



Vector-Borne Disease

Weekly Surveillance Report

Center for Acute Disease Epidemiology | Acute Disease Prevention and Emergency Response & EH | [West Nile Virus Website](#)

All data presented in this report are provisional and may change as additional reports are received

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West Nile Virus (WNV)

WNV is endemic in Iowa and activity usually peaks in late summer and early fall. IDPH works in collaboration with Local Public Health (LPH) and other appropriate partners to investigate all reported cases.

In 2018, Iowa experienced an increase in WNV activity and 104 human cases were identified. This is the highest number since 2003. Thus far in 2019, two human cases of WNV have been identified. Two horses and one mosquito sample have tested positive for WNV [Table 1].

Table 1. Human /Equine/Mosquito Surveillance, 2019 Positive Samples

County	Human	Blood Donor	Horse	Mosquitoes
				<i>Culex restuans</i>
Audubon	1	0	0	0
Davis	0	0	1	0
Polk	0	0	0	1
Union	0	0	1	0
Woodbury	1	0	0	0
Total	2	0	2	1

Figure 1. 2019 West Nile virus case count and incidence rate by county of residence.

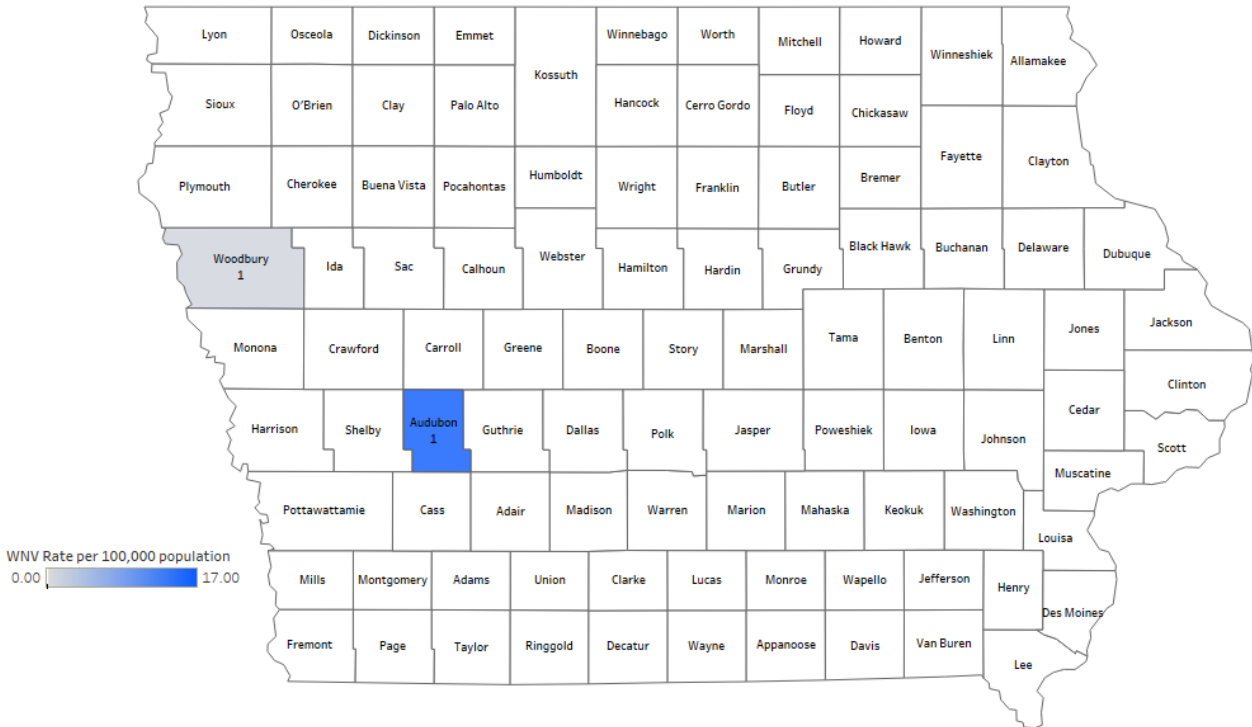
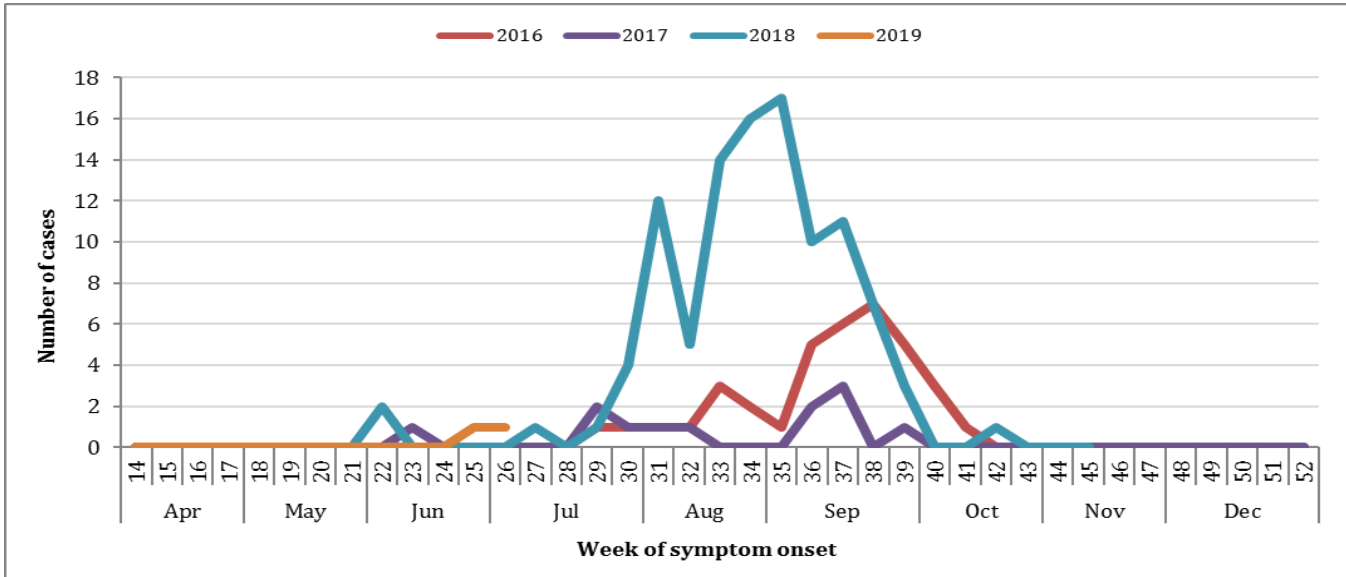


