



ZIKA VIRUS UPDATE

Philip Huang, MD, MPH

Health Authority/Medical Director

Austin/Travis County Health and Human
Services Department

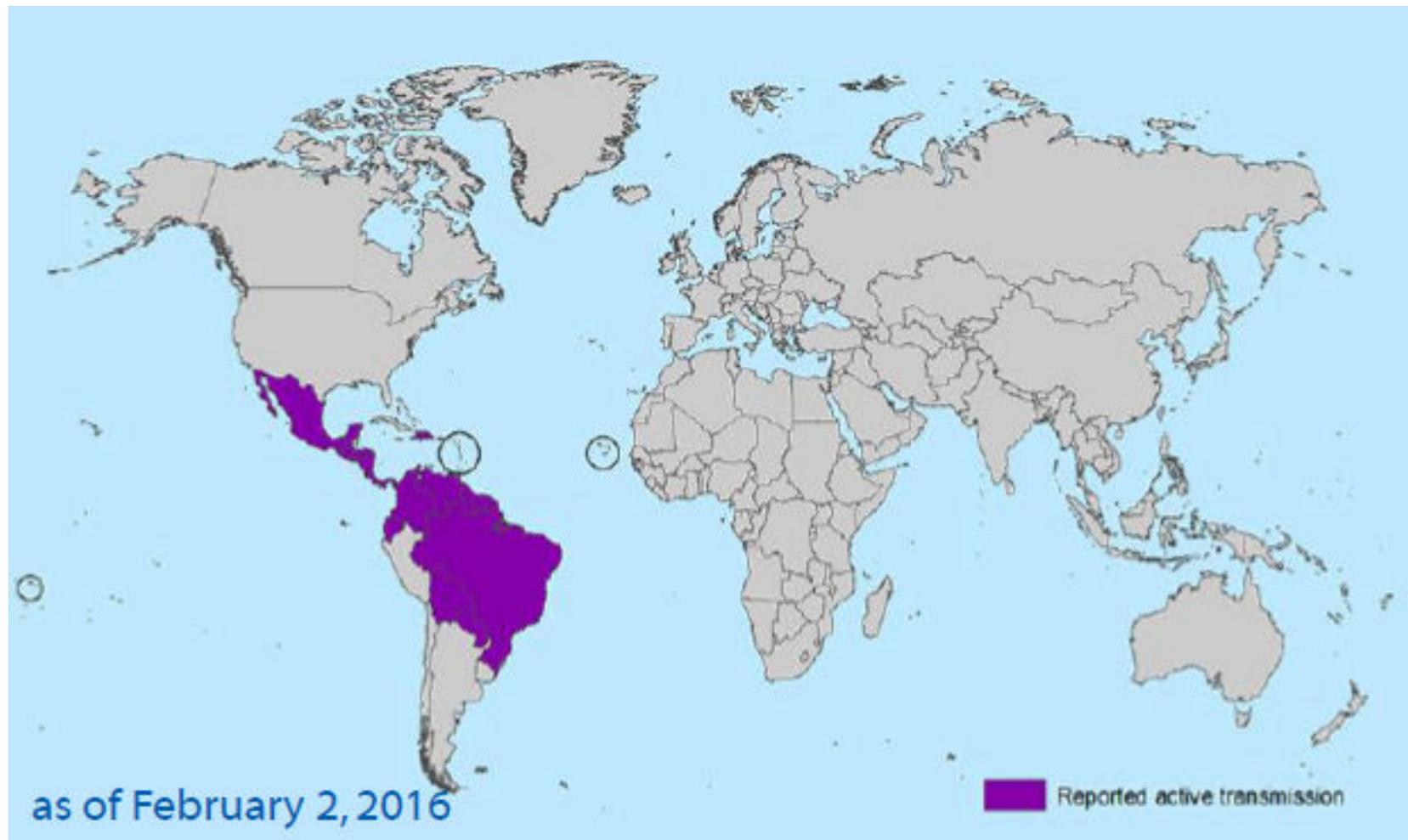
OUTBREAK SUMMARY

- Zika virus was first discovered in a monkey in the Zika Forest of Uganda in 1947.
- Before 2015, Zika virus disease (Zika) outbreaks occurred in areas of Africa, Southeast Asia, and the Pacific Islands.
- In May 2015, the PAHO issued an alert regarding the first confirmed Zika virus infections in Brazil.
- Currently, outbreaks are occurring in many countries and territories.
- On February 1, 2016, the World Health Organization (WHO) declared a Public Health Emergency of International Concern because of clusters of microcephaly and other neurological disorders in some areas affected by Zika.

