

# Memorandum



DATE February 12, 2016

CITY OF DALLAS

to The Honorable Mayor and Members of the City Council

SUBJECT Dallas County Health Human Services (DCHHS) Zika Update

On Wednesday, February 17, 2016, City Council will be briefed on the Zika Virus by Dallas County Health and Human Services. The briefing is attached for your review.

Please contact me if you have any questions or need additional information.

A handwritten signature in black ink that appears to read "JZ".

for Joey Zapata  
Assistant City Manager

## Attachment

c: A.C. Gonzalez, City Manager  
Warren M.S. Ernst, City Attorney  
Craig D. Kinton, City Auditor  
Rosa A. Rios, City Secretary  
Daniel F. Solis, Administrative Judge  
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
Mark McDaniel, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer  
Sana Syed, Public Information Officer  
Elsa Cantu, Assistant to the City Manager – Mayor & Council

# DCHHS Zika Update

## Clinical

Briefing to the Dallas City Council

February 17, 2016

Zachary Thompson

Director

Dallas County Health and Human Services

Dr. Christopher Perkins

Medical Director/Health Authority

Dallas County Health and Human Services



**DCHHS**  
Safe families, healthy lives.

Dallas County Health and Human Services

# Dallas County Confirmed Cases

- 1: imported from Venezuela; fully recovered
- 1: through sexual transmission; fully recovered
- 1: imported from Honduras; 45 y/o; non-pregnant; symptoms resolved at the time of notification

# Zika Virus Public Health Follow-Up and Mosquito Control

- Patient seeks medical attention
- Provider does evaluation
  - Provider advises patient on controlling further spread
- Provider notifies DCHHS
- Specimen sent to DCHHS
- Positive results
  - Set traps around patient's home during mosquito season
  - Implement mosquito control



**DCHHS**  
*Safe families, healthy lives.*

Dallas County Health and Human Services

# Zika Virus Lab Testing

- Results within 24 hours at DCHHS lab
- Additional testing done at CDC for cases without active symptoms at the time specimen was obtained
- The DCHHS LRN Laboratory can only accept specimens for PCR results from residents of the following counties comprising its service area: Collin, Dallas, Ellis, Fannin, Grayson, Henderson, Hunt, Kaufman, Navarro, Rains, Rockwall, and VanZant.

