

# ZIKA VIRUS UPDATE, EMS WORKER IMPLICATIONS

*Specifically prepared for the U.S. Metropolitan EMS Medical Directors Annual Meeting*

David Persse, MD

Public Health Authority

February 13, 2017



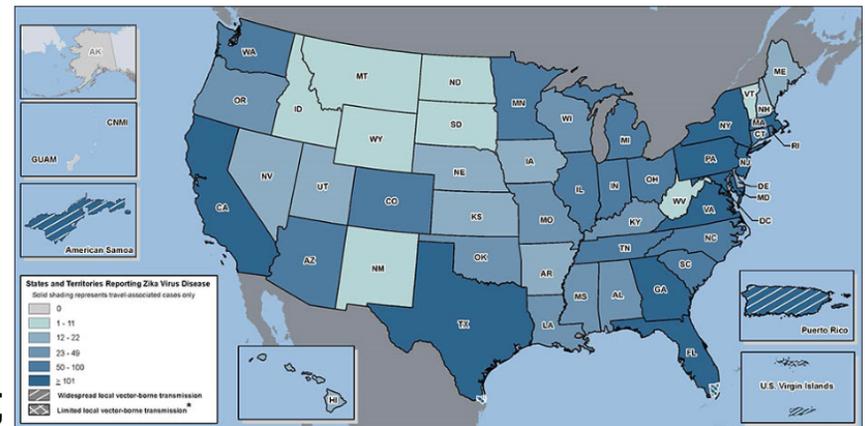
HOUSTON HEALTH  
DEPARTMENT

# STATUS UPDATE, NATIONWIDE



As of February 1, 2017:

- 48 states and DC have reported travel-associated cases
- Florida and Texas now with confirmed local transmission
  - First case was confirmed on July 29th
- 5,001 Zika virus disease cases reported; of which 1,394 are pregnant
- Puerto Rico, US Virgin Islands, and American Samoa have an additional 36,498 locally acquired cases, 3,071 are pregnant



Zika virus Cases Reported in the United States, Centers for Disease Control and Prevention

## WHO IS AT RISK?



HOUSTON HEALTH  
DEPARTMENT

Everybody in the EMS community is at risk for contracting Zika virus, but the populations of most concern are:

- Individuals returning from regions with active local transmission of Zika virus
  - Individuals who are family planning
  - Pregnant women
    - 6% Microcephaly risk overall
    - $\leq 13\%$  risk if infected in 1<sup>st</sup> trimester
  - Individuals living in areas with plentiful mosquito breeding grounds
-

## WHAT IS AT RISK?



HOUSTON HEALTH  
DEPARTMENT

- Pregnant women
    - 6% Microcephaly risk overall
    - $\leq 13\%$  risk if infected in 1<sup>st</sup> trimester
  - Guillan-Barre
    - 3-6,000 cases per year; 1-2 per 100,000
    - Zika: (56/5,582); 1,003 per 100,000\*
      - 26 with “other” neurological complications
-

## WHO IS AT RISK?



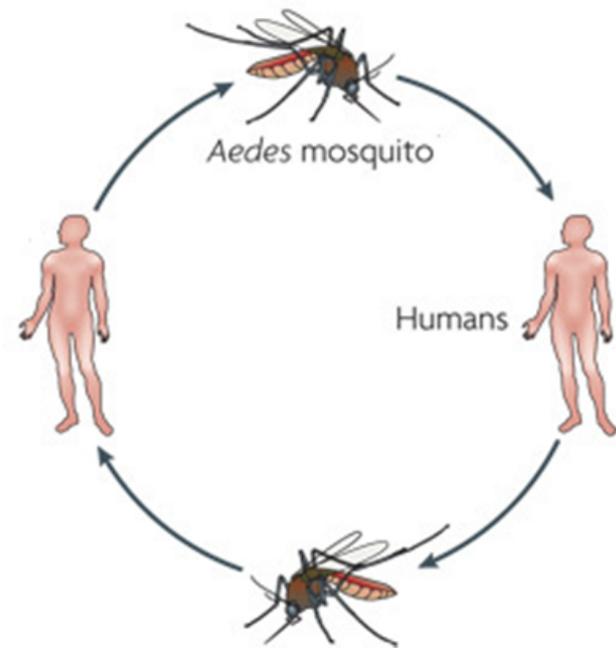
HOUSTON HEALTH  
DEPARTMENT



Photographs courtesy of: Anna Grove

# PREVENTION

- No treatment exists for Zika virus disease
- A vaccine is months away
- Prevention includes:
  1. Protection while traveling to affected countries
  2. Reducing the risk of introducing the virus into a local mosquito population
  3. Subsequently preventing the spread to humans locally



