

# Zika Virus: Implications for the MCAH Population

Karen Ramstrom, DO, MSPH  
MCAH Directors Meeting  
May 4, 2016  
Sacramento, CA



*Photo Source: Istock*

# Presentation Instructions

- Please feel free to use this presentation within your local agency and with external community partners.
- Slides 4 and 5 should be updated with current numbers using the link on the respective slide.
- You have the option of using the presentation “as is” with the CDPH logo and you may co-brand with your logo.
- If you wish to change the slides and customize to your own needs, please remove the CDPH logo, but you are welcome to acknowledge technical assistance from the CDPH Center for Family Health.
- Note: Use of the purchased photos (iStock) in the presentation requires retention of the CDPH logo.

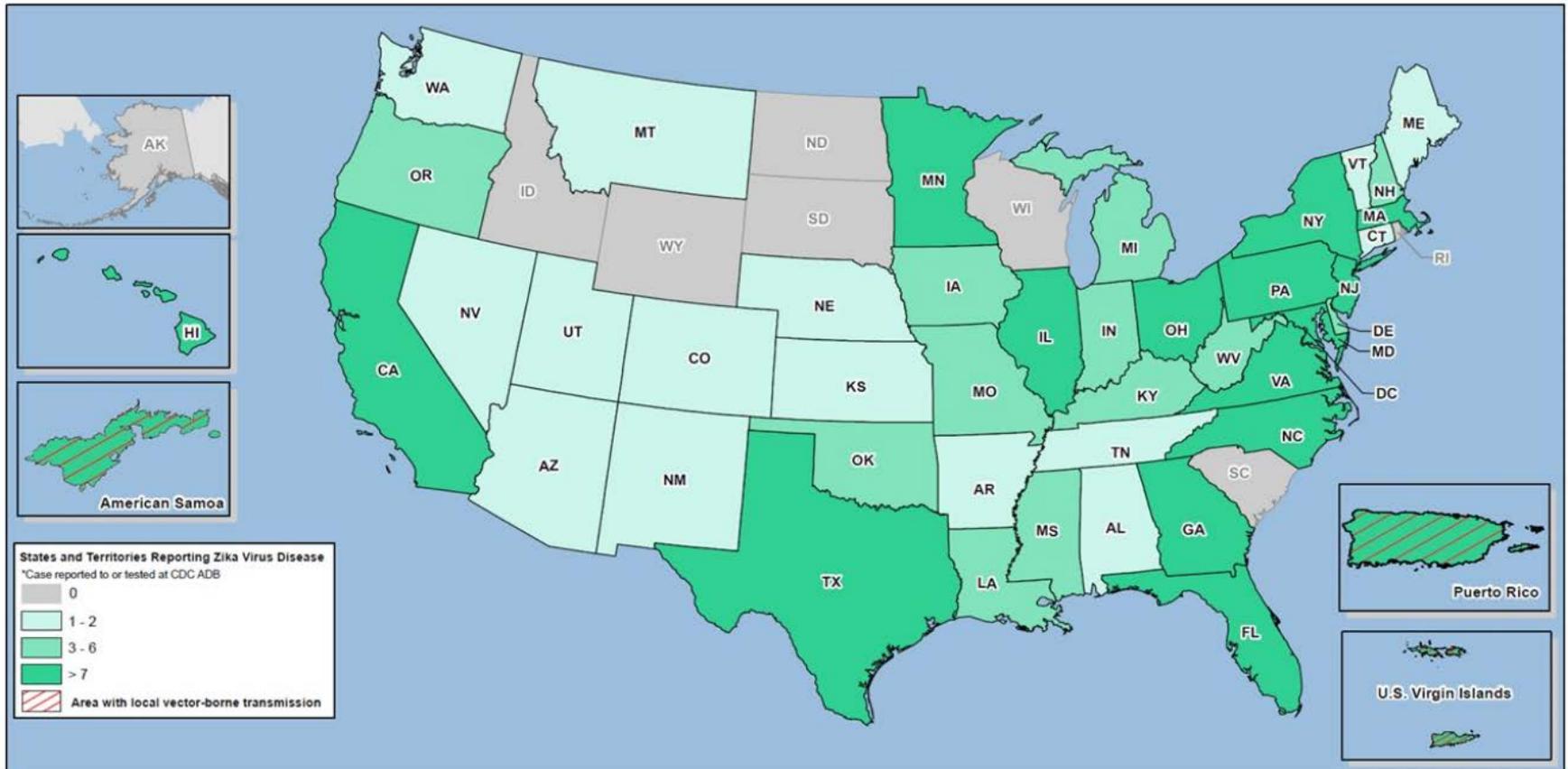


# What is Zika Virus?

- Mosquito-borne RNA flavivirus
  - like Japanese encephalitis, dengue, West Nile, and yellow fever viruses
  - *Aedes aegypti* and *Aedes albopictus* are vectors
- Named after Zika forest in Uganda where it was first isolated in a rhesus monkey (1947)
- Prior to 2007, only sporadic infections in Africa and SE Asia

# Travel-Associated Zika Cases in the US

Continental US: 426 cases from 42 states/DC (as of April 27, 2016)  
Pregnant women=36, Sexually transmitted=8, GBS=1



Source: <http://www.cdc.gov/zika/geo/united-states.html>

# 43 Travel-Associated Zika Cases in California 2015-2016 (as of April 29, 2016)

Year	Confirmed Cases
2013	1
2014	3
2015	9
2016	22

- One (1) case acquired by sexual transmission
- Eight (8) cases are pregnant women
- Cases reported from 13 counties in California, including 6 counties with invasive Aedes
- Cases traveled to: Kiribati, El Salvador, Haiti, Colombia, Mexico, Honduras, Guatemala, Costa Rica, Venezuela, Puerto Rico, Brazil, Samoa, and Dominican Republic
- Case #s updated every Friday on CDPH Zika webpage:

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/TravelAssociatedCasesofZikaVirusinCA.pdf>

# How is Zika Virus Transmitted?

- **Vectors:** *Aedes aegypti* and *Aedes albopictus*
  - Also transmit dengue and chikungunya viruses
  - Lay eggs in domestic water holding containers
  - Live in and around households
  - Aggressive daytime biters



*A. albopictus*

*Photo Source: CDC*



*A. egypti*

*Photo Source: CDC*

