



State Support for Mosquito Surveillance and Research

Since 2011, mosquito control professionals in California have been working to slow the spread of two invasive mosquito species, *Aedes aegypti* and *Aedes albopictus*. These species are a significant public health concern as they can transmit tropical viruses such as Zika, dengue, and chikungunya. There has been no local transmission of these viruses by mosquitoes in California yet, but mosquito control agencies have spent considerable resources trying to keep them out of their communities and prevent local transmission in the future.

At the same time, California continues to combat West Nile and St. Louis encephalitis viruses. The state reported more than 500 people infected with West Nile virus in 2017, more than a 10% increase from 2016. There are no vaccines for West Nile, St. Louis encephalitis, or Zika viruses, which are costly to treat and can have long-term health and financial consequences. Public health officials are considering what increased levels of West Nile or the potential local transmission of Zika will mean to local health care delivery systems. A study of the 2005 West Nile outbreak season in Sacramento County calculated total costs at more than \$18,000 per case.

With existing and emerging threats of disease spread by mosquitoes in California, it is imperative that the legislature recognizes the risk and supports the tools needed by mosquito control agencies to prevent the spread of virus-carrying mosquitoes – both native and invasive – to the state.

The Mosquito and Vector Control Association of California (MVCAC) supports legislative efforts to officially recognize and fund CalSurv, a preventive surveillance system and database that tracks and predicts where disease-spreading mosquitoes might emerge to help protect public health.

From 1972 to 2008, California supported innovation in mosquito control through the funding of a mosquito research program. This funding was provided to the University of California, which absorbed the funding during the recession. Since then, the state has provided no financial support for innovation in mosquito control. In the meantime, the University of California at Davis established the California Surveillance Gateway, known as CalSurv, which provides centralized storage of data collection, analysis, and storage for the presence of mosquitoes and mosquito-borne diseases throughout the state. UC Davis, the California Department of Public Health (CDPH), and local mosquito control agencies work together to provide real-time reporting and visualization of disease-bearing mosquitoes. The capabilities of this system continue to be enhanced, including the utilization of control operations data to support efficient responses to disease outbreaks. However, there is no dedicated funding for this valuable tool.

MVCAC is working to encourage legislative support for state recognition and support of an existing mosquito and disease prevention program that specifically would:

- Solidify the CalSurv Program in statute as the statewide surveillance database to track and predict the emergence of invasive species and mosquito-borne diseases and facilitate efficient response.
- Establish sustainable funding for CalSurv to support and expand the program as a research and surveillance tool.