

MSWG mid-term online membership meeting

16 August 2023, 14:00-15:30 CET

Co-Chairs: Graham Alabaster & Peter Mbabazi
Coordinator: Konstantina Boutsika
Technical & administrative support: Sunghea Park
Rapporteur: Sunghea Park

I. Opening Remarks: Dr Michael Charles, CEO RBM Partnership to End Malaria

Michael Charles mentioned the importance of the Multi-Sectoral Working Group (MSWG) for the RBM ensuring the multi-sectoral approaches address challenges in malarial control and elimination. He raised urbanization and climate change as key factors to consider:

- **Urbanization:** The rapid growth of urban populations in sub-Saharan Africa. With urbanization, environmental challenges such as construction, and waste management in cities, in particular, drainage and ditches are thriving sources for mosquito breeding.
- **Climate change:** Rise of temperatures and changes in rainfall patterns such as the floods in Pakistan and the cyclones in Mozambique. Malaria cases are increasing with the impact of climate change.
- Therefore, we need to be broader and have a multi-sectoral manner to fight against malaria. We need to support developing and strengthening national multi-sectoral policies and plans. We use malaria as the entry point to tackle other vector-borne diseases (VBDS) including neglected tropical diseases and tuberculosis with an integrated multi-sectoral approach.

He emphasized **raising a collective voice to end malaria together with all Working Groups:**

- In November, a meeting with all the Working Groups co-chairs, the Partners Committees co-chairs, and Coordinators will take place to find out how we can work better together, how we can leverage each other's expertise, and more importantly, how we can continue to lift the voice and make sure that we are fighting the battle together in terms of ending malaria.

II. Welcome and brief report on today's participants, Graham Alabaster, MSWG co-chair

Graham Alabaster welcomed the participants and presented a short report on registrants of the meeting. The objectives of the meeting are:

- Receive a synopsis and outcomes of the MSWG-5 meeting report.
- Update members on specific MSWG project activities.
- Welcome updates on interventions from the MSWG membership on resource mobilization projects.
- Discuss extending the partnership and engagement, political outreach, promoting advocacy and messaging.
- Reach a consensus on issues to report back to the 2024 annual meeting and way forward.

III. 5th annual MSWG meeting (8-11 February 2023, Accra, Ghana)

- [Konstantina Boutsika, MSWG - MSWG-5 Meeting Overview](#)
- [Peter Kwehangana Mbabazi, MSWG - MSWG-5 Meeting Report Synopsis](#)

IV. Updates on specific activities

- [Graham Alabaster, MSWG - Healthy Cities, Health People \(HCHP\)](#)

The Healthy Cities initiative, launched in November 2021, aimed to mobilize political will globally to address challenges such as climate change, urbanization, migration, and increased pollution affecting cities. The HCHL initiative sought to establish a network of leaders globally and leverage challenge funds for catalyzing larger investments in infrastructure and housing resilience against vector-borne diseases. The presentation outlined areas for challenge funds, including community-led data for surveillance, a one-health approach, considering the built environment and improving the urban design. The ongoing work involved reviewing evidence, collaborating with WHO and UN-Habitat, and strengthening the case for investment in urban redesign. The importance of community engagement and sharing examples of success and failure across cities was emphasized. The presentation highlighted the potential for managing the living environment to contribute to the control of various diseases.

- [Erik Blas, Consultant - The Pathfinder Endeavour \(PE\)](#)

The presentation focused on the progress of the Pathfinder initiative for sustainable development, emphasizing malaria and neglected tropical diseases. The presenter highlighted the need to treat sick individuals while simultaneously working to eliminate malaria by reducing the number of cases. The speaker shared insights from Rapid Appraisal Tool (RAT) tested in Ghana, Madagascar, and Uganda, emphasizing the multifaceted challenges, including political, economic, social, and environmental factors. The presentation underscored the importance of understanding development challenges at different levels, from regions to wards. Additionally, the speaker discussed challenges in resource mobilization, including competition for resources and a dependency on conventional commodity thinking. Promising tracks for funding were identified, including engagement with UNDP funds, Nordic countries, the EU, and the Wellcome Foundation. The presentation concluded with ongoing and upcoming activities, such as engaging more prospective Pathfinder countries, completing RAT, and planning for a tools workshop in late 2023 or early 2024.

- Comment from Graham Alabaster: The biggest challenge of the initiatives (HCHP and PE) is to generate financial resources, currently donors are giving funds for traditional malaria and VBD projects.

