

# Zika Virus Update Fort Pierce City Commission

Florida Department of Health (DOH)  
Clint Sperber, Administrator

September 6, 2016

Department of Health in St Lucie County

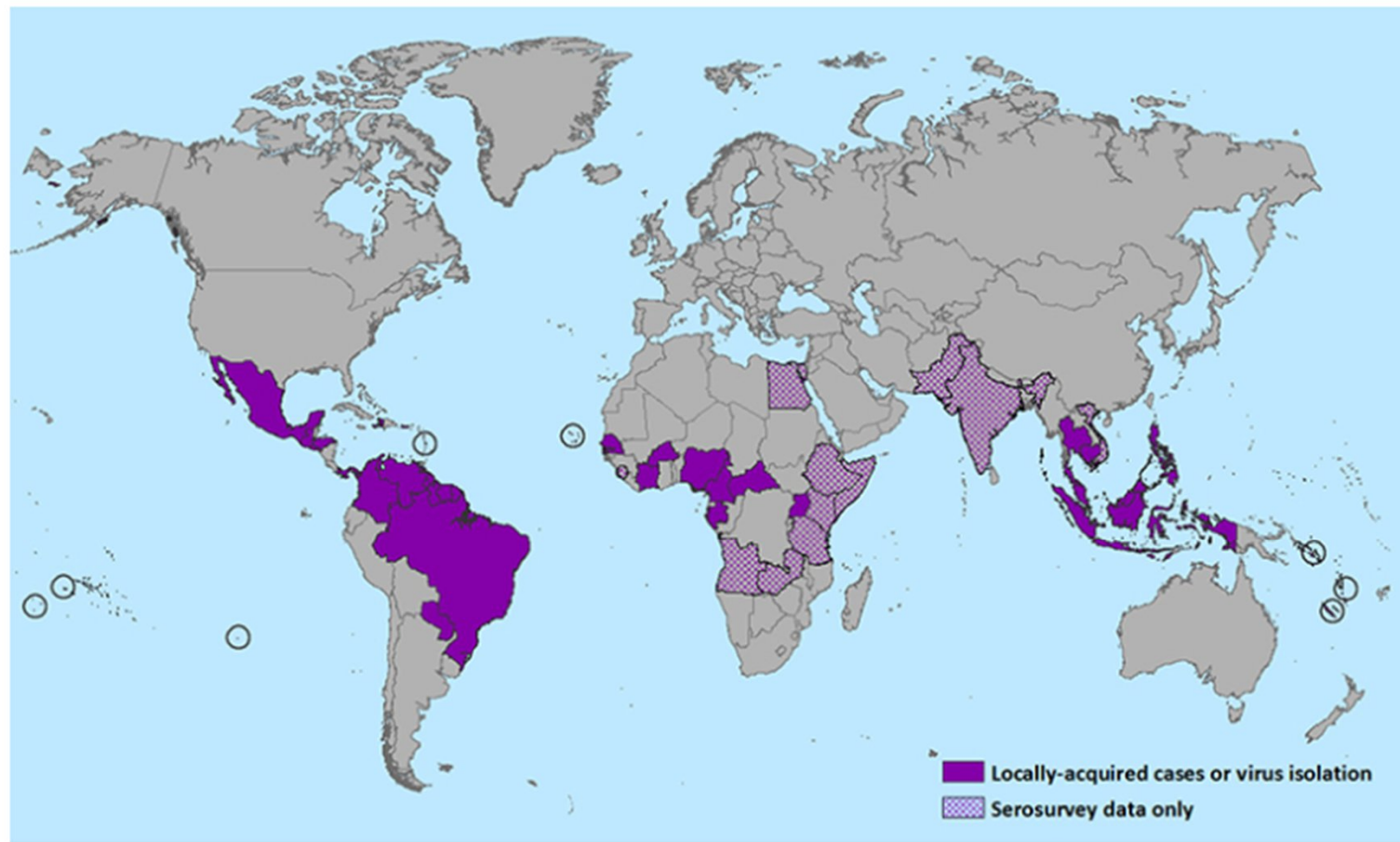


# Zika Virus

- Flavivirus:
  - Testing has potential for cross-reactivity with other flaviviruses
- 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
  - Lab exposures
  - Detected in breast milk, saliva, and urine but no documented transmission
- Outbreaks since 2007

