



*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)





ZIKA Action Plan SUMMIT

CDC Atlanta, GA

April 1, 2016

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



Public Health
HEALTH AND HUMAN SERVICES

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.

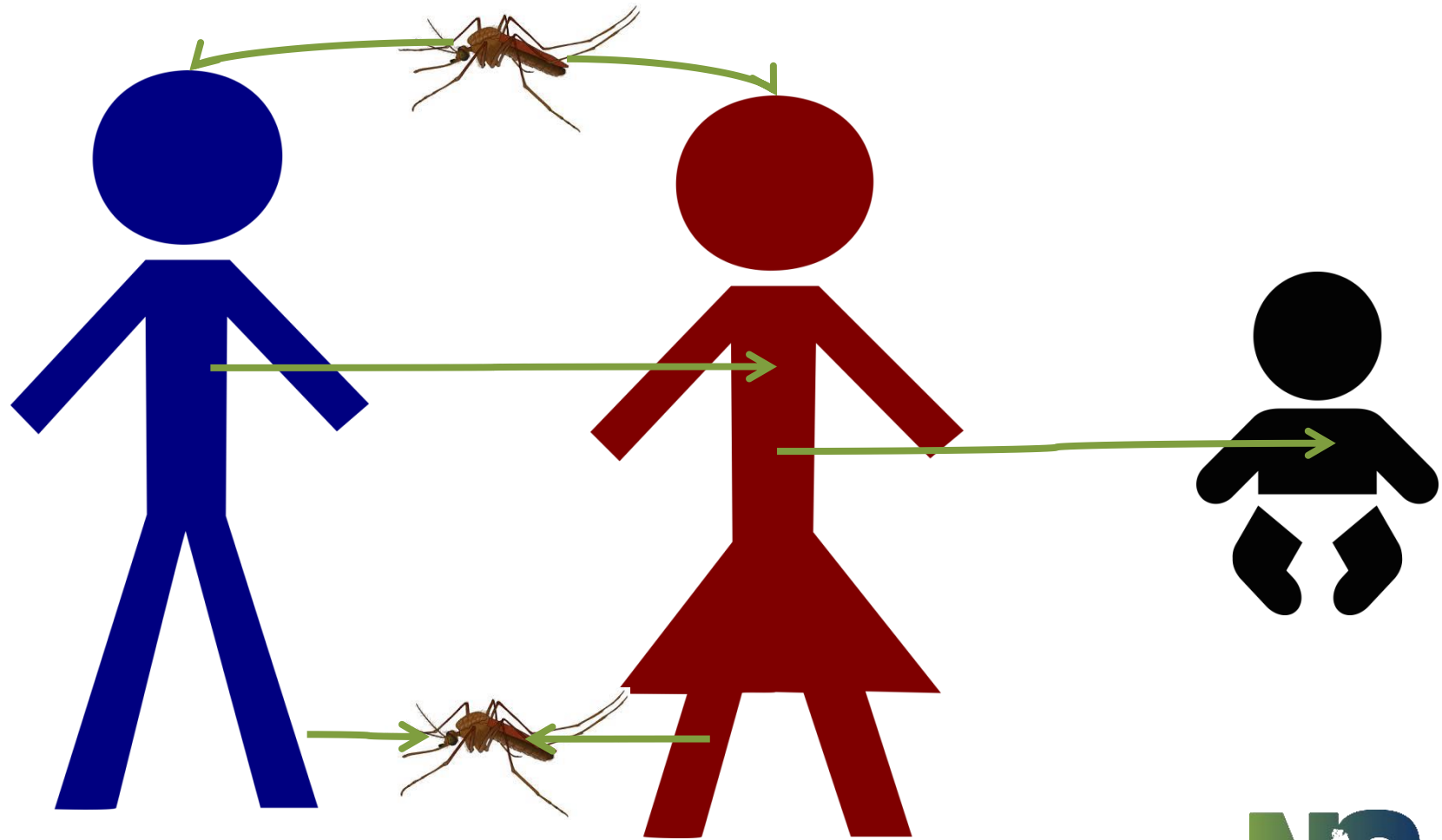
Successfully completed the CDC IgM verification panel and is now approved to conduct diagnostic testing to detect Zika antibodies in serum.