V. Interventions from the MSWG membership

- [Dr Esther Obonyo - 1st project on climate change & malaria](#)

The speaker discussed collaborative efforts in sustainable urban development, with a focus on safe and affordable housing, inclusive urbanization, and disaster risk reduction. She emphasized the overlooked risks in built environments, such as inadequate site management, wastewater issues, and the location of low-income housing contributing to vector-borne diseases. Stakeholder engagement activities, especially in the context of a changing climate (floods), highlighted as a primary concern. She presented ongoing activities funded by a framework of the Belmont Forum to address complex issues and shared ongoing research, targeting sustainable building materials and waste disposal to mitigate vector-borne disease risks. She stressed the importance of policy interventions at the level of building codes and land use to reduce the risk.

- [Hon. Batuwa Timothy Lusala - 2nd project on domestic resource mobilization](#)

The speaker mentioned three organizational processes involved in identifying politicians with common interests, engaging stakeholders, and securing commitments, primarily related to malaria. The speaker manifested parliamentary activities, influencing policy direction and advocating for the malaria agenda. He mentioned strategies for domestic resource mobilization, including influencing budget allocations, holding meetings with key ministries, and exploring opportunities like the National Health Insurance Scheme. Challenges included financial debts, divisive politics and abolishing user fees in the governmental unit. The knowledge gap and secretariat are weaknesses. But, strengths lay in

membership, with nearly all members of Parliament participating, facilitating easy integration of their agenda into government business.

- [Dr Samuel Gonahasa - 3rd project on housing modification and effects on malaria](#)

Despite significant investments in malaria, the burden remains high, prompting an exploration of the impact of housing modifications on malaria risk. The speaker presented a cluster randomized trial with two interventions—full screening and eave tubes—in high-malaria-burden areas of Uganda. The results indicated a reduction in vector densities, with both interventions proving feasible, acceptable, and comparable in cost to other malaria prevention methods. Engaging stakeholders at various levels, including community leaders and carpenters, was crucial for the project's success. The study emphasized the potential equity impact of prioritizing housing modifications for low socioeconomic status households.

VI. Discussion on Presentations

1. What are threats and how can we improve temporary shelters in climate change and disaster (floods)?

Graham Alabaster answered:

- 1) There is a direct relationship between the prevalence of malaria and the planning of the refugee site, including water and sanitation infrastructure. The rapid establishment of the site resulted in significant planning errors, such as inappropriate leveling that disrupted natural drainage, leading to the formation of standing pools of water. The selection of emergency water and sanitation facilities exacerbated health issues, especially vector-borne diseases like malaria.
- 2) When dealing with a refugee situation, meticulous consideration of site planning is crucial. It directly influences drainage patterns, the presence of standing water, and the risk of various disease vectors. There should be a shift towards designing facilities with a more long-term, development-oriented focus rather than solely relying on emergency or humanitarian features in refugee communities.

2. How will interventions and a trial design affect not only the people inside the house but also the communities in an urban setting?

Samuel Gonahasa answered on the impact of eave tubes:

- 1) Trials of eave tubes combined with screening in Cote d'Ivoire demonstrated a community-wide effect, reducing mosquitos across a significant area, and emphasizing the broader impact beyond individual households. Data analysis on the presence of modern houses in a community shows the impact on malaria by demonstrating a correlation with a reduction in the burden of malaria, in particular, the increased number of townhouses.
- 2) Challenges of implementing the interventions in urban settings are applicability across diverse environments, stakeholder engagement including the private sector and various partners, and the need for further exploration and strategies for urban deployment.
- 3) In screening, old bed nets had durability issues with approximately 50% being damaged within three months. Ongoing efforts are needed to explore affordable and resilient screening.
- 4) Also, outdoor biting needs to be addressed while interventions effectively reduce indoor biting. Ongoing efforts to understand effective strategies in outdoor settings are requested.

3. What are the current challenges in urban settings? How can we address them?

Esther Obonyo pointed out current challenges and answered:

- 1) Current building design and construction practices have not evolved, posing a challenge for future urban spaces. Without a change in design and practices, the 60% of areas to be built by

2050 may not be resistant to malaria. The current trajectory sets the stage for a continuous cycle of reactive measures, consistently fixing issues like windows and eaves due to poorly constructed houses.

- 2) The advocacy focuses on influencing the building sector during the design and construction phase, emphasizing the need to make new facilities malaria-sensitive. The aim is to break the cycle by directly influencing the building sector, ensuring that new facilities are designed and constructed with malaria-resistant features from the outset.

