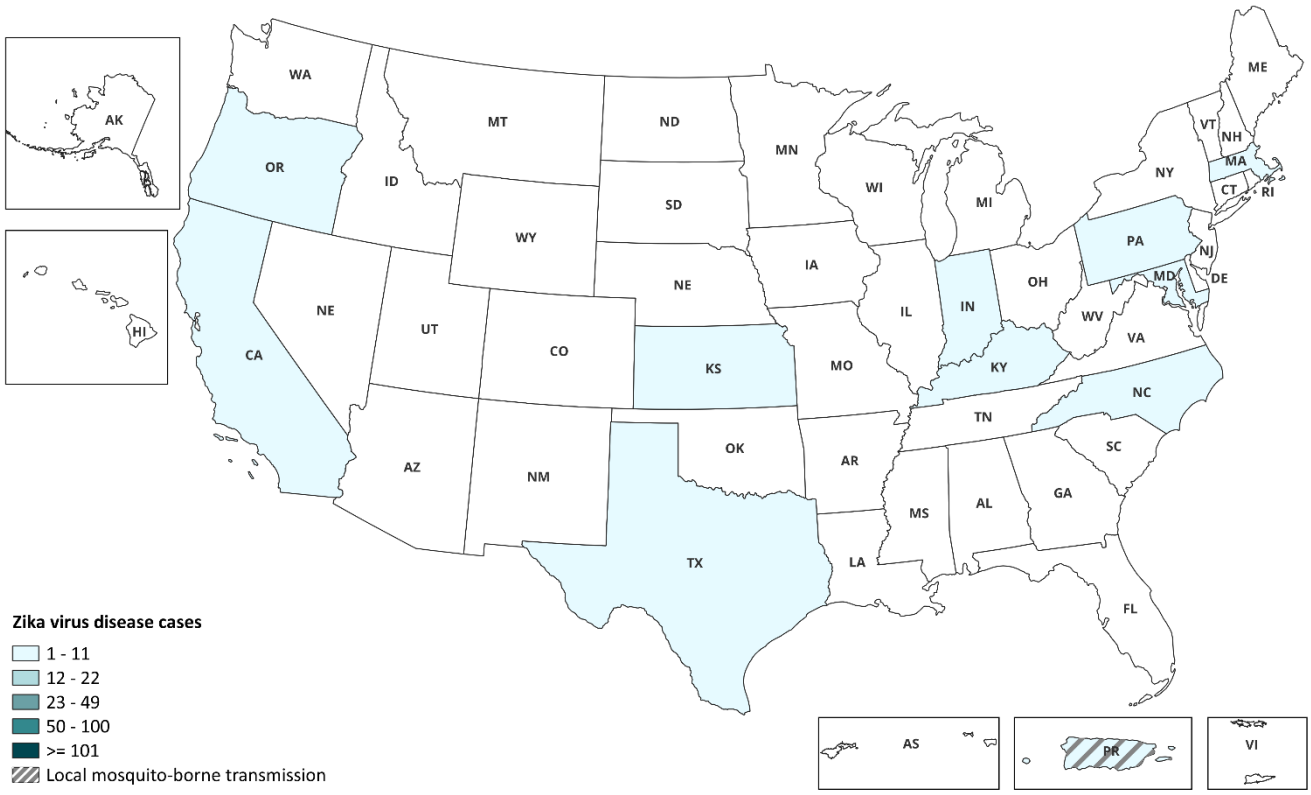


Table 9. Zika virus disease cases* reported to ArboNET by states and territories — United States, 2024

Jurisdiction	Travel-associated No. (%)	Not imported No. (%)
States	**N=22**	**N=0**
California	8 (36)	0 (0)
Indiana	1 (5)	0 (0)
Kansas	2 (9)	0 (0)
Kentucky	1 (5)	0 (0)
Maryland	2 (9)	0 (0)
Massachusetts	3 (14)	0 (0)
North Carolina	1 (5)	0 (0)
Oregon	2 (9)	0 (0)
Pennsylvania	1 (5)	0 (0)
Texas	1 (5)	0 (0)
Territories	**N=0**	**N=10**
Puerto Rico	0 (0)	10 (100)

*Includes confirmed and probable cases

Table 10. Zika virus disease cases* reported to ArboNET by region of travel — United States, 2024

Region	Travel-associated (N=22) No. (%)
Asia	10 (45)
Central America	4 (18)
South America	8 (36)

*Includes confirmed and probable cases

Oropouche virus

A total of 108 Oropouche virus disease cases with illness onset in 2024 were reported to ArboNET from six states **[Table 11 and Figure 11]**. All reported cases occurred in travelers returning from areas outside of the continental United States **[Table 12]**. No locally acquired cases of Oropouche virus disease were reported in 2024.

