

Report of the 5th Annual RBM MSWG Meeting 9-11 February 2023 Movenpick Ambassador Hotel, Accra, Ghana

Designing Multi-sectoral Projects and Programme: Challenges and Opportunities

This years' MSWG meeting focuses on design of multi-sectoral projects and programmes. In addition to welcoming presentations on experiences of implementing multi-sectoral projects, we also include two half-day sessions dedicated to designing the implementation strategies for two of our work streams. (1) Healthy Cities Healthy People (2) Pathfinder Initiative. These sessions will look at governance and planning for sub-national initiatives to support National Malaria Control Programmes. We also invite a "mayors and city managers panel" to help us address the key priorities and to guide implementation design.

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



Session 1 Introductions, objectives, key updates – Chair: Graham Alabaster, MSWG

Graham Alabaster (GA) welcomed participants to the MSWG meeting and expressed his thanks to the meeting hosts in Ghana and Swiss TPH for coordinating. It is a fantastic opportunity to host the meeting for the first time in Africa. A brief overview was given about the compact and interesting MSWG agenda.

Welcome, introductions of participants - Peter Mbabazi, MSWG

Peter Mbabazi (PM) welcomed participants and asked the audience to introduce themselves.

Overview of agenda and objectives for MSWG-5 meeting - Graham Alabaster, MSWG

GA discussed the Working Group updates, including key publications produced & launched (2 multi-sectors guides and Framework for managing urban malaria), development of 2 "flagship" initiatives (Health Cities Healthy People (HCHP) & Pathfinder), launch of HCHP, programme preparation for HCHP with Welcome Foundation and linkages between VCWG & MSWG.



- There is huge growth in urban populations, particularly secondary cities and towns. By 2050 the urban population will double, nearly 7 out of 10 people will live in cities and 60% of urban areas that will exist in 2050 have not yet been built. This requires a two-pronged approach: enhanced prevention & control (dealing with emergencies) and building-out VB disease long-term. The approach of MSWG is a **"City" leader-led** approach mainstreaming multi-sectoral approaches:
- Preventing these diseases will **save money** & boost economic development.
- Environmental modifications (piped water, solid waste removal etc) used to reduce the source of mosquitoes and other vectors.
- Ensure city-planners and those responsible for infrastructure design adopt these "**new approaches**" for the future expansion of urban settings.
- In tandem, targeted vector control & wide-scale vaccination (where applicable) is required used proactively, not reactively.
- Disease & mosquito **surveillance** needed to inform & target control, with a clearly designed role for communities.
- City-led approach **working with the larger community**, particularly rapidly growing impoverished communities recognising that amongst such communities innovative solutions can be developed and promoted.

Two case studies on integrated WASH projects were presented. Firstly, community-led planning in Kibera (Nairobi), which has no formal road network, directly hindering economic development of the area. Most lack access to clean water and sanitation facilities and kiosks and stand pipes are the major sources of water. In high density urban areas the need to address sanitation, drainage and solid waste management becomes critical to health. This led to the initiation of the Kibera Integrated Water and Sanitation Project, which supported the development of 7 sanitation facilities now accessible to 21,000 residents of Soweto East (showers and toilets) cost US \$ 8 per capita). Each Facility Management Group collects on average – Kshs 46,800 (US \$ 600) per month. Additionally, construction of the 1.5 km tarmac ring road across Soweto East completed, 600m of improved drains constructed, the youth-organized door to door garbage collection for 400 homesteads and waste recycling has become a source of income with the youth recycling waste-paper for resale. The Sustainable Sanitation Solutions for Forcibly Displaced Myanmar Nationals was initiated to address the challenges of waste management in Myanmar. In particular, topography makes faecal sludge haulage difficult, space for waste treatment severely restricted and high water availability with poor drainage increased VBD risk.

In conclusion:

- New approaches to understanding the urban landscape and its communities are needed: the symbiosis of informal and formal settlements.
- These tools need to assist local-level data collection and decision making (simple tools based on excellent science).
- Progressive urban upgrading and improved urban design (housing and infrastructure) and access to services, particularly WASH can help prevent VB and other diseases and also strengthen the resilience to disease outbreaks & epidemics. This must be led by mayors and city leaders.
- Multi-sectoral approaches to the prevention and management of diseases will mean that increasingly those outside the "formal" health sector will play an important role. Local level is where multisectorality comes alive.
- HCHP challenge fund and accelerator is supported by cities as an innovative way to test and prove concepts that can be rolled out with domestic or international resources. It also builds preparedness capacity against future Zoonotic epidemics.

