



RAPID COMMUNITY INVESTIGATION AROUND IMPORTED ZIKA CASES LOS ANGELES COUNTY, 2016

Los Angeles County (LAC) has been identified by the Centers for Disease Control and Prevention (CDC) as one of the highest risk jurisdictions in the country for a local Zika outbreak due to the amount of travel from Zika-affected areas, the number of imported cases, and the presence of indigenous *Aedes aegypti* and *Albopictus* mosquitoes that can transmit infection. The CDC has recommended investigation and mosquito abatement within a 150-meter radius of case residences to reduce this risk.

To implement this recommendation, the LAC Department of Public Health (DPH) collaborates with three vector control districts (VCDs) in the county where *Aedes* mosquitoes have been identified. This collaboration serves to immediately share information on the case location once a positive laboratory report is obtained, leading to an investigation, abatement, and community education about eliminating sites where mosquitoes can breed. Epidemiology and Laboratory Capacity (ELC) funding supports the epidemiologist who developed LAC DPH's Zika surveillance system and databases and who serves as the focal point for receiving positive case reports and communicating this information to the VCDs. ELC support also contributes to the LAC Public Health Laboratory's (PHL) ability to test for Zika and to the VCDs capacity for investigation and response.

To evaluate the timeliness of investigation and response and improve quality, LAC DPH in conjunction with the VCDs determined the time between patient symptom onset and completion of mosquito abatement. Beginning in June 2016, for PCR-positive cases identified in commercial laboratories, there was a median of three days from symptom onset until specimen collection, three days until laboratory results were obtained at DPH, and less than one day for this information to be communicated to the VCDs. When specimens were tested at the LAC PHL, it took significantly longer to obtain results because of the need for additional screening information, which was often missing from the forms. To reduce delays, screening requirements were changed. It then took a median of six days for completion of that investigation with a median of 86 properties investigated when *Aedes* were found in the area. Overall, 26% of investigations detected *Aedes* mosquitoes, and two newly infested cities were identified. These timely, collaborative investigations reduced the risk of local Zika spread in LAC.

In 2017, we will continue to monitor performance and, as needed, implement quality improvement to further improve timeliness. Also, recognizing that many Zika cases are not detected and reported because illness is asymptomatic, we will expand vector surveillance, abatement, and education in higher risk areas defined by the presence of *Aedes* mosquitoes and higher numbers of likely travelers to at-risk areas. Finally, we are expanding vector control capacity by training DPH Environmental Health staff to assist VCDs in investigation, thereby establishing a trained cadre who also can respond should a local outbreak occur.