Zika Virus in the Continental United States

- Local vector-borne transmission of Zika virus has not been reported in the continental U.S.
- As of March 2, 2016, a total of 153 laboratory-confirmed travel-associated Zika virus disease cases have been reported to the Centers for Disease Control and Prevention (CDC) from 29 U.S. states. Texas has 15 Zika virus disease cases.

Countries and Territories with Active Zika Virus Transmission



Zika Virus Vectors: *Aedes* Mosquitoes

- *Aedes* species mosquitoes
 - *Ae. Aegypti* more efficient vectors for humans
 - *Ae. albopictus*
- Also transmit dengue and chikungunya viruses
- Lay eggs in domestic water-holding containers
- Live in and around households (Outdoor spraying not effective)
- Aggressive daytime biters; can also bite at night



Aedes aegypti

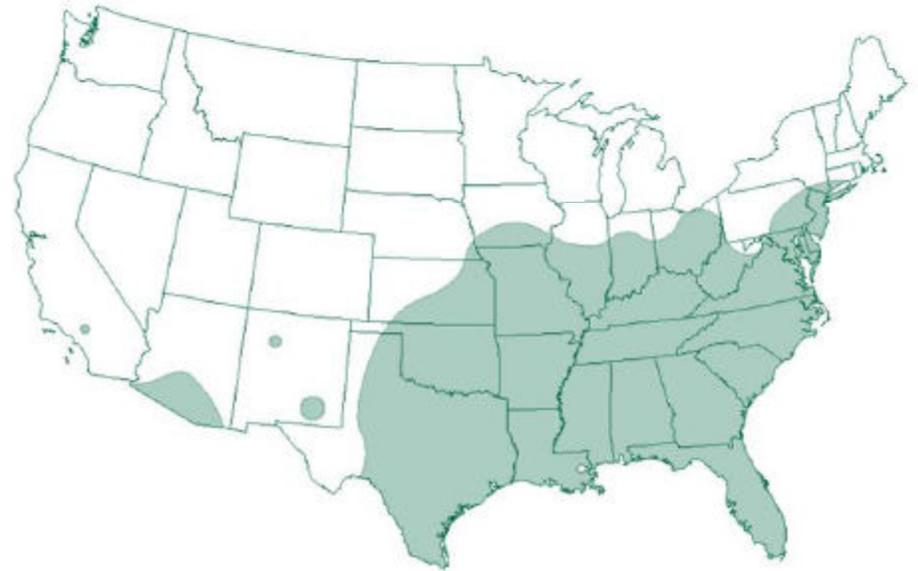


Aedes albopictus

***Aedes aegypti* and *Aedes albopictus* Mosquitoes: Geographic Distribution in the United States**



Aedes aegypti



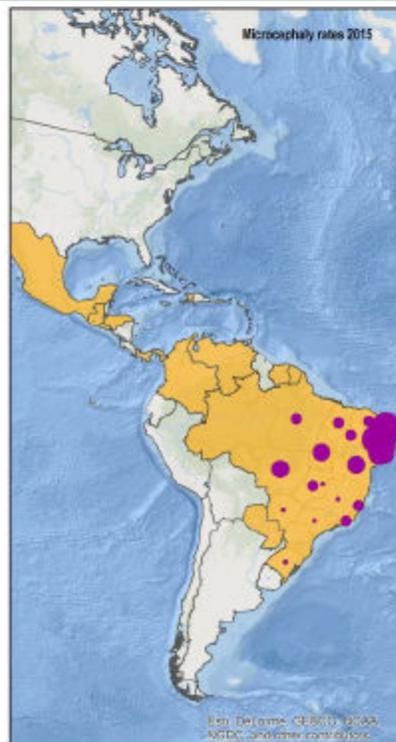
Aedes albopictus

Zika Virus Key Facts

- **Transmission:**
 - Primarily through Aedes species of mosquito bites
 - From pregnant mother to baby
 - Sexual contact
 - Possibly through infected blood products
- **Symptoms:**
 - Usually within 2-7 days, fever, rash, joint pain, and conjunctivitis (red eyes). Also muscle pain and headache.
 - Four out of 5 people infected with Zika virus won't even know they have the disease
 - Usually mild with symptoms lasting for several days to a week.
- **Key Concerns:**
 - Microcephaly
 - Guillain-Barre Syndrome
- **Treatment:**
 - No vaccines, cures or accepted treatment

Rates of Microcephaly Over Time: the Americas and the Caribbean

Comparison of the rates of microcephaly in the Americas and Caribbean from 2010-2014 and 2015



Updated as of Epidemiological Week 52 (December 27, 2015 – January 2, 2016)

Microcephaly rates by state in Brazil (cases per 1.000 live births)

- 0.1-1.0
- 1.1-15.0
- 15.1-30.0
- 30.1-45.0
- 45.1-88.6

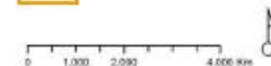
□ Countries

Countries with Zika confirmed cases

■ Epi Week 52 2015

□ Country limits

□ Brazil State Boundaries



Data Source: Reported from the IHR National Focal Points and through the Ministry of Health websites.

Map Production: PAHO-WHO AD
CHA IR ARO

Source: Pan American Health Organization, Epidemiological update, 17 January 2016

CDC Recommendations For Pregnant Women

Until more is known, CDC recommends the following:

- Pregnant women
 - Consider postponing travel to any area where Zika virus is spreading.
