



Vector Control Working Group

29 April 2021

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## 16<sup>th</sup> Annual VCWG Meeting

2021 Virtual Event

# *Session 5: Expanding the Vector Control Toolbox workstream*

Workstream Co-Leads: Sheila Barasa and Allison Tatarsky

# Agenda Session 5: Expanding the Vector Control Toolbox

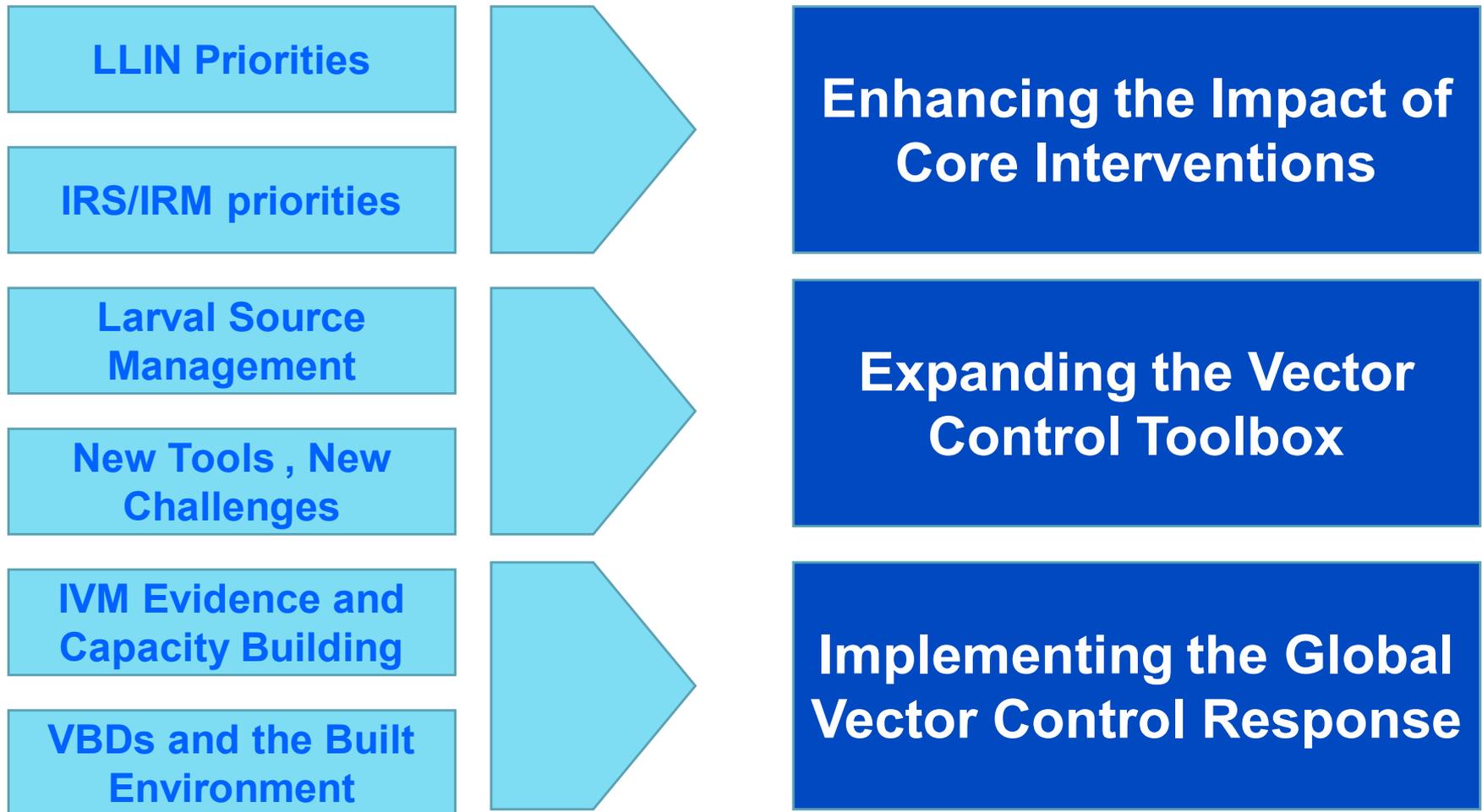
- 1. Welcome and scene setting**
- 2. Theme: Innovations in vector control and surveillance – bite prevention**
- 3. Theme: Larval source management**
- 4. Theme: Human behavior, human centered design, and vector control**
- 5. Paradigm updates**
- 6. Discussion and wrap up**