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national initiatives to support National Malaria Control Programmes. We will also invite a "mayors and city managers panel" to help us address the key priorities and to guide implementation design. A brief overview of the agenda was presented. The meeting proceeded with introductions to and **opening remarks from Dr Corine Karema (Interim CEO RBM Partnership to End Malaria) and Dr Luciana Mermet (UNDP Resident Representative in Bolivia).**

Update from RBM Partnership to End Malaria - Philippe Batienon, Marsha Deda (RBM Partnership to End Malaria)

In 2022, RBM continued to engage the Global community of partners through its Partner Committees: ARMPC, CRSPC and SCPC.

RBM is a global partnership with the vision of achieving a world free from the burden malaria. There are 3 key strategic objectives 2021-2025:

- 1. Optimize the quality and effectiveness of country and regional programming.
- 2. Maximise levels of financing.
- 3. Facilitate the deployment and scale up of new products, techniques or implementation strategies.

The strategy framework is shown in more detail:

Vision	A world free from the burden of malaria			
Mission	To convene and coordinate an inclusive, multisectoral response to prevent, control and eliminate malaria			
Principle	Ending malaria is central to achieving UHC, global health security, poverty reduction and reducing inequalities			
	SO1. Optimize the quality and effectiveness of country and regional programming	SO2. Maximize levels of	2.1 Advocate for optimizing global resource envelopes from existing donors and new channels of financing	
	 Support countries in the design of quality, prioritized programmes 	financing	2.2 Support countries with mobilizing and prioritizing domestic and other resources for malaria and health	
Strategic Objectives	 Support countries in the use of real-time sub-national data in planning, implementation and monitoring 	SO3. Facilitate the deployment and scale-up of new products, techniques or implementation strategies		
and Strategic Actions	 Facilitate timely access to implementation support to address bottlenecks and gaps 		 3.1 Promote and support the inclusion of new interventions in the design and delivery of programmes 3.2 Foster peer learning and knowledge exchange to facilitate deployment and scale-up of new products, techniques or implementation strategies 	
	1.4 Support building local management and technical capacity			
	1.5 Support countries to strengthen multi-stakeholder partnership coordination at the national and sub-national level			
	1.6 Leverage regional alliances and initiatives to ensure cross- border and cross-sectoral coordination and coherence			
Cross-cutting Strategic Enablers				
Data Sharing and Use	SE1: Open and timely sharing of quality data to drive decision-making,	SE1: Open and timely sharing of quality data to drive decision-making, build transparency and foster accountability.		
Effective Partnership	SE2: Meaningful engagement of partners at the global, regional and national level to leverage their unique capabilities, expertise and perspectives.			
Targeted Advocacy and Communications	SE3: Targeted advocacy and communications to keep malaria high on global health and development agendas to drive leadership, commitment, and change.			
Focused Secretariat SE4: Ensuring a Secretariat that energizes the partnership to deliver the strategy.				
Adapt to evolving COVID-19 environment				

RBM Partnership to End Malaria 2021-2025 Strategy Framework

In 2022, RBM continued to engage the global community of partners through its Partner Committees: ARMPC, CRSPC and SCPC. In order to meet strategic objective 1 (optimize the quality and effectiveness of country and region planning), the following activities have been undertaken:

- 1. Technical strategies and implementation plans.
- 2. Resolve implementation bottlenecks.
- 3. Resource mobilization.



The major achievements in 2022 included, provision of a platform to engage the RBM community in coordinating implementation support to countries and subregional entities as they execute their malaria control and elimination programmes. At both country and regional levels, supports were provided through the three Partnership Committees mechanisms. The support included technical assistance for planning and implementation bottlenecks resolution. Support for MPRs/ MTRs and NSP development and/or adjustment were also provided in collaboration and under leadership of WHO. This includes prioritization and subnational tailoring of interventions for better impact. Further examples were discussed for the support given to countries in the design of quality, prioritized programmes at country and regional levels as well as the implementation support to address bottlenecks and gaps. An analysis of the distribution of 2022 technical assistance support by focus area shows the most support for the Global Fund (GF) proposal development / programmatic gap analysis and the development of plans and implementation of Insecticide-treated Nets (ITNs) campaign. The least support was provided to the review of malaria communication strategies.