 - If have a male partner who lives in or has traveled to an area where Zika is spreading, either use condoms, or abstain from sex during the pregnancy.
- Women trying to get pregnant
 - Before you or your male partner travel, talk to your healthcare provider about plans to become pregnant and the risk of Zika virus infection.
 - Along with male partner should strictly follow steps to prevent mosquito bites during the trip.

Prevention and Control

- There is no vaccine to prevent Zika virus disease.
- Focus is on PROTECTING PREGNANT WOMEN
- The best way to prevent diseases spread by mosquitoes is to prevent mosquito bites. (Four D'S)
 - Dress - Wear long-sleeved shirts and long pants.
 - Drain – Standing water Stay in places with air conditioning and window and door screens to keep mosquitoes outside.
 - DEET – or other EPA recommended insect repellents. Always follow the product label instructions.
 - Daytime (as well as Dusk to Dawn)
- During the 1st week of infection, Zika virus can be found in a person's blood and can pass from an infected person to a mosquito through mosquito bites. Strictly follow steps to prevent mosquito bites during the first week of illness.
- Integrated Vector/Mosquito Management



Zika Virus in Austin/Travis County

- As of March 3rd, clinical specimens have been submitted to DSHS from 45 persons for Zika virus testing.
- Results have been reported for 11 persons
- Two persons tested positive. (Both persons were ill after traveling to Colombia.) Nine persons tested negative. Five of these persons were pregnant. Test results are pending for 29 persons (5 additional individual specimens were not able to be tested); 18 of these persons are pregnant women who reported travel to a county where Zika is occurring.
- There are no reported severe illnesses, hospitalizations, or deaths.

ATCHHSD Activities

- **General education:**
 - Travel advisory information;
 - General press releases;
 - Weekly situation updates
 - Web and social medial
- **Information to Healthcare and other Providers**
 - Physicians (Info through the Travis County Medical Society)
 - Laboratory submittal information, Guidance for management of pregnant women;
 - First Responders
- **Human Disease Surveillance**
- **Integrated Vector/Mosquito Management**
 - Surveillance
 - Source reduction
 - Vegetation management
 - Biological Control
 - Chemical Control
- **Partnership with multiple City Departments (Parks and Rec/Code Compliance, Resource Recovery, Austin Water, Austin Energy, etc.) on clearing of mosquito habitat**

Questions?