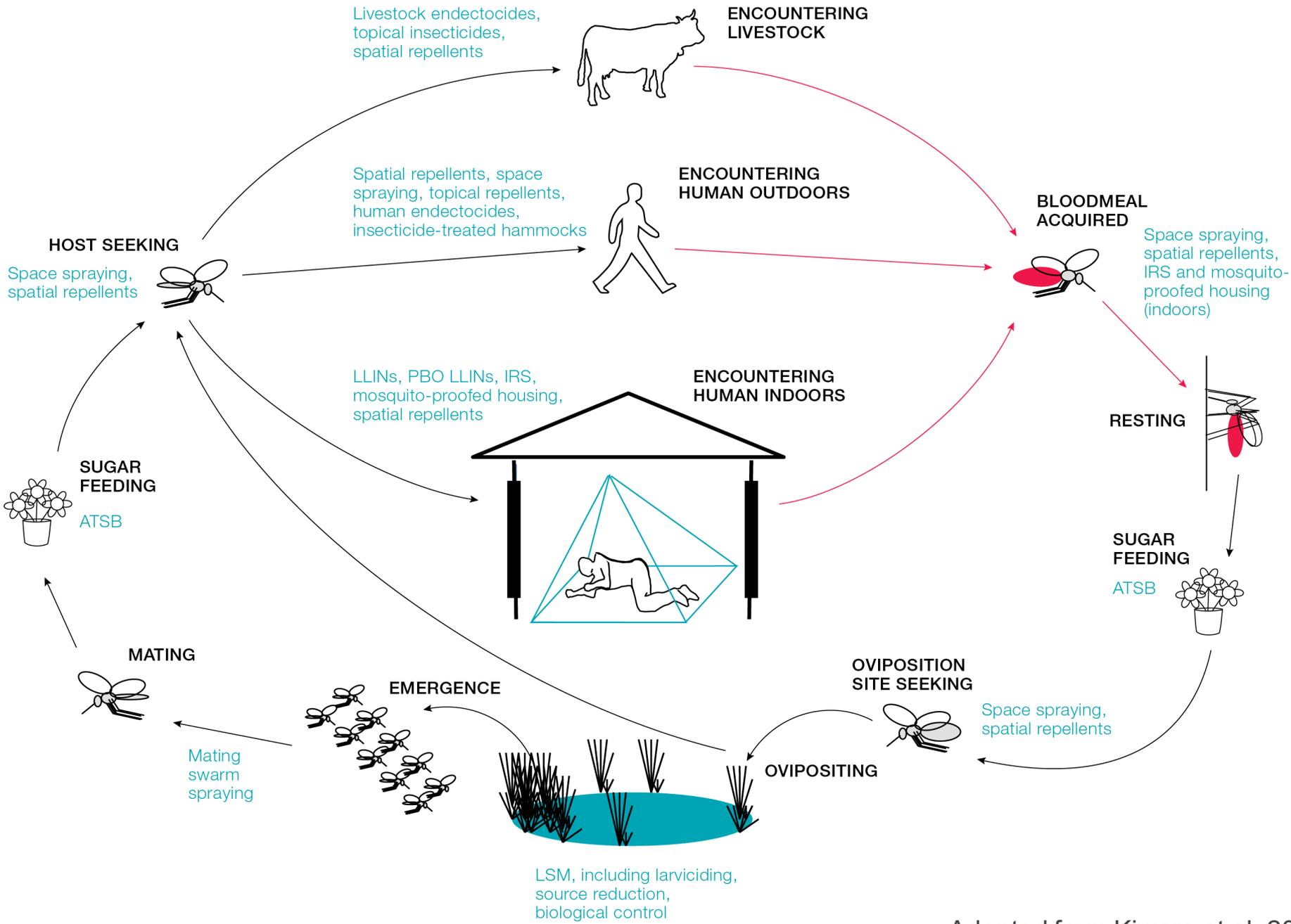
# Session reminders

- Please put questions in the chat, noting “Question @ [name of speaker]”
- There will be a Q&A session after every 3-4 presentations
- Speakers have 10 minutes maximum; 8 minutes is even better!
- English and French translation is available, as well as Spanish for the human behavior session
- All slides are available on the Attendee Hub
- Thank you for your participation and collaboration!

