

# **Larval Source Management Work Stream**

Co-chairs:

Silas Majambere, Ulrike Fillinger

# Aim of the LSM work stream

- to update the evidence base and protocols
- to assess and help develop the local capacity (people and infrastructure)
- to help national programs identify where and how investments in LSM could contribute to malaria control.

## Project 1:

# Draft a consensus statement as RBM VCWG work stream with the aim to change WHO position on LSM

- The “few, fixed and findable” is a barrier to implementation
- Link statement to the Global Vector Control Response
- WHO – new guidelines for vector control are coming based on evaluation of evidence. Statement does still include FFF
- WHO – Need to distinguish between policy change and guidelines for operations
- Group’s consensus on policy change

## Project 1:

# Draft a consensus statement as RBM VCWG work stream with the aim to change WHO position on LSM

- Huge historical and contemporary evidence that LSM works. Make statement evidence-based
- Advocate for strengths of LSM –resistance management, outdoor biting, reducing population sizes. Also mention limitations of LSM
- Need to involve an economist to improve the statement

## Project 2:

# Advocating for environmental management including habitat modification and manipulation and intersectoral collaboration as priority intervention in LSM

- Reaching out to Public Health Engineers
- Reaching out to the agriculture sector (rice irrigation schemes, plantations, etc.), land authorities, etc.
- African Development Bank (AfDB) planning to invest **\$24 billion** in water resource development by 2025;
- “Safeguards for Health Impact Assessments” **including Vector Control requirements**

### Project 3:

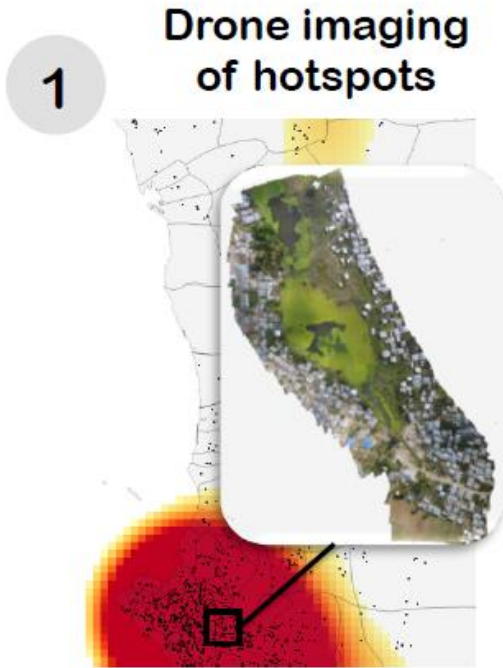
**Update and expand spreadsheet of WHOPES approved larvicides as source of information; Compile SOPs on: How to test larvicides? & How to test for resistance?**

- i2i coordinating work related to getting facilities to GLP certification.
- Developing SOPs describing methods included in WHOPES guidelines for products – mainly LLINS, IRS, larvicide and space sprays.
- Collated existing SOPs for LLINs and IRS
- SOPs for larvicides and space sprays were not up to standard, they are being developed from scratch

Project 4:

**Review of state of the art technology for LSM (e.g. GIS, satellite imagery, radar, new application equipment, aerial application, drones, mobile apps, etc.)**

## Project 4:





## Project 4:

# Conclusions

- New technology means we can now map breeding habitats over wide areas at unprecedented spatial and temporal resolutions
- New methods of analysis show promise to identify, locate and prioritize habitat targets in operational time frames for LSM

## Project 4:

# Spraying equipment- conclusions

- Effective larviciding for mosquito vector control has been achieved worldwide.
- Larviciding is effective in complex habitats including those that are large, cryptic and difficult to access.
- Larvicide application methods can be utilized effectively in resource limited settings.

## Project 4:

# Spraying equipment- conclusions

- Vector control field workers worldwide have been successfully trained to apply larvicide to complex habitats.
- Advanced larvicide application methods have enabled control of DENV, ZIKV & CHIKV vectors in cryptic habitats across broad geographies, interrupting disease transmission.

Why not?



Project 5:

**Reviewing operational LSM in vector control programmes  
– Evidence of impact, training and support needs**

LSM in Africa: A lost opportunity to strengthen the evidence base on cost effective malaria control

Desktop review done on: Eritrea, Ghana, Nigeria, South Sudan, Uganda and Zanzibar

## Project 5:

# Conclusions

- Additional malaria control tools are required to maintain control and achieve elimination
- A substantial number of African countries are adopting LSM, however where implementation has taken place, it has tended to be poorly monitored and evaluated
- Integrated Vector Management is not cross-referenced in World Malaria Reports and is not funded by GF or other large funders

## Project 5:

# Conclusions

- Environmental management should be given greater prominence as it is sustainable and can be highly effective
- The lack of international support is out of step with country policy, it represents a missed opportunity for generating additional much needed evidence to support challenging resource allocation decisions in the control of malaria and other vector borne diseases

## Project 6:

# Develop guidelines for LSM in emergency situations

- Guidelines will have to be adapted to local situation (emergency situations will differ)
- LSM experts on standby to offer help where needed