



Zika Virus Response in North Carolina Joint Oversight Emergency Management Committee Meeting

> Megan Davies, M.D. State Epidemiologist and Chief Epidemiology Section April 14, 2016



Presentation Overview

- Epidemiology update
- CDC Zika Action Plan Summit
- North Carolina Response and Activities



Epidemiology (as of April 12, 2016)

Zika in the Americas; Pan American Health Organization report

Suspected cases 199,922

Laboratory confirmed cases 5,869

Zika in the United States; CDC report

States 346 travel associated cases

• Territories 354 cases (351 locally acquired)

- Zika in North Carolina; NC DPH report
 - 9 travel associated cases (294 individuals evaluated for testing)





The White House announced it would partner with the National Governors Association (NGA) and the nation's governors to combat the Zika virus.

The intent of the summit was to help identify gaps in preparedness and provide state and local senior officials with information and tools to improve Zika response within their states and jurisdictions.

A team, led by Dr. Randall Williams, State Health Director and Danny Staley, Division Director, NC Division of Public Health from North Carolina was invited by the CDC to attend the summit.



CDC Zika Action Plan Summit

- North Carolina has made significant progress in the past few months and our state of readiness is similar to other states in the Southeast.
- Our efforts to develop mosquito surveillance/control were well received.
- Emphasis at the summit
 - Mosquito control
 - Pregnancy registry
 - Outreach and education especially for women of childbearing age



Ongoing Activities for North Carolina

- Health Care Provider Guidance
- Laboratory Capacity
- Pregnancy Registry
- Blood Safety
- Mosquito Surveillance / Management
- Outreach



Zika Health Care Provider Guidance



RICHARD O. BRAJER
Secretary

DANIEL STALEY

Director, Division of Public Health

March 31, 2016 (replaces version dated March 22, 2016)

To: North Carolina Health Care Providers and Laboratories

From: Megan Davies, MD, State Epidemiologist

Scott Zimmerman, DrPH, MPH, HCLD (ABB), State Laboratory of Public Health

Belinda Pettiford, MPH, Women's Health Branch

Subject: Zika Virus Diagnosis, Management and Reporting (5 pages)

This memo is intended to provide information to NC clinicians and laboratories regarding diagnosis, management and reporting of Zika virus infection.

This version has been updated to include more specific information on recommendations for prevention of sexual transmission of Zika virus and testing of asymptomatic pregnant women who traveled in the 8 weeks before conception.



Zika Response State Laboratory of Public Health

The State Laboratory of Public Health has worked closely with the Communicable Disease Branch since Zika response began in January.

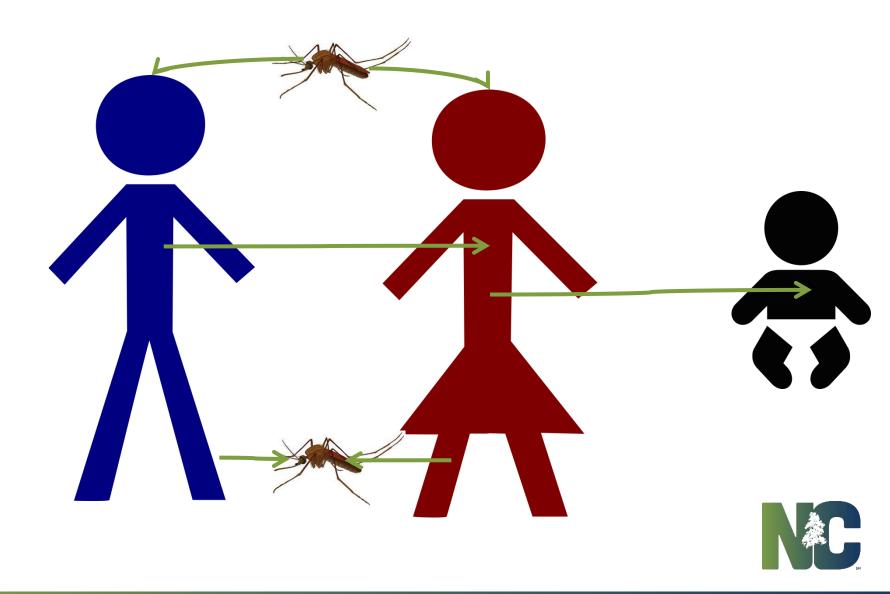
Successfully completed the CDC IgM verification panel and is now approved to conduct diagnostic testing to detect Zika antibodies in serum.

Received the Emergency Use Authorization trioplex assay to directly detect Zika, dengue and chikungunya virus in serological specimens and CSF and Zika virus in urine and amniotic fluid.

