

# Memorandum



CITY OF DALLAS

DATE February 12, 2016

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, appearing to read 'JZapata'.

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

# 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

**\*Required Fields—Omission of required information may result in inability to test. Completed form must accompany each submitted specimen.**

**\*Requesting Healthcare providers MUST check ONE of the following categories**

**TESTING CRITERIA MET**

**DCHHS Epi Use Only**

Testing criteria met?  Yes  No

PCR: Z D C  
Serog: Z D C

QA Initials: \_\_\_\_\_  
Date C: \_\_\_\_\_  
Date R: \_\_\_\_\_  
Priority: \_\_\_\_\_

**PATIENT**

\*Last name: \_\_\_\_\_ \*First name: \_\_\_\_\_ Patient ID # / Medical record #: \_\_\_\_\_  
\*Date of birth (MM/DD/YYYY): \_\_\_\_\_ \*Sex:  Male  Female \*Race/Ethnicity: \_\_\_\_\_  
\*Address: \_\_\_\_\_ \*City: \_\_\_\_\_ \*State: \_\_\_\_\_  
\*County: \_\_\_\_\_ ZIP: \_\_\_\_\_ \*Phone #: \_\_\_\_\_ Alt. phone #: \_\_\_\_\_

The DCHHS IRL 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.

**SUBMITTER**

\*Physician / Hospital / Lab / Clinic name: \_\_\_\_\_ \*Contact name: \_\_\_\_\_  
\*Email: \_\_\_\_\_ \*Phone: \_\_\_\_\_ \*Fax #: \_\_\_\_\_ Pager #: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

**EPIDEMOLOGY**

\*Date Symptom Onset: \_\_\_\_\_ Symptoms resolved?  Yes  No  
\*Symptoms (check all that apply):  None  Fever  Rash  Conjunctivitis  
 Joint pain  Guillain-Barré  Hematospermia  Other (list): \_\_\_\_\_  
\*Patient pregnant?  No  Yes, # weeks gestation: \_\_\_\_\_  
Fetal/infant anomalies:  None  Unk  Microcephaly  Intracranial calcifications  
Dengue  
Flavivirus Vaccination History: Yes No Unk Date  
Yellow fever vaccine  
Japanese encephalitis  
Tick-borne encephalitis

**TRAVEL HISTORY**

**\*Failure to provide travel history may result in an inability to test or a delay**

Did the patient travel to an area with Zika transmission within 14 days prior to symptom onset?  Unk  No  Yes, countries/cities and dates of travel: \_\_\_\_\_  
If infant, is there a maternal history of travel to an area with Zika transmission?  N/A  Unknown  No  Yes, countries/cities and dates of travel: \_\_\_\_\_  
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?  
 N/A  Unknown  No  Yes, date of symptom onset: \_\_\_\_\_ AND countries/cities and dates of travel: \_\_\_\_\_



DALLAS COUNTY HEALTH AND HUMAN SERVICES  
Laboratory Response Network

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

**SPECIMEN 1**

\*Contact name for submitting laboratory: \_\_\_\_\_ \*Lab Fax #: \_\_\_\_\_ \*Lab Phone: \_\_\_\_\_  
\*Date of Collection (MM/DD/YYYY): \_\_\_\_\_ \*Time of collection: \_\_\_\_\_ \*Time of centrifugation: \_\_\_\_\_  
\*Specimen Source:  Serum  Urine  Amniotic Fluid  Semen  Saliva  CSF  Other: \_\_\_\_\_

**DCHHS PRELIMINARY LABORATORY REPORT (DO NOT write below)**

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.

ZIKA PCR DATE: \_\_\_\_\_ RESULTS:  No Zika RNA detected  Zika RNA detected  Not performed  Unsatisfactory  
CHIKV PCR DATE: \_\_\_\_\_ RESULTS:  No CHIKV RNA detected  CHIKV RNA detected  Not performed  Unsatisfactory  
DENGUE PCR DATE: \_\_\_\_\_ RESULTS:  No Dengue RNA detected  Dengue RNA detected  Not performed  Unsatisfactory

Date specimen received: \_\_\_\_\_  Cold  Frozen  Room temperature Date referred to CDC/DSHS: \_\_\_\_\_

**CDC/DSHS/COMMERCIAL LABORATORY REPORT (DO NOT write below)**

Test	Lab Name	Date Reported	Result	Comments/Interpretation
Zika PCR				
Zika IgM/IgG				
Zika PRNT				
CHIKV PCR				
CHIKV IgM/IgG				
CHIKV PRNT				
Dengue PCR				
Dengue IgM/IgG				
Dengue PRNT				

**SPECIMEN 2**

\*Date of Collection (MM/DD/YYYY): \_\_\_\_\_ \*Time of collection: \_\_\_\_\_ \*Time of centrifugation: \_\_\_\_\_  
\*Specimen Source:  Serum  Urine  Amniotic Fluid  Semen  Saliva  CSF  Other: \_\_\_\_\_

**DCHHS PRELIMINARY LABORATORY REPORT (DO NOT write below)**

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.

ZIKA PCR DATE: \_\_\_\_\_ RESULTS:  No Zika RNA detected  Zika RNA detected  Not performed  Unsatisfactory  
CHIKV PCR DATE: \_\_\_\_\_ RESULTS:  No CHIKV RNA detected  CHIKV RNA detected  Not performed  Unsatisfactory  
DENGUE PCR DATE: \_\_\_\_\_ RESULTS:  No Dengue RNA detected  Dengue RNA detected  Not performed  Unsatisfactory

Date specimen received: \_\_\_\_\_  Cold  Frozen  Room temperature Date referred to CDC/DSHS: \_\_\_\_\_

**CDC/DSHS/COMMERCIAL LABORATORY REPORT (DO NOT write below)**

Test	Lab Name	Date Reported	Result	Comments/Interpretation
Zika PCR				
Zika IgM/IgG				
Zika PRNT				
CHIKV PCR				
CHIKV IgM/IgG				
CHIKV PRNT				
Dengue PCR				
Dengue IgM/IgG				
Dengue PRNT				



# Zika Virus Submission Instructions for Zika Virus Testing



## 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/geo/index.html>

<sup>3</sup> CDC MMWR. Interim Guidelines for Pregnant Women: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6505a2er.htm>

<sup>4</sup> CDC MMWR. Interim Guidelines for Infants: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6503a3.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/denchiikvzika-testing-algorithm.pdf>



### 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 (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)



# 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.

# Zika Virus Precautions/Prevention

## FOR EVERYONE

- 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.

# Zika Virus Precautions/Prevention <sup>11</sup>

## FOR TRAVELERS, SEXUAL PARTNERS

- 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

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- 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

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- American Samoa
- Samoa
- Tonga

## Africa

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- 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