# Zika Virus Specimen Submission and Test Result Form



DALLAS COUNTY HEALTH AND HUMAN SERVICES  
Laboratory Response Network

## DCHHS Zika Virus Specimen Submission and Test Result Form

TESTING CRITERIA MET																																	
<p><b>*Required Fields—Omission of required information may result in inability to test. Completed form must accompany each submitted specimen.</b></p> <p><b>*Requesting Healthcare providers MUST check ONE of the following categories</b></p> <p>DCHHS Epi Use Only</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 1. Patient with 2 or more symptoms compatible with Zika virus infection (e.g., fever, rash, joint pain, or conjunctivitis) within 2 weeks of travel to an area with Zika virus transmission (see <a href="http://cdc.gov/zika/gen/index.html">cdc.gov/zika/gen/index.html</a> for current list)</li> <li><input type="checkbox"/> 2. Asymptomatic pregnant woman who has traveled to areas with ongoing Zika virus transmission, within 2–12 weeks after returning from travel.</li> <li><input type="checkbox"/> 3. Patient with symptoms of Guillain-Barré syndrome (GBS) within 1 month of travel to an area with Zika virus transmission.</li> <li><input type="checkbox"/> 4. Infant born to a woman with positive or inconclusive test results for Zika infection.</li> <li><input type="checkbox"/> 5. Infant with microcephaly or intracranial calcifications born to a woman who traveled to an area with Zika virus transmission while pregnant.</li> <li><input type="checkbox"/> 6. Patient with compatible illness who does not meet the above testing criteria, but for whom there may be concern for an external (e.g., sexual, non-pregnatal) mode of transmission.</li> </ul> <p>(Requestor must call the DCHHS Epidemiology division at 214-819-2004 for approval for testing.)</p>																																	
<p><b>PATIENT</b></p> <p>*Last name: _____ *First name: _____ Patient ID # / Medical record #: _____</p> <p>Date of birth (MM/DD/YYYY): _____ *Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female *Race/Ethnicity: _____</p> <p>*Address: _____ *City: _____ *State: _____</p> <p>*County: _____ ZIP: _____ *Phone #: _____ Alt. phone #: _____</p> <p>The DCHHS LRN Laboratory can ONLY accept specimens for testing from residents of the following counties comprising its service area: Collin, Dallas, Fannin, Grayson, Henderson, Hunt, Kaufman, Navarro, Rains, Rockwall, and Van Zandt. If the patient is an eligible non-Dallas County resident, submitter must obtain prior approval of the respective County or State/regional health department, and this form must be accompanied by documentation of such approval.</p>																																	
<p><b>SUBMITTER</b></p> <p>*Physician / Hospital / Lab / Clinic name: _____ *Contact name: _____</p> <p>*Email: _____ *Phone: _____ *Fax #: _____ Page #: _____</p> <p>Address: _____ City: _____ State: _____ ZIP: _____</p> <p>*Date Symptom Onset: _____ Symptoms resolved? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>*Symptoms (check all that apply): <input type="checkbox"/> None <input type="checkbox"/> Fever <input type="checkbox"/> Rash <input type="checkbox"/> Conjunctivitis</p> <p><input type="checkbox"/> Joint pain <input type="checkbox"/> Guillain-Barré <input type="checkbox"/> Hemopteraxia <input type="checkbox"/> Other: (list): _____</p> <p>*Patient pregnant? <input type="checkbox"/> No <input type="checkbox"/> Yes, # weeks gestation: _____</p> <p>Fetal/infant anomalies: <input type="checkbox"/> None <input type="checkbox"/> Unk <input type="checkbox"/> Microcephaly <input type="checkbox"/> Intracranial calcifications</p> <p>Flavivirus Vaccination History Yes No Unk Date</p> <table border="1"> <tr> <td>Yellow fever</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Japanese encephalitis</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tick-borne encephalitis</td> <td></td> <td></td> <td></td> </tr> <tr> <td>St. Louis encephalitis</td> <td></td> <td></td> <td></td> </tr> <tr> <td>West Nile virus</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Chikungunya</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other: (list below)</td> <td></td> <td></td> <td></td> </tr> </table> <p>Yellow fever vaccine</p> <p>Japanese encephalitis</p> <p>Tick-borne encephalitis</p> <p><b>*Failure to provide travel history may result in an inability to test or a delay</b></p> <p>Did the patient travel to an area with Zika transmission* within 14 days prior to symptom onset? <input type="checkbox"/> Unk <input type="checkbox"/> No <input type="checkbox"/> Yes, countries/cities and dates of travel: _____</p> <p>If infant, is there a maternal history of travel to an area with Zika transmission? <input type="checkbox"/> N/A <input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes, countries/cities and dates of travel: _____</p> <p>Does the patient's sexual partner have a history of illness consistent with Zika virus disease within 2 weeks of travel to an area with Zika transmission? <input type="checkbox"/> N/A <input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes, date of symptom onset: _____ AND countries/cities and dates of travel: _____</p>		Yellow fever				Japanese encephalitis				Tick-borne encephalitis				St. Louis encephalitis				West Nile virus				Dengue				Chikungunya				Other: (list below)			
Yellow fever																																	
Japanese encephalitis																																	
Tick-borne encephalitis																																	
St. Louis encephalitis																																	
West Nile virus																																	
Dengue																																	
Chikungunya																																	
Other: (list below)																																	

