

2016 Zika Case Response from a State Perspective

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Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner

The WHO just declared a public health emergency related to Zika virus

Updated by Julia Belluz | @juliafortoronto | julia.belluz@coxmedia.com | Feb 1, 2016, 1:30pm

TWITTER SHARE



HEALTH

Zika Virus a Global Health Emergency, W.H.O. Says

Health workers v... which transmits: By SABRINA TAVERNISE and DONALD C. McNEIL Jr. FEB. 1, 2016



- On Feb 1st, The World Health Organization declared Zika a "public health emergency of international concern"

- First 4 travel-associated cases in FL identified in late January

Public Health Emergency Declaration

Governor, Rick Scott signed Executive Order 16-29 (Feb. 3rd, 2016)

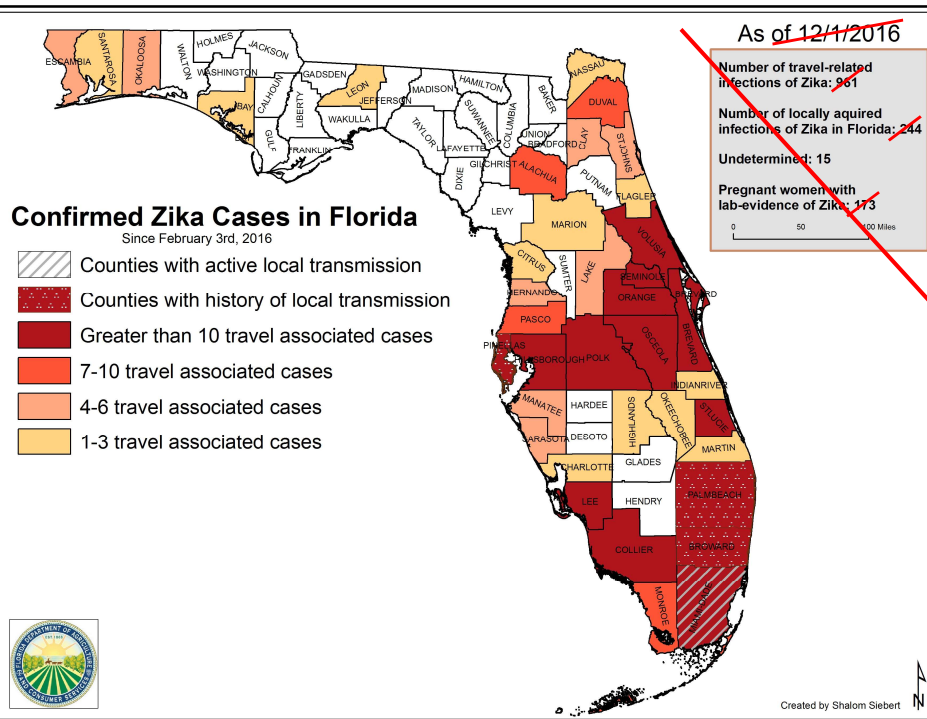
- Directed State Surgeon General to declare **public health emergency in Florida**
 - 4 counties with travel-associated ZikV cases
 - All new counties with confirmed cases to be listed
 - Currently up to 38 (Dec. 1, 2016)