# How is Zika Virus Transmitted?



Photo Source: Istock

- **Non-vector transmission**

- Zika virus can be transmitted from a pregnant mother to her fetus during pregnancy or around the time of birth
- Zika virus can be sexually transmitted by a man to his sex partners
- Spread of the virus through blood transfusion has been reported
- Transmission of Zika infection through breastfeeding has not been documented

# What is Zika Virus Disease?

- Onset of symptoms 3-14 days after exposure
- About 20% of individuals develop symptoms
- Most common symptoms - fever, rash, joint pain, and conjunctivitis\*

*\*Zika virus disease is defined as having one or more of above symptoms*

- There is no vaccine to prevent or medicine to treat Zika virus infection

# Who Should be Tested?

## *Pregnant Women*

- Symptomatic pregnant women
  - Onset of one or more symptoms of acute Zika virus infection within 2 weeks of exposure
- Asymptomatic pregnant women 2-12 weeks after exposure
- Asymptomatic pregnant women exposed to Zika virus within 8 weeks prior to conception (6 weeks prior to last menstrual period)
  - Can be offered testing



*Photo Source: Istock*

# Who Should be Tested?

## *Infants*

Infants whose mother was exposed during pregnancy AND:

- Infant has microcephaly or intracranial calcifications (brain and eye abnormalities) detected prenatally or at birth
- Infant's mother has positive or inconclusive test for Zika virus infection



# Possible Congenital Zika Virus Infection: Recommended Clinical Evaluation

- Comprehensive physical exam
  - Include occipitofrontal circumference, length, weight and gestational age assessment
- Evaluation for neurologic abnormalities, dysmorphic features, splenomegaly, hepatomegaly, rash/other skin lesions
- Cranial ultrasound
- Hearing evaluation
- Ophthalmologic evaluation, including retina
- Other evaluations specific to clinical presentation

# Infants with Microcephaly or Intracranial Calcifications: Additional Evaluation

- Consultation with a clinical geneticist or dysmorphologist
- Consultation with a pediatric neurologist
- Testing for other congenital infections
  - Consider consulting pediatric ID specialist
- Complete blood count, platelet count, and liver function and enzyme tests
- Consideration of genetic and other teratogenic causes based on additional identified congenital anomalies

