GOVERNMENT AND PRIVATE PARTNERSHIP TO CONTROL MALARIA IN GHANA

UPDATE ON LARVICIDING PROJECT

NATIONAL MALARIA CONTROL PROGRAMME (NMCP)

4th February, 2020
Outline

• Introduction
• Partnership
• Planned Activities 2019
• Implemented Activities
• Challenges
• Way forward
• Plan for 2020
Introduction

- Malaria remains meso-endemic in Ghana and accounts for the highest morbidity in OPD

- Ghana is at control phase with the aim of reducing malaria morbidity and mortality to a locally acceptable level through deliberate efforts using preventive and curative tools available

- The Ministry of Health, signed a Memorandum of Understanding (MoU) with Zoomlion, a private waste management company to implement larval source management (LSM) nationwide

- In this agreement, the NMCP was tasked to have oversight and supervise LSM implementation particularly larviciding and environmental management
Malaria Control Interventions in Ghana

- Distribution of Long-Lasting Insecticide Nets (LLINs)
- Indoor Residual Spraying (IRS)
- Larval Source Management (LSM)
- Malaria Vaccine RTSS (MosquirixTM)
- Intermittent Preventive Treatment (IPTp)
- Seasonal Malaria Chemoprevention (SMC)
- Case Management Diagnosis & Treatment

Cross-cutting interventions:
- Procurement and Supply Chain
- Research, Surveillance, Monitoring & Evaluation
- Advocacy, Social & Behavior Communication
Partnership

Ministry of Health
NMCP

LOCAL GOVERNMENT

Zoomlion

Public
- Funding
- Policy Guidelines
- Technical Support
- Coordination
- Oversight Responsibility
- Human Resource

Private
- Implementation
- Human Resource

Public
- Human Resource
- Supervision
Planned Activities-2019

Key activities planned for implementation in the year 2019 were:

• *Baseline study (Entomology and Epidemiology)
• Development of implementation tools
• Stakeholder engagement
• Trainings
• Mapping of water bodies
• Larviciding

*Baseline study and larviciding could not be implemented in 2019 but have been scheduled for implementation in 2020
Planned activities that were successfully implemented this year included:

- Review and development of Documents
- Stakeholder engagements
- Trainings
- Mapping of water bodies
Consultant (Dr Silas Majambere) was brought in-country to support the process of developing a plan and documents to direct the project.

Key deliverables achieved:

- A finalized SOP for Mapping of water bodies
- A finalized SOP for Larviciding
- A finalized draft training manual
- A revised Guideline for Larval Source Management
- Revised and finalized tools for data capture
Implemented activities Ctnd.. Stakeholder engagements

- Stakeholders meeting brief participants on the project and to solicit support and cooperation
  - Regional and District
    - Regional Directors
    - District Directors
    - Malaria Focal Persons
    - Environmental Officers
    - Zoomlion staff
Implemented activities
Ctnd.. Training of Trainers

• Training of Trainers Workshop for District Staff
• Characterized by presentations, fieldwork, equipment calibration and trouble shooting and evaluations
Implemented activities Ctd.. Orientation for Spray Operatives

- 10 Spray Operatives and a team leader in each district
- Participants Trained
  - habitat identification
  - larval sampling techniques
  - data capture with smartphones
Mapping Exercise

- Mapping of water bodies conducted by SO’s under the supervision of district staff
- Data capture with Kobocollect tool for android
- Mapping conducted in all districts nationwide
• A total of 16,666 potential breeding sites mapped
• Approximately 90% of mapped breeding sites contain larval species
• Drains and ditches constitute greatest percentage (35.1%) of the breeding site types mapped
• Northern region has the highest number of breeding sites (3,823)
• Ashanti Region has the lowest number of breeding sites (404)
Mapping Data - Summary Ctnd

Proportion of habitat types in mapped areas

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditch/Ditch</td>
<td>35%</td>
</tr>
<tr>
<td>Swampy area</td>
<td>17%</td>
</tr>
<tr>
<td>Pond</td>
<td>12%</td>
</tr>
<tr>
<td>Stream/Filter</td>
<td>8%</td>
</tr>
<tr>
<td>Contractors</td>
<td>6%</td>
</tr>
<tr>
<td>Others</td>
<td>5%</td>
</tr>
<tr>
<td>Puddles</td>
<td>5%</td>
</tr>
<tr>
<td>Tyre tracks</td>
<td>4%</td>
</tr>
<tr>
<td>Pool</td>
<td>4%</td>
</tr>
<tr>
<td>Rice fields</td>
<td>3%</td>
</tr>
<tr>
<td>Irrigated agriculture</td>
<td>1%</td>
</tr>
</tbody>
</table>

Proportion of larval species in mapped areas

<table>
<thead>
<tr>
<th>Larval Species</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anopheles</td>
<td>44%</td>
</tr>
<tr>
<td>Both</td>
<td>28%</td>
</tr>
<tr>
<td>Culicines</td>
<td>20%</td>
</tr>
<tr>
<td>No specie found</td>
<td>9%</td>
</tr>
</tbody>
</table>
Challenges

• Use of Personal Phones for Mapping
• Competing programs at the district
• Need to regular mapping
• Timely release of funds
Way Forward

• Develop and pilot mobile application for LSM

• Procure mobile device (tablets) for implementation

• Conduct baseline entomology study in sentinel sites (February)

• Based on mapping data, plot out areas for larviciding and areas that will be without considering urban areas, insecticide resistance site, water body characteristics etc

• Logistics movement

• Larvicide application in positive breeding sites (Tentative March-April)
Conclusion

• Country is committed – both Private and public to larviciding as a means to complement the current vector control interventions

• All partners worked hand in hand through all activities

• Larviciding is seen as a tool to handle the urban area challenges with net distributions

• The project will eventually obtain data on coverage and impact on the larviciding
THANK YOU!!!!!