Fax completed form to DCHHS Epidemiology: (214) 819-1933

Page 1 of 2

Rev. 2-10-2016 jcs/wmc  
CLIA #: 45D0672012

DALLAS COUNTY HEALTH AND HUMAN SERVICES  
Laboratory Response Network

\*Patient name: \_\_\_\_\_ \*DOB: \_\_\_\_\_

SPECIMEN 1																																					
<p>Contact name for submitting laboratory: _____ Lab Fax #: _____ Lab Phone #: _____</p> <p>Date of Collection (MM/DD/YYYY): _____ Time of collection: _____ Time of centrifugation: _____</p> <p>Specimen Source: <input type="checkbox"/> Serum <input type="checkbox"/> Urine <input type="checkbox"/> Amniotic Fluid <input type="checkbox"/> Semen <input type="checkbox"/> Saliva <input type="checkbox"/> CSF <input type="checkbox"/> Other:</p> <p><b>DCHHS PRELIMINARY LABORATORY REPORT (DO NOT write below)</b></p> <p>NOTE: This test is for surveillance and epidemiological purposes only. This is a non-FDA approved assay. Negative results do not preclude Zika virus infection.</p> <p>ZIKA PCR DATE: _____ RESULTS: <input type="checkbox"/> No Zika RNA detected <input type="checkbox"/> Zika RNA detected <input type="checkbox"/> Not performed <input type="checkbox"/> Unsatisfactory</p> <p>CHIKV PCR DATE: _____ RESULTS: <input type="checkbox"/> No CHIKV RNA detected <input type="checkbox"/> CHIKV RNA detected <input type="checkbox"/> Not performed <input type="checkbox"/> Unsatisfactory</p> <p>DENGUE PCR DATE: _____ RESULTS: <input type="checkbox"/> No Dengue RNA detected <input type="checkbox"/> Dengue RNA detected <input type="checkbox"/> Not performed <input type="checkbox"/> Unsatisfactory</p> <p>Date specimen received: _____ Cold <input type="checkbox"/> Frozen <input type="checkbox"/> Room temperature Date referred to CDC/DHS: _____</p> <p><b>CDC/DHS/COMMERCIAL LABORATORY REPORT (DO NOT write below)</b></p>																																					
<p>Test Lab Name Date Reported Result Comments/Interpretation</p> <table border="1"> <tr> <td>Zika PCR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Zika IgM/IgG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Zika PRNT</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHIKV PCR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHIKV IgM/IgG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHIKV PRNT</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue PCR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue IgM/IgG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue PRNT</td> <td></td> <td></td> <td></td> </tr> </table>		Zika PCR				Zika IgM/IgG				Zika PRNT				CHIKV PCR				CHIKV IgM/IgG				CHIKV PRNT				Dengue PCR				Dengue IgM/IgG				Dengue PRNT			
Zika PCR																																					
Zika IgM/IgG																																					
Zika PRNT																																					
CHIKV PCR																																					
CHIKV IgM/IgG																																					
CHIKV PRNT																																					
Dengue PCR																																					
Dengue IgM/IgG																																					
Dengue PRNT																																					

SPECIMEN 2																																					
<p>Date of Collection (MM/DD/YYYY): _____ Time of collection: _____ Time of centrifugation: _____</p> <p>Specimen Source: <input type="checkbox"/> Serum <input type="checkbox"/> Urine <input type="checkbox"/> Amniotic Fluid <input type="checkbox"/> Semen <input type="checkbox"/> Saliva <input type="checkbox"/> CSF <input type="checkbox"/> Other:</p> <p><b>DCHHS PRELIMINARY LABORATORY REPORT (DO NOT write below)</b></p> <p>NOTE: This test is for surveillance and epidemiological purposes only. This is a non-FDA approved assay. Negative results do not preclude Zika virus infection.</p> <p>ZIKA PCR DATE: _____ RESULTS: <input type="checkbox"/> No Zika RNA detected <input type="checkbox"/> Zika RNA detected <input type="checkbox"/> Not performed <input type="checkbox"/> Unsatisfactory</p> <p>CHIKV PCR DATE: _____ RESULTS: <input type="checkbox"/> No CHIKV RNA detected <input type="checkbox"/> CHIKV RNA detected <input type="checkbox"/> Not performed <input type="checkbox"/> Unsatisfactory</p> <p>DENGUE PCR DATE: _____ RESULTS: <input type="checkbox"/> No Dengue RNA detected <input type="checkbox"/> Dengue RNA detected <input type="checkbox"/> Not performed <input type="checkbox"/> Unsatisfactory</p> <p>Date specimen received: _____ Cold <input type="checkbox"/> Frozen <input type="checkbox"/> Room temperature Date referred to CDC/DHS: _____</p> <p><b>CDC/DHS/COMMERCIAL LABORATORY REPORT (DO NOT write below)</b></p>																																					
<p>Test Lab Name Date Reported Result Comments/Interpretation</p> <table border="1"> <tr> <td>Zika PCR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Zika IgM/IgG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Zika PRNT</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHIKV PCR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHIKV IgM/IgG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHIKV PRNT</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue PCR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue IgM/IgG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dengue PRNT</td> <td></td> <td></td> <td></td> </tr> </table>		Zika PCR				Zika IgM/IgG				Zika PRNT				CHIKV PCR				CHIKV IgM/IgG				CHIKV PRNT				Dengue PCR				Dengue IgM/IgG				Dengue PRNT			
Zika PCR																																					
Zika IgM/IgG																																					
Zika PRNT																																					
CHIKV PCR																																					
CHIKV IgM/IgG																																					
CHIKV PRNT																																					
Dengue PCR																																					
Dengue IgM/IgG																																					
Dengue PRNT																																					

