



Centers for Disease Control and Prevention



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

NACCHO Vector Summit, April 2019

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Division of Vector-Borne Diseases

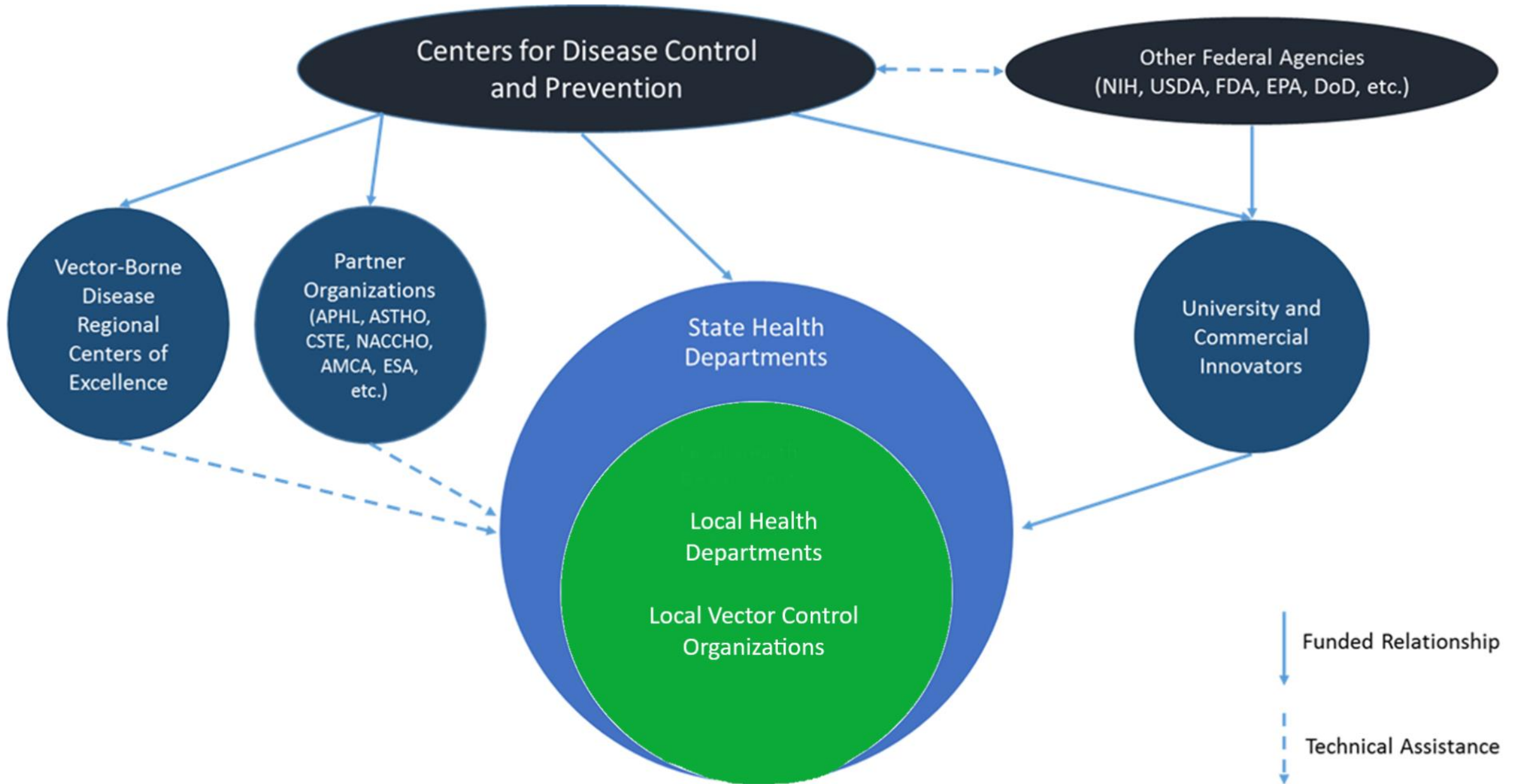
Mission statement: Reduce illness and death from vector-borne diseases