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

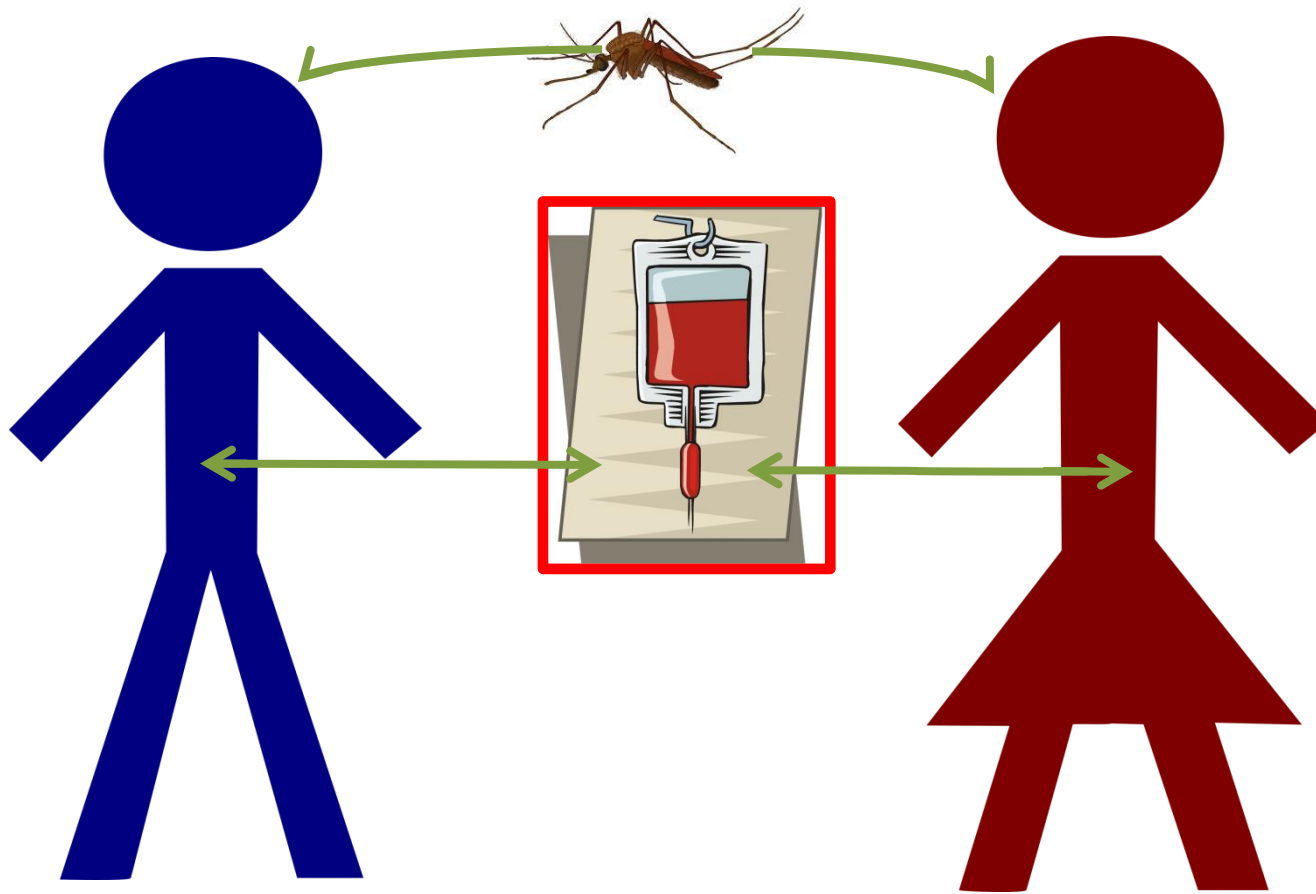
- The laboratory is currently working to verify assay performance and is scheduled to offer the test on or before April 30
- Continues to evaluate IgM assays for dengue and chikungunya virus.



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*

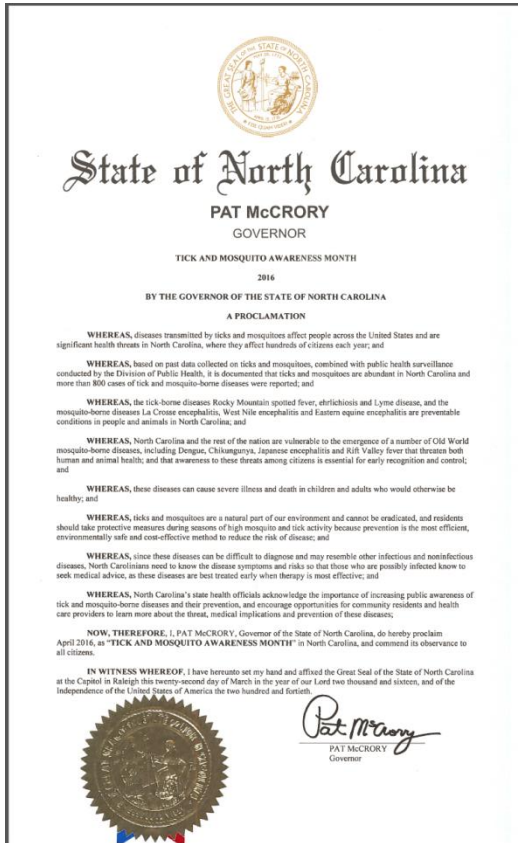


*This map was developed using currently available information. *Aedes albopictus* mosquito populations (a known vector of chikungunya) may be detected in areas not shaded on this map, and may not be consistently found in all shaded areas. The shaded areas are NOT locations of chikungunya transmission.

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



Zika Outreach & Education



State 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 Carolinians are encouraged to stay informed of the risk of Zika virus infection before traveling to Central America, South America, Mexico or the Caribbean.

"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 postponed if 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 the virus is also possible.



INDIVIDUALS & FAMILIES	LOCAL HEALTH DEPTS	HEALTHCARE PROVIDERS	SCHOOLS, BUSINESSES & COMMUNITY GROUPS	FACTS & FIGURES
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Communicable Disease HOME

✶ A-Z Diseases & Topics

- Zika Virus
- Pregnant Women
- Press Releases
- Travelers
- Zika Tool Kit**
- Info for Healthcare Providers
- Arboviruses: Prevention
- Zika Virus Testing
- Info for Health Depts.

- Programs & Services
- Surveillance & Reporting
- Disease Laws & Rules
- About Us
- Contact Us
- Quick Links

- 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: Top Questions on Zika: Simple Answers - 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](#)
- [Community Blood Centers of the Carolinas: What You Need to Know About Zika](#)
- [North Carolina Association of Blood Bankers](#)

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.**

