



Vector-Borne Disease

2025 Weekly Surveillance Report

September 12, 2025

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

West Nile Virus (WNV)

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

In 2024, 21 human cases were identified. Thus far in 2025, nine human cases and 12 presumptive viremic donors have been identified. Eight birds and 45 mosquito samples have tested positive for WNV [Table 1].

Table 1. Human/Bird/Mosquito Surveillance, 2025 Positive Samples

County	Human	Blood Donor	Bird	Mosquitoes		
				<i>Culex restuans</i>	<i>Culex pipiens</i>	<i>Culex territans</i>
Benton	0	1	0	0	0	0
Black Hawk	0	0	0	11	24	1
Boone	0	0	2	0	0	0
Carroll	1	2	0	0	0	0
Dubuque	1	0	0	0	0	0
Emmet	1	0	0	0	0	0
Johnson	0	1	0	1	0	0
Linn	1	0	0	0	0	0
Lucas	0	0	2	0	0	0
Lyon	2	0	0	0	0	0
Muscatine	0	0	2	0	0	0
Plymouth	0	1	0	0	0	0
Polk	1	6	0	1	3	0
Story	1	1	2	1	0	0
Woodbury	0	0	0	1	2	0
Wright	1	0	0	0	0	0
Total	9	12	8	15	29	1

Figure 1. 2025 West Nile virus case count and incidence rate by county of residence.

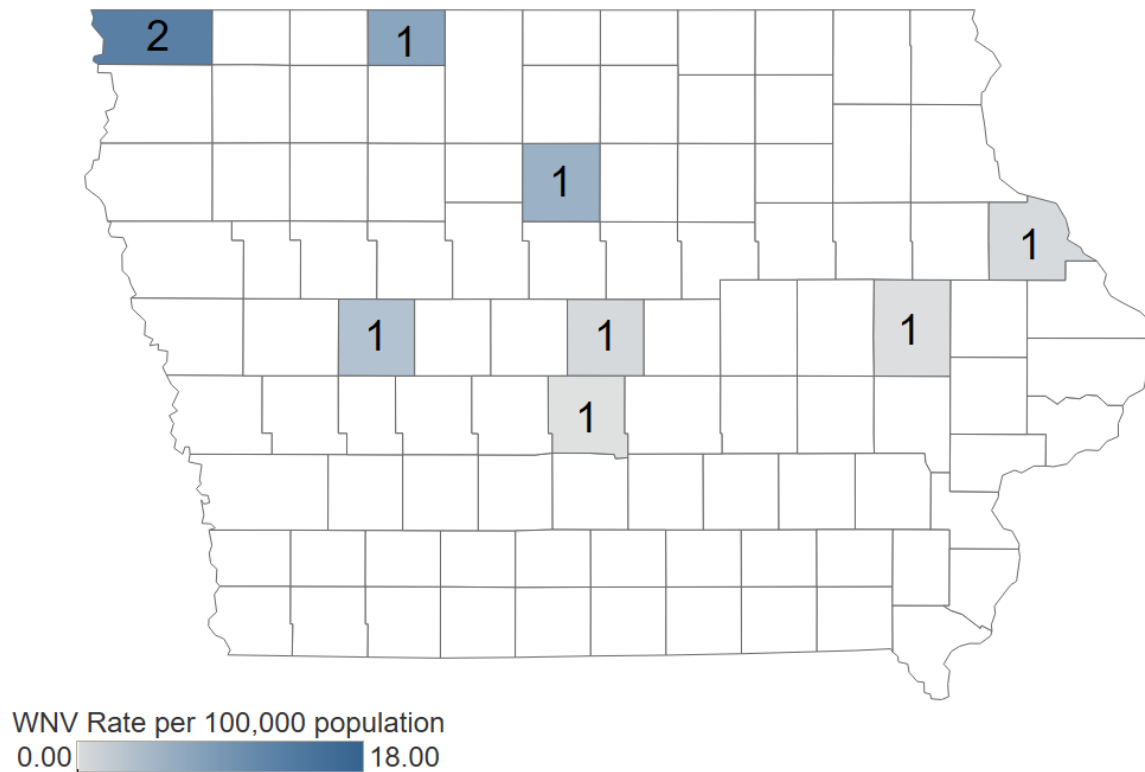
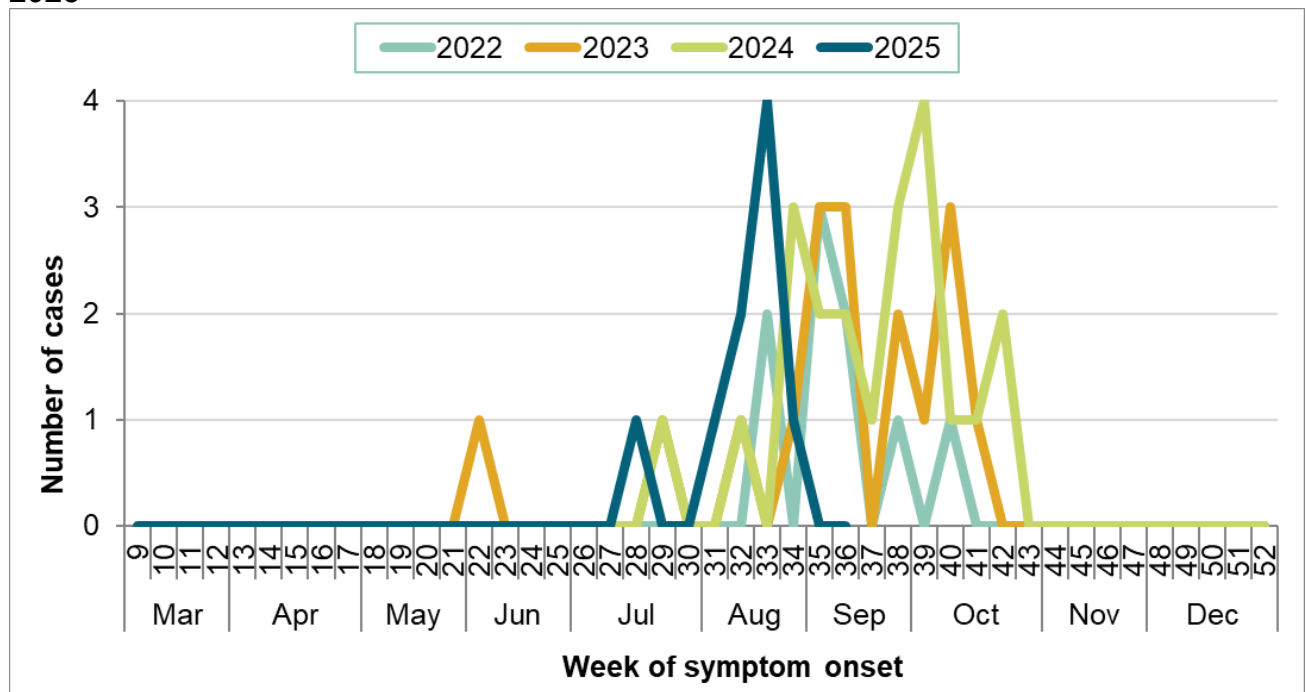


