Growing Together

The NACCHO Model for Capacity-Building in Local Vector Programs

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NACCHO
National Association of County & City Health Officials
NACCHO is comprised of nearly 3,000 local health departments across the United States. Our mission is to improve the health of communities by strengthening and advocating for local health departments.
NACCHO Focus Areas

- Community Health
- Environmental Health
- Public Health Infrastructure
- Public Health Preparedness

- Training and Resources
  - Advocacy
- Media Outreach
  - Technical Assistance
- Demonstration Sites
  - Model Practices

- 3,000 LHDs
- Elected Officials
- Policymakers
- Community Leaders
Environmental Health Activities

- Climate Change
- Community Water Fluoridation
- EH Practice
- Environmental Public Health Tracking
- Food Safety
- Flint Response
- Health in All Policies
- Local EH Directors Collaborative
- Safe Siting
- Vector Control
- Water
NACCHO Vector Control Program

Building the capacity of local vector control programs to respond to vector borne diseases.
A scoring matrix was created to prioritize or weight questions based on necessary capabilities of a competent vector control program. Using the CDC framework\textsuperscript{2,3} for vector control competency as guidance, five core competencies were used to rank each organization as **Fully Capable**, **Competent**, or **Needs Improvement**.

### Core Competencies

1. Routine mosquito surveillance through standardized trapping and species identification
2. Treatment decisions using surveillance data
3. Larviciding, adulticiding, or both
4. Routine vector control activities (e.g., chemical, biological, source reduction, or environmental management)
5. Pesticide resistance testing

### Supplemental Competencies

6. Licensed pesticide application
7. Vector control activities other than chemical control (e.g., biological, source reduction, or water management)
8. Community outreach and education campaigns regarding mosquito-borne diseases, how they spread, and how to prevent infection
9. Regular communication with local health departments regarding surveillance and epidemiology
10. Outreach (e.g., communication and/or cooperation) with nearby vector control programs

**Definitions**

A **Fully Capable** vector control organization performs all core and supplemental competencies.

A **Competent** vector control organization performs all core competencies.

A **Needs Improvement** vector control organization fails to perform one or more core competency.

*Source: National Association of County & City Health Officials* (2017) Mosquito Control Capabilities in the U.S.*
NACCHO and CDC collaboration to assess local vector control programs nationwide based on the Mosquito Control Capabilities Framework

- Assessment sent to 1,906 vector control organizations (57% response rate)

- 84% of vector control programs need improvement in one (or more) core capacity
  1. Pesticide resistance testing (98%)
  2. Treating based on surveillance data (61%)
  3. Routine mosquito surveillance and species identification (52%)

Source: National Association of County & City Health Officials. 2017. Mosquito Control Capabilities in the U.S.
Percentage of vector control programs ranked as “fully capable” or “competent” by state

Source: National Association of County & City Health Officials (2017) Mosquito Control Capabilities in the U.S.
Capacity

- Provide quality training on standard techniques
- IR testing education and training
- Sustainable funding

Competency Barriers

- Identify barriers
- Support cross-jurisdictional communication

Source: National Association of County & City Health Officials. 2017. Mosquito Control Capabilities in the U.S.
Vector Control Collaborative (VCC)

- Technical assistance mentorship program matching local vector control programs with demonstrated expertise with vector control programs looking to build program capability
- Programs are funded to develop and implement an action plan that will enhance the mentee’s capacity in one or more of vector control capabilities
- Pre- and post-tests are implemented to document program growth
- Since December 2018, NACCHO has funded 28 programs across 11 states to participate as mentors or mentees in the collaborative

VECTOR CONTROL COLLABORATIVE

A Vector Control and Surveillance Mentorship Program
VCC Objectives

• Increase local vector control organizations’ capacity to monitor and respond to vector-borne diseases.

• Establish a growing network of local vector control organizations that are able and willing to share resources, experiences, and lessons learned.

• Identify strategies to improve surveillance and control of select disease vectors.

• Identify resource needs in implementing vector surveillance and control.