Figure 2. WNV disease cases reported to IDPH, by week of onset-Iowa, 2019



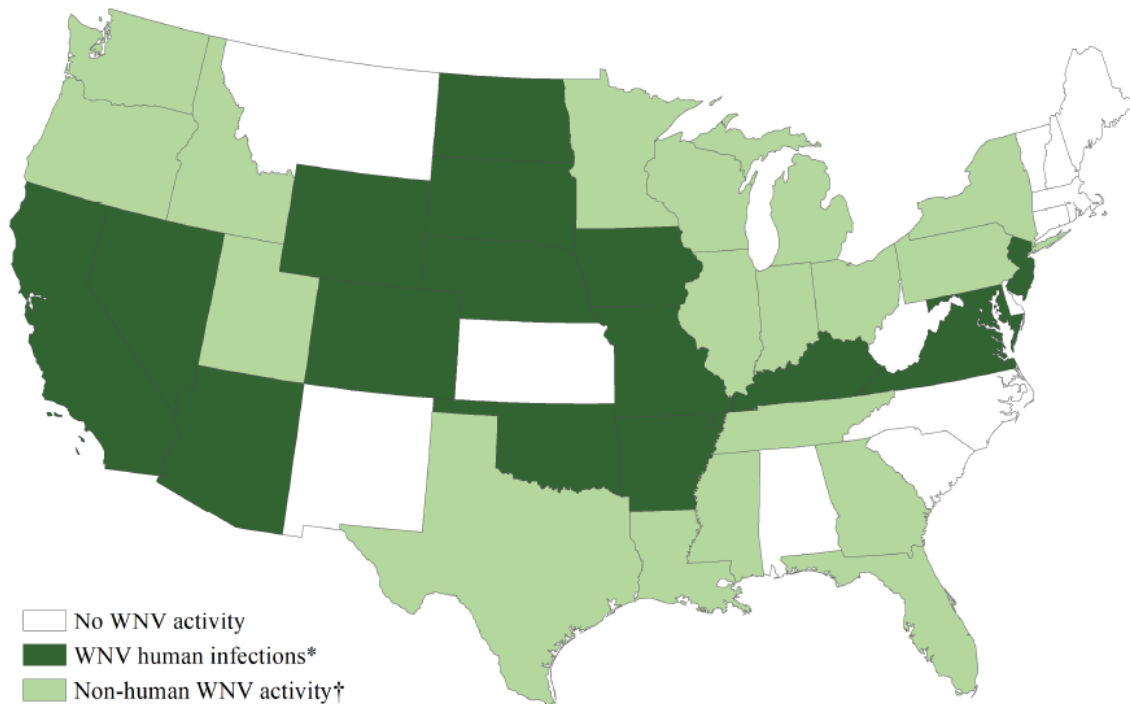
National WNV Activity:

