



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

Date Issued: September 28, 2016



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

Fifteen human cases of WNV have been reported in Iowa in 2016 [Table 1]. Twenty-eight mosquito pools and 11 horses have also tested positive for this virus. During the 2015 surveillance season, 14 human cases of WNV were reported, in 13 Iowa counties [Figure 1].

County	Human	Blood Donor	Horses	Mosquito Pools				
				<i>Culex erraticus</i>	<i>Culex pipiens</i>	<i>Culex pipiens</i> Group	<i>Culex restuans</i>	<i>Culex salinarius</i>
Crawford	0	1	1	0	0	0	0	0
Des Moines	1	0	0	0	0	0	0	0
Floyd	0	0	1	0	0	0	0	0
Franklin	0	0	1	0	0	0	0	0
Fremont	0	0	0	0	1	0	0	0
Hardin	0	0	1	0	0	0	0	0
Harrison	0	0	1	0	0	0	0	0
Jefferson	0	0	1	0	0	0	0	0
Johnson	0	0	1	0	0	0	0	0
Lyon	2	1	0	0	0	0	0	0
Monona	1	0	0	0	0	0	0	0
O'Brien	1	0	0	0	0	0	0	0
Plymouth	1	0	0	0	0	0	0	0
Polk	0	0	0	0	7	2	4	1
Pottawattamie	1	0	1	0	0	0	1	0
Shelby	0	1	0	0	0	0	0	0
Sioux	5	0	1	0	0	0	0	0
Story	0	0	0	0	5	1	3	0
Tama	1	0	0	0	0	0	0	0
Washington	0	0	1	0	0	0	0	0
Webster	0	0	1	0	0	0	0	0
Woodbury	2	0	0	0	0	0	1	0
Van Buren	0	0	0	1	0	0	1	0
Total	15	3	11	1	13	3	10	1

Figure 3. WNV neuroinvasive disease incidence reported to ArboNET, by state – United States, 2016 (as of September 20, 2016)