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

Branch	Location	Primary research vectors
Arboviral Diseases Branch	Colorado	Mosquitoes and Ticks
Bacterial Diseases Branch	Colorado	Ticks and Fleas
Dengue Branch	Puerto Rico	Mosquitoes
Rickettsial Zoonoses Branch	Georgia	Ticks



Vector-Borne Disease Prevention and Control - System Map



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

Name of Center	City Location/Host	Website
Northeast	Ithaca, NY Cornell University	http://neregionalvectorcenter.com/
Southeast	Gainesville, FL University of Florida	http://cdcsercoevbd-flgateway.org/
Upper Midwest	Madison, WI University of Wisconsin	http://mcevbd.wisc.edu/
Western Gulf	Galveston, TX University of Texas, Medical Branch	https://www.utmb.edu/wgcvbd
Pacific Southwest	Davis, CA University of California at Davis	https://pacvec.us/

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**

- <https://www.cdc.gov/zika/comm-resources/index.html>

- **Public Health Media Library**

- <https://tools.cdc.gov/medialibrary/index.aspx#/media/id/124577>

TOP 5 THINGS EVERYONE NEEDS TO KNOW ABOUT ZIKA

Accessible Version: <https://www.cdc.gov/flu/about/news/news.html>

1 Zika primarily spreads through infected mosquitoes. You can also get Zika through sex.

Many areas in the United States have the type of mosquitoes that can spread Zika virus. These mosquitoes bite during the day and night. Zika can also be passed through sex from a person who has Zika to his or her sex partners, even if the person doesn't have symptoms.



Mosquito Bite Prevention (United States)

Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.

Mosquito life cycle

Aedes aegypti

It takes about 7-10 days for an egg to develop into an adult mosquito.

Mosquito Control: What You Need to Know About Truck Spraying

Mosquito control districts or local government departments track mosquito populations to learn where viruses, like Zika or West Nile, are spreading in a community. Spraying insecticides from a truck is one way to safely kill mosquitoes in an area, especially when people in the community are getting sick from mosquito bites. There are different types of sprayers that can be put on a truck.

Truck spraying is used to:

- Control and reduce the number of mosquitoes that can spread viruses.
- Reduce your chances of getting infected with viruses.

What are mosquito control trucks spraying?

Mosquito control trucks spray very small amounts of insecticide into the air to kill mosquitoes. The spray is a fine mist that acts as a fogger in the area. Mosquito control districts or local government departments will choose what type of insecticide to use in an area.

What does the insecticide spray do?

Adulticide sprays immediately kill flying mosquitoes. Larvicide sprays kill mosquito larvae that hatch from eggs and take longer than adulticide sprays. Both products will temporarily reduce mosquito populations in an area, but will not permanently get rid of them.

When does spraying occur?

Spraying takes place in the early evening when mosquitoes are more active. Often, local government agencies or mosquito control districts announce the dates and times of spraying in the local newspaper, on district websites, through public service announcements, by telephone, or through door-to-door notices.

How often do communities spray?

After spraying, mosquito control districts or local government departments will track mosquito populations and treat an area again as necessary to reduce the chances of people getting bitten by mosquitoes that can spread viruses.

Is the spray harmful to people, pets, animals, or the environment?

No, when done correctly, truck spraying will not harm people, pets, animals, or the environment.

What should I do during or after spraying?

Spraying is safe. You do not need to leave an area when truck spraying for mosquito control takes place. If you prefer to stay inside and close windows and doors when spraying takes place you can, but it is not necessary. If you are having any type of health problems after spraying, contact your doctor or healthcare provider. The spray does not harm pets, but you may choose to bring them inside when spraying occurs.

Information on Insecticides and Health:

- The US Environmental Protection Agency oversees the registration of these chemicals.
- The National Pesticide Information Center (NPIC) provides information online or through a toll-free number, 1-800-858-7378.

If you are experiencing health problems for any reason, see your doctor or healthcare provider.

Mosquito Control: You Have Options.

Learn more: <http://www.cdc.gov/zika/prevention/controlling-mosquitoes-at-home.html>

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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)
 - 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



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Questions?

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

Email: lgz7@cdc.gov;
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