# What are the Recommendations for Couples Planning Pregnancy?

*No symptoms* after exposure:

- Women - Wait at least 8 weeks after last exposure to attempt conception
- Men – Wait at least 8 weeks

*Symptoms or Zika virus disease* after exposure:

- Women – Wait at least 8 weeks after symptom onset to attempt conception
- Men - Wait at least 6 months



# CDPH Zika Response Activities 2016

## Enhanced Communication

- Media responses
- LHD conference calls
- Email Inbox for public health/healthcare provider inquiries
- CDPH Zika Website
- Social Media: Facebook/Twitter/Text4Baby
- Medi-Cal newsflash
- E-blasts

## Enhanced surveillance of *Aedes* mosquitoes in CA

- Mosquito detection sites map by county

## Enhanced surveillance of active Zika cases

- CalRedie
- Laboratory testing for Zika virus infection (in coordination with CDC)

## Enhanced surveillance for Zika-associated microcephaly

- CA Birth Defects Monitoring Program, and US Zika Pregnancy Registry



# CDPH Zika Response Activities 2016

## CDPH Zika Webpage

- Laboratory-confirmed Zika cases in CA
- Health care provider and general public Q&A
- Health advisories
- Fact sheets (English/Spanish)
- Communications Toolkit *Coming soon!*
- Downloadable posters
  - Zika and Pregnancy
  - Sex, Bugs...and Zika/Sexual Transmission of Zika *Coming soon!*
  - Traveling or Studying Abroad *Coming soon!*

## Press Releases/Travel Advisories

- Mosquito bite prevention
- Zika active transmission hot spots

# Communication Toolkit

## Contents

- TalkZika Discussion Points
- Social media messages
- Posters/Fliers (Engl/Span)
- Graphics
- Q&A (Engl/Span)
- E-mail stamp to Zika Webpage