# Transitioning from the past

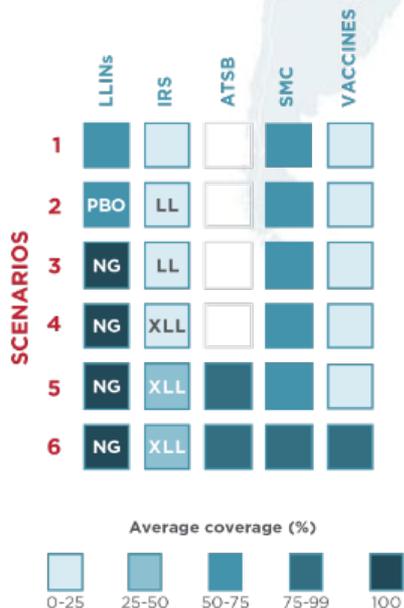
Activities of previous workstreams are now integrated under new ones





# MODELLING INTERVENTIONS' IMPACT IN AFRICA: SCENARIO 6 + MIND THE GAP

The role of vector control is critical in reaching our goal of eradication by 2040, supported by wider solutions across vaccines, drugs and gene drives



Modelling by Imperial College (Ellie Sherrard-Smith, Tom Churcher)

Close The Gap

# New themes as a result of feedback from workstream members

- Reviewing existing tools/approaches but with improved methods or innovation around delivery, program implementation, and evaluation; examples include:
  - LSM (integrated during restructuring),
  - Space spray and targeted swarm spraying, and
  - Outdoor residual spraying, among others
- Emphasizing human behavior research in vector control research and incorporating human centered design in the development of new vector control tools
- Supporting Ifakara Health Institute Master Classes on vector biology and control
- Including more voices from country programs

# Workstream themes and focus outputs

	<b>Focus Output 1</b> Identify tool gaps or capacity needs & steer research priorities	<b>Focus Output 2</b> Policy clarification & evaluation pathways	<b>Focus Output 3</b> Implementation/Operational scale-up support/Training and capacity building initiatives
<p><b>Work stream 2:</b> <b>Expanding the Vector Control Toolbox</b></p> <p><b>Themes:</b></p> <ul style="list-style-type: none"> <li>➤ Larval Source Management</li> <li>➤ Innovations in vector control and surveillance</li> <li>➤ Anthropology and human centred design in the context of vector control</li> </ul> <p><b>Co-Leads:</b> Allison Tatarsky Sheila Barasa</p>	<ul style="list-style-type: none"> <li>▪ Review technology for LSM e.g., GIS, satellite imagery, use of drones, new application technology, etc.</li> <li>▪ Develop and maintain an inventory of new vector control tools and approaches including repellents, endectocides, ATSBs, SIT, genetic control, etc.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Gather evidence for environmental management including habitat modification and manipulation as priority interventions in LSM and promote within the Multi Sectoral Working Group (MSWG)</li> <li>▪ Develop framework for, and actively track and share, updates on new vector control paradigm roadmaps</li> <li>▪ Share VCAG updates on new paradigms as part of paradigm roadmap tracking</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review operational LSM in national malaria programmes and collate evidence of impact, as well as training and technical support needs</li> <li>▪ Elevate national malaria program operational research questions for vector control beyond LLINs and IRS</li> <li>▪ Highlight innovation and opportunities to incorporate anthropological methods and human centred design into the development, evaluation, and scale up of vector control tools</li> </ul>

# Contributions to paradigm roadmap tracking

## What is MESA Track?

MESA Track ([www.mesamalaria.org/mesa-track](http://www.mesamalaria.org/mesa-track)) is an **open** and **regularly-updated** database of ongoing (and completed) malaria research.



