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CDC's Response to the Zika Virus

Dr. Anne Schuchat, Deputy Director, CDC

What Is CDC Doing?

- January 22 CDC activated its Emergency Operations Center (EOC)
- February 1 World Health Organization declared a Public Health Emergency of International Concern (PHEIC) because of clusters of microcephaly and other neurological disorders in some areas affected by Zika
- **February 8** CDC elevated its EOC activation to a level 1 the highest level of response reserved for critical emergencies
- February 8 President Obama announced request for \$1.8 billion in emergency funds

What is Zika virus disease (Zika)?

- Disease spread primarily through the bite of an Aedes mosquito infected with Zika virus
- Most people won't even know they have Zika
- Symptoms are usually mild and last for several days to a week



Risk to Pregnant Women and Their Infants

- The greatest risk is to pregnant women and their infants
- A pregnant woman can pass Zika virus to her fetus if she is infected with Zika
 - through a mosquito bite
 - through sex with an infected male partner



Risk to Pregnant Women and Their Infants

- Zika virus in pregnancy is linked to
 - Fetal loss
- Congenital infection is linked to
 - Microcephaly, a sign of incomplete brain development
 - Eye problems
 - Impaired growth
- No evidence that past infection would affect future pregnancies

What We Do Not Know

- If a pregnant women is exposed to Zika virus
 - how likely it is that she will be infected
- If she is infected
 - how the virus will affect her or her pregnancy
 - how likely it is that Zika will pass to her fetus
- If the fetus is infected
 - how likely it is that the fetus will develop birth defects

Investigating the Link

- Identifying a new viral cause of a major birth defect is extremely rare
- Scientists are collecting data to better understand Zika virus' impact on mothers and their children.

Work in Progress

- Scientists are investigating
 - Causal relationship between Zika virus and microcephaly or other adverse pregnancy outcomes
 - Factors that may influence risk
- CDC is providing
 - Updated clinical guidelines for pregnant women, infants, and children with possible Zika virus infection

Where has Zika virus been found?

- Before 2015, Zika outbreaks occurred in Africa, Southeast Asia, and the Pacific Islands
- Currently outbreaks are occurring in many countries and territories in the Americas



U.S. Epidemiology and Surveillance*

- 367 cases reported to ArboNET as of March 9th
- No local mosquito-borne transmission on U.S. mainland
- 193 travel-associated cases reported from 31 U.S. States and D.C.
 - Pregnant travelers: 17 cases
 - Sexual transmission: 3 cases
 - Congenital transmission: 1 case
- 174 cases reported to ArboNET from three U.S. territories
 - 159 cases reported from Puerto Rico

What CDC is doing

- Monitoring spread of Zika through public health surveillance
- Increasing laboratory capacity for testing to identify Zika infection
- Assisting with the development of tests that can improve detection of previous infection with Zika
- Working with partners to improve mosquito control efforts
- Providing recommendations for prevention
- Promoting effective health communication strategies
- Focusing on supporting state, local, tribal and territorial response efforts



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Guidelines for Development of State and Local Risk-based Zika Action Plans

Dr. Jennifer McQuiston, Deputy Incident Manager, CDC Zika Response

To view the Guidelines go to:

www.cdc.gov/zika/public-health-partners/risk-basedprep.html

- Many states have vector response plans, but Zika requires new considerations (pregnancy, sexual transmission)
- Provides guidance for a phased, jurisdictional response, based on escalating risk for Zika
- Serves as support tool for states to develop Zika response plans

- Phased, risk-based, comprehensive response
 - Review plans and prepare in advance of a crisis
 - Vector control requires a comprehensive, multi-step approach
 - Requires a strong surveillance and diagnostic testing program in states and localities

- Four categories of risk:
 - Preparation
 - Vector present or possible in jurisdiction
 - Mosquito Season
 - Aedes aegypti or Aedes albopictus mosquito-biting activity
 - Confirmed Local Transmission
 - Single case, or cases clustered in a single household/community an a county or jurisdiction
 - Widespread Local Transmission
 - Multiple locations within a county/jurisdiction

- Risk categories include recommended response activities in the following targeted areas:
 - Response Actions
 - Communication
 - Surveillance
 - Laboratory testing
 - Vector control
 - Pregnant woman outreach
 - Blood safety

Risk Category: Preparation

- Response actions
 - Appoint senior representative to coordinate response efforts
 - Ensure coordination with state public health officials so vector control and human surveillance activities can be linked
 - Review plans
 - State and local mosquito control programs, capacity, capability
 - Plans and processes for rapid hiring/contracting, e.g. vector control surveillance and response

Risk Category: Preparation

- Prepare communication campaign for pregnant women, travelers, health providers
 - Include messaging on sexual transmission & steps for prevention
- Enhance surveillance for travel-associated Zika cases and possible sexual transmission from travel cases
- Review laboratory capacity to rapidly test specimens for Zika virus

Risk Category: Preparation

- Vector control
 - Review and conduct mosquito surveillance activities to assess historic distribution maps of Aedes aegypti and Aedes albopictus
 - Plan activities to reduce likelihood of transmission from mosquitoes
- Pregnant women
 - Plan enhanced surveillance for Zika during pregnancy
 - Identify possible resources for interventions for pregnant women (Zika Prevention Kits)
- Consult with local blood collection centers on blood safety contingency plans

Risk Category: Mosquito Season

- Organize regular meetings between Incident Manager and response partners
- Communications: Message for awareness, personal protection against mosquitoes, and residential source reduction
- Surveillance: Rapidly follow up suspected cases through laboratory testing and encourage healthcare providers to immediately report positive/equivocal results
- Ensure public health laboratory is prepared for potential surge in testing, has engaged clinical laboratories
- Vector control: Community interventions to disrupt breeding grounds