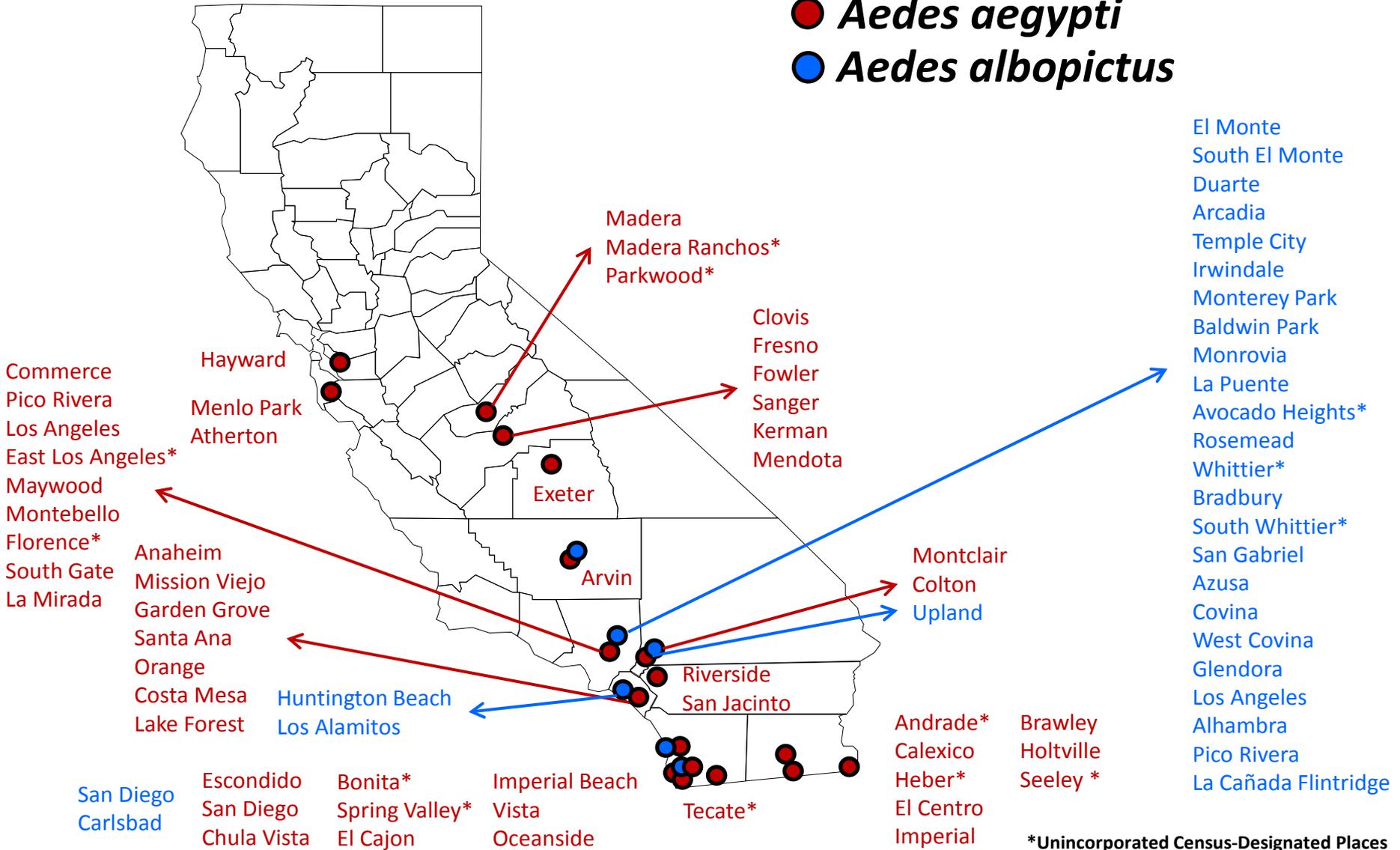
## Target Populations

- Programs for Pregnant Women (e.g., MCAH, CHVP, BIH, AFLP, WIC)
- Teen Pregnancy Prevention (e.g., I & E, PREP, AFLP)
- Colleges and Universities
- Clinicians – FPACT, community clinics, OB/MFMs
- Airports/Border Crossings

# Surveillance: *Aedes aegypti* and *Aedes albopictus* Mosquito Detection Sites in California, 2011-2015

<http://www.cdph.ca.gov/HealthInfo/discond/Documents/AedesDistributionMap.pdf>

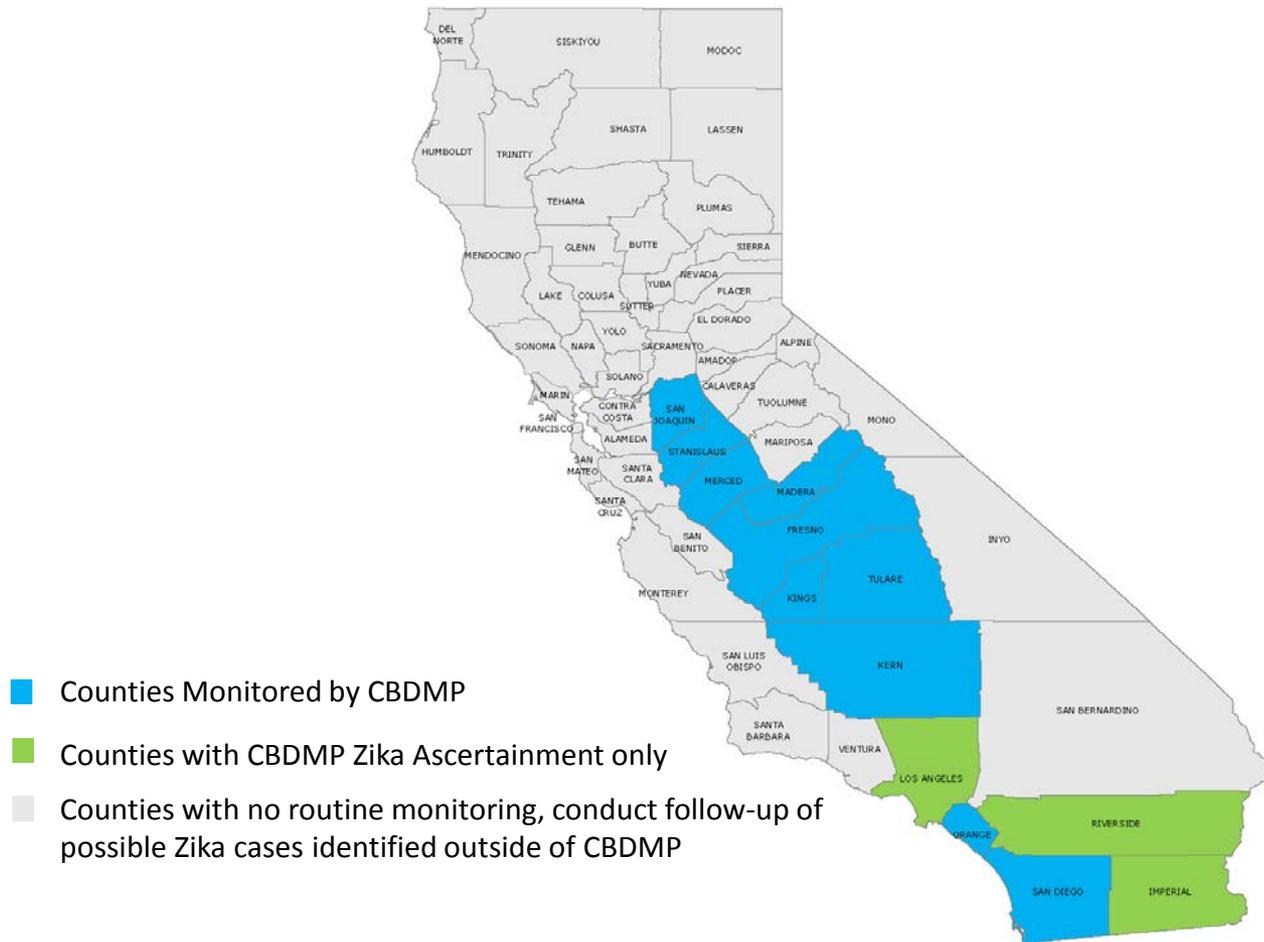
● *Aedes aegypti*  
● *Aedes albopictus*