Section 388.45(1), Florida Statutes



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Mosquito Declaration

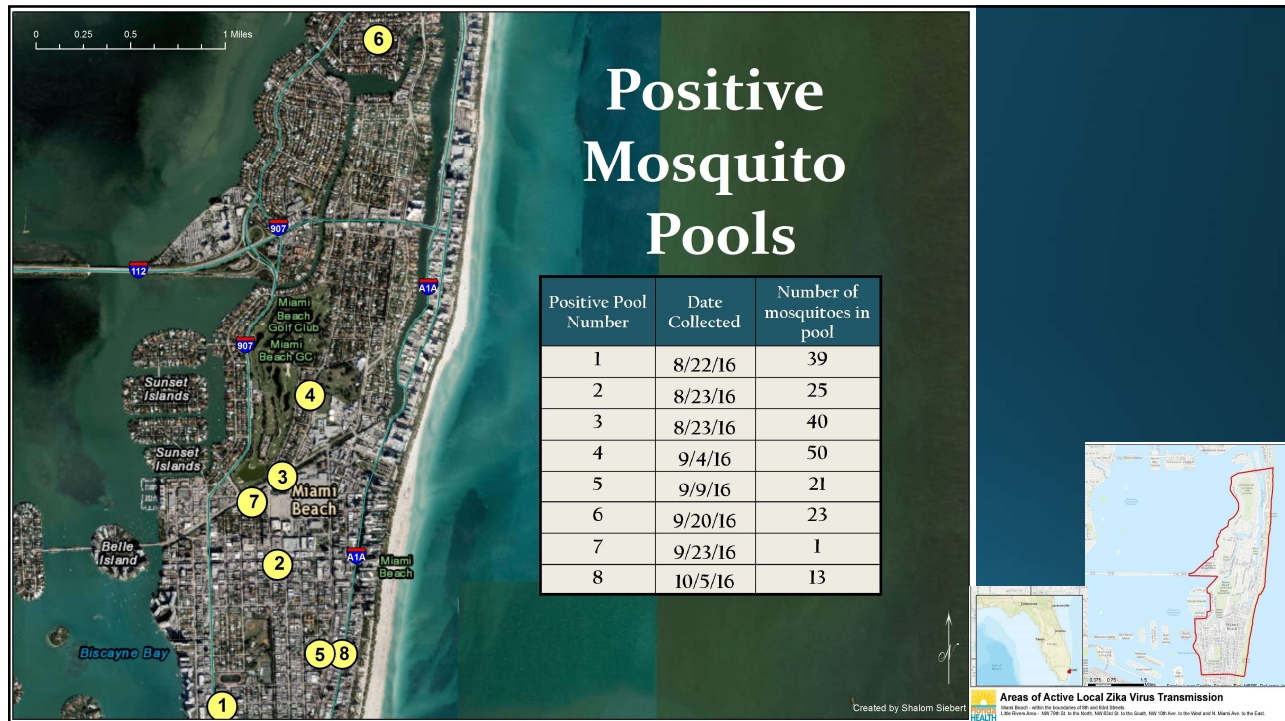
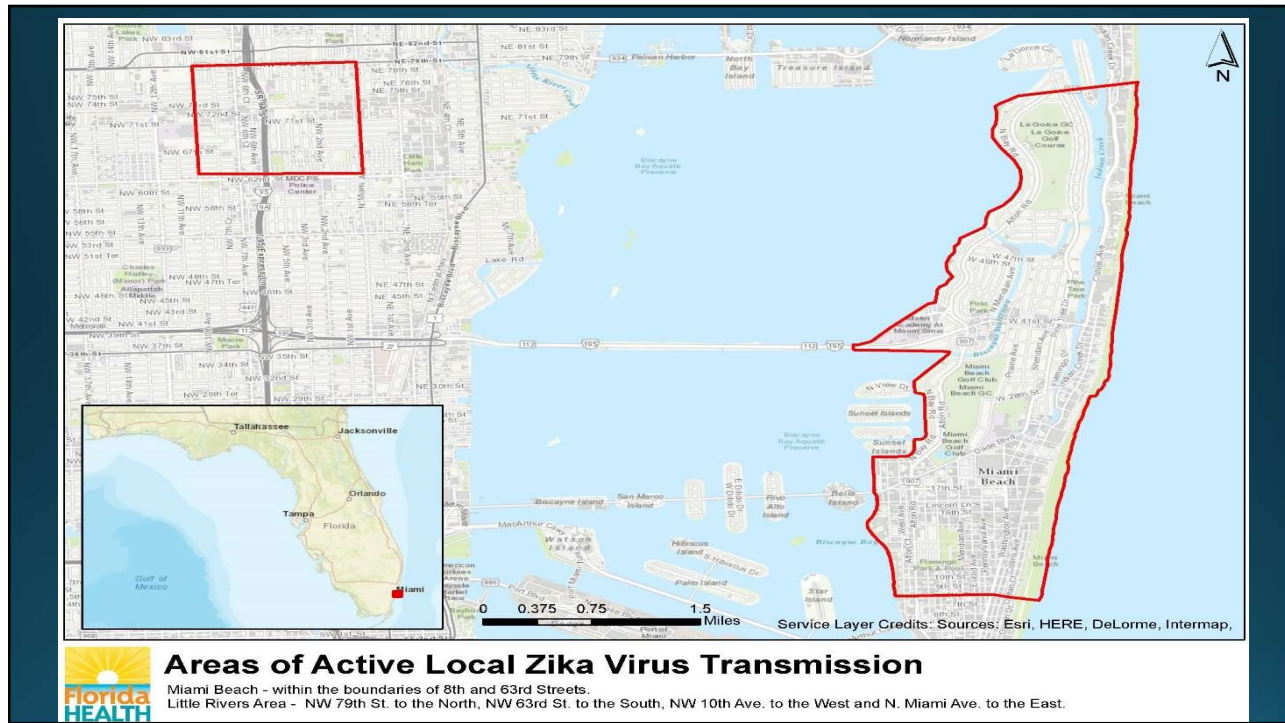