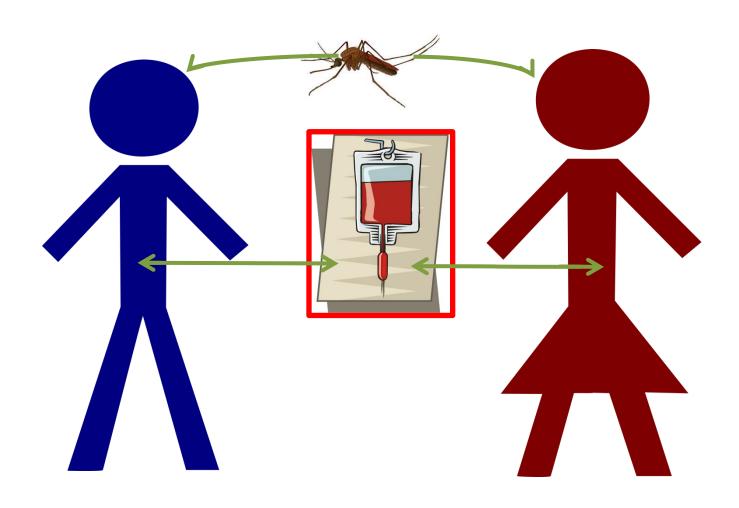
- The laboratory is currently working to verify assay performance and is scheduled to offer the test on or before April 30
- Continues to evaluate IgM assays for dengue and chikungunya virus.



Modes of Zika Virus Transmission



Modes of Zika Virus Transmission





Zika Blood Safety: FDA Guidance

FDA has provided blood establishments that collect Whole Blood and blood components recommendations for donor screening, donor deferral and product management to reduce the risk of transfusion-transmitted Zika virus.

Division of Public Health is coordinating with North Carolina Emergency Management to set up a meeting with blood center operators



Zika Blood Safety: FDA Guidance

Blood Centers and Operators in North Carolina

- American Red Cross
- Armed Services Blood Center
- Community Blood Centers of the Carolinas
- Duke Apheresis Donor Program
- REX Blood Services
- The Blood Connection, Greenville, South Carolina
- Cape Fear Valley Health
- University of North Carolina Blood Center
- Wake Med Apheresis Donor Program



U.S. Zika Pregnancy Registry

- CDC established the US Zika Pregnancy Registry and is collaborating with state, tribal, local and territorial health departments to collect information about Zika virus infection during pregnancy and congenital Zika virus infection.
- The Communicable Disease Branch is working with the Birth Defects Unit of the State Center for Health Statistics within the North Carolina Division of Public Health to establish registry protocols for North Carolina.
- Successful implementation will rely on effective partnership with obstetricians, gynecologists and pediatricians



Short Term Mosquito Management

Initial Mosquito Survey

- Partnership with Western Carolina University, NC State University, and East Carolina University.
- Sampling method and plan has been designed
- Partner counties have been recruited
- Will initiate later in April still early in the season
- Larvae may not be identifiable until May



Long Term Mosquito Management

- On April 11, 2016, the Governor unveiled his budget priorities to further promote a healthy North Carolina, including \$750,000 to respond to Zika Virus
- Provides funding for surveillance across the state to identify and track the Aedes aegypti mosquito, the primary carrier of the Zika virus, as well as other disease vectors
 - Entomologists in the Communicable Disease Branch
 - Funding to help local health departments provide education and conduct surveillance
 - Laboratory scientist at North Carolina State Laboratory of Health



Aedes aegypti Maps from the CDC

Approximate distribution of Aedes aegypti in the United States*



*Maps were developed using currently available information. Mosquito populations may be detected in areas not shaded on this map, and may not be consistently found in all shaded areas.

Estimated range of Aedes aegypti in the United States, 2016*





Aedes albopictus Maps from the CDC

Approximate distribution of Aedes albopictus in the United States*



*This map was developed using currently available information. Aedes albopictus mosquito populations (a known vector of chikungunya) may be detected in areas not shaded on this map, and may not be consistently found in all shaded areas. The shaded areas are NOT locations of chikungunya transmission.