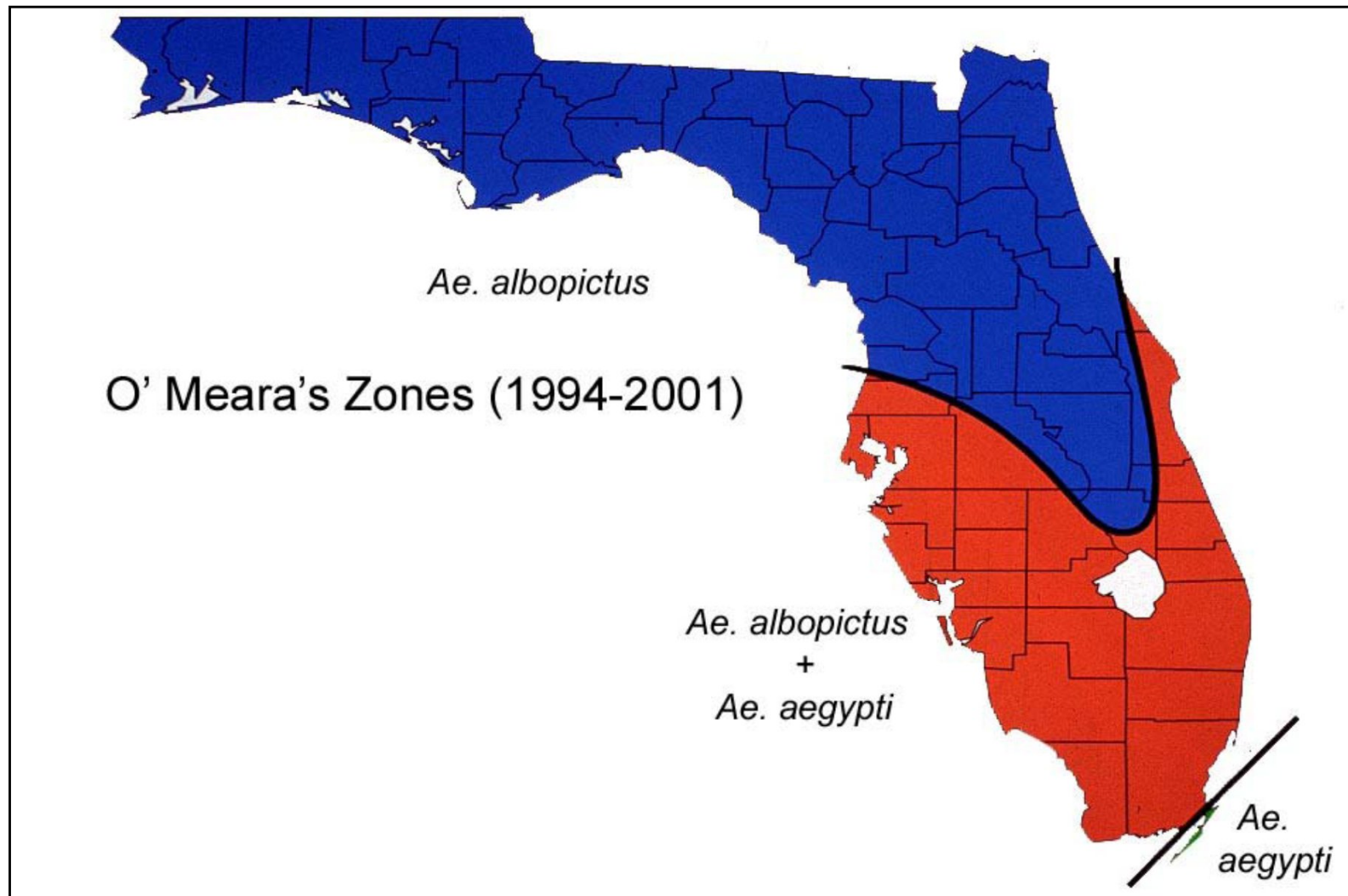
# Zika Fever Distribution

Countries that have past or current evidence of Zika virus transmission (as of January 2016)





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



# Zika Fever Symptoms

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

## Most common signs and symptoms

- Fever (often low-grade)
- Rash
- Joint pain
- Red eyes
- Muscle ache
- Headache
- Pain behind the eyes
- Vomiting

# 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
- Possible link to Guillain-Barré Syndrome (GBS) and poor pregnancy outcomes

# Zika Virus Link to Microcephaly?

Baby with Microcephaly



Baby with Typical Head Size



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

and rates of microcephaly by state in Brazil, 2010-2014 and 2015.