Fax completed form to DCHHS Epidemiology: (214) 819-1933

Page 2 of 2

Rev. 2-10-2016 jcs/wmc  
CLIA #: 45D0672012



**DCHHS**  
Safe families, healthy lives.  
Dallas County Health and Human Services

# Zika Virus Submission Instructions for Zika Virus Testing

6



DALLAS COUNTY HEALTH AND HUMAN SERVICES  
Laboratory Response Network

Page 1 of 2

## DCHHS Submission Instructions for Zika Virus Testing

*Interim Criteria as of February 5, 2016*

### 1. Criteria for Zika Virus Testing Approval

- At this time (2/5/2016), all PCR and serologic testing for Zika virus in Texas is being referred to CDC. The DCHHS laboratory will have capacity to begin conducting PCR testing for Zika virus on 2/15/16. Prioritization of PCR testing will be dependent upon acuity of symptom onset.
- Patients must meet epidemiologic testing criteria prior to approval for testing.** To discuss testing, clinicians should contact the DCHHS Epidemiology division at 214-819-2004 or 214-677-7899 (on-call 24/7) and complete the required [DCHHS Zika Virus Clinical Specimen Submission Form](#).<sup>1</sup>
- At this time, testing criteria includes:
  - Any patient with **2 or more symptoms** compatible with Zika virus infection (e.g., fever, rash, joint pain, or conjunctivitis) **within 2 weeks of travel** to an [area with Zika virus transmission](#).<sup>2</sup>
  - Any [asymptomatic pregnant woman](#) who has traveled to areas with ongoing Zika virus transmission, within 2–12 weeks after returning to travel.<sup>3</sup>
  - Any patient with symptoms of Guillain-Barré syndrome (GBS) within 1 month of travel to an area with Zika virus transmission.
  - [Infants born to women with positive or inconclusive test results](#) for Zika infection.<sup>4</sup>
  - [Infants with microcephaly or intracranial calcifications](#) born to women who have traveled to an area with Zika virus transmission while pregnant.<sup>4</sup>
  - Patients with compatible illness who do not meet above testing criteria, but for whom there may be [concern for alternate \(e.g., sexual, non-perinatal\) modes of transmission](#) should be discussed with DCHHS epidemiology division for case-by-case evaluation and determination of approval for testing.<sup>5</sup>
- CDC recommends that [diagnostic testing for dengue and chikungunya be considered](#) in patients with possible Zika virus infection who have traveled within the previous 2 weeks to an area with ongoing transmission.<sup>6</sup> Testing for dengue and CHIKV is available from commercial laboratories.
- The DCHHS LRN Laboratory can only accept specimens for PCR results from residents of the following counties comprising its service area: Collin, Dallas, Ellis, Fannin, Grayson, Henderson, Hunt, Kaufman, Navarro, Rains, Rockwall, and VanZant.

### 2. Specimen Collection and Types Accepted

#### Serum:

- Collect at least 5.0 mL of blood in a **red top** blood collection tube and centrifuge within 2 hours from time of collection; to separate the serum from the red blood cells. Transfer the serum from the red top tube into a serum transport tube with screw cap. Whole blood will not be accepted.
- OR** Collect at least 5.0 mL of blood in a **serum separator tube** (e.g., SST, gold top, tiger top) and centrifuge within 2 hours from time of collection to separate serum from the red blood cells. If the specimen will be received at the laboratory more than 24 hours after collection, transfer the serum into a serum transport tube. **DO NOT FREEZE** the serum separator tube for shipping.

