California Sets Record for West Nile Virus Activity

SACRAMENTO – It was a record-breaking year for West Nile virus activity in 2014 California Department of Public Health (CDPH) Director and State Health Officer Dr. Karen Smith announced today.

California had the second-highest number of human cases of West Nile virus (WNV) in 2014 since the virus first invaded California in 2003. In 2014, California recorded 801 cases of the potentially fatal disease. In 2005, CDPH detected 880 cases of WNV.

The highest number of cases was in Orange County (263 cases) and the highest incidence occurred in Glenn County (35.3 cases per 100,000 population).

The level of WNV activity last year broke several records including:

- Five-hundred-sixty-one cases of West Nile neuroinvasive disease (WNND), the more serious neurological form of the disease often resulting in encephalitis or meningitis, were detected.
- The number of fatal WNV cases, 31, exceeded all previous years.
- The proportion of mosquitoes infected with WNV was the highest level ever detected in California (mosquito infection rate = 6.0; epidemic conditions equate with 5.0).
- The prevalence of WNV infection in tested dead birds, 60 percent, was the highest ever detected in California.

It is possible that the ongoing drought contributed to West Nile virus activity by creating more limited sources of water for birds and mosquitoes, according to Dr. Smith.

“As birds and mosquitoes sought water, they came into closer contact and amplified the virus, particularly in urban areas. The lack of water could have caused some sources of water to stagnate, making the water sources more attractive for mosquitoes to lay eggs,” said Dr. Smith.

It is not possible to predict the level of WNV activity in 2015 because activity is influenced by many factors including climate, the number and types of birds and mosquitoes in an area, and the level of immunity in birds to WNV.

As the weather warms up, mosquitoes become more abundant. Unseasonably warm weather this year could lead to increased mosquito abundance and promote an early
start to the WNV disease season. The WNV season typically begins in the summer and tapers off in the fall months, with the highest risk for disease occurring in mid-July through September.

West Nile virus is transmitted to humans and animals by the bite of an infected mosquito. For most people, the risk of serious illness is low. However, some individuals – less than one percent – can develop a serious neurologic illness, such as encephalitis or meningitis. People 50 years of age or older and people with diabetes and/or high blood pressure have the greatest risk of developing serious complications.

CDPH recommends that individuals prevent exposure to mosquito bites and West Nile virus by practicing the “Three Ds:"

1. **DEET** - Apply insect repellent containing DEET, picaridin, oil of lemon eucalyptus, or IR3535 according to label instructions. Repellents keep the mosquitoes from biting you. DEET can be used safely on infants and children 2 months of age and older.

2. **DAWN AND DUSK** - Mosquitoes bite in the early morning and evening so it is important to wear protective clothing and repellent if you are outside during these times. Make sure that your doors and windows have tight-fitting screens to keep out mosquitoes. Repair or replace screens with tears or holes.

3. **DRAIN** - Mosquitoes lay their eggs on standing water. Eliminate all sources of standing water on your property, including in flower pots, old car tires and buckets. If you know of a swimming pool that is not being properly maintained, please contact your local mosquito and vector control agency.

California’s [West Nile virus website](http://westnile.ca.gov) includes the latest information on West Nile virus activity in the state. Californians are encouraged to report all dead birds through the website. Starting April 15, dead birds can be reported by calling toll-free 1-877-WNV-BIRD (968-2473).

![Human WNV Cases in CA, 2004 – 2014](image)
Prevalence of WNV in Dead Birds
CA, 2004 - 2014

Minimum Infection Rates in Culex Mosquito Species
July – September, 2004 - 2014

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