Further information was provided on support for:

- The impact of technical assistance, including aligning malaria planning with the broader health and development agenda, and support to mobilise resources at country and regional levels.
- Opportunity to incorporate a mix of new tools and best practices, including strategy to ensure access to everyone.
- Enabling countries to design policies, set new targets and improve their coordination systems, including incorporation of CRG programming.
- Mainstream malaria in the agenda of the regional economic communities including at Head of State, Minister and technical level.

Overall, this support has helped to mitigate against the impact of COVID-19. The Malaria Programmes and Partners meeting for Central Eastern, Southern and Western Africa SRNs was also a significant achievement in 2022.

In order to meet strategic objective 2 (maximise levels of financing), the following activities have been undertaken:

- Supporting the Global Fund Replenishment Campaign by amplifying the global fund investment case, leveraging key moments to increase support for the global fund, elevating malaria and CSO voices throughout campaign and francophone engagement.
- Support countries to fill financial gaps. Notably, 95% of highly and moderately endemic countries mobilised sufficient resources to cover their LLIN, IRS, SMC and case management gaps in 2022.

The major achievements for this objective in 2022 include the orientation meeting on The Global Fund GC7 application process to provide detailed information on the Global Fund differentiated application processes to provide an overview of WHO technical recommendations for malaria; support countries to develop their application development plans and timelines; review RBM Partnership to End Malaria support tools including the programmatic and financial gap analysis template to be used to support the submission; and compile, review and plan the technical support needed through RBM/CRSPC.

Priorities were outlined for the next months, focusing on supporting countries in their Global Fund funding request in 2023. To achieve this, the CRSPC will provide a comprehensive package of support to countries, based on a tried and tested country-led approach. International consultants will provide technical assistance (TA) to support the development of funding applications and background documents, provision of funds to countries for additional support, mock Technical Review Panel (TRP) meetings will be helped to facilitate country peer review of draft applications, remote expert review of final draft funding applications and support planned to assist countries to achieve timely grant signature.



The RBM data initiative project is one of the strategic enablers of the RBM 2021-2024 strategic framework that fills a gap existing on data central global coordination. The main gaps include, limited opportunities for countries to bring current challenges to the attention of the global stakeholder ecosystem, little visibility on near real time data on bottlenecks for the malaria community, as well as scattered information across many websites requiring advanced IT skills for accessing.

Participants encouraged to access the Global Malaria Dashboard, accessed via the RBM website. In 2022, new dashboards were published including:

Weather forecast – showing regions with increased probability of climate optimal for malaria transmission to help countries and partners to increase buffer stocks or ensure early deployment of commodities to the field of interventions. This dashboard was developed by the Institute for Climate and Society (IRI) and predicts weather forecast 3-4 months in advance. More information behind the theory can be accessed through RBM website. This dashboard is still a work in progress and participants of VCWG are encouraged to share their expertise to optimise user access.

Long term malaria commodities forecasting outputs – projections of need and demand for vector control and case management commodities until 2031. Projections developed by the Global Malaria Commodities Forecasting Consortium (lead by CHAI) and published on RBM global malaria dashboard. Outputs to be updated annually until December 2025. Long-term forecast projections are modelled based on multiple data inputs including demographics, epidemiology, coverage of interventions, resistance, trends in domestic and donor funding for malaria.

Malaria data repositories – Collation of malaria data links from various websites and organisations to have 1 repository for all malaria data.

Other new features include:

New data and visuals on interventions historical trends available - 2017-2021 data from Global Fund results framework on LLIN distributed by years, households covered by IRS and pregnant women receiving IPTp. This data is filterable and downloadable from the RBM website.

Improved landing page - On global malaria dashboard to make it more user friendly and improve visibility / ease of access – left hand side dashboards available on the global malaria dashboard. Participants are encouraged to visit, collaborate and provide recommendations for improvement and data sharing opportunities.

