EXAMINING THE NATION’S VECTOR CONTROL & SURVEILLANCE CAPACITY

All the Buzz about Local Vector Control Programs

Novel vector-borne pathogens can emerge at any time, and vector-borne outbreaks remain a risk.

35K confirmed or probable cases of Lyme disease—the most reported vector-borne disease in the U.S.—were identified by the CDC in 2019.

476K patients per year (estimated) are diagnosed and treated for Lyme disease, highlighting the high burden of tickborne disease.

112 deaths occurred in 2021 across Arizona from an outbreak of West Nile virus disease. Over 1,000 neuroinvasive cases were reported.

2015 saw the Zika virus outbreak emerge in Latin America, leading to highrisk pregnancies and serious birth defects.

Local vector control programs play a critical role in monitoring, managing, and preventing vector-borne outbreaks.

Robust surveillance systems:
- monitor active outbreaks
- identify new pathogens that pose a risk to human health or the health of domestic animals and wildlife
- provide opportunities to prevent future vector-borne epidemics

Evidence-based vector control programs:
- reduce vector-borne disease risk
- manage the nuisance of mosquito bites in warm weather environments
- reduce the likelihood of insecticide resistant mosquitos

Local mosquito control and surveillance is improving, but many programs experience barriers to addressing ticks.

79% of programs conducted routine mosquito control activities in 2020.

68% of programs conducted routine mosquito surveillance in 2020, compared to 54% in 2017.

31% of programs conducted mosquito insecticide resistance testing in 2020, compared to 14% in 2017.

21% of programs conducted tick surveillance activities in 2020.

Sustained improvements require collaborating with partners and bolstering local capacity.

What local programs can do:
1. Collaborate with other programs to share knowledge and resources
2. Join NACCHO’s Vector Control Collaborative at bit.ly/NacchoVCC

What policymakers can do:
1. Connect with your local program to learn about their work
2. Support sustained funding for vector surveillance and control

In October 2020, the National Association of County and City Health Officials (NACCHO) administered the 2020 Vector Assessment Survey to understand the capacity of local vector programs. A total of 463 programs responded for a 23% response rate. Funding was provided by the Centers for Disease Control and Prevention (under cooperative agreement 5NU38OT000604-00).