<sup>1</sup>[DCHHS Zika Virus Clinical Specimen Submission Form:](#)

[http://www.dallascounty.org/department/hhs/documents/DCHHS\\_Zika\\_SubmissionForm\\_020116.pdf](http://www.dallascounty.org/department/hhs/documents/DCHHS_Zika_SubmissionForm_020116.pdf)

<sup>2</sup>CDC. Areas with Zika Transmission: <http://www.cdc.gov/zika/geographic-index.html>

<sup>3</sup>CDC MMWR. Interim Guidelines for Pregnant Women: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6505e2er.htm>

<sup>4</sup>CDC MMWR. Interim Guidelines for Infants: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e3.htm>

<sup>5</sup>CDC COCA Call: [http://emergency.cdc.gov/coca/calls/2016/callinfo\\_012616.asp](http://emergency.cdc.gov/coca/calls/2016/callinfo_012616.asp)

<sup>6</sup>CDC Updated Diagnostic Testing for Zika: <http://www.cdc.gov/zika/pdfs/denrvchikvzika-testing-algorithm.pdf>

Rev. 2/5/16



DALLAS COUNTY HEALTH AND HUMAN SERVICES  
Laboratory Response Network

Page 2 of 2

### Other Specimen Types:

- Urine:** collect at least 3 mL urine in a sterile urine collection cup and screw lid tightly.
- Other specimens (e.g., saliva, amniotic fluid, semen) must be discussed with DCHHS Epidemiology for approval, collection specifications, and coordination of submission.

### 3. Criteria for Specimen Handling

- All tubes must be labeled with: patient name, date of birth, source, and date/time of collection.
- All specimens should be double-bagged in a biohazard bag and must be accompanied by a completed printed copy of the [DCHHS Zika Clinical Specimen Submission Form](#)<sup>1</sup> placed in the outer pouch of the biohazard envelope.

### 4. Specimen Transport

- Approval of the DCHHS Epidemiology division is required before a specimen can be sent to DCHHS for testing. Please consult with DCHHS Epidemiology at 214-819-2004 or 214-677-7899 (epi on-call 24/7) and fax a copy of the completed [DCHHS Zika Clinical Specimen Submission Form](#)<sup>1</sup> to 214-819-1933.
- All healthcare facilities must arrange for transport of specimens from their facility to DCHHS; DCHHS will not pick up specimens from any submitters. Facilities outside of Dallas County should contact their respective county or regional health department for case reporting and approval, prior to specimen submission to the DCHHS LRN Laboratory.
- Refrigerate serum and urine at 4°C and ship on cold packs within 24 hours of collection. After 24 hours of collection, serum and urine should be frozen at -70°C and shipped on dry ice.
- Follow packing and shipping instructions for Category B, Biological Substances (see <https://www.iata.org/whatwedo/cargo/dgr/Documents/packing-instruction-650-DGR56-en.pdf> for instructions).
- Ship according to IATA (International Air Transport Association) guidelines using overnight courier to arrive during business hours Monday–Friday, 8:00 AM–4:30 PM.
- Specimens delivered by same-day courier services will also be accepted.

### DCHHS LRN Shipping and Delivery Address:

Dallas County Health Laboratory  
2377 N. Stemmons Fwy  
Basement Suite 003  
Dallas, TX 75207

Laboratory: 972-692-2762

Epidemiology: 214-819-2004 (214-677-7899 after hours)

Rev. 2/5/16



**DCHHS**  
*Safe families, healthy lives.*  
Dallas County Health and Human Services

# Zika Virus Transmission

- While sexual transmission of Zika virus is possible, it is primarily transmitted to people through the bite of an infected *Aedes* species mosquito.
- Zika virus can be passed from mother to fetus during pregnancy.
- Mosquitoes become infected when they feed on a person already infected with the virus.
- Infected mosquitoes can then spread the virus to other people through bites.

# Zika Virus Symptoms

- About 1 in 5 people infected with Zika virus become ill (i.e., develop Zika).
- The most common symptoms of Zika virus are fever, rash, joint pain, and conjunctivitis (red eyes).
- Other common symptoms include muscle pain and headache.
- The illness is usually mild with symptoms lasting for several days to a week.
- Severe disease requiring hospitalization is uncommon.
- Deaths are rare.