**Countries and territories with confirmed cases of Zika virus (autochthonous transmission), 2014-2015 & Rates of microcephaly by state in Brazil, 2010-2014 and 2015**



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



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

- EW 52 2015
- Country limits
- Brazil state boundaries

Courtesy of PAHO.

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

Map Production: PAHO-WHO AD CHAIR ARO



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# CDC Travel Alert/HAN

- CDC recommends that women who are pregnant or thinking of becoming pregnant postpone travel to areas with widespread Zika infection.
- 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/p0801-zika-travel-guidance.html>
- <http://wwwnc.cdc.gov/travel/notices>
- <http://emergency.cdc.gov/han/han00393.asp>
- EpiCom
- Zika Virus Information Hotline is 1-855-622-6735

# Executive Order Number 16-29

- Directs State Health Officer (SHO) and Surgeon General to declare Public Health Emergency in 29 counties (duration and geographic boundaries will change as new cases are identified)
- Authorizes Commissioner of Agriculture to issue mosquito declaration in same 29 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. Reporting should occur immediately as soon as infection is suspected but does not need to occur after hours.
    - This is to ensure effective mosquito control efforts can begin as soon as possible to reduce the possibility of local transmission.

# Other DOH Response Activities

- Partnering with Blood banks statewide and federal partners to ensure blood supply is safe
- Field investigation of non-travel related cases and contacts in NW Miami
  - CDC - DOH
- Governor Scott directed DOH to provide Zika testing to pregnant women at all county health departments at no cost (8/3/16)
- DOH continues to improve laboratory capacity in-house and through external partnerships

# 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
  - Zika
  - Guillain-Barrè Syndrome
  - Microcephaly

# 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 Arbovirus Surveillance Coordinator on suspicion of locally acquired cases
- Provide public information on disease, transmission, prevention, protective actions