# PREVENTION, 3D ZIKA DEFENSE



HOUSTON HEALTH  
DEPARTMENT

## Drain

- Empty items which hold may hold water
- Maintain yard
- Drain standing water or use 'dunks' when water can't be drained

## Dress

- Long pants and long sleeve shirts
- Window screens and doors in good repair
- Use air conditioning when possible

## DEET

- Apply insect repellent with DEET
- Use mosquito net to protect infants

**3D ZIKA DEFENSE** PROTECT YOURSELF FROM ZIKA WITH THE 3 Ds.

DRAIN	DRESS	DEET
<ul style="list-style-type: none"><li>&gt; Once a week, empty items that hold water such as flower pots, toys, trash and old tires.</li><li>&gt; Keep your yard trimmed and tidy.</li><li>&gt; Help your neighbors drain standing water.</li></ul>	<ul style="list-style-type: none"><li>&gt; As weather permits, dress in long pants and long sleeve shirts.</li><li>&gt; Make sure doors and window screens are in good repair.</li><li>&gt; Use air conditioning when available.</li></ul>	<ul style="list-style-type: none"><li>&gt; Spray insect repellent with DEET on exposed skin.</li><li>&gt; Follow label instructions; reapply as needed.</li><li>&gt; Use a mosquito net to protect babies in a stroller or car seat.</li></ul>

For more information, visit us at [houstonhealth.org](http://houstonhealth.org), call 311 or Harris County Mosquito Control District 713.440.4800.

**DEFENSA EN 3 PASOS** PROTÉJASE DEL ZIKA CON 3 PASOS.

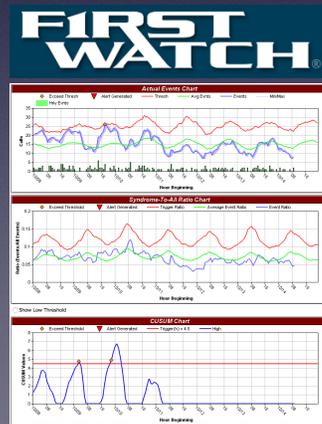
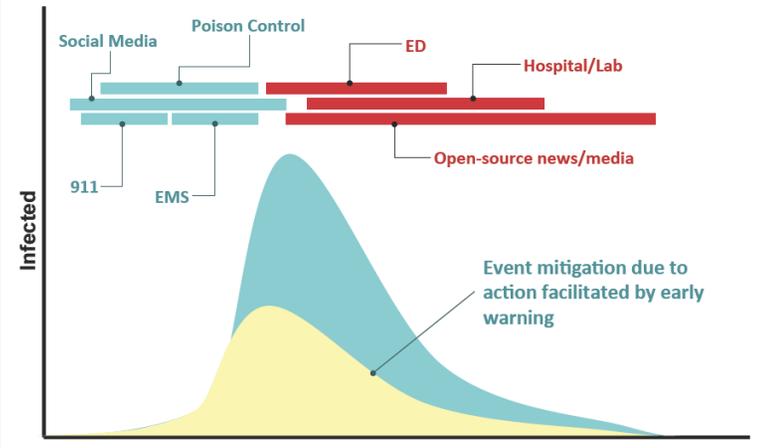
DRENAR	CUBRIR	REPELENTE
<ul style="list-style-type: none"><li>&gt; Una vez por semana vacíe recipientes que retengan el agua como macetas, juguetes, basura o llantas viejas.</li><li>&gt; Mantenga su jardín cortado y ordenado.</li><li>&gt; Ayude a sus vecinos a drenar agua estancada.</li></ul>	<ul style="list-style-type: none"><li>&gt; Vístase con camisas de manga larga y pantalones largos si el clima permite.</li><li>&gt; Asegúrese que mosquiteros de puertas y ventanas estén en buena condición.</li><li>&gt; Use el aire acondicionado cuando esté disponible.</li></ul>	<ul style="list-style-type: none"><li>&gt; Aplique repelente con DEET en piel expuesta.</li><li>&gt; Siga instrucciones de la etiqueta; reaplique según sea necesario.</li><li>&gt; Use mosquiteros para proteger a bebés en cochecito o asiento de coche.</li></ul>

Para obtener más información, visítenos en [houstonhealth.org](http://houstonhealth.org), llame al 311 o Distrito de Control de Mosquitos del Condado de Harris 713.440.4800.

# EMS Biomonitoring



## Biosurveillance Value of Early/Pre-Hospital Data



NATIONAL FUSION CENTER ASSOCIATION

# Naloxone Reversals