### All Projects

TOTAL PROJECTS <b>1738</b> 261 active	TOTAL FUNDING <b>\$3.32B</b> \$766M active	PROJECT SITES <b>140</b> 101 active	PRINCIPAL INSTITUTIONS <b>494</b> 158 active	<a href="#">VIEW ALL</a>
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Active projects only | **Total projects** | Total funding ⓘ [FILTER +](#)

### Themes

Response Strategies	892
Challenges in Eliminat...	477
Health Systems & Op. ...	467
Basic Science	323
Epidemiology	323

Download ↓

### Funding Sources

National Institute of Allergy ...	272
Bill & Melinda Gates Founda...	238
Wellcome Trust, UK	116
U.S. President's Malaria Initi...	113
Medical Research Council (...)	60

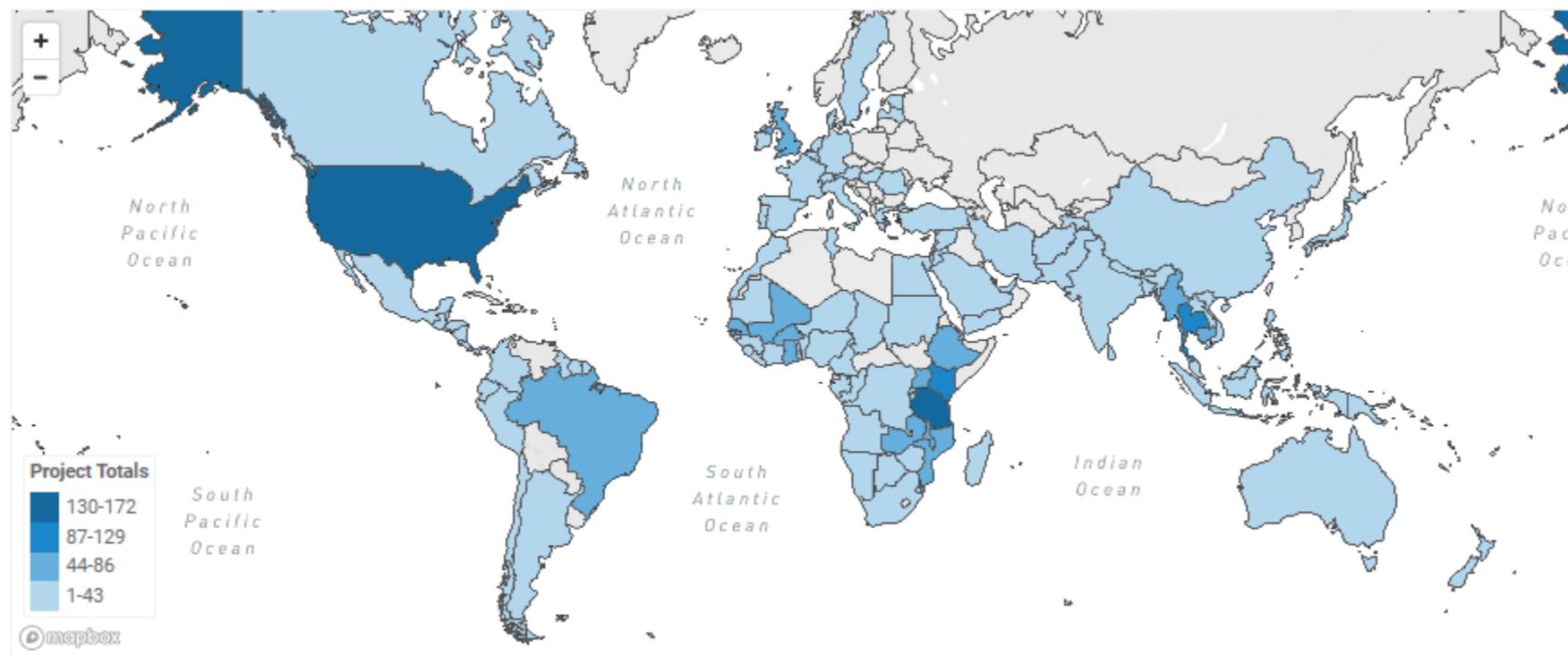
Show All + Download ↓

### Principal Institutions

Ifakara Health Institute (IH)...	79
Liverpool School of Tropical...	65
Barcelona Institute for Glob...	60
Harvard T.H. Chan School of...	58
Malaria Consortium, UK	55

Show All + Download ↓

## Project Sites



# Search MESA Track



Please enter a search term.