Erik Blas answered:

- 1) Elimination of malaria is the key question of the Pathfinder Endeavor.
- 2) While individual interventions may show efficacy, the persistent challenge lies in their inability to yield a sustained decline in malaria cases. The main reason is that interventions are not embracing all the SDGs.
- 3) This perspective aligns with the principles outlined in the Multisectoral Action Framework, which emphasizes the need for all-encompassing actions rather than selective sector-specific measures.

4. How can the screening help in preventing outdoor malaria transmission?

- 1) Esther Obonyo answered: When we defined the concept of built environment, the definition encompassed a broad scope including both inside and outside factors.
- 2) In discussing the sustainable management of sites, we need to understand aspects that elevate the risk of malaria outside. Certain activities within the built environment create conditions favorable for vector habitation such as quarrying and material extraction for construction as well as a lack of effective governance and regulation.
- 3) Also, in the agricultural sector, there is demand management and monitoring to prevent stagnant water pools that contribute to the external transmission of malaria.

Erik Blas answered:

Regarding the outdoor mosquito and biting transmission, the Pathfinder Endeavor malaria smart steps. The key intervention is the direct and real-time involvement of the community both in mapping the risks and in follow-up on the failures.

Peter Mbabazi answered:

We are looking at unconventional means of mosquito control, e.g. mosquito repellent plants. Most of the issues are related to the behavior change of people. How are they protected in the evenings, are there compounds in the environment that can be used to keep us malaria-free?

VII. General Discussion and Action Points

1. How we might extend the partnership and engagement including to the higher political levels?
 - **We invite mayors and political leaders to the next meeting of MSWG-6 (2024).**
 - **We bring messages together with other Working Groups.** E.g. consensus statement on the urbanization of malaria together with the VCWG.
2. What other areas do we need to work on? What would you like as problem solvers for the next annual meeting?
 - **We include other sectors to respond together about climate change and malaria treatment from a multi-sectoral point of view.**
 - **Programs/projects to measure the effect of combining mosquito interventions and vaccines.**
 - ✓ Vaccines can be a part of the intervention in Pathfinder Endeavor.
 - ✓ Malaria vaccine trials are conducted along with vector control.

- ✓ Vaccine could be a future step as it is still limited for children and applied only in a few countries. We must bear in mind that the vaccine is currently only for children between six months and 18 months. The vaccine doses are not enough to cover the whole country.
- **We collaborate with the Social and Behaviour Change.**
 - ✓ Empowering the communities and the household heads to take on all these interventions.
 - ✓ In the steps of Pathfinder, ensuring the communities can be sustained.

VIII. Comments and questions from Zoom attendees

Housing and malaria elimination

- Insecticide resistance poses a threat to malaria control today. Non-insecticide-dependent interventions like housing improvements could help sustain progress.
- Are higher quality walls and roofs associated with lower indoor mosquito numbers compared with houses with gaps in the walls and grass roofs?
- Are grass roofs associated with longer mosquito survival compared with other roof types and does it promote indoor resting and parasite development in the mosquito? If so, is it due to lower temperatures inside houses with grass roofs compared with metal roofs?
- It is possible that different house types may encourage or discourage ITN use by promoting or impeding ventilation throughout the house via windows and open eaves. Do you have data regarding ITN use to be lowest in houses expected to have greater ventilation (i.e., low-quality houses)?
- In the case of exophagic and endophagic nature of vector species, how does housing standardization help in malaria elimination?
- What is the per capita expenditure in the housing project excluding the health expenditure on malaria control?

Environment and prevention

- To reduce malaria or other diseases, one must have a healthy city, with good houses, good drainage systems and many other things that make the city healthy, so that it reflects on the health of the population.
- Is there interest in assessing the contribution of man-made factors, like breeding sites (rice fields, cultivation ridges, etc.) and construction-related disruptions, to malaria cases?

Community involvement

- For indoor interventions, it is important for us to empower communities to appreciate the costs involved.
- We should look at the participatory approaches for sustainability.

Multi-stakeholder engagement

- Integrating medical entomologists, agriculture, city authorities, road maintenance contractors is important. Each needs a deliberate effort to popularize and implement available frameworks (with enforcement by-laws).

Monitoring and evaluation

- Is monitoring and preventing the spread of artemisinin resistance a critical step in Africa's malaria elimination efforts, primarily reliant on artemisinin combination therapies (ACT)?
- Are there initiatives to build local capacity and improve data sharing across countries and institutions to enhance cross-border parasite surveillance and better understand parasite genome variation, recent evolutionary selection, and factors influencing gene flow for successful malaria elimination?