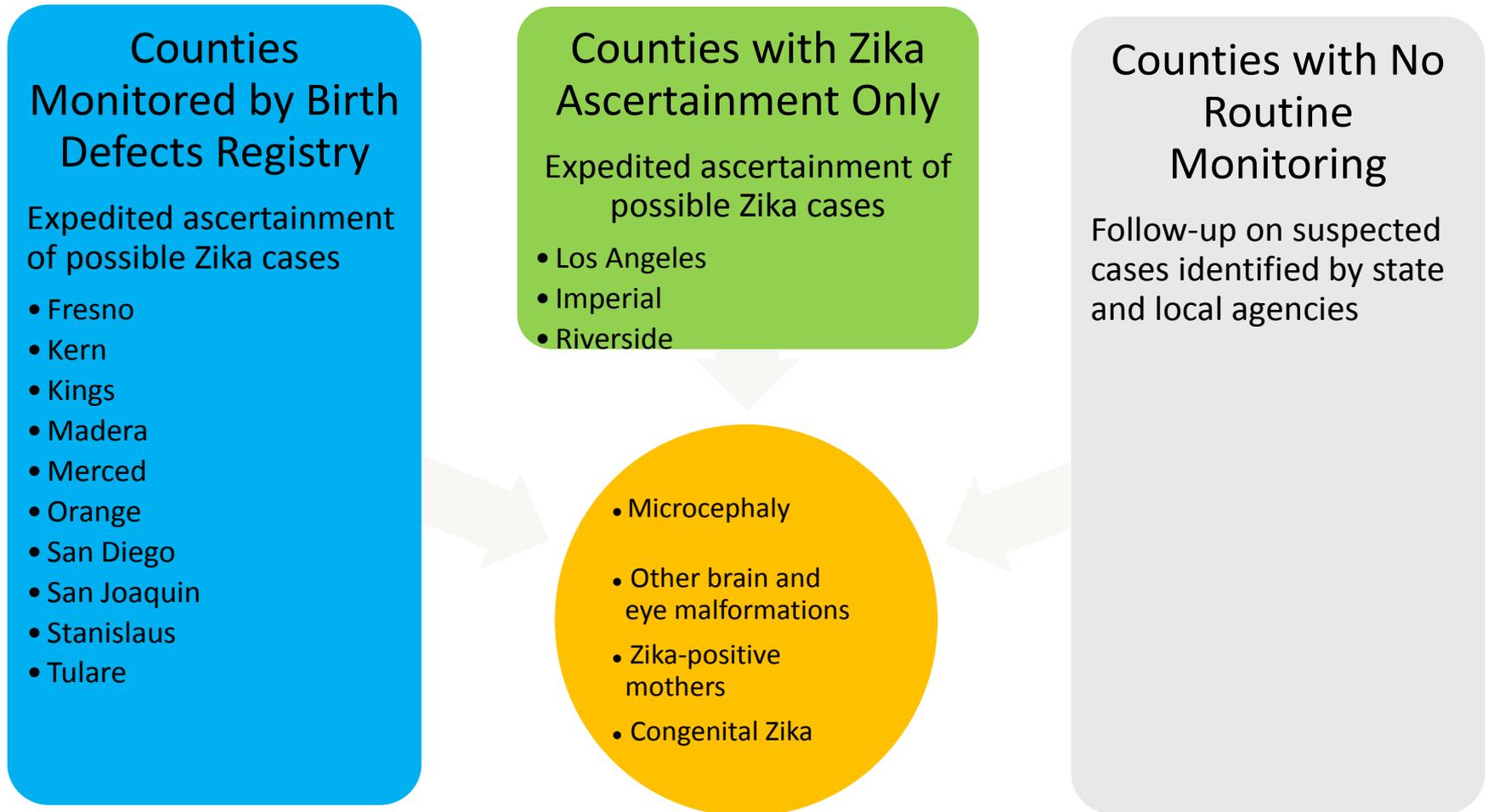
# California Birth Defects Monitoring Program

