What is Zika

- Zika is a virus

Spread through:
- Infected mosquitoes
- Sex
- Mother to fetus, and
- Potentially blood transfusion
Aedes Aegypti Mosquito

Aedes aegypti

Aedes albopictus

Culex
Risk of Local Zika Virus Transmission by County

- Extremely Low Risk
- Very Low Risk
- Low Risk
- Moderate Risk
- County with Aedes mosquitoes detected*

*Zika virus vectors: Aedes aegypti and/or Aedes albopictus

Local risk is based on the following factors within a given county:
1) distribution and abundance of Aedes mosquitoes
2) number of travel-associated Zika cases
3) population of county
4) distance from U.S.–Mexico border

Risk of local transmission in a county may change in response to factors 1 and 2, or if local Zika virus transmission increases in northern Mexico.

Seasonal Risk of Local Zika Virus Transmission in California
Aedes Mosquitoes 2013
Aedes Mosquitoes 2014
Aedes Mosquitoes 2015
Aedes Mosquitoes 2016
Zika virus continues its spread across the Americas

No local transmission in California at this time

Two states, Florida and Texas, with local transmission

January 1, 2015 – August 30, 2017 Provisional Data

US States
- 5,435 symptomatic Zika virus disease cases reported*
  - 5,162 cases in travelers returning from affected areas
  - 224 cases acquired through presumed local mosquito-borne transmission
  - 49 cases acquired through other routes

US Territories
- 37,012 symptomatic Zika virus disease cases reported*
  - 147 cases in travelers returning from affected areas
  - 36,865 cases acquired through presumed local mosquito-borne transmission
  - 0 cases acquired through other routes

CHIKUNGUNYA, DENGUE, or ZIKA: What is local transmission?

A person who has not traveled recently gets bitten by an infected mosquito where they live, work, or play.

A mosquito bites a person who is sick. The mosquito gets infected.

Infected mosquitoes can then bite healthy people and spread the infection.

Within 3–7 days, the person may become sick. Other mosquitoes can bite the sick person, become infected, and bite more people.

Protect yourself from mosquito bites. Use insect repellent.

For more information:
World Map of Areas with Risk of Zika

**United States areas**
- State Reporting Zika
- No Known Zika

**International areas**
- Area with risk of Zika
- Area with minimal risk of Zika
- No Known Zika
By the Numbers – California

- 2015 to August 25, 2017
  - 588 total infections
  - 8 sexually transmitted
  - 147 in pregnant women
  - 8 live born infants with birth defects (not necessarily associated with Zika)

- Fresno County –
  - Reported and investigated - 87
  - Positive - 6

https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Zika.aspx
Zika Signs and Symptoms

- Fever
- Rash
- Headache
- Joint pain
- Red eyes
- Muscle pain
Babies and Zika
Babies and Zika

Birth defects reported include:

- Microcephaly
- Calcium deposits
- Excess fluid in the brain cavities
- Absent or poorly formed brain structures
- Abnormal eye development
- Other problems resulting from damage to the brain that affects the nerves, muscles and bones, such as clubfoot or inflexible joints, and confirmed hearing loss
Other birth complications

- Seizures
- Developmental delay
- Intellectual disability
- Problems with movement and balance
- Feeding problems
- Hearing loss
- Vision problems
Zika in Adults

- Unknown long term effects of Zika

- Guillain-Barré syndrome

- Questions remain: linked to dementia, long term memory damage, depression, Alzheimer's like symptoms??

- Exposure may prevent future infections
Assessing Pregnant Patients

- All pregnant women in the U.S. should be assessed for possible exposure to Zika virus at each prenatal visit

- Possible exposure includes:
  - Travel to an area with on-going Zika transmission
  - Unprotected sex with a man or woman who lives in or has traveled to an area with on-going Zika transmission
As of August 22, 2017

US ZIKA PREGNANCY REGISTRY
WHAT PREGNANT WOMEN NEED TO KNOW

What is the purpose of the registry?
CDC developed the US Zika Pregnancy Registry to:
- Learn more about the effects of Zika virus infection (Zika) during pregnancy.
- Learn more about the growth and development of babies whose mothers had Zika while pregnant.

