

County monitors mosquito population

Protects public health

By JAMES JOERKE

The Zika virus made headlines last spring after it was linked to birth defects in Brazil. Although the news about Zika has faded, the Centers for Disease Control and Prevention urge pregnant women to avoid travel to areas with ongoing Zika virus transmission and recommends that travelers wear insect repellent when traveling in areas where Zika is widespread.

Johnson County residents who contract the virus while traveling in areas with Zika virus could potentially transmit the disease locally if bitten by an Aedes mosquito. As of press time, eight cases of Zika virus have been confirmed in Johnson County residents who traveled to areas with ongoing Zika transmission.

Maps released by the CDC in early 2016 indicate that the two species of mosquitoes that can carry and transmit the Zika virus (Aedes aegypti and Aedes albopictus) were believed to be present in the Kansas City metropolitan area. Johnson County Department of Health and Environment (JCDHE) sought to better understand the local prevalence of these species to characterize the potential for transmission. Johnson County Department of Health and Environment contracted with the Kansas Biological Survey in spring 2016 to trap mosquitoes in four locations: south Overland Park, central Overland Park, Lenexa and Lake Quivira. Traps were set every other week from mid-June through mid-October.

The chart (top right) shows the numbers of Aedes genus mosquitoes detected over the course of summer. At all four locations, Aedes albopictus was present to varying degrees, but no specimen of Aedes aegypti was found. This is good news because Aedes albopictus feeds on both human and animal blood, and consequently it is less likely to be an agent of human-to-human transmission. The spike in numbers at the end of July followed a period of precipitation that created opportunities for mosquitoes to breed.

What conclusions can be drawn?

First, the presence of Aedes albopictus indicates that while there is a potential

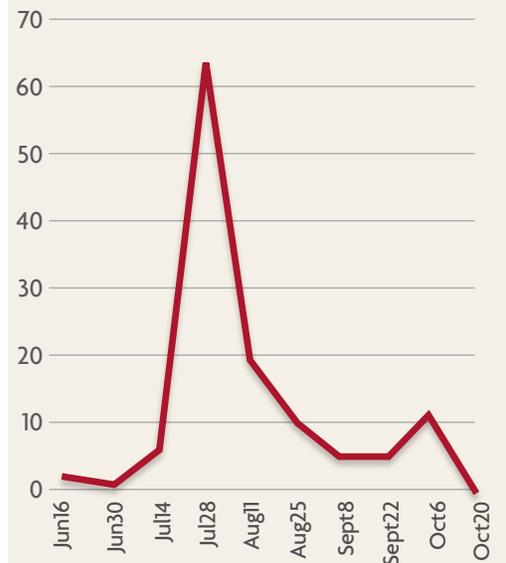
for local transmission of the Zika virus, the potential is very low. Any local transmission would have to originate from a person who recently returned from an area where Zika is present and who is infected with the virus. There is no evidence that Aedes mosquitoes can pass the Zika virus on to their offspring.

Because the Kansas City region experiences freezing temperatures in the winter, the entire adult population of mosquitoes dies off every year. This means that even if local transmission of Zika were to occur in a given year, the mosquitoes born the following spring would not carry the virus.

Despite the relatively low risk, continued surveillance efforts are needed to monitor any changes that may occur in local mosquito populations. JCDHE is currently collaborating with the Kansas Department of Health and Environment to coordinate a mosquito monitoring plan for 2017.



Total numbers of Aedes Genus Mosquitoes at four locations in Johnson County – 2016



More information about this effort will be posted at jocogov.org/jcdhe as it becomes available. ☀

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