

WEST CHICAGO MOSQUITO ABATEMENT DISTRICT

2019 MOSQUITO SEASON UPDATE

West Nile Virus Update

Since 1999, West Nile virus (WNV) has rapidly spread across the United States causing over 50,000 human cases, including over 2,300 fatalities, during the past 20 years. Because WNV is so widespread in bird and mosquito populations, the virus has become well established as an annual mosquito-borne disease threat. In 2018, there were 2,544 human cases of WNV across the United States reported by the Centers for Disease Control & Prevention (CDC). The following are the top ten states that recorded the most WNV cases in 2018 in descending order: NE-CA-ND-IL-SD-TX-PA-IA-MI and CO. These 10 states accounted for 61% of the 2018 human case count.

In 2018, the State of Illinois recorded 174 human WNV cases, including 16 fatalities, compared to a 2017 case count of 90, including 8 fatalities.

In 2018, DuPage County recorded 18 human WNV cases, compared to 6 in 2017, and 10 in 2016. Intensive mosquito population surveillance is performed by the State of Illinois Department of Health, DuPage County Health Department, the Forest Preserve District of DuPage County and Clarke Environmental Mosquito Management, Inc. (Clarke). Overall in 2018, surveillance confirmed 169 adult mosquito samples positive for WNV within DuPage County. This ongoing research continues to demonstrate the ongoing risk for significant WNV activity within DuPage County, as well as, provides an invaluable database for operational response planning for public health protection.

Clarke will maintain close contact with the Centers for Disease Control, Illinois Department of Public Health, Forest Preserve District of DuPage County, and the DuPage County Health Department regarding West Nile virus data and trends during the 2019 season.

WNV symptoms are initially similar to the flu, with muscle weakness and disorientation. Though the majority of those infected will have mild symptoms or no symptoms at all, in some individuals, WNV can cause inflammation of the brain (encephalitis) and in severe cases, paralysis, coma or death. The disease is most serious – even fatal – in those with compromised immune systems and the elderly.

Zika Virus (ZIKV) Update

Zika virus (ZIKV) is a mosquito-borne disease that is transmitted primarily by the *Aedes aegypti* mosquito and sexual transmission. *Aedes aegypti* is a tropical mosquito that

does not occur in northern Illinois. While ZIKV symptoms are generally mild in adults (fever, rash, joint pain and conjunctivitis), pregnant women who contract ZIKV can pass the virus to their unborn children, increasing the risks of serious birth defects like microcephaly. In 2016, the continental United States endured a major ZIKV outbreak with more than 5,100 travel-related nationwide and 139 locally transmitted cases in areas of south Florida. In 2017, the ZIKV human case count was dramatically diminished in the continental United States with the CDC reporting 407 cases. In 2018, the human case count further declined to the following breakdown:

- 64 – travelers returning from affected areas
- 0 – cases acquired through presumed local mosquito-borne transmission
- 0 – cases acquired through sexual transmission

The ZIKV case count also declined in South America, the Caribbean, and American territories.

West Chicago M.A.D. Program Overview

The West Chicago MAD is comprised of most of the City of West Chicago and Village of Winfield, with small sections of other communities. The boundary of the district is twenty-seven (27) square mile, and is a separate governmental entity founded over 50 years ago under the Illinois Mosquito Abatement District Act (70 ILCS/1005). The objectives of the WCMAD program are to control nuisance mosquitoes, reduce the potential of mosquito-borne disease transmission, and provide a comfortable and healthy atmosphere for district residents. The primary targets of the program are the floodwater mosquito (*Aedes vexans*) – the dominant nuisance species, and the northern house mosquito (*Culex pipiens*) – the potential disease carrier.

Under the authority of the Illinois Mosquito Abatement District, field technicians perform mosquito control activities on public and private properties for the control of mosquitoes and protection of public health.

Environmentally sensitive and effective mosquito control is accomplished within the WCMAD utilizing Integrated Pest Management (IPM), an approach that includes the following components: adult mosquito population surveillance, larval site monitoring, biological control, and the careful and strategic use of U.S. Environmental Protection Agency labeled and registered pesticide products.

In WCMAD's IPM approach, potential and historical larval sites are frequently inspected; biological control agents (fish, insect growth regulators, and *Bacillus* bacteria byproducts) are utilized whenever possible. The adult mosquito population is scientifically monitored; pesticides are strategically applied only when necessary. The key is to concentrate on larval control within the district boundary, scientifically assess the adult population, and perform adulticiding only on an as needed basis.

What Can Residents Do?

According to Clarke, our partner in mosquito control, individuals can take the following steps to protect themselves against infection and assist in the fight against West Nile Virus:

- If outdoors when mosquitoes are active, dress in light-colored, long-sleeved clothing, long pants and socks when outdoors during prime mosquito hours. Apply mosquito repellent with DEET to clothing and exposed skin in accordance with label directions.
- Neglected swimming pools can be ideal sources for larval development to the mosquito species that transmits WNV and a public health hazard. Residents should report neglected pools to Clarke on the *MOSQUITO HOTLINE* @ 1-800-942-2555, email: wcmad@clarke.com, or Clarke portal: www.clarkeportal.com. Technicians would be dispatched to inspect and treat the pool, as necessary to eliminate the risk.
- Discard any outdoor container that might hold water or empty water from wading pools and birdbaths once a week. Keep roof gutters clear for drainage.
- Keep grass cut short and shrubbery well trimmed around the house so adult mosquitoes will not hide there.
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- Do not dump grass clippings into low lying areas that collect water after rainfalls to prevent mosquito larvae development. The use of mulching lawnmowers is encouraged to eliminate grass clipping disposal.
- Report dead birds on your property to the DuPage County Health Department @ 630-682-7400. Dead birds (crows, blue jays and raptors) can be the first indicators of the presence of West Nile Virus in the area.

For the latest information on WNV, consult the Illinois Department of Health website at <http://www.dph.illinois.gov> or the DuPage County Health Department website at <http://www.dupagehealth.org> .

WCMAD Citizen Contact with Clarke

WCMAD citizens can contact Clarke in the following ways to register for notification of the District-wide spray schedule; report standing water, neglected swimming pools, and excessive mosquito annoyance conditions; or obtain program & insecticide information:

- MOSQUITO HOTLINE – 1-800-942-2555
- EMAIL: wcmad@clarke.com
- CLARKE PORTAL: www.clarkeportal.com
- CLARKE WEBSITE: www.clarke.com