CDC Overview: Web-based and Classroom Resources for Vector Control Programs

NACCHO Vector Summit, April 2019

Kristine Lindell
Public Health Advisor, Arboviral Diseases Branch
Division of Vector-borne Diseases
National Center for Emerging Zoonotic and Infectious Diseases

Amy Ullmann, PhD
Public Health Advisor, Bacterial Diseases Branch
Division of Vector-borne Diseases
National Center for Emerging and Zoonotic Infectious Diseases
Division of Vector-Borne Diseases

**Mission statement:** Reduce illness and death from vector-borne diseases

**Vision:** To create a future where vector-borne diseases no longer threaten public health

<table>
<thead>
<tr>
<th>Branch</th>
<th>Location</th>
<th>Primary research vectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arboviral Diseases Branch</td>
<td>Colorado</td>
<td>Mosquitoes and Ticks</td>
</tr>
<tr>
<td>Bacterial Diseases Branch</td>
<td>Colorado</td>
<td>Ticks and Fleas</td>
</tr>
<tr>
<td>Dengue Branch</td>
<td>Puerto Rico</td>
<td>Mosquitoes</td>
</tr>
<tr>
<td>Rickettsial Zoonoses Branch</td>
<td>Georgia</td>
<td>Ticks</td>
</tr>
</tbody>
</table>
Vector-Borne Disease Prevention and Control - System Map

Centers for Disease Control and Prevention

Other Federal Agencies (NIH, USDA, FDA, EPA, DoD, etc.)

Vector-Borne Disease Regional Centers of Excellence

Partner Organizations (APHL, ASTHO, CSTE, NACCHO, AMCA, ESA, etc.)

State Health Departments

University and Commercial Innovators

Local Health Departments

Local Vector Control Organizations

Funded Relationship

Technical Assistance
National Partner Activities and Products

Association of State and Territorial Health Officials (ASTHO)
✓ Public Health Confronts the Mosquito
✓ Technologies for Vector-Borne Disease Surveillance
✓ Communicating About Effective Mosquito Control
✓ Analysis of Express Legal Authorities for Mosquito Control in the United States, Washington, D.C., and Puerto Rico
✓ S/T Health Agency Organizational Structures and Partnerships for Mosquito Control Management

National Association of County and City Health Officials (NACCHO)
✓ Technical Assistance Program
✓ 2018/2019 Vector Summit – Pittsburgh, PA, April 16th to 18th
✓ Vector Control Toolkit
✓ Mosquito Control Capabilities in the U.S. October 2017
✓ Updated policy statement (January 2018)
✓ Webinar: Deciding When and How to Treat for Mosquitoes
✓ Story from the Field: Harris County Preventing the Bite Day or Night
✓ Peer to Peer Connections
Vector-borne Disease Regional Centers of Excellence

Mission: To support coordinated national partnership committed to building the tools, capacity, and framework to respond effectively to emerging vector-borne disease threats. Currently funded through 2021.

Goals:
✓ Training and equipping the next generation of public health entomologists
✓ Conducting research to inform operational decisions and identify effective VBD prevention tools
✓ Establishing local relationships that assure the capacity to respond effectively to VBD disease outbreaks of regional and national importance

<table>
<thead>
<tr>
<th>Name of Center</th>
<th>City Location/Host</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>Ithaca, NY</td>
<td><a href="http://neregionalvectorcenter.com/">http://neregionalvectorcenter.com/</a></td>
</tr>
<tr>
<td>Southeast</td>
<td>Gainesville, FL</td>
<td><a href="http://cdcseroevbd-flgateway.org/">http://cdcseroevbd-flgateway.org/</a></td>
</tr>
<tr>
<td>Upper Midwest</td>
<td>Madison, WI</td>
<td><a href="http://mcevbd.wisc.edu/">http://mcevbd.wisc.edu/</a></td>
</tr>
<tr>
<td>Western Gulf</td>
<td>Galveston, TX</td>
<td><a href="https://www.utmb.edu/wgcvbd">https://www.utmb.edu/wgcvbd</a></td>
</tr>
<tr>
<td>Pacific Southwest</td>
<td>Davis, CA</td>
<td><a href="https://pacvec.us/">https://pacvec.us/</a></td>
</tr>
</tbody>
</table>
CDC Bottle Bioassay Kits

Kits are available free of charge to jurisdictions interested in implementing insecticide resistance testing activities.

– Technical grade insecticides, enzyme inhibitors to determine metabolic resistance mechanisms, materials, etc.

Request more information from: usbottleassaykit@cdc.gov
CDC Media Resources

- West Nile
  - https://www.cdc.gov/westnile/resourcepages/communication-resources.html

- Zika

- Public Health Media Library
Tick Resources

Molecular testing for human disease-causing agents in *I. scapularis*

- Important considerations
  - Surveillance for *Ixodes scapularis* and pathogens found in this tick species in the United States, available at https://www.cdc.gov/ticks/surveillance/index.html

- Agents included in CDC testing
- How to submit ticks for testing
- How we are coordinating tick testing with ArboNET data entry
CDC offers tick testing for the following pathogens:

- *Borrelia burgdorferi* sensu stricto (ss)
- *Borrelia mayonii*
- *Borrelia miyamotoi*
- *Anaplasma phagocytophilum*
- *Babesia microti*
Tick Submission Process – Tick Identification and Pathogen Testing

- Contact us ([ticksurveillance@cdc.gov](mailto:ticksurveillance@cdc.gov))
  - Coordinate shipment of all ticks collected
- Complete tick surveillance and submission forms
  - “Tick surveillance” tab, ArboNET-compatible excel file (do not enter tick species)
NACCHO Lyme Disease Toolkit

- Info-sheets: What to do after a tick bite

- Tick surveillance guidance
  - *Ixodes scapularis*
  - *Ixodes pacificus*

- Scripted presentations
  - Tickborne disease prevention & Lyme disease
  - Lyme disease surveillance in low incidence states: A resource for health departments

http://toolbox.naccho.org/
Search “Lyme disease”
CDC Tick Colony Resources

- Contact https://www.beiresources.org
  - Registration required
  - Demonstrate sufficient evidence of experience in working with live ticks
  - Demonstrate availability of an ACL-2 facility
Questions?

Please feel free to reach out if you would like to discuss more!

Email: lgz7@cdc.gov; aff1@cdc.gov