- Commissioner of Agriculture, Adam H. Putnam, issued **Mosquito Declaration** on July 29, 2016
 - Following identification of first locally acquired cases in CONUS
 - 3 areas of active transmission identified in Miami Dade county
 - Authorizes aggressive ameliorative mosquito control measures within minimum 200 yard radius for 45 days
 - Source reduction
 - Treating containers with long-lasting larvicide
 - Providing outdoor residual and spatial adulticide treatments
 - Conducting surveillance
 - Educating residents on ZikV and limiting exposure to mosquitoes

Section 388.45(1), Florida Statutes

Zika in Florida

- Local transmission in CONUS
 - **July 29th** – original 2 mi² area in Wynwood identified (Miami-Dade county)
 - Since lifted following 45 d no new cases after Aug 5th
 - **August 19th** – new 1.5 mi² location on Miami Beach identified (M-D county)
 - Later expanded to 4.5 mi²
 - **8 positive mosquito pools** identified from Miami Beach collections
 - Collected 8/22, 8/23, 9/4, 9/9, 9/20, 9/23, and 10/5
 - All *Aedes aegypti* in BG Sentinel traps (BG lure, octenol, and CO₂)
 - **October 13th** – new 1 mi² location in Little River, Little Haiti (M-D county)
 - **One offs** – Broward, Palm Beach, and Pinellas Counties



FDACS Role in Response

- Department of Health = lead agency
- FDACS's role
 - Support to local MCPs & FDoH
 - Monitor local MCPs as they respond to cases
 - Identify resource needs and limitations of local MCPs
 - Supplement MCPs as necessary
 - Provide technical assistance to MCPs & FDoH
 - Facilitate sharing of mosquito control personnel/equipment between programs
 - Develop statewide control strategy
 - Task Force for open counties or limited programs



Outreach to Affected Counties

- Host recurring call with affected counties
 - Open and maintain active lines of communication
 - Identify resource needs and limitations
 - Facilitate communication between programs
 - Sharing of mosquito control expertise
 - Initially 4 affected counties
 - Expanded to include all MCPs (April 25th!)



Technical Guidance & Outreach

- Provide guidance and training on best management strategies
 - MCPs – Zika Workshops
 - 9 regional meetings
 - PCOs – Zika Vector Control for the Urban Pest Management Industry
 - Co-hosted workshops with U Florida and FMEL
 - Bridge gap between public health mosquito control and pest control operators offering mosquito control services
 - Potential use as additional manpower in supplemental mosquito control response



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Zika Case Response

- Controlling peridomestic species requires fully comprehensive *Integrated Mosquito Management* regime
 - Public education
 - Source reduction
 - Larviciding
 - Targeted adulticiding
 - Surveillance



Technical Guidance & Outreach

- Host educational Zika vector control webinars
 - DoH, Beekeepers, national EM, FFWCC
- Educational materials for FDACS field personnel, beekeepers, and state emergency personnel
- Education for farmworker community
- Outreach to cattle/dairy operations
 - Use of waste tires to protect silage from elements
- Outreach to lien holders of vacant/foreclosed properties



