

# 3 key considerations for innovation and sustainability in arbovirus control

Audrey Lenhart, PhD MPH  
Chief, Entomology Branch  
DPDM/NCEZID  
CDC

# 1. The funding landscape

- Bringing the most promising new tools to scale in the places that most urgently need them
  - Local resource constraints
  - Need for arbovirus-focused multilateral initiatives
- Research funding
  - Vaccines, diagnostics, therapeutics
  - Clinical trials for vector control tools
- Regional inequities
  - Ex: Arbovirus infrastructure in Africa vs. elsewhere

## 2. Integration with other vector-borne threats

- *Anopheles stephensi*
  - Opportunity to leverage malaria investments to impact *Aedes* control
  - Shared risk factors:
    - Uncontrolled and rapid urbanization
    - High mobility of people and commercial goods
    - Downstream effects of climate change, i.e. human migration

---

Building the vector in: construction practices and the invasion and persistence of *Anopheles stephensi* in Jigjiga, Ethiopia

Solomon Yared, Araya Gebresilassie, Esayas Aklilu, Elyas Abdulahi, Oscar D Kirstein, Gabriela Gonzalez-Olvera, Azael Che-Mendoza, Wilbert Bibiano-Marin, Elizabeth Waymire, Jo Lines, Audrey Lenhart, Uriel Kitron, Tamar Carter, Pablo Manrique-Saide, Gonzalo M Vazquez-Prokopec

---

Modeling marine cargo traffic to identify countries in Africa with greatest risk of invasion by *Anopheles stephensi*

Jordan Ahn<sup>1,2</sup>, Marianne Sinka<sup>3</sup>, Seth Irish<sup>2,4,5</sup> & Sarah Zohdy<sup>2,5</sup>✉

### 3. Strengthening the evidence base for vector control

- Improved design of clinical trials of vector control tools for arboviruses
  - Opportunities to learn from the design of arbovirus vaccine trials, e.g. CHIK vaccine without efficacy endpoints
- Understanding the impact of combinations of interventions
  - Preventive: vaccines + vector control
  - Reactive: diagnostics, therapeutics + vector control
  - Layering multiple vector control tools and strategies
- Goal: Context-driven, locally adapted application of interventions

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

