MAPPING VECTOR CONTROL PROGRAMS AT THE LOCAL LEVEL TO COMBAT AEDES AEGYPTI

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www.naccho.org
About NACCHO
The National Association of County and City Health Officials (NACCHO) represents the nation’s 2,800 local health departments (LHDs) and 162,000 employees.

NACCHO’s mission
To be a leader, partner, catalyst, and voice for LHDs in order to ensure the conditions that promote health and equity, combat disease, and improve the quality and length of all lives.
Local Health Department Jurisdiction
Size of Population Served

LHD Jurisdictions (by Population Served)

- <50,000: 10% (10% of U.S. Population Served by LHDs, 10% of All LHDs)
- 50,000-499,999: 41% (41% of U.S. Population Served by LHDs, 34% of All LHDs)
- 500,000+: 49% (49% of U.S. Population Served by LHDs, 5% of All LHDs)

N=2,532

Source: 2013 National Profile of Local Health Departments
In 2015, ZIKA outbreaks were reported for the first time in the Western Hemisphere.

It is expected that ZIKA transmission will increase throughout the region.

Travelers visiting or returning from Zika infected areas could eventually initiate local virus transmission.

Source: Center for Disease Control and Prevention
http://www.cdc.gov/chikungunya/resources/vector-control.html
The Zika Response Team was formed in February 2016 in response to the early outbreaks of the Zika Virus, and has continued monitoring Zika in cooperation with the Center for Disease Control.
ZIKA RESPONSE TEAM
GIS Can Improve LHD Response Time In:
- Situational Awareness
- Action/Response
- Recovery

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ZIKA VIRUS CASES: DATA AS OF FEBRUARY 29, 2016

No Locally Acquired Cases as of 2/24/2016
ZIKA VIRUS CASES: DATA AS OF MAY 25, 2016

No Locally Acquired Cases as of 5/25/2016

ZIKA VIRUS CASES
Travel Associated

- 1-4
- 5-9
- 10-19
- 20-60
- 61-127

Created by: NACCHO GIS Mapping Service
Sources: NACCHO, CDC, ESRI
AEDES AEGYPTI: RECORDED BETWEEN 1960 - 2014

Value
High
Low

Created by: NACCHO GIS Mapping Service
Sources: NACCHO, CDC, ESRI

AEDES AEGYPTI RECORDED
Value
High
Low

0 Ae.Aegypti Recorded

Created by: NACCHO GIS Mapping Service
Sources: NACCHO, CDC, ESRI
LOCAL HEALTH DEPARTMENTS (LHD) VECTOR CONTROL SERVICES

LHD VECTOR CONTROL TYPE

- Direct
- Contract
- Direct - Contract
- LHDs - No Service

Created by: NACCHO GIS Mapping Service
Sources: NACCHO, CDC, ESRI
LOCAL HEALTH DEPARTMENTS (LHD) VECTOR CONTROL SERVICES

LHD VECTOR CONTROL TYPE
- Direct
- Contract
- Direct - Contract
- LHDs - No Service

Created by: NACCHO GIS Mapping Service
Sources: NACCHO, CDC, ESRI
LOCAL HEALTH DEPARTMENTS (LHD) VECTOR CONTROL SERVICES
LOCAL HEALTH DEPARTMENTS (LHD)
ZIKA CASES REPORTED – MAY 25, 2016
MONITORING AT THE LOCAL LEVEL USING CROWDSOURCING RESOURCES

REPORTING INSECT AND STANDING WATER

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Created by: C Keller
Sources: Esri Model Health
MONITORING AT THE LOCAL LEVEL USING CROWDSOURCING RESOURCES

Sources: Esri Model Health

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ZIKA RESOURCES

**Aedes Aegypti and Local Vector Control: Mapping out a Plan for Zika Vector Surveillance and Control**

Summer is approaching, which means mosquito season is upon us. As the weather gets warmer, we can expect to see an increase in the population of one of the main mosquito species transmitting the Zika virus throughout the U.S. — Aedes aegypti. To help understand the range and areas most likely to be impacted by Zika, NACCHO created several maps depicting the recorded distribution of Aedes aegypti between 1960 and 2014, along with maps showing the distribution of local vector control departments. Used in conjunction with the Center for Disease Control and Prevention’s (CDC) maps, NACCHO’s density maps provide a better understanding of the spread and range of the Aedes aegypti mosquito.

**Zika Virus: What Local Health Departments Need to Know**

Zika virus infection, which is primarily spread to humans through the Aedes species mosquito, has become a public health concern in the United States, particularly for pregnant women. While the majority of Zika virus infections reported in the United States are among individuals who have traveled to regions with ongoing Zika virus transmission, on February 2, a local health department reported to the public the first Zika virus case in its county through sexual transmission. CDC expects that the number of cases among travelers with Zika will likely increase and that the virus will continue to spread to other areas, possibly including the continental United States.

To help support local health departments prepare for and respond to cases of Zika virus in their communities, NACCHO has assembled a running list of guidance, resources, and information. NACCHO will continue to update this page as new information and resources become available. See NACCHO’s ongoing Zika coverage.

**Key Information**

- On May 13, CDC announced funds for states and territories to prepare for Zika.
- On April 13, CDC released a statement concluding that Zika virus is a cause of microcephaly and other severe fetal brain defects.
- On March 25, CDC issued interim guidance for the prevention of sexual transmission of Zika virus, including guidance for healthcare providers caring for women of reproductive age with possible Zika virus exposure. Additionally, a Morbidity and Mortality Weekly Report examines contraceptive needs and increasing access to contraception in response to the Zika virus disease outbreak in Puerto Rico.
- On February 26, the Secretary of Health and Human Services, Sylvia Burwell, determined that there is a public health emergency for public health emergencies that pose a significant public health threat national.

**Additional Resources**

- http://essentialelements.naccho.org/archives/3405
- http://essentialelements.naccho.org/archives/2267

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THANK YOU

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