Frequently Asked Questions – Zika virus and Mosquitoes
San Diego County – October 2016

What is Zika? What are symptoms of Zika?

- Zika is a virus. The most common symptoms of Zika virus disease are fever, rash, joint pain, and conjunctivitis (red eyes). The illness is usually mild with symptoms lasting from several days to a week. Severe disease requiring hospitalization is uncommon. [Source: CDC]

How is Zika contracted and transmitted?

- People can get Zika virus when they are bitten by infected *Aedes (Aedes aegypti, Aedes albopictus)* species mosquitoes.
- Not all mosquitoes are able to transmit the Zika virus and not all *Aedes* mosquitoes are infected with the Zika virus.
- Zika can sometimes be transmitted by sexual contact and rarely be transmitted through blood transfusion. There have also been cases of perinatal (mother-to-unborn child) transmission of Zika virus.

Have there ever been Zika cases in San Diego County?

- There have been no local mosquito-transmitted Zika virus cases in San Diego County and all cases identified in San Diego have been travel-related.
- The great majority of Zika virus cases in the continental United States have been in travelers returning from places where Zika virus is present. There have been cases of Zika in the United States that have been sexually transmitted, including some in San Diego County.
- Two Zika virus cases were reported in San Diego prior to 2016:
    - This first case was in July 2014, a San Diego resident returning from a trip to the Cook Islands.
    - The second was in July 2015, a San Diego resident returning from a trip to Kiribati.

Who is at risk for getting Zika virus?

- At this time, **travelers** to countries where there are cases of Zika virus infection can potentially get infected. There are currently dozens of countries and territories in the Western Hemisphere (the Americas) that have reported locally transmitted Zika virus infections. This may change, and the most up-to-date list may be found at http://wwwnc.cdc.gov/travel/page/zika-travel-information
- Mexico is one of the countries that has reported locally transmitted Zika virus; however, there have been no locally transmitted cases in Baja California. At this time, travelers to Baja California are not at risk for Zika virus infection.
- If you have been bitten by a mosquito, but have not traveled to a country or territory where the Zika virus is present, it is extremely unlikely that you can get the virus.

Do we have the mosquito that can transmit Zika here?

- Yes, the invasive *Aedes* species of mosquitoes that can transmit the Zika virus has been detected in San Diego County. The first local detection of *Aedes aegypti* was reported in October 2014. The Asian tiger mosquito, *Aedes albopictus*, was first detected in San Diego in September 2015.
- *Aedes aegypti* (the yellow fever mosquito) has been detected in San Diego County. This mosquito is not native to California and can transmit the viruses that cause dengue, chikungunya, yellow fever, and Zika virus. These viruses have not been transmitted locally in California.
    - *Aedes aegypti* and *Aedes albopictus* are dark mosquitoes with white stripes on their legs and back.
    - They are aggressive biters both indoors and outdoors, especially during the day.
    - They prefer to lay their eggs in small containers like plant saucers, vases, discarded tires, buckets, and watering cans that can hold water, both indoors and outdoors.
    - *Aedes aegypti* eggs can survive without water for up to several months.

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For more information, please click on –
http://www.sandiegocounty.gov/content/dam/sdc/deh/Vector/pdf/DEH%20Vector%20tri-panel_AEDES_ENGLISH_FINAL2015.pdf

http://www.sandiegocounty.gov/content/dam/sdc/deh/Vector/pdf/DEH%20Vector%20tri-panel_AEDES_SPANISH_FINAL2015.pdf

Where have invasive Aedes mosquitoes been found in San Diego County?

- They have been found in small areas throughout the county. The Vector Control Program continues to set special mosquito traps to detect these mosquitoes. When *Aedes* mosquitoes are detected, Vector Control Program staff members eliminate or treat the breeding and educate residents how to monitor for and prevent breeding.

How are these mosquitoes different from the local native mosquitoes?

- The behavior and breeding habits of these new invasive mosquitoes are different than the local native mosquitoes. These invasive mosquitoes breed in small container sources like those found in backyards. Examples include plant saucers, buckets and even certain plants (bromeliads) that can hold water for long periods. They do not breed in large water sources like lakes and lagoons. With this type of breeding, it is especially critical that residents monitor their property and eliminate breeding sources to help manage these new invasive mosquitoes.

