

## Zika Virus Update

Florida Department of Health (DOH)  
Bureau of Epidemiology

May 19, 2016

Division of Disease Control and Health Protection



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## Zika Virus

- Virus spread through mosquito bites; related to dengue and West Nile viruses
- Originally identified in Africa and Southeast Asia
  - First identified in Uganda's Zika Forest in 1947
- Transmission
  - Mosquito – *Aedes aegypti*, possibly *Aedes albopictus*
  - Transmission in the womb and at the time of birth
  - Sexual
  - Transfusion cases (2 recently documented)
  - Lab exposures
  - Detected in breast milk, saliva, and urine but no documented transmission
- Outbreaks since 2007



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## Zika Fever Distribution

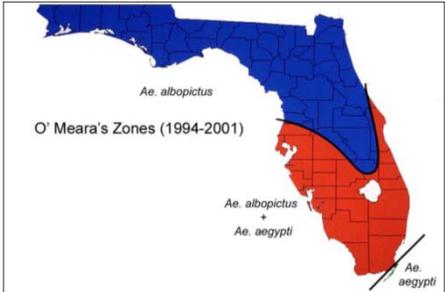


As of May 12, 2016, courtesy of CDC.



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## General *Aedes aegypti* and *Aedes albopictus* Distribution



Courtesy of FDACS



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## Zika Fever Symptoms

- Incubation period: 2-14 days
- 1 in 5 people infected will become symptomatic
- Few hospitalizations

Most common signs and symptoms

<ul style="list-style-type: none"> <li>• Fever (often low-grade)</li> <li>• Rash</li> <li>• Joint pain</li> <li>• Red eyes</li> </ul>	<ul style="list-style-type: none"> <li>• Muscle ache</li> <li>• Headache</li> <li>• Pain behind the eyes</li> <li>• Vomiting</li> </ul>
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## Zika Fever (continued)

- Presentation similar (but milder) to other illnesses like dengue and chikungunya
- Symptomatic treatment
- Avoid aspirin and similar drugs (Non-Steroidal Anti-Inflammatory Drugs)
- No vaccine but research underway
- Poor pregnancy outcomes
- Linked to Guillain-Barré Syndrome (GBS)

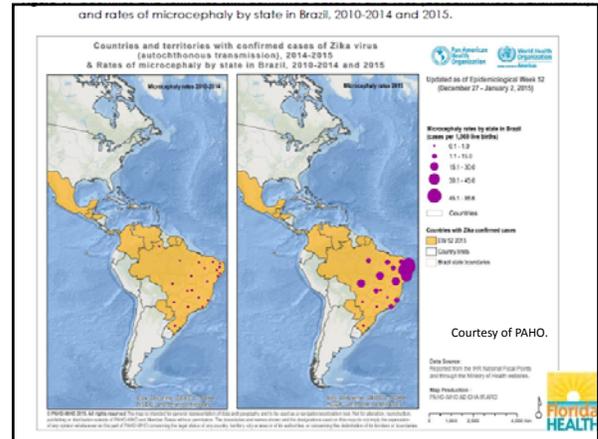


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### Zika Virus Link to Microcephaly?

The image shows two side-profile photographs of babies. The baby on the left is labeled 'Baby with Microcephaly' and has a significantly smaller head than the baby on the right, who is labeled 'Baby with Typical Head Size'. A dashed circle highlights the smaller head of the first baby. The CDC logo is visible in the bottom right corner.

<http://www.cdc.gov/ncbddd/birthdefects/microcephaly.html>



### CDC Travel Alert/HAN

- Travel Alert Level 2-Practice Enhanced Precautions
- Pregnant women in any trimester should postpone travel
- Women trying to become pregnant should consult healthcare provider before travel
- Avoid mosquito bites
- <http://www.cdc.gov/media/releases/2016/s0315-zika-virus-travel.html>
- <http://wwwnc.cdc.gov/travel/notices>
- <http://emergency.cdc.gov/han/han00385.asp>
- EpiCom

### Executive Order Number 16-29

- Directs State Health Officer (SHO) and Surgeon General to declare Public Health Emergency in 4 counties (duration and geographic boundaries can change)
- Authorizes Commissioner of Agriculture to issue mosquito declaration in same 4 counties.
- Designates DOH as lead state agency to coordinate emergency response activities among various state agencies and local governments
- Directs Department of Environmental Protection and Fish and Wildlife Conservation Commission to support Department of Agriculture and Consumer Services in developing extensive mosquito control plans

### Declaration of Public Health Emergency

- Notifies Commissioner of Agriculture of threat to public health from Zika virus transmission to humans from bite of infected *Aedes* mosquito.
- Directs meetings be convened in the impacted counties to discuss mosquito control best practices and outreach to communities with high risk or vulnerable populations
- County Health Officers for affected counties develop outreach program for local medical professionals to increase awareness and access to diagnostic tools

