



Miami-Dade County
EMERGENCY OPERATIONS CENTER
FLASH REPORT # 9
Zika Virus

PHONE: 305-468-5800
 FAX: 305-468-5401
eoc@miamidade.gov

REPORT DATE
 September 2, 2016

EOC ACTIVATION LEVEL
 Level 3 - Monitoring

REPORT TIME
 18:00

SUMMARY OF CURRENT SITUATION AND ACTIONS

FLORIDA HEALTH IN MIAMI-DADE COUNTY

- A total of **572** pregnant women have been tested for Zika at FDOH's Health District Center which is located at 1350 NW 14 Street, Miami, FL 33125. The testing clinic is open from Monday – Friday (8:00am – 3:30 pm) and the test entails a urine sample and blood work with results taking two weeks to process.
- Pregnant women can contact FDOH's Epidemiology Division (305) 324-2400 to obtain Zika prevention kits.
- The Florida State Surgeon General and Secretary of Health have established a Zika hotline (855-622-6735) and Monday – Friday are issuing daily status reports on CDC-confirmed Zika cases by county.
<http://www.floridahealth.gov/newsroom/index.html>.

MOSQUITO CONTROL

- Three mosquitoes from traps located in the City of Miami Beach have tested positive for the Zika virus.
- Inspectors and mosquito control crews will continue working through the weekend on Zika preventive measures.
- The Mosquito Control Division continues promoting the mosquito control *Drain and Cover* message via Miami-Dade County and FDOH webpages, and social media (Facebook and Twitter #drainandcovermiami).
<http://www.miamidade.gov/solidwaste/mosquito-control.asp>

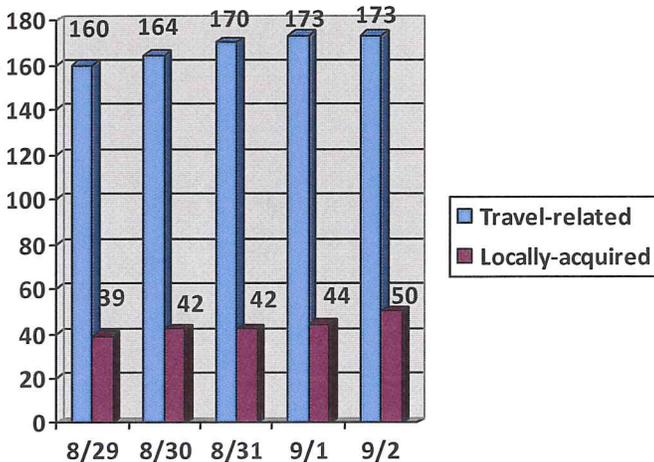
PUBLIC WORKS - TREATMENT OF DRAINS WITH DUNKINS

- As of September 1st, 2016, **126,976** drains have been treated in Miami-Dade County.
- Public Works crews will continue through the weekend conducting drain treatments against mosquitoes.

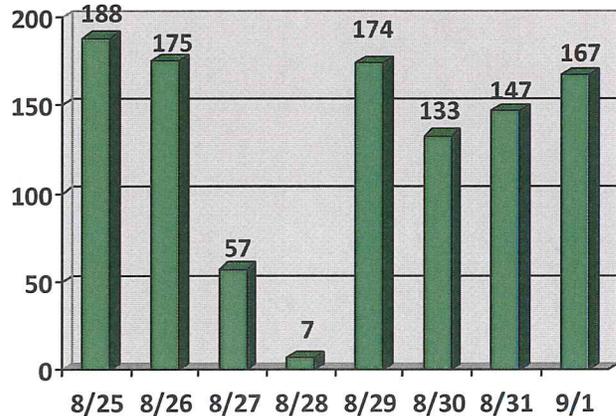
For additional information on the Zika virus, please visit:

• http://www.cdc.gov/Zika/	• https://www.epa.gov/insect-repellents
• http://www.floridahealth.gov/diseases-and-conditions/zika-virus	

MIAMI-DADE COUNTY ZIKA CASES



MOSQUITO CONTROL SERVICE REQUESTS (SR)



ATTACHMENTS

1. Map of Mosquito Control Service Requests (August 25 – September 1, 2016)

PREPARED BY
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Title
 EOC Planning Section Chief

Signature *M. Gonzalez*



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PROCEDURES CONDUCTED WHEN A LOCALLY-ACQUIRED ZIKA CASE IS CONFIRMED

FLORIDA HEALTH IN MIAMI-DADE COUNTY

- Coordinate notification of suspected cases with Elected Officials of the impacted area.
- Outreach activities to residents and community members includes the following:
 - Distribution of Zika Virus related information.
 - Conduct door-to-door education and collection of urine samples in the impacted area.
- Identify high risk populations and other possible cases of transmission.
- Initiate interviews with close contacts and community members within a 150 meter radius of the case.
- Provide Zika Prevention Kits to residences of pregnant women.
- Reinforce steps to avoid exposure to local mosquito populations.

