Southern Africa Malaria Elimination 8 Entomology Fellowship

14th Annual Meeting of the RBM Partnership Working Group on Malaria Vector Control
1 February 2019
1. E8 Entomology Fellowship rationale, objectives and structure
2. E8 Entomology Fellows – inaugural year in-take
3. Training programme
4. Fellow research projects
5. Upcoming activities in 2019
Elimination 8 Entomology Fellowship Programme:

- **Widespread outbreaks** experienced across the region. Entomological intelligence across the region is not sufficient to understand the trends observed. Entomological surveillance is critical for understanding transmission patterns.

- Support the strengthening of entomological surveillance to complement epidemiological data and **enhance programmatic decision making** towards elimination of malaria in the Southern African region.

- Build a network of vector control and entomology officers with the **right tools, guidance and exposure** to fill the regional gaps in entomological practice and understanding.

- A **tailored programme** to provide dedicated support and **relevant content** towards building entomological capacity in the SADC region at the national level to support malaria control programmes.
Launched in May 2018, the main objectives of the fellowship programme are to:

1. Accelerate attainment of malaria elimination by rapidly providing relevant, tailored specific mentoring and content to build entomological capacity in the E8 region;

2. Build and nurture a network of programme officers and specialists in entomology and vector control, for enhanced collaboration and information sharing, and knowledge management within the E8 countries;

3. Increase the generation of entomological surveillance data to complement epidemiological data and enhance programmatic decision making towards elimination of malaria in the SADC region.

Funding partners:
E8 Entomology Fellowship rationale, objectives and structure

1. **Residential Weeks**
   - **Residential Weeks at three institutions:** Fellows participate in intensive theoretical, practical and field-simulated training sessions at academic and research institutions within the E8 and abroad.

2. **Mentorship**
   - **Mentorship:** Fellows are connected with a mentor for one-on-one guidance and mentorship over the duration of the Fellowship research project.

3. **Project**
   - **Practicum experience/Capstone project and VC/ES Network:** Fellows complete a project with direct relevance for the elimination strategy in each country (e.g. establish an insectary, conduct longitudinal vector bionomics study, test an innovative vector control tool, practical application of entomological surveillance evidence for programming and policy making).

4. **Publication & Conference participation**
   - **Publication of research and conference participation:** Fellows publish research and make oral and/or poster presentations during regional and/or international conferences.

5. **E8 Network of Entomology Professionals**
   - **Network of Entomology professionals:** Induction into a professional network of vector control and entomology officers within the SADC region, and access to ongoing collaboration and networking opportunities.
E8 Entomology Fellows – inaugural year in-take

Angela
Andre Jose Domingos,
Malaria Supervisor; Provincial Directorate of Health - Cuiene

Botswana
Moketsi Sequeleho
Senior Technical Officer; Malaria Control Program - Ministry of Health & Wellness

Mozambique
Dulcaria Mbanzio
Entomologist; Malaria Control Program - Ministry of Health

Namibia
Michael Litifa
Environmental Health Practitioner; Ministry of Health and Social Services

South Africa
Sindilele Shaimo
Environmental Health Practitioner; Malaria Control Program – Department of Health

Swaziland
Zulile Tulu
Senior Program Officer (M&E); Malaria Control Program - Ministry of Health

Zambia
Willy Neulide
Principal Malaria Control Officer; Malaria Elimination Centre – Ministry of Health

Zimbabwe
Regis Manyika
Environmental Health Practitioner; Ministry of Health and Child Care
Training programme: Residential Week 1 at Wits University/NICD (May 2018)

1. Insectary set-up and management
2. Taxonomy and morphological identification
3. Detecting insecticide resistance
4. The global malaria elimination agenda and opportunities and challenges for elimination in the E8
1. Introduction to the key principles of malaria vector surveillance
2. Monitoring coverage and performance of vector control interventions
3. Identifying and prioritizing indicators for entomological surveillance in different epidemiological settings
4. Analysis and interpretation of georeferenced data for optimal application of vector control and elimination
5. Discussions on new tools and approaches for vector control and elimination
Training programme: Residential Week 3 at Liverpool School of Tropical Medicine (October 2018)

1. Tailored insecticide resistance course (incl. ResistanceSim, IVM)
2. Geographical Information for Vector Surveillance (GIVeS) training
3. Networking opportunities at LSTM Vector Biology Seminar and with PIIVeC Fellows
<table>
<thead>
<tr>
<th>Name of Fellow</th>
<th>Country</th>
<th>Name of Local Mentor/s</th>
<th>Area of interest</th>
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</thead>
<tbody>
<tr>
<td>Zulisile Zulu</td>
<td>Eswatini</td>
<td>Dr. S.V. Dlamini</td>
<td>An entomological profile of Eswatini; the distribution of malaria vectors population, 2000-2018</td>
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<tr>
<td>Dulcisária Jotamo Marrenjo</td>
<td>Mozambique</td>
<td>Nelson Cuamba</td>
<td>Use of pots, plastic buckets and PSC in the study of malaria vectors density, infection rate in Moamba district with implementation of Long-Lasting Insecticide-Treated Nets and Indoor Residual Spraying in the south of Mozambique</td>
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<tr>
<td>Michael Lifasi</td>
<td>Namibia</td>
<td>Stark Katokele Ilula Ilula</td>
<td>Evaluation of IRS in Zambezi Region</td>
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<tr>
<td>Silindile Felicia Sibambo</td>
<td>South Africa</td>
<td>Dr. Givemore Munhenga</td>
<td>Monitoring insecticide resistance status of the major malaria vectors for timely optimization of interventions to sustain malaria elimination in South Africa</td>
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<tr>
<td>André José Domingos</td>
<td>Angola</td>
<td>Dr. Cani Pedro Jorge</td>
<td>Susceptibility of Anopheles mosquitoes to insecticides, morphological identification</td>
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<tr>
<td>Regis Mavhiya</td>
<td>Zimbabwe</td>
<td>Prof. Sungano Mharakurwa</td>
<td>An evaluation of Insecticides susceptibility to vector mosquitoes in Chiredzi district, Masvingo province, Zimbabwe</td>
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<tr>
<td>Willy Ngulube</td>
<td>Zambia</td>
<td>Dr. Jennifer Stevenson</td>
<td>Reactivation of Kazungula District Entomological Sentinel Sites to determine the vector susceptibility to the currently available insecticides for Indoor Residual Spraying (IRS)</td>
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<tr>
<td>Mooketsi Segaeatho</td>
<td>Botswana</td>
<td>Godira Segoea</td>
<td>Design and validate protocol for entomological surveillance in terms of practicality in monthly data collection to determine monthly variations of vector species composition, abundance and breeding sites characterization, in two sentinel sites. Okavango District, Botswana</td>
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Upcoming activities in 2019

• Completion of Fellow projects and review by mentors

• Fellows contribute to scientific and policy research journals, participate in regional and/or international conferences

• Comprehensive independent evaluation of the inaugural year of the Fellowship (and re-design if recommended)

• Network formalised in synergy with existing initiatives

• Dynamic funding and partnership frameworks established for continuity of activities

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