### Emergency Rules Noticed

- Noticed February 5, 2016
- 64DER16-1 (64D-3.029) Diseases or Conditions to be Reported
  - Requires immediate reporting to DOH of suspected or confirmed cases of the Zika virus by physicians, hospitals, and laboratories
- 64DER16-2 (64D-3.040) Procedures for Control of Specific Communicable Diseases
  - Hospitals with suspected or confirmed cases of the Zika virus shall provide case status reports every 24 hours
  - Physicians with suspected or confirmed cases of the Zika virus shall provide case status reports every 72 hours

### Other DOH Response Activities

- Targeting health care providers
  - Hospitals
  - American Congress of Obstetricians and Gynecologists
  - Midwives/nurses
- Working with internal partners
  - Birth Defects Registry
  - Maternal and Child Health
- Syndromic surveillance
  - Guillain-Barré Syndrome
  - Microcephaly




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### Other DOH Response Activities

- Response similar to dengue/chikungunya
- During interview
  - Complete travel history
  - Avoid mosquito bites while ill
  - Highlight prevention methods
- Inform local mosquito control officials of suspect cases
- Inform state Arbovirus Surveillance Coordinator on suspicion of locally acquired cases
- Provide public information on disease, transmission, prevention, protective actions



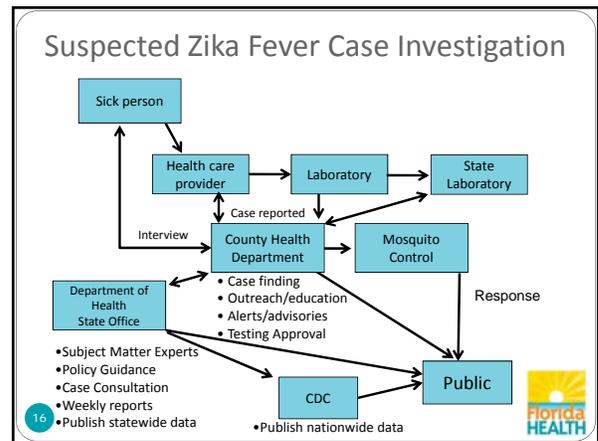

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### Other DOH Response Activities

- Key partnership with local mosquito control districts
- DOH notifies mosquito control upon suspicion of mosquito-borne illness
- Appropriate mosquito control measures are implemented
- Successful partnership demonstrated previously
  - Chikungunya 2014
    - 510 imported cases identified
    - 12 sporadic local cases
    - Coordinated DOH – Local mosquito control activities
    - No sustained local transmission




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### Status

- To date no cases of local mosquito transmitted Zika illnesses have been reported
- Current status:
  - 122 Zika fever cases associated with travel outside the continental US reported in 19 counties in Florida. **(5/19/16 DOH)**
  - 544 Zika fever cases (travel-associated) acquired outside continental US **(5/18/16 CDC)**
  - 832 locally acquired cases US Territories **(5/18/16 CDC)**




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### FAQ's: Pregnant Women

- Pregnant and nursing women can use EPA-approved mosquito repellent according to label instructions
- Information to collect for suspect Zika cases:
  - Symptoms and onset date
  - Travel history (throughout pregnancy)
  - How far along in pregnancy?
- Refer to obstetrician for follow up
- Consider Zika virus testing



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### Requirements for Testing



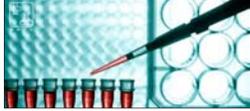
- Guidance is subject to change
- At least two symptoms (fever, rash, joint pain, red eyes) during/within two weeks of travel to areas with ongoing Zika virus transmission
- Pregnant women with/without symptoms tested if travel to or residence in endemic areas
- Suspect local cases
  - Common differential diagnoses have been ruled out
  - Two of the four major symptoms
  - Epi-linked to a confirmed or probable case (household)



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### Laboratory Testing

- Commercial testing available in near future
- PCR (detects virus)
  - Bureau of Public Health Laboratories (BPHL) (Tampa/Jacksonville)
  - Serum, urine and saliva sample within 21 days of illness onset
- Testing for IgM antibodies against Zika virus at BPHL
- Virus neutralization testing (PRNT) at CDC




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### Mosquito Bite Prevention

- **DRAIN** water from any containers where water has collected.
- **CLOTHING:** If you must be outside when mosquitoes are active, cover up. Wear shoes, socks, long pants, and long sleeves.
- **REPELLENT:** Apply mosquito repellent to bare skin and clothing. Always use repellents according to the label. Repellents with DEET, picaridin, oil of lemon eucalyptus, para-menthane-diol, and IR3535 are effective. Use netting to protect children younger than 2 months.

See: Mosquito Bite Protection in Florida  
[www.floridahealth.gov/zika](http://www.floridahealth.gov/zika)



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### Available Resources

- Zika fever guidance document
- Clinician one-pager
- Information for obstetricians
- Mosquito bite prevention in travelers handouts
- FAQs document
- DOH Zika virus webpage: [www.floridahealth.gov/zika](http://www.floridahealth.gov/zika)
- CDC Zika virus webpage: <http://www.cdc.gov/zika/>
- CDC Zika virus preparedness: <http://www.cdc.gov/zika/public-health-partners/tips.html>



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### Contact Information

- Contact your county health department for additional information.




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