MOSQUITO CONTROL FOR SUSPECTED OR CONFIRMED CASES OF ZIKA (OR OTHER MOSQUITO-BORNE ILLNESSES)

INSPECTION AND TREATMENT

When Florida Health in Miami-Dade County notifies Mosquito Control of a suspected or confirmed case of a mosquito-borne illness, staff follows the established protocol:

- Conduct property inspections to eliminate mosquito breeding
- Treat storm drains in the area
- Perform insecticide barrier treatments
- Initiate focal and area-wide insecticide applications
- Collect mosquito surveillance data to assess the mosquito population before and after the mosquito control measures are implemented; and
- Collect adult mosquito pools for laboratory screening to determine if they carry the mosquito-borne viruses in cases of suspected local transmission of the virus.

AERIAL SPRAYING

Aerial spraying will be used only in the event that other treatment methods such as, hand-spraying and truck spraying are determined to be inadequate to stem local virus transmission.

NOTIFICATION OF SPRAYING

If it is determined that aerial spraying will occur, notifications will be sent out via the following means:

- Press Release to the media
- Reverse-911 calling to landline phones within the areas that would be sprayed.
- Posted on the Miami-Dade Mosquito Control website:
<http://www.miamidade.gov/solidwaste/mosquito-control.asp#0>



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INSECTICIDES USED TO CONTROL POPULATION OF MOSQUITOES IN MIAMI-DADE COUNTY

LARVAL MOSQUITO CONTROL

Mosquitoes can be controlled while in their larval developmental stage. Inspectors conduct daily inspections to find mosquito larvae and take the necessary action to eliminate them. Small containers are emptied, while larger naturally occurring areas may require the use of an insecticide. This process is known as larviciding, and while time consuming and labor intensive, it keeps larvae from becoming flying, biting mosquitoes.

- Bti (*Bacillus thuringiensis israelensis*) is applied in either liquid or granular form to areas of standing water with mosquito breeding. Bti, is a naturally occurring soil bacterium. The bacterium produces proteins in a crystalline form. When the mosquito larvae eat these crystals, the proteins attack their digestive system, killing the larvae. Bti has a highly specific mode of action, is of minimal environmental concern, and according to the U.S. EPA, "Bti has no toxicity to people." Bti is quickly biodegraded and leaves no residue.
- *Bacillus sphaericus* (Bs) is a common soil-inhabiting bacterium and is applied in either liquid or granular form to areas of standing water with mosquitoes breeding. The bacterium produces a protein toxin that may be used to control mosquito larvae. Bs is nontoxic to non-target organisms.
- Methoprene (Altosid) is an insect-growth regulator that is applied in liquid, granules, pellets, or briquets to areas of standing water with mosquito breeding. This material prevents mosquito larvae from emerging as viable adult mosquitoes.
- *Gambusia* is a species of mosquito-eating fish. These fish are used to stock unmaintained pools and will reproduce and eat mosquito larvae continuously.

STORM DRAIN TREATMENT PROGRAM

In 2006, due to an increasing number of mosquito breeding complaints related to storm drains, the County began treating storm drains with larvicide. *Bacillus thuringiensis israelensis*, *Bacillus sphaericus* and Methoprene are used to control larvae in storm drains.

ADULT MOSQUITO CONTROL

These are some of the insecticides used in the County's adult mosquito control program:

- Duet (Prallethrin 1% + Sumithrin 5%) is the only insecticide used in handheld sprayers. It is also used in backpack and truck-mounted sprayers.
- Biomist 30+30 (Permethrin 30%) is used in backpack and truck-mounted sprayers.
- DeltAGard (Deltamethrin 2%) is also used in backpack and truck-mounted sprayers.

According to the EPA, these three insecticides (which are known as pyrethroids) can be used for public health mosquito control programs without posing unreasonable risks to human health, wildlife or the environment, when applied according to the label. Rotating insecticides reduces the likelihood of insecticide resistance.

Dibrom Concentrate (naled) is an oil-based organic phosphate insecticide used solely for aerial application. It is highly effective in controlling adult mosquitoes. It can be somewhat irritating if droplets get onto the skin or in the eye.

EFFECTIVENESS AND SAFETY OF INSECTICIDES

The insecticides used are known as contact sprays. As the name implies, the insecticide must contact the mosquito in order to eliminate it. The insecticides do not keep mosquitoes away or repel them from an area. Adult mosquitoes that migrate into an area after spraying are not eliminated, and it could appear that the spraying was ineffective. The insecticides used to control mosquitoes are non-persistent, meaning they do not have a residual or lasting effect. They last only a short period of time, and they quickly biodegrade into harmless byproducts. All insecticides used are EPA registered, and used in strict accordance with label instructions.

For additional information: <http://www.miamidade.gov/solidwaste/mosquito-insecticides.asp>