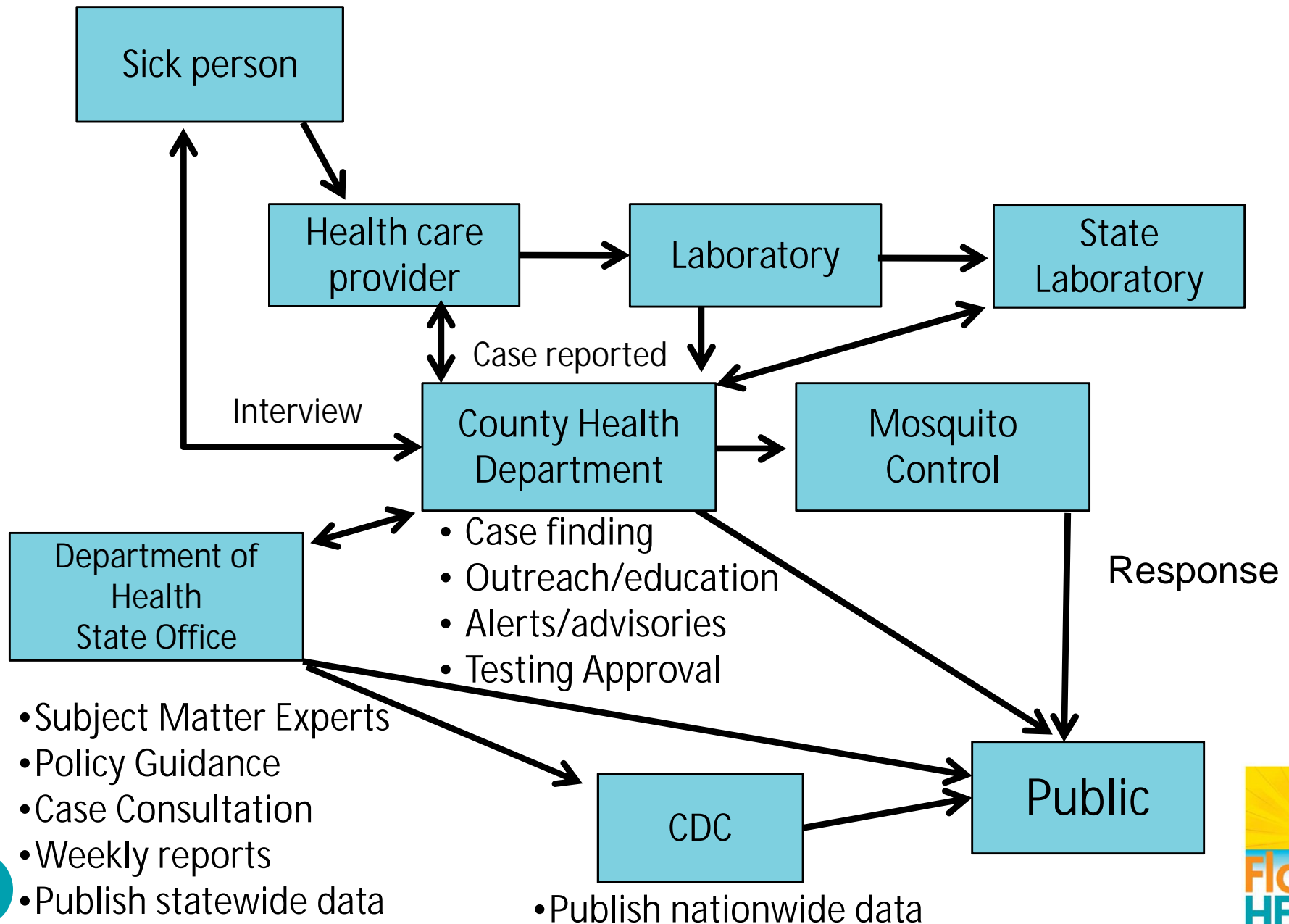
# Other DOH Response Activities

- 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

# Local Response Activities

- Local Response Actions
  - Activate Incident Management Team
  - Monthly meetings with community partners
  - Increase risk communication
  - Establish routine updates for information sharing
    - Clinical information and updates shared locally with medical providers including obstetricians
  - General information and updates shared locally
    - Mosquito control, airports, school district, Healthy Start and WIC, etc.
  - Hospital surveillance queries established
    - Alert when patients go to the ED with a travel history to countries with Zika Virus activity and symptoms associated with Zika Virus
    - Hospital/clinic screening tools
  - Increase outreach and awareness with community and providers
    - Community engagement
      - Joint informational handouts with local Mosquito Control
      - Promote prevention, outreach and response efforts
      - Media, PSAs, posters, handouts, etc.

# Suspected Zika Fever Case Investigation



# 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
- Test results may not correlate with risk

# Requirements for Testing

- Guidance is subject to change
- At least one symptom (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 reside in endemic areas
- Suspect local cases
  - Common differential diagnoses have been ruled out
  - Three of the four major symptoms
  - Epi-linked to a confirmed or probable case (household)

# Laboratory Testing

- Commercial testing is available for both PCR (acute infections) and IgM for antibody testing to support detection of infections that may have occurred further in the past.
- PCR (detects virus)
  - Serum and urine sample within 21 days of illness onset
- Testing for antibodies against Zika virus
- IgM and/or PRNT at CDC
- IgM available at BPHL and commercial labs

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Hamilton, Janet J, 8/5/2016

# 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)



# Available Resources

- Zika fever guidance document
- Clinician one-pager
- Information for obstetricians
- Mosquito bite prevention in travelers handouts
- FAQs document
- DOH Zika Virus webpage:  
<http://www.floridahealth.gov/diseases-and-conditions/zika-virus/index.html>
- CDC Zika Virus webpage: <http://www.cdc.gov/zika/>

# More Information

For questions or to report suspect cases,  
contact DOH St. Lucie's Epidemiology program:

Monday- Friday 8am-5pm (772) 462-3883

After hours/weekends/holidays (772) 462-3800 and ask  
to speak with the person on call to report a disease

You may also contact the Bureau of Epidemiology 24/7  
at (850) 245-4401

Zika Virus Information Hotline 855-622-6735

for Florida residents and visitors