Figure 2. West Nile virus cases reported to Iowa HHS, by week of onset-Iowa, 2025



Mosquito Surveillance

Iowa HHS in collaboration with Iowa State University (ISU) and local public environmental health partners conducts ecological surveillance in 11 counties across the state by monitoring mosquitoes and testing for WNV infected populations.

Table 2. 2025 mosquitoes tested for West Nile virus

Species	# of Samples Tested	WNV Negative	WNV Positive
<i>Cx. pipiens</i>	174	145	29
<i>Cx. tarsalis</i>	29	29	0
<i>Cx. restuans</i>	173	158	15
<i>Cx. territans</i>	10	9	1
<i>Cx. salinarius</i>	1	1	0
Total	387	342	45

Dengue Fever

Dengue is a disease caused by any one of four related viruses, which are passed by the bite of an infected *Aedes aegypti* or *Aedes albopictus* mosquito. Infection with one of the four viruses does not protect against the others and consecutive infections put people at greater risk of developing dengue hemorrhagic fever (DHF).

Dengue is not found in Iowa. Cases are in travelers and immigrants returning from parts of the world where dengue transmission occurs. One case of dengue has been reported in Iowa, thus far in 2025. In 2024, nine cases of dengue were reported to Iowa HHS.

Malaria

Malaria is a serious and sometimes fatal disease caused by a parasite that commonly infects *Anopheles* mosquitoes. Malaria is spread to humans by the bite of the infected female mosquito. Only *Anopheles* mosquitoes can transmit malaria and they must have been infected through a previous blood meal taken from an infected person.

Eleven cases of malaria have been reported in Iowa. Cases are in travelers and immigrants returning from parts of the world where malaria transmission occurs. In 2024, 35 cases of malaria were reported to Iowa HHS.

Rocky Mountain spotted fever (RMSF)

American dog ticks are carriers of *Rickettsia rickettsii*, the bacteria that causes RMSF. The American dog tick is the most common species of tick in Iowa and can be found in every county in the state. The tick is most active late March through August.

Nine cases of RMSF have been reported in Iowa. In 2024, five cases of RMSF were reported to Iowa HHS.

Anaplasmosis

Anaplasmosis is a disease caused by the bacterium *Anaplasma phagocytophilum*. *A. phagocytophilum* is transmitted by the bite of an infected blacklegged tick (or deer tick, *Ixodes scapularis*) in Iowa.

Twenty-one cases of anaplasmosis have been reported in Iowa. In 2024, 26 cases of anaplasmosis were reported to Iowa HHS.

Ehrlichiosis

There are three species of bacteria responsible for ehrlichiosis in the United States: *Ehrlichia chaffeensis*, *Ehrlichia ewingii*, and *Ehrlichia muris eauclairensis*. *E. chaffeensis* and *E. ewingii* are transmitted by the bite of an infected lone star tick (*Amblyomma americanum*), which is found in Iowa. The majority of all reported cases of ehrlichiosis are due to infection by *E. chaffeensis*.

Twenty-two cases of ehrlichiosis have been reported in Iowa. In 2024, 18 cases of ehrlichiosis were reported to Iowa HHS.

Babesiosis

Babesiosis is caused by microscopic parasites that infect red blood cells. Most human cases in the United States are caused by the parasite *Babesia microti*. *Babesia microti* is spread by the blacklegged tick (or deer tick, *Ixodes scapularis*). The parasite typically is spread by the young nymph stage of the tick. They are most common during the warm months of spring and summer in areas with woods, brush, or grass.

Three cases of babesiosis have been reported in Iowa. In 2024, three cases of babesiosis were reported to Iowa HHS.

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.

Figure 3. 2025 Lyme disease case count and incidence rate by county of residence.

