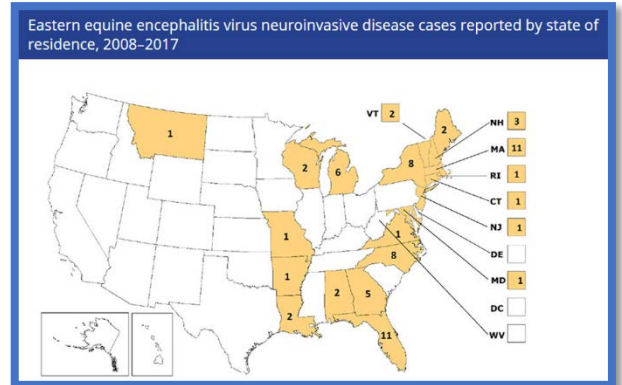


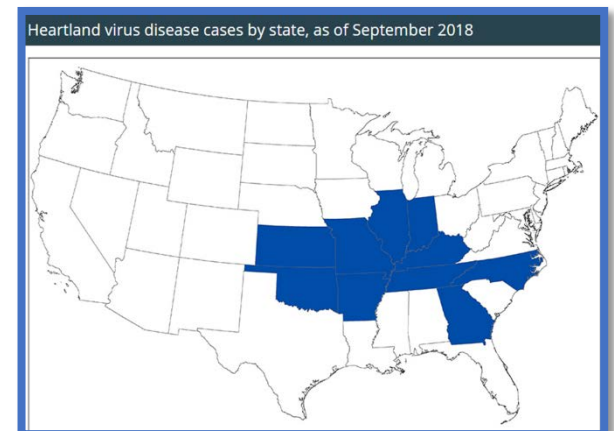
EMERGING AND/OR UNCOMMON ARBOVIRAL DISEASES – June 2019

Bourbon Virus: Bourbon virus is a thogotovirus that is thought to be transmitted through tick or other insect bites. As of June 2018, a limited number of Bourbon virus disease cases have been identified in the Midwest and southern United States with some fatalities reported. It is unknown if the virus might be found in other areas of the United States. Clinical data is limited, but patients with Bourbon virus have reported fever, fatigue, headache, anorexia, nausea, vomiting, and maculopapular rash. They were also found to have thrombocytopenia and leukopenia.

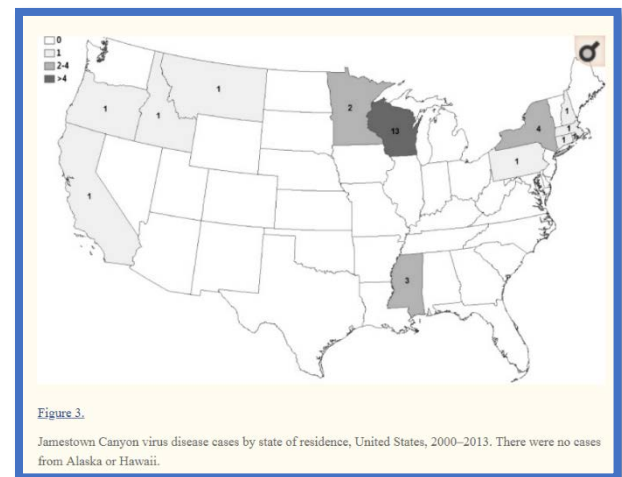
Eastern equine encephalitis (EEE): EEE is a rare but potentially severe disease transmitted by mosquitoes with only a few cases reported in the United States each year. NJ last reported a case of EEE in 2016, which was the first case reported since 2003, although EEE is identified through routine surveillance testing in horses and mosquitoes each year in NJ. Most human infections are asymptomatic, but severe encephalitic cases begin with an abrupt onset of headache, high fever, chills, and vomiting, progressing to disorientation, seizures, or coma. Approximately 1/3 of persons with encephalitis will die from the disease and many who survive have disabling and progressive sequelae.



Heartland Virus: Heartland virus is believed to be transmitted by infected lone star ticks. As of September 2018, more than 40 cases of Heartland virus disease have been reported from states in the Midwestern and southern United States. Symptoms are often similar to other tickborne illnesses, such as ehrlichiosis or anaplasmosis and can include fever, headache, fatigue, myalgia, and diarrhea. Almost all patients with diagnosed with Heartland virus have been hospitalized with some reported fatalities. Heartland virus is not currently a notifiable disease, but states report cases of Heartland virus to CDC on a voluntary basis.



Jamestown Canyon virus: Jamestown Canyon virus is part of the California serogroup viruses and is transmitted by mosquitoes. The virus is routinely found in mosquitoes tested in New York and Connecticut. NJ reported its first case of Jamestown Canyon virus in 2015. The clinical presentation of Jamestown Canyon virus infection is still being described for this rare, emerging disease. Patients may present with acute febrile illness, meningitis or meningoencephalitis.



La Crosse (LAC) virus: La Crosse virus is part of the California serogroup viruses and is transmitted by mosquitoes. Historically, most cases of LAC neuroinvasive disease were reported from the upper Midwestern states, but recently, cases have been reported from mid-Atlantic and southeastern states. Many people infected with LAC are asymptomatic. Among people who become ill, initial symptoms include fever, headache, nausea, vomiting, and fatigue. Severe neuroinvasive disease occurs most often in children <16yrs, often involves encephalitis, and can include seizures, coma, and paralysis. Fatal cases are rare (<1%) and most patients seem to recover completely.

