

Public Health

Iowa HHS

Vector-Borne Disease 2023 Weekly Surveillance Report

June 2, 2023

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 2022, nine human cases were identified. Thus far in 2023, no WNV activity has been detected.

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 2023. In 2022, two 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.

Nine 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 2022, 11 cases of malaria 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.

Three cases of anaplasmosis have been reported in Iowa. In 2022, 11 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 euclairensis*. *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*.

One case of ehrlichiosis has been reported in Iowa. In 2022, seven cases of ehrlichiosis 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.

As of June 2nd, 25 confirmed and probable cases of Lyme disease have been reported in Iowa [Figure 1]. In 2022, 154 cases of Lyme disease were reported to Iowa HHS.

Figure 1. 2023 Lyme disease case count and incidence rate by county of residence.