- ✓ Statutorily mandated (H&S Code §103825-103850) to collect birth defects data in hospitals, genetic centers and cytogenetic labs in California.
- ✓ Active ascertainment, population-based Registry of children born in California with congenital and inherited disorders, since 1983.
- ✓ Registry data are used to track birth defects trends and evaluate environmental hazards and other possible causes of birth defects.
- ✓ Currently collect data in 10 California counties:
  - Fresno, Kern, Kings, Madera, Merced, Orange, San Diego, San Joaquin, Stanislaus and Tulare.
- ✓ Tertiary care centers in six additional counties:
  - Alameda, Los Angeles, Sacramento, San Bernardino, San Francisco, Santa Clara, are monitored in order to capture cases where children from reporting counties are treated.

# Proposed Zika Birth Defects Data Collection in California



# Zika Data Collection



CBDMP has statutory authority to conduct birth defect surveillance throughout California per H&S §103825(a)

# U.S. Zika Pregnancy Registry

Goal: Provide more comprehensive data to complement notifiable disease reporting in order to....

- Inform updates to clinical guidelines
- Plan for services for affected families
- Improve prevention of Zika infection during pregnancy
- Data collection points: At diagnosis, 2<sup>nd</sup> trimester, 3<sup>rd</sup> trimester, delivery; 2, 6 and 12 months infant age.

# Zika & Local MCAH

## Local Prevention

- Provide consistent and standardized messages
- Ensure accessibility of Zika resources and recommendations

## Collaboration/Outreach

- Identify and partner with local CD, vector control, internal and external stakeholders including providers
- Ensure affected pregnant women and infants can access services

## Mobilization

- Leverage existing resources and community relationships to enhance capacity for surveillance
- Engage community to protect at-risk populations



# Key Messages

- Public health risks associated with travel to countries where Zika is circulating must be conveyed to California residents
  - Typically mild illness, *but* risk of microcephaly and GBS concerning
- Risk of local transmission in CA is low, however....
  - Transmission is possible, we must be prepared to respond
  - Pregnant women and their infants are the priority
  - Prevention requires a broad community response
  - Ongoing surveillance and control of *Aedes* are critical
  - Individuals with Zika infection must take extra precautions to avoid mosquito bites during the first week of illness to avoid local spread; use repellent for 3 weeks after return

# Key Messages

- Pregnant women in any trimester should consider postponing travel to areas with Zika virus transmission
- Healthcare providers should talk to reproductive age women about:
  - Pregnancy intention and reproductive options; contraception
  - Potential risks associated with travel and sexual transmission
- CDC has provided explicit guidance for evaluation of pregnant women, infants, and the clinically ill
- Mothers are encouraged to breastfeed, even in areas with Zika transmission
  - Benefits of breastfeeding outweigh any theoretical risks associated with Zika virus transmission through breast milk



# Questions?

CDPH Zika Webpage:

<http://www.cdph.ca.gov/HealthInfo/discond/Pages/Zika.aspx>