Themes:

Project Sites:

Project Timeline:



to



Principal Institutions:

Partner Institutions:

Funding Sources

Principal Investigators:

Funding Amounts:

to

Show Active Projects

SEARCH

# Overview of vector-based strategies in MESA Track

TOTAL PROJECTS

**270**

47 active

TOTAL FUNDING

**\$508M**

\$196M active

PROJECT SITES

**78**

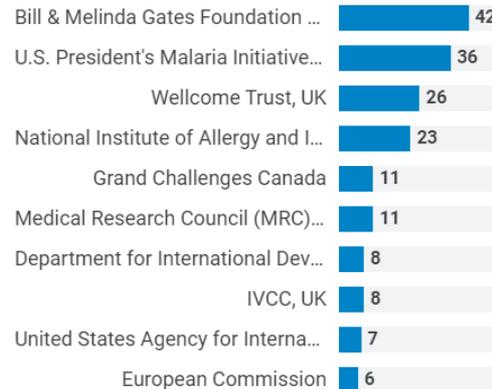
41 active

PRINCIPAL INSTITUTIONS

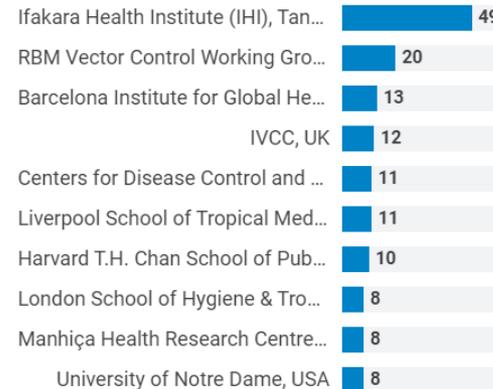
**122**

36 active

## Funding Sources \*



## Principal Institutions \*



\*# of projects, top 10

# LSM

TOTAL PROJECTS

**31**

6 active

TOTAL FUNDING

**\$33.0M**

\$9.27M active

PROJECT SITES

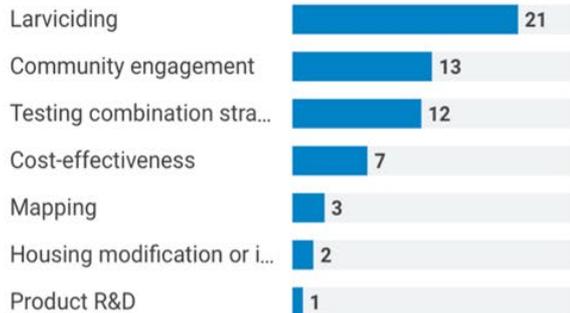
**16**

8 active

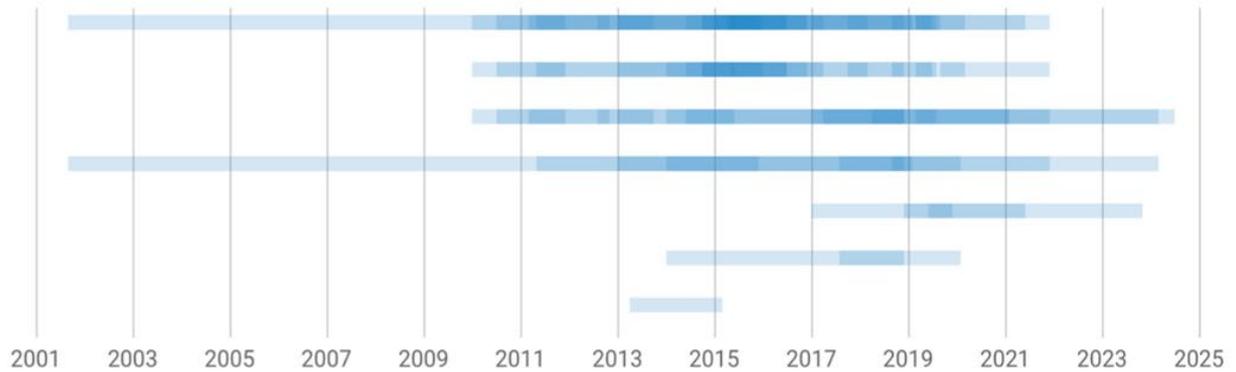
Research Area

Total Projects

Project Timeline

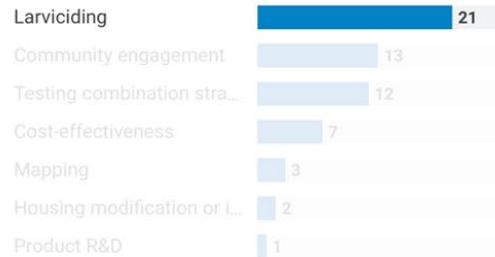


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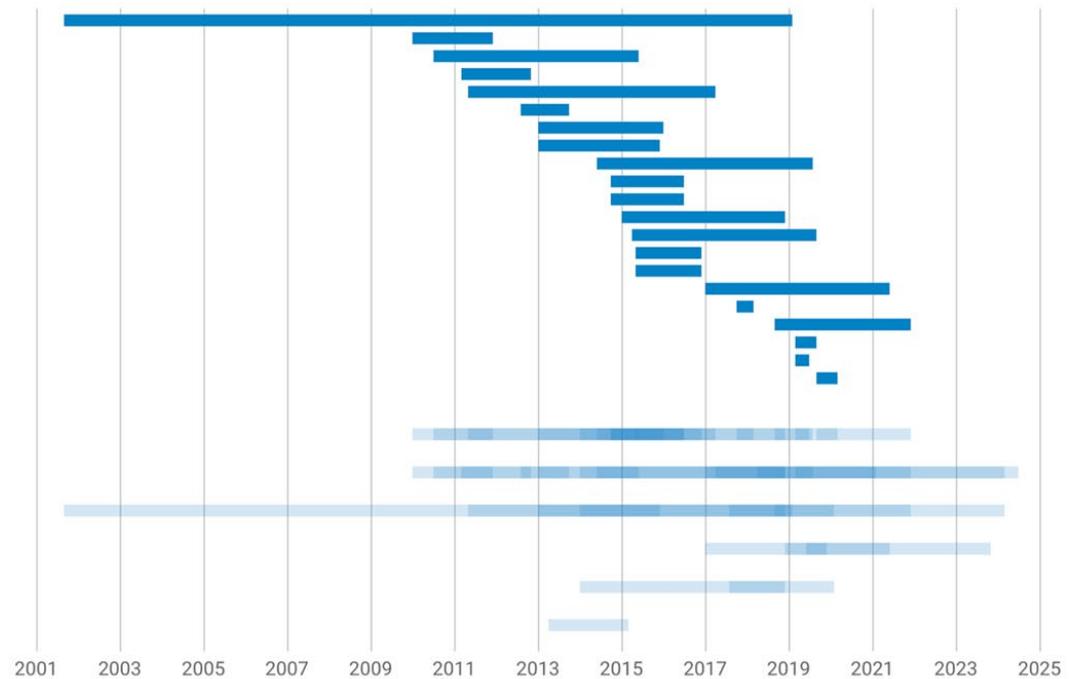


# Larviciding

Research Area    Total Projects    Project Timeline



Download ↓



# Landscaping of vector control tools under investigation

<http://www.mesamalaria.org/mesa-track/deep-dives>



**LSM**



**Baits and traps**



**Ivermectin**



**Housing**

# Contact us!

**MESA Track can serve to facilitate review of data as it emerges, to evaluate the overall funding and activity window, and to facilitate contact with Principal Investigators for queries into design.**

Know more: [www.mesamalaria.org/mesa-track](http://www.mesamalaria.org/mesa-track)

Watch a short introductory video: <http://www.mesamalaria.org/resource-hub/what-mesa-track>

Submit your research at [mesa@isglobal.org](mailto:mesa@isglobal.org)

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# Task teams

1. Human behavior, human centered design, and vector control
2. Larval source management
  1. LSM technology i.e. GIS, satellite, use of drones, new application technology etc.
  2. Evidence on habitat modification and manipulation
  3. Operational LSM and impact at the NMCP level
3. Vector control paradigms
  1. ATSBs
  2. Genetic control
  3. Spatial repellents
  4. Endectocides
  5. Housing
4. Tracking national malaria program operational research agendas
5. Vector control product inventory – **IVCC**
6. VCAG updates – **WHO VCAG**

# Role of task teams

1. Varied responsibilities depending on the team
2. Human behavior – identify partners in the space and priorities/projects for the workstream work plan
3. Vector control paradigms – provide updates for roadmap tracking; workstream co-leads to develop framework for tracking
4. Others TBD as they are formed and gaps are identified

# Workstream communication

1. Preferences?
2. Semi-annual newsletters – updates from workstream co-leads and task teams
3. Ad hoc calls with task teams
4. Webinars?