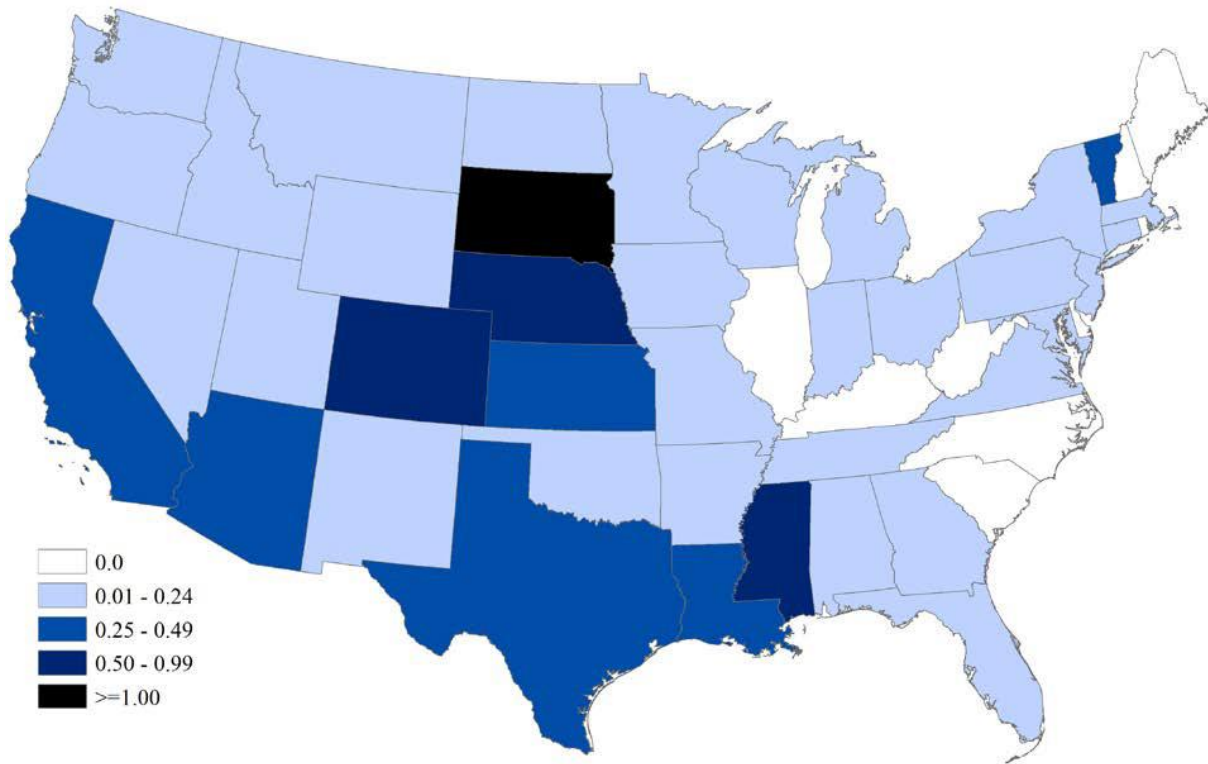
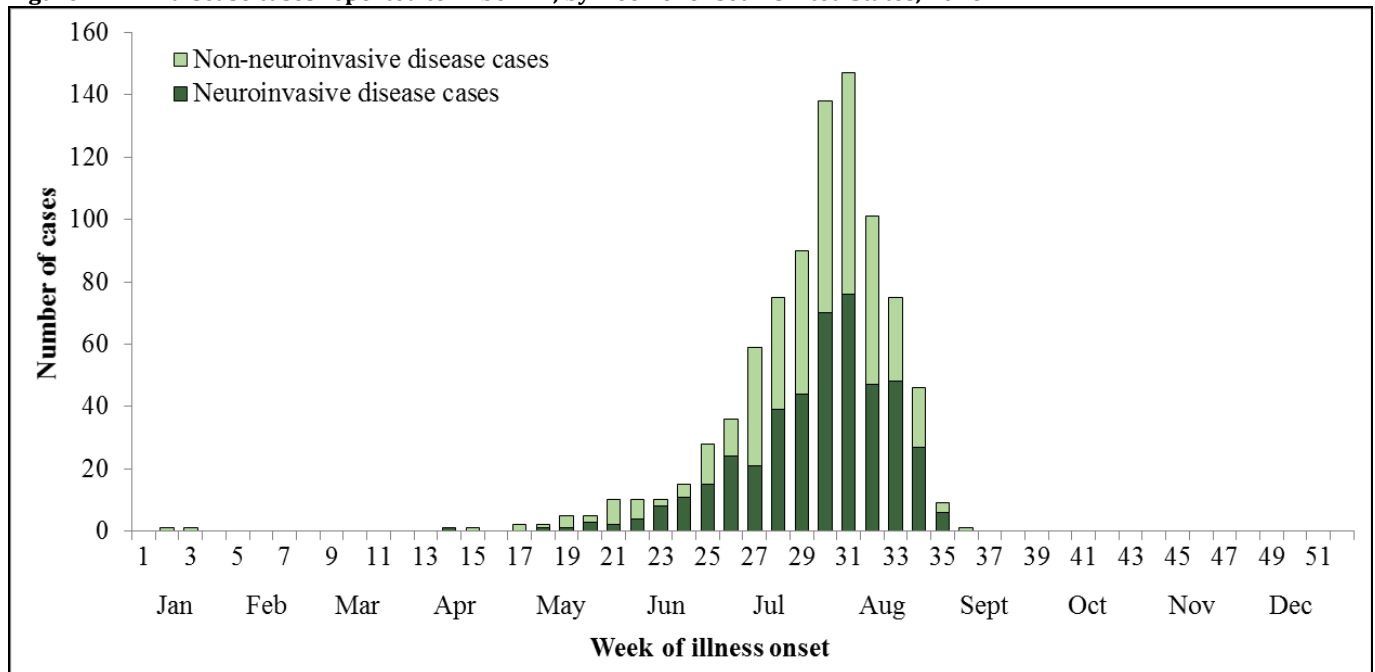


Figure 4. WNV disease cases reported to ArboNET, by week of onset – United States, 2016



Chikungunya

Chikungunya is a viral disease that is spread to people by the bite of an infected *Aedes aegypti* and *Aedes albopictus* mosquito. Mosquitoes become infected when they feed on a person already infected with this virus. These species of mosquitoes are not sustained in Iowa.