• Strengthen relationships between local, state, and national partners in vector-borne disease prevention.
Support from NACCHO and CDC

• Guidance and technical support provided throughout the program period from NACCHO and CDC staff through email and routine cohort calls

• CDC Vector Borne Disease Specialists and Entomologists available to provide guidance on Integrated Mosquito Management, including pesticide resistance testing
• Programs were awarded between $10,000-$20,000 to use for projects and activities that enhance vector program expertise and capacity

• Participants were given between five and eight months to complete their technical assistance action plan

• Programs were also required to include sustainability measures to supplement the activities in their scope of work

• NACCHO has used this model for three cohorts:
  • Pilot, Cohort I, and Cohort for States Affected by Hurricanes Harvey, Irma, and Maria
• All six cohort members participated in a two-part evaluation involving a post-program assessment and an interview with their mentorship partner.

• All mentees found participation in the VCC as “very beneficial” or “beneficial” in increasing their vector programs’ surveillance and control capacity.

• Two mentees reported increased capacity in eight of the 10 vector control capabilities.

• The third mentee reported increased capacity in capabilities 1 (Routine Surveillance), 5 (Pesticide Resistance Testing), and 10 (Outreach).

• Mentees dedicated an average of 15 hours per week to completing capacity building efforts.
When asked how they expanded vector program services over the course of the VCC program, mentees reported that they:

- Established insecticide resistance testing programs and research capabilities.
- Built community education spaces.
- Trained staff to use equipment and apply pesticides.
- Purchased chemical control supplies, resistance testing equipment, mosquito rearing tools, mosquito collection and identification equipment.
- Developed public educational materials for public.
Mentor and mentee vector control programs reported that as a result of their participation in the VCC, they were able to:

- Attend trainings and conferences using award funding.
- Gain opportunities to shadow and learn from more advanced programs.
- Adopt best practices and gained practical knowledge that increased program’s operational efficiency.
- Expand partnerships with mentorship partner, academia, and other jurisdictional organizations.
- Establish physical upgrades to program space and equipment to support resistance testing, education, and control efforts.
Lessons Learned

• Focus on capacity-building prior to mosquito season provided the time and opportunity to maximize benefits of the mentorship program and build sustainable initiatives
  • Conducting mentorship during mosquito season can provide a valuable opportunity for developing programs to shadow mentor’s program operations (e.g. complaints, trap setting)

• Peer-to-peer learning model encourages bidirectional knowledge building between mentors and mentees

• Participants have expressed intention to continue partnership post-technical assistance
Words from the VCC

“We had been talking about a vector control network and how to work with other vector control programs within our jurisdiction and surrounding jurisdictions. Going through this program really enhanced our need for that, facilitated us starting it, and provided a framework.”

– VCC Mentor

“Losing funding from grants is the story of our lives. We are nimble and flexible enough now to sustain. We know that [VCC funds] were seed money to start the [insecticide resistance] lab and testing and we are now going to take advantage of our relationships with [our mentor], the university, or local people that are interested in the subject to keep it going for years to come.”

– VCC Mentee
VECTOR CONTROL COLLABORATIVE

Convening local vector control organizations to learn from each other through both funded and unfunded technical assistance and mentorship opportunities.

- Nearly 170 hours of technical assistance provided to 23 health departments since April 2018
- Funding provided to 14 programs from five states to engage in mentorship since October 2018

NEW TECHNICAL ASSISTANCE OPPORTUNITIES COMING SOON

Looking for tailored assistance on your vector control activities? Want to lend your expertise to peers across the country?

Sign up to learn about future opportunities:
• Compilation of nearly 100 resources on vector control and surveillance
• Reviewed and selected by subject matter experts for relevance and utility
• Includes guidance, trainings, outreach materials, plans, videos, and best practices
• Free to access through the NACCHO Toolbox

http://toolbox.naccho.org/pages/index.html
• Monthly environmental health e-newsletter
• Features news and resources, events and opportunities, funding announcements, and original NACCHO commentary
  ○ Environmental health, climate change, and food safety.
• To sign up for the newsletter, create an account or login to MyNACCHO and go to “My Subscriptions.”
2020 Vector Assessment

BE COUNTED

in the
Second Nationwide Assessment of Local Vector Control Organizations

Survey coming in Late 2020

Email vectorcontrol@naccho.org to confirm your contact information.

Learn more: naccho.org/vector-control