



**To: CAHAN San Diego Participants**

**Date: October 6, 2024**

**From: Public Health Services**

**Health Advisory: First Locally Acquired Case of Dengue in San Diego County**

#### Key Messages

- [A case of locally acquired dengue](#) has been detected in a resident of San Diego County (SDC). It is the sixth case of locally acquired dengue in California this year.
- Dengue is transmitted by infected *Aedes* spp. mosquitos which have a limited flight range. The risk of widespread dengue transmission in the County remains low.
- The case means there are dengue infected mosquitoes locally and underscore the need for public education and preventive measures.
- Providers should consider dengue in any patient with acute febrile illness and consistent symptoms, regardless of travel history.
- Providers should report any suspected cases of locally acquired dengue to the County Epidemiology Unit immediately by calling 619-692-8499 (Monday-Friday 8 AM-5 PM) or 858-565-5255 (after hours and holidays).

#### Situation

[A case of locally acquired dengue](#) has been identified in a San Diego County resident. Neither the case nor their household members had a history of domestic or international travel. While the case was initially hospitalized, they have since been discharged and recovering. No additional suspect cases have been identified at this time.

The Vector Control Program of County of San Diego is responding to the situation including conducting mosquito abatement to reduce the risk of additional cases in the area.

#### Background

This is the first case of locally acquired dengue reported in SDC, but the sixth in California in 2024. In 2023, the first locally acquired cases of dengue in California were identified in residents of Pasadena and Long Beach. Dengue transmission was contained, but in 2024, additional locally acquired cases were identified in the Baldwin Park, Panorama City, and El Monte areas in Los Angeles County. The San Diego case reported no travel outside the County and therefore is not linked to the cases in Los Angeles. SDC has had 49 travel-associated dengue cases in 2024 to date; in comparison only 29 cases were seen in all of 2023.

Mosquitos become infected from the blood meal of a viremic person. The County's Vector Control Program is already taking actions targeting the mosquitos that can transmit dengue in the vicinity of the case. The risk of sustained local spread of dengue remains low. Dengue cases are, however, on the rise globally and in the United States. Latin America and Puerto Rico are experiencing a record number of cases of dengue this year, which has led to a higher number of travel-associated dengue cases in LA County and the U.S. Identification of dengue cases in San Diego allows the County to effectively target response efforts and prevent additional cases.

Dengue is the most common mosquito-borne infection in the world. It is caused by four related dengue viruses that are transmitted by invasive *Aedes* species mosquitos. When a dengue viremic traveler returns to San Diego, a [local Aedes](#) mosquito can acquire dengue and transmit dengue as has occurred in other jurisdictions in California.

Following referral of a dengue case, the County's [Vector Control Program](#) investigates the mosquito populations in proximity to a case and uses a risk-based approach to determine the appropriate mosquito control and/or prevention measures to prevent disease spread.

### **Clinical Presentation and Diagnosis**

The presentation of dengue can range from mild viral syndrome to life-threatening hemorrhagic illness. Common symptoms include fever, aches/pains (e.g., retro-orbital, muscles, joints, bones), nausea/vomiting, and non-specific viral exanthem. Red flag symptoms for progression to severe disease include abdominal pain, persistent vomiting, edema (e.g., pleural effusion, ascites), and mucosal bleeding.

Diagnostic testing for acute dengue should include a molecular assay [e.g. nucleic acid amplification test (NAAT) such as RT-PCR, or NS1 antigen) and IgM serology. For more details, please see the CDC's [Clinical Testing Guidance for Dengue](#).

The mainstay of treatment for suspected or confirmed dengue is supportive care, especially fluid management. For more details, please see the CDC's [Clinical Care of Dengue](#).

### **Actions Requested**

- **Consider** dengue infection in the differential diagnosis of patients with acute febrile illness with other symptoms compatible with dengue, especially with a history of recent international travel.
- **Review** the CDC's [Clinical Testing Guidance for Dengue](#). For acute dengue diagnosis, order a nucleic acid amplification test (NAAT) (e.g. RT-PCR) OR NS1 antigen test, in addition to an IgM antibody test.
- **Counsel** international travelers to review [CDC travel guidance](#) for their destination countries for information on how to protect themselves from mosquito-borne and other endemic illnesses.
- **Report** cases immediately of suspected locally acquired dengue to the County Epidemiology Unit by calling 619-692 8499 (Monday-Friday 8 AM-5 PM) or 858-565-5255 (after hours and holidays).

### **Resources**

#### *Federal*

[Health Alert Network \(HAN\) - 00511 | Increased Risk of Dengue Virus Infections in the United States \(cdc.gov\)](#)

[Areas with Risk of Dengue | Dengue | CDC](#)

[Clinical Care of Dengue | Dengue | CDC](#)

[Preventing Dengue | Dengue | CDC](#)

#### *State*

[CDPH Health Advisory: Dengue Infection in California](#)

[CDPH Information for Clinicians: Aedes aegypti and Aedes albopictus Mosquitoes in California and Reporting Patients with Suspected Dengue or Chikungunya to Public Health](#)

#### *Local*

[Dengue](#)

[Invasive Aedes Mosquitoes \(sandiegocounty.gov\)](#)

Thank you for your participation.

### **CAHAN San Diego**

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