CDC will collect health information about Zika among pregnant women and babies across the United States for the Registry. CDC, health departments, doctors and healthcare providers will use the information from this registry to help pregnant women, children, and families affected by Zika.

Who is being included in the registry?
Pregnant women in the United States and US territories (except for Puerto Rico) with laboratory evidence of possible Zika virus infection (regardless of whether they have symptoms) and their babies can be included in the Registry. Puerto Rico has established a separate Zika Active Pregnancy Surveillance System (ZAPSS).

What will be done with the information collected?
The information your doctor or other healthcare provider shares will be added to the Registry with information about other pregnant patients with Zika, and the babies born to these mothers, to help CDC and health departments develop a clearer understanding of how Zika affects pregnant women and their babies. CDC has obtained an Assurance of Confidentiality to protect the information in this registry that could identify you or your baby. CDC cannot share this information with anyone without your permission, or even if an official of your court, government, or law requests it.

What do I have to do to be in the registry?
You will not need to do extra paperwork, go to extra appointments, or have extra tests to be part of the Registry. If your healthcare provider is participating in this Registry, s/he will share information about your health with your health department and CDC. Your health department and CDC will work with your doctor and other healthcare providers to collect all of the information needed. For this Registry, your health department and CDC will:
- Collect information about your pregnancy,
- Collect information about you and your baby around the time the baby is born, and
- Contact the baby’s doctor or other healthcare provider to collect information about the baby’s growth and development up to his or her first birthday.

If you change doctors or healthcare providers, please refer the new healthcare providers to CDC’s US Zika Pregnancy Registry webpage.

What if I have questions?
- For more information about the Registry, visit CDC’s Registry webpage (www.cdc.gov/zika/hc-providers/registry.html)
- or contact CDC-INFO by calling 800-232-4636 (TTY 888-232-6348) or submitting an online inquiry (www.cdc.gov/contactus/Form).
- If you have questions about testing for Zika virus infection, please contact your healthcare provider.
- If you would like to speak to someone about a possible Zika virus infection or diagnosis during pregnancy, Mother to Baby experts are available to answer questions in English or Spanish by phone, email, or chat (www.MotherToBaby.org). The free, confidential service is available Monday – Friday from 8am – 5pm (local time).

How much does this cost?
Being in the Registry will not cost you any money.

1,862
Completed pregnancies with or without birth defects

95
Liveborn infants with birth defects

8
Pregnancy losses with birth defects
Postpone Your Trip or Wait to Conceive

If you are pregnant:
- Zika can pass from a pregnant woman to her fetus.
- Pregnant women should not travel to areas with Zika outbreaks.
  » If you do travel, talk to your doctor immediately after you return.

If you are considering pregnancy:
- If you or a partner have recently traveled to an area with Zika, wait to get pregnant.
- Talk to your doctor about how long you should wait to conceive.
- Check CDC guidance: cdc.gov/travel
Has your partner been to an area with Zika?

If yes, use condoms every time you have sex.

Consistent correct use of condoms

Women:
Use condoms for at least 8 weeks.

Men:
Use condoms for at least 6 months.
Testing

- Testing should be done following CDC algorithm

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CDC's Response to Zika
UPDATED INTERIM PREGNANCY GUIDANCE: SYMPTOMATIC PREGNANT WOMEN WITH POSSIBLE ZIKA VIRUS EXPOSURE

Testing Recommendations and Interpretation of Results for Healthcare Providers

**ASK PREGNANT WOMEN ABOUT**
- Travel to or residence in any areas with risk for Zika virus transmission before and during the current pregnancy
- Possible sexual exposure before and during the current pregnancy
- A diagnosis of laboratory-confirmed Zika virus infection before current pregnancy
- Symptoms of Zika virus disease during current pregnancy (e.g., fever, rash, conjunctivitis, arthralgia)
- No symptoms reported, refer to asymptomatic algorithm

**WHOM to test?**
- Pregnant women reporting possible exposure during current pregnancy and symptoms of Zika virus disease