As of July 23rd, 129 counties from 34 states have reported WNV activity to ArboNET for 2019, including 16 states with reported WNV human infections (i.e., disease cases or viremic blood donors) and 18 additional states with reported WNV activity in non-human species only (i.e., veterinary cases, mosquito pools, dead birds, or sentinel animals) [Figure 3].

To date, 76 human WNV disease cases have been reported from 21 counties in 16 states. Of the 76 reported cases, 53 (70%) were classified as neuroinvasive disease (e.g., meningitis or encephalitis) and 23 (30%) were classified as non-neuroinvasive disease [Figure 4]. Dates of illness onset for cases ranged from January-July [Figure 5].

Overall, 17 WNV PVD has been reported from two states.

Figure 3. WNV activity reported to ArboNET, by state – United States, 2019 (as of July 23, 2019)



*WNV human disease cases or presumptive viremic blood donors. Presumptive viremic blood donors have a positive screening test which has not necessarily been confirmed.

†WNV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals

Figure 4. WNV neuroinvasive disease incidence* reported to ArboNET, by state - United States, 2019 (as of July 23, 2019)

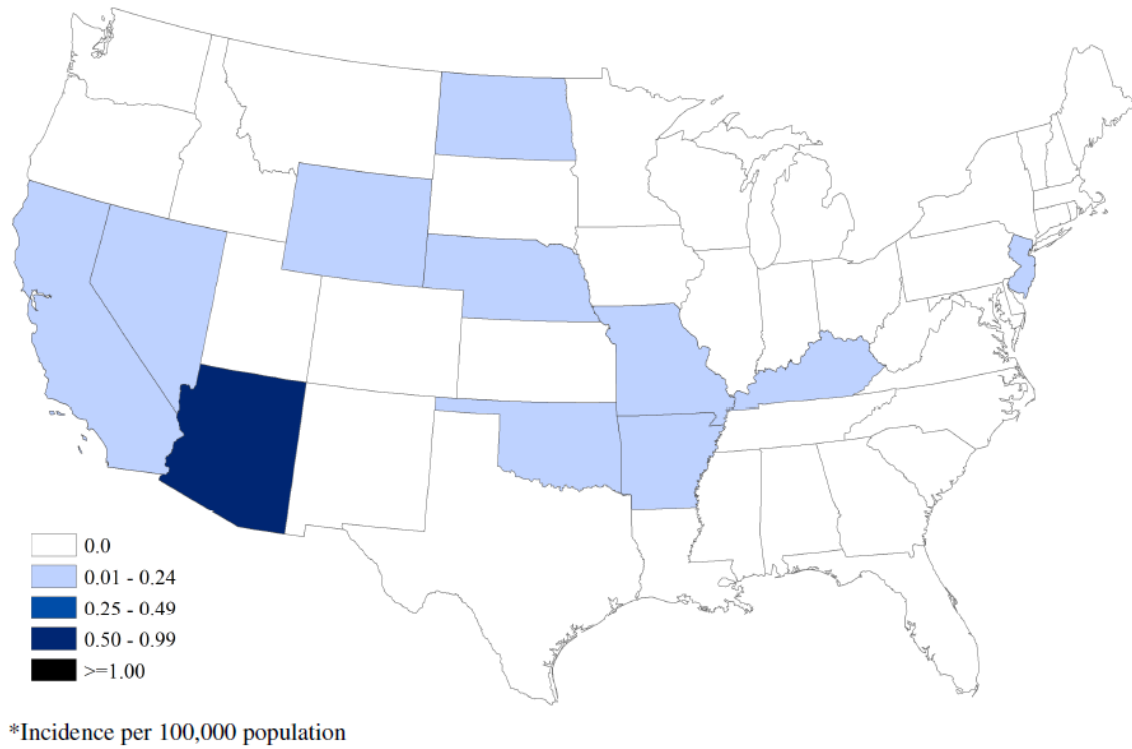