Figure 11. Oropouche virus disease cases reported to ArboNET by states and territories – United States, 2024

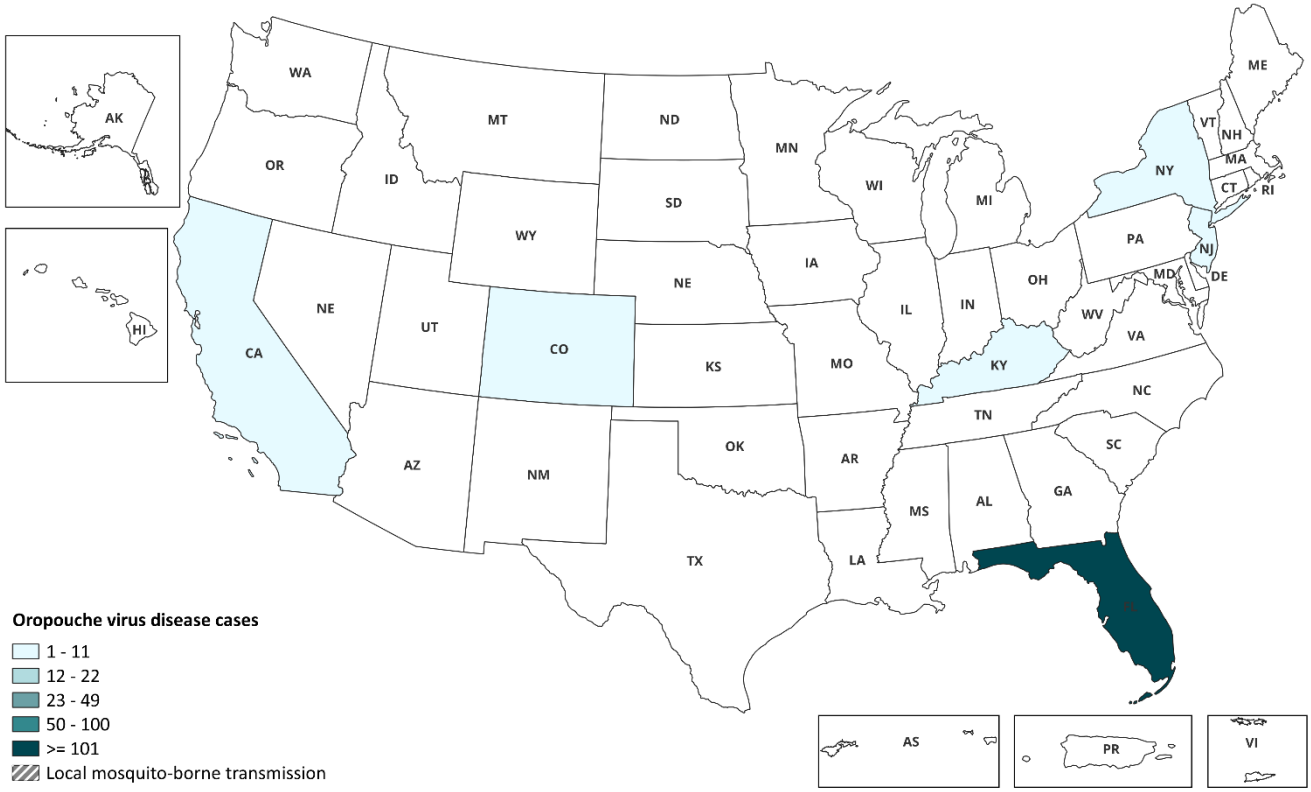


Table 11. Oropouche virus disease cases* reported to ArboNET by states and territories — United States, 2024

Jurisdiction	Travel-associated No. (%)	Not imported No. (%)
California	1 (1)	0 (0)
Colorado	1 (1)	0 (0)
Florida	103 (95)	0 (0)
Kentucky	1 (1)	0 (0)
New Jersey	1 (1)	0 (0)
New York	1 (1)	0 (0)
Totals	**108 (100)**	**0 (0)**

*Includes confirmed and probable cases

Table 12. Oropouche virus disease cases* reported to ArboNET by region of travel — United States, 2024

Region	Travel-associated (N=108) No. (%)
Caribbean	108 (100)

*Includes confirmed and probable cases