# Zika Virus Diagnosis/Treatment

- Individuals with symptoms should see a healthcare provider if they visited an area where Zika virus is present or had sexual contact with a person who traveled to an area where Zika virus is present.
- There is no specific medication available to treat Zika virus and there is not a vaccine. Treat the symptoms:
  - Get plenty of rest.
  - Drink fluids to prevent dehydration.
  - Take medicines, such as acetaminophen or paracetamol, to relieve fever and pain.
  - Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs), like ibuprofen and naproxen, should be avoided until dengue can be ruled out to reduce the risk of hemorrhage. If you are taking medicine for another medical condition, talk to your healthcare provider before taking additional medication.
- Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs), like ibuprofen and naproxen, should be avoided until dengue can be ruled out to reduce the risk of hemorrhage. If you are taking medicine for another medical condition, talk to your healthcare provider before taking additional medication.



**DCHHS**  
Safe families, healthy lives.  
Dallas County Health and Human Services

# Zika Virus Precautions/Prevention

## FOR EVERYONE

10

- If you have Zika virus, avoid mosquito bites for the first week of your illness.
  - During the first week of infection, Zika virus can be found in the blood and passed from an infected person to another mosquito through mosquito bites.
  - An infected mosquito can then spread the virus to other people.
- The best way to avoid Zika virus is to avoid mosquito bites and sexual contact with a person who has Zika virus.
- Everyone should use the 4Ds to reduce the chance of being bitten by a mosquito.
  - DEET All Day, Every Day: Whenever you're outside, use insect repellents that contain DEET or other EPA approved repellents and follow instructions.
  - DRESS: Wear long, loose, and light-colored clothing outside.
  - DRAIN: Remove all standing water in and around your home.
  - DUSK & DAWN: Limit outdoor activities during dusk and dawn hours when mosquitoes are most active.



**DCHHS**  
Safe families, healthy lives.

Dallas County Health and Human Services

# Zika Virus Precautions/Prevention

## FOR TRAVELERS, SEXUAL PARTNERS

11

- Travelers can protect themselves further by doing the following:
  - Choose a hotel or lodging with air conditioning or screens on windows or doors.
  - Sleep under a mosquito bed net if you are outside or in a room that is not well-screened.
- Sexual partners can protect each other by abstaining from sex or by using condoms consistently and correctly during sex.

# Zika Virus Precautions/Prevention

## FOR PREGNANT WOMEN, WOMEN PLANNING PREGNANCY

- Pregnant women and women trying to get pregnant can protect themselves further by taking the following precautions:
  - Pregnant women in any trimester should consider postponing travel to the areas where Zika virus transmission is ongoing.
  - Pregnant women who do travel to one of these areas should talk to their doctor or other healthcare provider first and strictly follow steps to avoid mosquito bites during the trip.
  - Pregnant women should discuss their male partner's potential exposures to mosquitoes and history of Zika-like illness.
  - Women trying to become pregnant or who are thinking about becoming pregnant should consult with their healthcare provider before traveling to these areas and strictly follow steps to prevent mosquito bites during the trip.

# Countries and Territories with Active Zika Transmission



# Countries and Territories with Active Zika Transmission

## Americas

- Barbados
- Bolivia
- Brazil
- Colombia
- Commonwealth of Puerto Rico, US territory
- Costa Rica
- Curacao
- Dominican Republic
- Ecuador
- El Salvador
- French Guiana
- Guadeloupe
- Guatemala
- Guyana
- Haiti
- Honduras
- Jamaica
- Martinique
- Mexico
- Nicaragua
- Panama
- Paraguay
- Saint Martin
- Suriname
- U.S. Virgin Islands
- Venezuela

## Oceania/Pacific Islands

- American Samoa
- Samoa
- Tonga

## Africa

- Cape Verde



**DCHHS**  
*Safe families, healthy lives.*

Dallas County Health and Human Services

2377 N. Stemmons Freeway  
Dallas, Texas 75207  
214-819-2100

[www.dallascounty.org/hhs](http://www.dallascounty.org/hhs)

Zachary Thompson, Director  
Dr. Christopher Perkins, Medical Director/Health Authority