

# STATE OF CONNECTICUT

## Zika Virus Surveillance and Response Plan Summary, 2016

*DRAFT, 02/11/2016*

### Introduction

- Zika virus, first discovered in Uganda in 1947, was limited to Africa and Asia infrequently causing human illnesses until May 2015, when the WHO reported transmission in the Western Hemisphere
- Twenty-six countries and territories have reported local transmission of Zika virus including Puerto Rico with additional spread likely in areas with the primary mosquito vector – *Aedes aegypti*
- States along the southern border of the US have the potential for localized outbreaks
- All states may have travel associated cases among residents
- The US has 39 laboratory confirmed cases with six cases in pregnant women; one infant was born with microcephaly, two resulted in fetal loss
- Of recent concern is also the possibility of spread from a woman to her baby during pregnancy and between sexual partners
- While usually a mild disease an association with birth defects and Guillain-Barre syndrome has been suggested

### State Mosquito Management Program (MMP)

- Established in 1997 as a multi-agency collaborative to monitor and respond to mosquito-borne infectious diseases
- For Zika virus the Governor has designated the Department of Public Health (DPH) as the lead agency
- The MMP is based on an integrated pest management (IPM) approach, which includes surveillance, education, source reduction, mosquito control and personal protection measures

### Plan Components

- Public Health Surveillance
  - Coordinated by the DPH Epidemiology and Emerging Infections Program (EEIP)
  - The lists of Reportable Diseases and Laboratory Findings will include Zika virus associated illnesses
  - Staff of the EEIP are available 24/7/365 to answer questions from the public and health care providers
- Maternal and child health surveillance and response
- Rapid birth defects monitoring and follow-up
- Laboratory testing
  - No commercially diagnostic tests are available; all testing for Connecticut residents is conducted at the Centers for Disease Control and Prevention (CDC).
  - The DPH Public Health Laboratory expects to have the ability to conduct RT-PCR before March 1 – this test can identify virus in blood during the first week after onset of illness
  - Specimens will also be tested for dengue and chikungunya viruses which are circulating in the same geographic areas and transmitted by the same mosquito vector, *Ae. aegypti*
  - Testing for IgM antibodies will be offered when reagents become available from the CDC

- this test can confirm exposure towards the end of the first week of infection
  - Recommendations for testing is evolving - emphasis is currently on pregnant women with a history of travel to areas where Zika virus is circulating in the prior 2-12 weeks
- Vector surveillance
  - Coordinated by the Connecticut Agricultural Experiment Station (CAES)
  - *Aedes aegypti* is not present in CT, however, *Ae. albopictus* has been identified and is considered capable of transmission of the virus – the role this species may play is not known
  - The CAES traps mosquito at 91 sites statewide from June through October
  - Mosquito species, abundance and spatial distribution are monitored
  - All mosquitoes are tested for viruses of public health significance including Zika virus
  - Department of Energy and Environmental Protection (DEEP) will provide technical assistance/training of municipality personnel to conduct surveys for determining abundance, distribution, and type of containers present
- Vector control
  - The primary mode of transmission is by mosquito bites making mosquito control the most effective way to prevent transmission of Zika virus
  - Municipalities are responsible for coordination of mosquito control activities on municipal and private lands in their jurisdictions
  - The DEEP Wetlands Habitat and Mosquito Control Program (WHAM) will provide technical advice regarding source reduction and the use of larvicides
  - DEEP Solid Waste Program will assist municipalities to address illegal disposal of materials such as tires and pursue enforcement actions involving large-scale tire disposal areas
- Prevention of person-to-person transmission
- Prevention of transfusion-associated transmission
- Clinician outreach and communication
  - Coordinated by the DPH
  - Multiple means will be utilized including the DPH website, the Connecticut Epidemiologist newsletter and email notifications
  - Staff of the DPH EEIP are available 24/7/365 to answer questions from health care providers
- Risk communication
  - There is no available vaccine to prevent Zika virus infection and no specific treatment for Zika virus related illnesses - prevention depends on avoiding mosquito bites where Zika virus is circulating
  - Sexual transmission of Zika virus is possible, and is of particular concern during pregnancy - men or women who reside in or travel to an area of active Zika virus might consider abstaining from sexual activity or using condoms
  - Women who are pregnant should consider avoiding travel to areas where Zika virus is circulating and if travel is necessary should take precautions to avoid mosquito bites
- Community education
  - The DEEP will update and maintain the State MMP web site
  - Information includes mosquito-borne illnesses in humans, mosquito surveillance and control options
  - The MMP web site also has direct links to the DPH, CAES and Department of Agriculture for additional information
  - The DPH will coordinate release of information through press releases