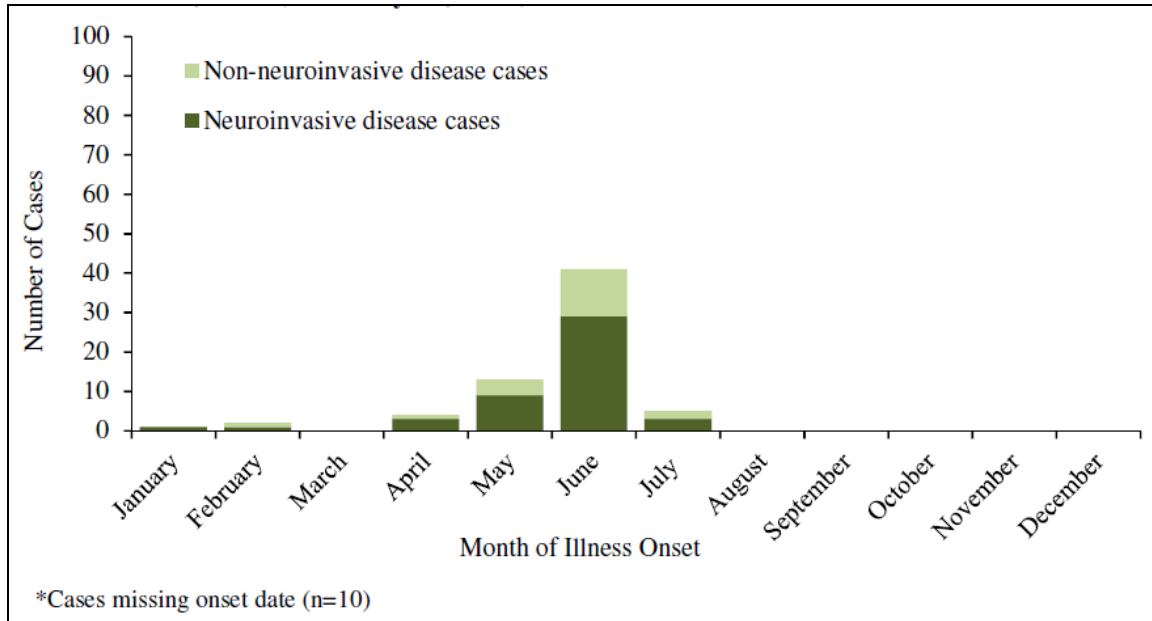


Figure 5. WNV disease cases reported to ArboNET, by month of onset*- United States, 2019 (as of July 23, 2019)



Mosquito Surveillance

IDPH in collaboration with the State Hygienic Laboratory (SHL), Iowa State University (ISU), and local public environmental health partners conducts ecological surveillance in 16 counties across the state by monitoring mosquitoes and testing for WNV infected populations.

Table 2. 2019 mosquitoes tested for West Nile virus

Species	# of Samples Tested	WNV Negative	WNV Positive
<i>Cx. pipiens</i>	142	142	0
<i>Cx. pipiens</i> group	294	294	0
<i>Cx. tarsalis</i>	62	62	0
<i>Cx. restuans</i>	342	341	1
<i>Cx. territans</i>	7	7	0
<i>Cx. erraticus</i>	0	0	0
<i>Cx. salinarius</i>	9	9	0
<i>Cx. species</i>	1	1	0
<i>Ae. japonicus</i>	0	0	0
<i>An. punctipennis</i>	0	0	0
<i>Ae. atropalpus</i>	0	0	0
<i>Ae. sticticus</i>	0	0	0
<i>Ae. triseriatus</i>	0	0	0
Total	857	856	1

In addition to viral testing for WNV, the population of mosquitoes in Iowa is monitored through trapping activities. All trapped mosquitoes are sorted by species. The figure [Figure 6] below shows where and when *Aedes albopictus* mosquitoes were detected 2017-2019.

Figure 6. *Aedes albopictus* identified in Iowa, 2017-2019