**WHEN to test?**
- Test as soon as possible through 12 weeks after symptom onset

**WHICH tests?**
- Zika virus NAT (serum and amniotic fluid Zika virus IgM serology (serum)

**RESULTS and ADDITIONAL tests**
- Positive Zika virus NAT (Zika virus IgM negative, Zika virus IgG positive)
- Negative Zika virus NAT and positive Zika virus IgM
- Negative Zika virus NAT and negative Zika virus IgM

**INTERPRETATION**
- **ACUTE ZIKA VIRUS INFECTION**
  - For pregnant women without Zika virus exposure before the current pregnancy, a positive IgM result represents recent Zika virus infection.

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The Centers for Disease Control and Prevention recommends Zika virus testing for:

- Symptomatic people who have recently traveled to an area with Zika
- Those who have had unprotected sex with a man or woman confirmed to have Zika virus infection
- Those that have traveled to an endemic area
Additional Testing Recommendations

- Testing should also be considered in any infant with microcephaly identified during prenatal ultrasound or at birth.

- A woman with a pregnancy complicated by microcephaly.
Reporting

- Zika is a nationally notifiable disease (Title 17)
- Health care providers need to report suspected Zika virus disease cases to Fresno County Department of Public Health
- Complete Confidentiality Morbidity Report (CMR)
- Communicable Disease Investigation Program (559) 600-3332; Fax (559) 600-7607
Importance of Reporting

- Early reporting of a suspected case of Zika virus will provide opportunities for effective and early interventions.

Mosquito Abatement Districts can intervene to prevent the spread of the disease.
### CONFIDENTIAL MORBIDITY REPORT

**PLEASE NOTE:** Use this form for reporting all conditions except Tuberculosis and conditions reportable to DMV.

### DISEASE BEING REPORTED

<table>
<thead>
<tr>
<th>Disease</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
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### SEXUALLY TRANSMITTED DISEASES (STDs)

#### CHLAMYDIA

- **STD Transmission:** -->

#### GONORRHEA

- **STD Transmission:** -->

#### HERPETIC GENITAL INFECTION

- **STD Transmission:** -->

#### HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION

- **STD Transmission:** -->

#### SUBSTANCE ABUSE

- **STD Transmission:** -->

### VIRAL HEPATITIS

#### HEPATITIS A

- **STD Transmission:** -->

#### HEPATITIS B

- **STD Transmission:** -->

#### HEPATITIS C

- **STD Transmission:** -->

### OTHER TRANSMISSIBLE DISEASES

- **STD Transmission:** -->

### MEASLES

- **STD Transmission:** -->

### TUBERCULOSIS

- **STD Transmission:** -->

### UNREPORTED NOTIFICATION

- **STD Transmission:** -->

### WARNING

**IMPORTANT:** This form is designed for health care providers to report disease episodes to the local health department. It should not be used for other purposes.
What do we do with this information?

- Interview patient to determine potential exposure
- Notify MAD of possible case
- Refer to MCAH/PHN services if positive and pregnant or child with fetal anomalies
- Provide education to the index case to prevent the spread of the disease
What can YOU do?

How to prevent Zika in our community.

- Provide Education to clients and patients
- Avoid mosquito bites
- Wear an EPA registered insect repellant
- Wear long sleeves, long pants, and socks
- Use air conditioning, repair screens
- Empty standing water in and around your home
#HOMEAGAIN
Bring Prevention Home

Zika Prevention at Home

- Even if you don’t feel sick, you could have Zika. Mosquitoes could bite you and spread Zika to others. Wear insect repellent for 3 weeks after you get home.
- Protect your partners: Keep using condoms for at least 8 weeks (women) or 6 months (men).
- If your partner is pregnant, use condoms or don’t have sex during the entire pregnancy.

Follow us for more tips on how to protect yourself during travel.

CDC Travelers’ Health
@CDCtravel
www.cdc.gov/travel

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CS209719A December 19, 2018
Resources

- https://wwwnc.cdc.gov/travel
Questions?