



# COMMUNITY BASED LARVAL SOURCE MANAGEMENT IN KENYA

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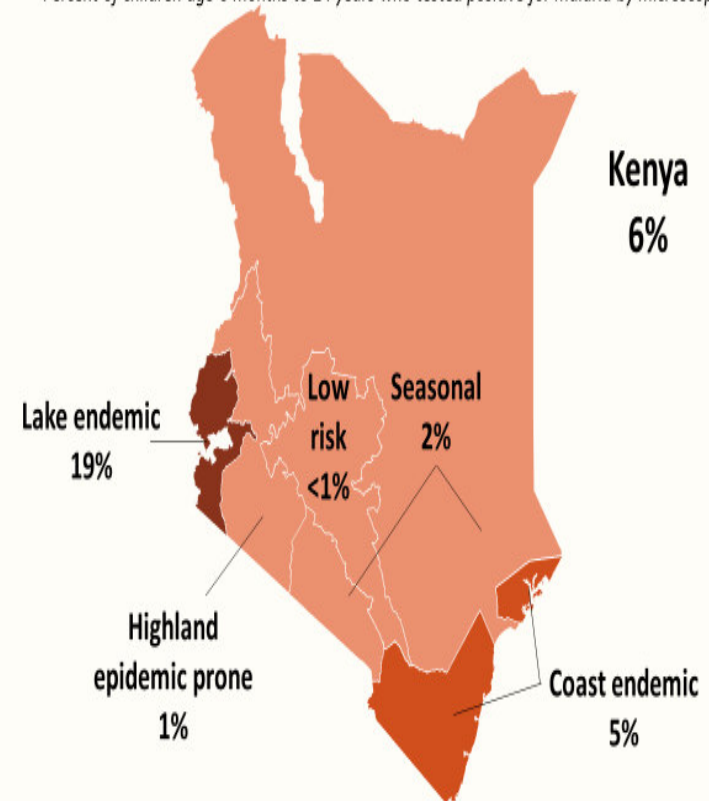


## Background

- Malaria prevalence in Kenya is at 6% with the Lake endemic zone at 19% and Coast Endemic zone at 4%
- The main malaria species in Kenya is *P. falciparum* 76%. *P. malariae* is at 4% and mixed infections (*P. falciparum* and *malariae*) at 19%
- The main malaria vectors in Kenya are *An. arabiensis*, *An. gambiae* and *An. funestus*

### Malaria Prevalence by Malaria Endemicity Zone

Percent of children age 6 months to 14 years who tested positive for malaria by microscopy





## Malaria vector control Interventions in Kenya

- The main malaria control interventions in Kenya are;
  - Use of LLINs in 27 counties
  - IRS in two high burden counties (Migori and Homabay) supported by PMI
  - Larval source management is a supplementary intervention which is targeted in 8 malaria counties through community based approach
- LLIN and IRS are currently under threat of widespread insecticides resistance especially to pyrethroids
- One of the strategies for management of insecticide resistance in Kenya is LSM among others





## Implementation of Community Based LSM in Kenya

- Kenya signed a bilateral agreement with Cuban government to conduct community based LSM in 8 malaria endemic counties for 2-years period
- Under the agreement the Cuban government will provide 8 vector control experts and biolarvicides – Bactivec (Bti) and Griselesf (B. sphaericus)
  - The biolarvicides have being sourced from Labiofam company in Kibaha Tanzania and are currently been stored in KEMSA Kisumu
  - Application of biolarvicides will be after every 3 months
  - Timing of the application -beginning of the dry season or at the end of the rainy season.
- The Cuban experts will provide technical expertise to Community based workers in Villages and public health officers at ward level





## Implementation of Community Based LSM in Kenya - **Vehicles and other Equipment**

- 9 vehicles and a driver have been provided by county government - 8 in each county and 1 for Project coordinator
- Cost of Maintenance and lunch allowances for drivers are under National Government
- Monitoring equipment – GPS machines and Entomological equipment have been procured and delivered to counties
- Spraying equipment – Motorized pumps and hand held Hudson pumps





## Implementation of Community Based LSM in Kenya – Advocacy and social Mobilization

- County engagements –
  - 8 Governors, CEC Health and County Directors of Health
- Social Mobilization conducted in two levels
  - County and Sub-county meetings
  - Village level – Chief Barazas, use of churches
- Selection of brigade/community based workers – one brigade per village
- Composition of brigade/community based workers – 1 brigade Chief (supervisor) , 5 sprayers and 1 driver
- Role of Brigade/community based workers
  - Mobilization of households
  - Mapping of breeding sites
  - Application of biolarvicides
  - Monitoring –mosquito collection





# Implementation Community Based LSM in Kenya - Training

- Trainings will be conducted in two levels

## 1. Training of Trainers (ToT)

- 5-days training. Two days theory and 3-days practical's
- TOT will be conducted at County level.
- Participants will be:
  - County Medical Entomologist, County Community health coordinator, County Public health Officer, Sub-counties PHO and community health coordinators.

## 2. Training of community based workers

- 5-days training. Two days theory and 3-days practical's
- Will be conducted at ward level
- Participants will be trained on – mapping of breeding habitats, application and reapplication of larvicides, environmental modification and manipulation, adult and larval monitoring, storage and handling of biolarvicides and equipment





## Baseline Survey – Epi and Ento

- Larval habitats will be mapped by Community Based Workers (CBS) within their villages under supervision of Ward-PHOs
- Larval density of the mapped habitats will be recorded as baseline data
- Adult collections will be conducted in selected sentinel houses close to the mapped habitats by use of CDC Light traps and aspiration.
- Malaria incidence data will be obtained in catchment health facilities within the Ward level at the same time and will act as baseline data







## Application and Reapplication

- Application and reapplication will be during the dry season or after the rains when the larval habitats are easily findable and fixed
- Hand held Hudson pump will be used in small water bodies while motorized pumps will be used in large water bodies (high pressure)
- Reapplication will be dependent on monitoring data but based on the label its 2-3 months





## Monitoring and Evaluation

- Larvae will be sampled in selected sites and density established
- The selected sentinel houses will be sampled on a monthly basis to establish adult density and other entomological indicators
- Malaria incidence data will be obtained from selected catchment HF within the Wards
- Quality of Biolarvicides will be checked before application in collaboration with KEMRI
- An Evaluation report will be generated after the end of each stage – Social Mob, Baseline, Application and reapplication