How does the transmission of mosquito-borne diseases like Zika and dengue differ from West Nile virus?

- Unlike West Nile virus (WNV), there is no animal reservoir, such as birds or small mammals, for the Zika virus. Instead, the virus is transmitted when a mosquito bites an infected person and then transmits it to the next person that it bites. The species of mosquitoes that transmit Zika, dengue or chikungunya are different from the mosquitoes that transmit WNV. In the case of Zika, dengue and chikungunya, the mosquitoes fly during the day, fly relatively short distances, are aggressive biters of people, and tend to live in close proximity to people. In contrast, the mosquitoes that transmit WNV are out at dusk and dawn, can fly longer distances, feed on people and other animals, and may be found in urban and suburban environments.

Can the local salt marsh mosquito transmit Zika, dengue, chikungunya, yellow fever, or West Nile virus?

- No, the local salt marsh mosquito, called *Aedes taeniorhynchus* (tay-nee-or-rank-us), is not invasive and is not known to transmit these viruses.

What is the County doing to protect residents?

- The Vector Control Program does the following:
    - Rapidly investigates premises where confirmed or suspect cases of imported Zika, dengue, chikungunya or yellow fever have been reported by Public Health Services;
    - Monitors for mosquitoes;
    - Looks for and eliminates mosquito breeding sources; kills mosquito larvae;
    - Targets adult mosquitoes when necessary;
    - Responds to and investigates mosquito complaints from residents; and
    - Educates the public on the principles of Prevent, Protect and Report.

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- Public Education and Outreach
  - Anyone planning a trip should check the CDC travel alert website http://wwwnc.cdc.gov/Travel to see if the place they are travelling may have Zika virus or other infectious diseases. If locally transmitted Zika virus is present, the traveler should plan to protect themselves from mosquito bites.
  - Any traveler returning from a country affected by Zika who has symptoms, such as fever, rash, joint pains, and red eyes, within two weeks should seek medical care and let their doctor know about their recent travel. http://www.cdc.gov/zika/fs-posters/index.html
  - California Department of Public Health (CDPH) has provided additional frequently asked questions at: http://www.cdph.ca.gov/HealthInfo/discond/Documents/ZikaQandA.pdf

- Healthcare Provider Education, Outreach, and Consultation
  - Public Health Services (PHS) staff members are monitoring the developing Zika situation closely and are in frequent contact with CDPH and CDC health officials.
  - PHS has been providing the latest CDC and CDPH guidance to local providers and health systems as they develop medical treatment protocols to evaluate possible Zika virus patients. Local health advisories are issued when updates are needed and a webpage has been established on the County website here: http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community_epidemiology/dc/zika_virus.html
  - The PHS Epidemiology Program is consulting on individual cases with local providers to determine who might need to be tested for Zika virus.
  - PHS communicates with the County Vector Control Program when confirmed or highly suspect cases are detected in the County.

How The Public Can Help

1. Prevent mosquito breeding sites:

   - Every week, dump out and clean containers holding water (indoors as well as outdoors)
   - Fill plant saucers with sand or fine gravel so that pools of water do not form

2. Protect against mosquitoes:

   - Install and maintain screens on doors and windows
   - Apply repellent containing DEET, oil of lemon eucalyptus, picaridin, or IR3535
   - Wear long sleeves and pants

3. Report possible *Aedes aegypti* and *Aedes albopictus* activity:

   - Mosquito bites received during the day
   - Mosquitoes matching the description above (Email photographs to vector@sdcounty.ca.gov)
   - By using the Vector Control Programs **Online Reporting Form** - at http://www.sandiegocounty.gov/content/sdc/deh/pests/Vector_Complaint_Form/VCP_complaint_form.html
   - By calling the Vector Control Program at (858) 694-2888

4. Travelers going to Zika affected countries should protect themselves from mosquito bites and those returning should be alert for symptoms and seek care if they have any within two weeks of return.