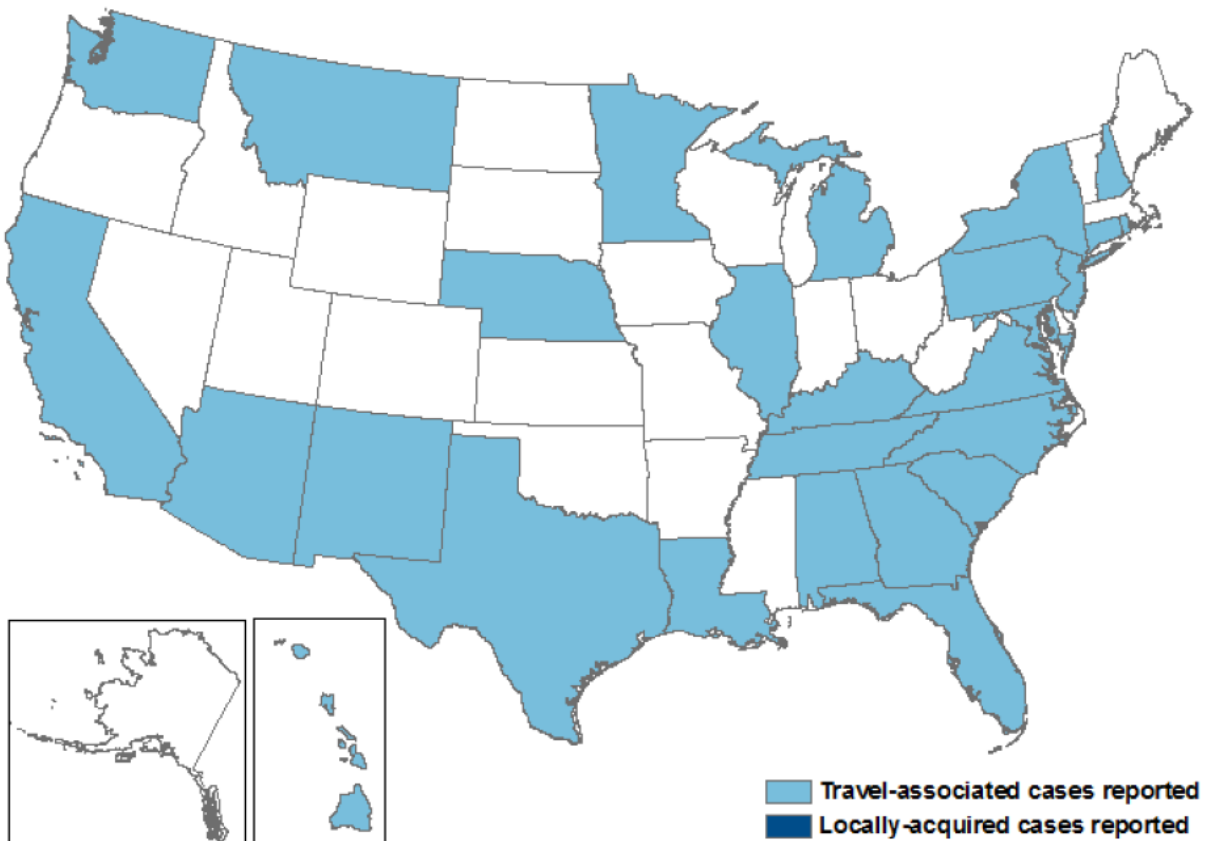
In 2015, two imported cases of chikungunya virus disease were reported in Iowa. Cases occurring in Iowa are in travelers returning from parts of the world where Chikungunya transmission occurs. No cases of chikungunya have been reported in Iowa, thus far in 2016.

National Chikungunya Activity:

As of September 20th, a total of 76 chikungunya virus disease cases with illness onset in 2016 have been reported to ArboNET from 27 U.S. states [Figure 5]. All reported cases occurred in travelers returning from affected areas. No locally-transmitted cases have been reported from U.S. states.

A total of 114 chikungunya virus disease cases with illness onset in 2016 have been reported to ArboNET from U.S. territories. To date, 113 locally acquired cases and 1 travel-associated case have been reported from Puerto Rico.

Figure 5. Chikungunya virus disease cases reported by state – United States, 2016 (as of September 20, 2016)



Ehrlichiosis/Anaplasmosis

There are at least three species of bacteria responsible for ehrlichiosis/anaplasmosis in the United States: *Ehrlichia chaffeensis*, *Ehrlichia ewingii*, and *Anaplasma phagocytophilum*. Ehrlichiae are transmitted by the bite of an infected lone star tick (*Amblyomma americanum*) which is found in Iowa. *A. phagocytophilum* is transmitted by the bite of an infected blacklegged tick (or deer tick, *Ixodes scapularis*) in Iowa. The clinical signs and symptoms of these infections are similar.

Nine cases of ehrlichiosis/anaplasmosis have been reported in Iowa. In 2015, eleven cases of ehrlichiosis/anaplasmosis were reported to IDPH.

Lyme

Lyme disease is caused by *Borrelia burgdorferi* and in Iowa is transmitted to humans by the bite of an infected tick, the blacklegged tick (or deer tick, *Ixodes scapularis*). Ticks are most likely to spread the Lyme disease bacterium during their pre-adult stage (nymph). They are most common between May and July and found in tall grasses and brush of wooded areas.

As of September 28th, 181 confirmed and probable cases of Lyme have been reported in Iowa. In 2015, 318 cases of Lyme disease were reported to IDPH.