Estimated range of *Aedes albopictus* in the United States, 2016*





Zika Outreach & Education



State of North Carolina

PAT McCRORY

GOVERNOR

TICK AND MOSQUITO AWARENESS MONTH

2016

BY THE GOVERNOR OF THE STATE OF NORTH CAROLINA

A PROCLAMATION

WHEREAS, diseases transmitted by ticks and mosquitoes affect people across the United States and are significant health threats in North Carolina, where they affect hundreds of citizens each year; and

WHEREAS, based on past data collected on ticks and mosquitoes, combined with public health surveillance conducted by the Division of Public Health, it is documented that ticks and mosquitoes are abundant in North Carolina and more than 800 cases of tick and mosquito-borne diseases were reported; and

WHEREAS, the tick-borne diseases Rocky Mountain spotted fever, ehrlichiosis and Lyme disease, and the mosquito-borne diseases La Crosse encephalitis, West Nile encephalitis and Eastern equine encephalitis are preventable conditions in people and animals in North Carolina; and

WHEREAS, North Carolina and the rest of the nation are vulnerable to the emergence of a number of Old World mosquior-borne diseases, including Dengue, Chikungunya, Jupunese encephalitis and Rif Valley fever that threaten both human and niminal thathit, and that waveness to these threats among citizens is essential for early recognition and control.

WHEREAS, these diseases can cause severe illness and death in children and adults who would otherwise be healthy; and

WHEREAS, ticks and mosquitoes are a natural part of our environment and cannot be eradicated, and residents should take protective measures during seasons of high mosquito and tick activity because prevention is the most efficient, environmentally safe and cost-efficient emethod to reduce the risk of disease; and

WHEREAS, since these diseases can be difficult to diagnose and may resemble other infectious and noninfection diseases. North Carolinians need to know the disease symptoms and risks so that those who are possibly infected know to seek medical advice, as three diseases are best treated early when therapy is most effective; and

WHEREAS, North Carolina's state health officials acknowledge the importance of increasing public awareness of tick and moraquito-borne diseases and their prevention, and encourage opportunities for community residents and health care providers to learn more about the threat, medical implications and prevention of these diseases;

NOW, THEREFORE, I, PAT McCRORY, Governor of the State of North Carolina, do bereby proclaim April 2016, as "TICK AND MOSQUITO AWARENESS MONTH" in North Carolina, and commend its observance to all citizens.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of the State of North Carolina at the Capitol in Raleigh this twenty-second day of March in the year of our Lord two thousand and sixteen, and of the independence of the United States of America the two bundred and Greiteh.





State Health Officials Encourage Ongoing Awareness of Travel Recommendations

Raleigh

Mar 4, 2016

State officials continue to encourage awareness of travel recommendations from the Centers for Disease Control and Prevention as they pertain to Zika virus. There are five travel-related cases of Zika virus confirmed in North Carolina, and North Carolinas are encouraged to stay informed of the risk of Zika virus infection before traveline to Central America, South America, Mexico or the Carolinbean.

"We have anticipated all along that travel-related cases would be identified in North Carolina, and while travel-related cases are not a probable threat to public health, we always actively monitor emerging global situations and adjust resources to meet needs." said State Health Director. Randall Williams, MD. "Travelers to any of the countries with active Zika transmission should follow precautions to minimize their exposure to mosquito bites. Pregnant women are particularly urged to take note of the recent CDC travel recommendations advising that travel to areas with active virus transmission be postpooned! Possible."

Zika virus is primarily transmitted through the bite of an infectious mosquito. Symptoms include rash and red eyes. Less common symptoms include fever, joint pains and muscle aches. Only about one in five people infected with Zika virus will show symptoms. Sexual transmission of







Individuals & Families

LOCAL HEALTH DEPTS

HEALTHCARE PROVIDERS

Schools, Businesses & Community Groups FACTS & FIGURES

Communicable Disease

* A-Z Diseases & Topics

Zika Virus

Pregnant Women

Press Releases

Travelers

Zika Tool Kit

Info for Healthcare Providers

Arboviruses: Prevention

Zika Virus Testina

Info for Health Depts.

Programs & Services

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Mosquito-Borne Illnesses Vector-Borne Diseases DHHS > DPH > Epi > Communicable Disease > Zika Virus > Zika Tool Kit

Zika Virus

Zika Tool Kit

N.C. Zika Virus Tool Kit

Communications

- Press Releases
- Template for Vector Press Release
- Key Points: Zika Virus April 7, 2016 (PDF, 332KB)
- Mosquito Control in North Carolina April 11, 2016 (PDF, 424KB)
- ASTHO: <u>Top Questions on Zika: Simple Answers</u> April 7, 2016 (PDF, 1.8MB)
- Governor Proclamation: Tick and Mosquito Awareness Month

Blood Safety

- Recommendations for Donor Screening Deferral, and Product Management to Reduce the Risk of Transfusion-Transmission of Zika Virus (PDF)
- American Red Cross Statement on Zika Virus
- North Carolina Association of Blood Bankers 丞

NC DPH Vectorborne Disease Program

North Carolina Vector borne Disease Management - March 28, 2016 (PDF, 223KB)



Thank you for your attention and your commitment to the health and safety of all the people in North Carolina.