Risk Category: Confirmed Local Transmission

- Activate the state incident management structure
- Surveillance: Intensify surveillance for human cases
- Vector control
 - Conduct intensified larval and adult mosquito control in a 150-yard radius around case-patient home, including residential habitat reduction and outdoor space spraying
 - Consider additional interventions (truck mounted sprayers, aerial sprays)
- Pregnant women outreach: Targeted communication, surveillance
- Notify blood collection agencies for awareness

Risk Category: Widespread Local Transmission

- Determine geographic boundaries that will be used for aggressive response efforts and designate county/jurisdiction as an area of "active Zika transmission"
- Intensify communication/outreach to constituents
- Intensify surveillance for human cases
- Vector control
 - Intensify and expand vector control efforts, tailored to local needs
 - Monitor effectiveness of vector control efforts through mosquito trapping surveillance

Risk Category: Widespread Local Transmission

- Pregnant women outreach
 - Advise pregnant women to consider postponing travel to the county/jurisdiction
 - Implement intervention plans; consider including mosquito-proofing homes as well as household vector control
 - Consider retrospective enhanced surveillance in health facilities
- Blood safety
 - Blood centers with collections in county/jurisdiction should follow FDA guidance for an area of active transmission



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Considerations for State, Local, and Tribal Zika Action Planning

Christine Kosmos, R.N., B.S.N., M.S.

Director, CDC Division of State and Local Readiness

Audience Instant Feedback (interactive voting)

Describe your jurisdiction's Zika planning efforts to date:

- Our jurisdiction has not started planning for Zika response
- Our jurisdiction has not met yet but we have plans to do so
- Our jurisdiction has been meeting and we are developing our response plan
- Our jurisdiction has a draft Zika Action Plan
- Not sure what our jurisdiction's activity has been

CDC Resources to Assist States, Locals, and Tribal Nations

 "One Stop Shop Approach" to assisting state/local public health departments and tribal nations with developing Zika preparedness response plans

- CDC Guidelines for Development of State and Local Risk-based Zika
 Action Plans
- CDC Zika Virus Disease website
- CDC Vector Surveillance and Control Strategy for the United States

Review of CDC Zika Action Planning Template



Pregnant women represent a highly vulnerable population with special needs.

In areas of active mosquito spread of Zika, there is a risk of transmission through the blood supply

www.cdc.gov/zap/action plan-template.html

Texas, Florida, and Hawaii are likely to be the U.S. states with the highest risk of experiencing local transmission of Zika virus by mosquitoes, based on
prior experience with similar viruses. However, additional states are assumed to be at some risk due to the presence of Aedes aegypti mosquitoes.
 (Approximate distribution of Aedes aegypti in the United States (730 KB, 1 page))

Aedes albopictus mosquitoes are more widely distributed in the continental United States and Hawaii and have been proven competent vectors for

CDC Resources for State, Local and Tribal Zika Action Planning Teams

CDC Zika Website: http://www.cdc.gov/zika/index.html

State/Local/Tribal Approach to Zika Action Planning

State/Local/Tribal Checklist		
1.	Assign a lead Zika preparedness coordinator and team	
2.	Assess jurisdictional risk	Review state/local/tribal data
3.	Review existing CDC guidance and resources	See CDC Zika website: http://www.cdc.gov/zika
4.	Review "CDC Guidelines for Development of State and Local Risk-based Zika Action Plans"	See CDC ZAP template: www.cdc.gov/zap/actionplan-template.html
5.	Develop draft action plan; identify gaps in preparedness and response	Bring to Summit



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Making the ZAP Summit Work For You

Sara C. Zeigler, MPA

Chief, Program Strategy, Program Performance & Evaluation Office, CDC

ZAP Summit: What to Expect?

Science Plenary (Live webcast and archived)

 Science Plenary: who is at risk, how to identify and diagnose cases, preventing and responding to mosquito-borne illnesses

Leadership Planning (Live webcast and archived)

- Crisis and Emergency Risk Communication in a Zika response
- Using Policy to Increase Public Understanding and Enhance State and Community Readiness

Readiness Action Planning

- Specialized Technical Assistance for jurisdictions
- Refining Zika Action Plan

ZAP Summit: How to Engage?

Virtual or In-Person Participation

- Visit <u>www.cdc.gov/ZAP</u> to find out more
- Registration closes Tuesday, March 15

Considerations for In-Person Participation (CDC supported travel)

- State and Local Leaders: Governors, Public Information Officers, Mayor,
 County Commissioner
- Scientific and Technical Staff: State Health Officer, State Epidemiologist, State Veterinarian/Vector Control Lead, State Preparedness Director, Maternal and Child Health Directors, Local Heath and Environmental Health Officials

Audience Instant Feedback

Please identify your jurisdictions priority technical assistance need.

- Surveillance
- Clinical services for children with congenital issues
- Communicating risks to the public
- Legal issues associated with vector control and abatement
- Guillain-Barré syndrome (GBS)
- Reducing sexual transmission
- Clinical services for pregnant women in the context of Zika

Audience Instant Feedback

- Please identify your jurisdictions priority technical assistance need.
 - Mosquito Control
 - Risks for Pregnant Women
 - Laboratory capacity
 - Laboratory testing and interpretation
 - Blood and Tissue Safety
 - Conception planning in the context of Zika virus

Questions and Answers

Pre-Summit Webinar Evaluation Question

I understand the purpose of the ZAP Summit.

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Please provide feedback to: <u>ZAPSummit@cdc.gov</u>

Pre-Summit Webinar Evaluation Question

- How valuable was this webinar to you?
 - Very valuable
 - Valuable
 - Somewhat valuable
 - Not valuable

Please provide feedback to: <u>ZAPSummit@cdc.gov</u>

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