Need for Increased Surveillance

- Identified need for targeted surveillance of peridomestic, container mosquitoes
 - MCPs in FL historically founded to combat pestiferous and long flight-range disease vectors
- Interest in gathering data on current geographic distribution of *Aedes aegypti* and *Aedes albopictus*
 - Accurate distribution data critical
 - Predict outbreak occurrences
 - Identify areas requiring treatment to prevent outbreaks (hotspots of localized activity)
 - Evaluate response readiness
 - Monitor control efforts

Need for Increased Surveillance

- FDACS provided over 300 BG Sentinel Traps for adult collections to counties
 - Excellent surveillance tool for peridomestic species
 - Mimics human body convection currents
 - Releases artificial human skin and octenol lures through large surface area
 - Utilizes attractive visual cues
 - **Catches increased with CO₂



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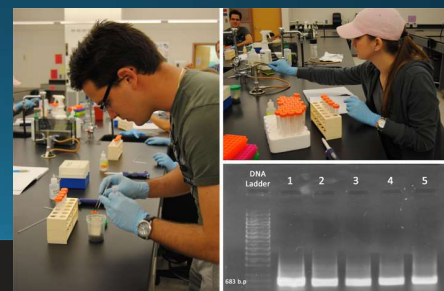


State Response

- FDACS Bronson Animal Disease Diagnostic Laboratory (BADDL)
 - Multiplex RT-PCR assay for rapid detection of Zika, Dengue, and Chikungunya viruses
 - Provided protocol to counties
 - Encouraged counties to submit all *Aedes aegypti* & *Aedes albopictus* specimens collected to Kissimmee
 - Number of pools tested – over **5,836**
 - Number of individual mosquitoes – over **76,889**
 - Number of counties submitting samples – **35**
- (As of Dec. 1, 2016)



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State Response Plan/Local Aid

- Implemented Incident Command Structure
 - Joint Task Force with FDoH
 - Scalable to adapt to a changing role of FDACS
- Develop control strategy for state level response to assist in situations where a program/county cannot properly respond
 - Is there a MCP or is it an open county?
 - Can they respond to suspect, travel-associated or locally-acquired cases?
 - Has the MCP reached their resource capacity?



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State Response Plan/Local Aid

- Task Force **door-to-door sweeps** of case response area
 - Crew
 - Crew Boss (FDACS)
 - 1 Education Specialist (FDoH)
 - Makes initial homeowner contact and provides educational material
 - 3 teams of 2 - all must be well versed in education message
 - 1 Source Reducer (FDACS)
 - 1 Pesticide Applicator (local MCP or contractor)



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Task Force

- Deployed 3 times
 - Taylor County (small MCP)
 - Pesticide applications – neighboring Leon Co. MCP
 - Source reduction – FDACS Inspectors
 - Homeowner education – FDOH
 - 2x Okeechobee County (open county)
 - Pesticide applications – neighboring St. Lucie Co. MCP
 - Source reduction – FDACS Inspectors
 - Homeowner education – FDOH
- Staff to Broward county MCP to assist in surveillance efforts

US EPA Region IV Funding

- \$25,000 supplemental grant funding – passed through FDACS
 - Created shipping account through UPS
 - Offset costs of specimen shipments to BADDL
 - Account becomes available in late Nov.
 - Create locations & usernames for each county
 - Process to sign in and print shipping labels



Hurdles

- Resource constraints
 - Money, people, expertise (ID)
- Awareness and public perception of pesticides
 - Naled, pyrethroids, even Bti
- Accessing private property
- Lack of specific location of cases
 - Increased cost to respond
- Convincing citizens to **take action**
 - Reduce/eliminate breeding habitat on properties
- Funding and spending constraints
 - Vehicles
- Misconceptions
 - Role of the BG traps, bats and dragonflies as biological control agents
- Government mistrust
- Media – creating/intensifying controversy

Protest Against Zika Pesticide Naled Planned at Miami Beach City Hall Today



LATEST NEWS
 Deadly Chemicals Sprayed On Florida Residents To Eliminate Zika
 BY WFLA AUGUST 4, 2016

OS NEWS September 6, 2016 4:20 AM
 Miami Beach wary of spraying Zika chemical that can "essentially kill anything"
 40 Comments / Share / Tweet / Stumble / Email

Questions?

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