Examples of targeted advocacy and communication were given, focusing on resource mobilisation, rallying the community, raising urgency and keeping the Partnership informed.

Panel of Mayors & Representatives. Moderators: Graham Alabaster, Peter Mbabazi

Dr Abena Okoh, Health Service Accra Metropolitan, Ghana Dr Onyeka Erobu, Senior Health Advisor, Freetown, Sierra Leone Hon Erias Lukwago, Kampala, Uganda Hon Samuel Onyango Okello, Kisumu, Kenya

Objective of the session:

- To discuss challenges and opportunities faced by city governments in managing vector-borne diseases.
- To give guidance to MSWG and other actors how best they can support city-level action.





Dr Abena Okoh, Health Service Accra Metropolitan, Ghana

The Accra Metropolitan Assembly (AMA) is one of the 261 Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana and among the 29 MMDAs in the Greater Accra Region. It has a population of 296,182 and it is the Regional as well as the National capital of the country. AMA is the economic hub of the Region. Accra has a daily influx of more than 2 million people who commute to the City. In 2022 the AMA recorded 16,543 malaria cases at the Out Patient Department (OPD), out of which 2073 were children under five and 3061 pregnant women, 4,933 admissions were attributable to malaria in 2022 and there were 6 malaria deaths, comprising 3 under five children and 3 above five years.

The metro-wide Partnership for Malaria/Vector-Borne Diseases Management is a collaboration between the AMA and different sectors/organizations at each level of prevention, transmission, support and rehabilitation of vector borne diseases.

- Prevention 1: In collaboration with Ghana Education service, LLINs are distributed to primary 2 and 6 pupils yearly to school children.
- Prevention 2: Distribution of LLINs to pregnant women at antenatal care and distribution of LLINs to children (18 months) at Child Welfare Clinics.
- Prevention 3: Community education and engagement on malaria prevention.
- Prevention 4: Collaboration with Zoomlion for larviciding.
- Prevention 5: Collaboration with private companies such as betpawaghana, street sweepers initiative was launched as part of continuing efforts to address the issue of waste management in the city.
- Prevention 6: The AMA in collaboration with multimedia group (Joy News/Joy FM) resumed the "clean Ghana campaign" an initiative that seeks to help enforce waste management laws and educate the general public on how to manage waste. Traders who overexpose foodstuff to sunlight and displaying food items on the bare streets and near gutters were educated and cautioned.
- Treatment: The Metro Health Directorate provide logistics to facilities, off and on-site training for care providers, undertake supportive supervision to facilities, provides regular feedback on malaria case management to facilities and community stakeholders.
- Rehabilitation: Community Healthcare Workers provide home based care to convalescent clients and provide nutritional counselling to mothers to promote speedy recovery.

Dr Onyeka Erobu, Senior Health Advisor, Freetown, Sierra Leone

Sierra Leone's malaria transmission has two peaks, one at the beginning of the rainy season in May and the second toward the end of the rainy season in October/November. 100% of the population are at risk of malaria, the principle parasite if *Plasmodium falciparum* and the principle vectors are *Anopheles gambiae s.l.*,



and *Anopheles funestus*. All areas of Sierra Leone except for Western Area Urban district (Freetown) have high levels of malaria prevalence. Freetown is undergoing rapid, unplanned urbanization (60 informal settlements). It also has a large migratory population and is vulnerable to climate change, deforestation, restricted water supply and development planning is yet to be devolved to the City Council. The Transform Freetown Initiative focuses on 11 priority sectors in 4 clusters; 19 specific measurable targets, is aligned with the SDGs and priority clusters of the National Development Plan and adopts an integrated, inclusive, data-driven approach. The development of Transform Freetown involved an extensive consultative process and Freetown City Council used an incentive approach to tackle factors such as cost sharing, limited resources, community engagement etc.

Contextual elements of malaria and VBD control in Sierra Leone include malaria having a stand-alone control programme. Other VBDs (onchocerciasis, lymphatic filariasis, and schistosomiasis) fall under the National Neglected Tropical Diseases Programme. The programme management is predominantly centralised, thus restricting the involvement and decision-making capacities of local governments and ambiguity surrounding devolution of certain functions and/or powers to local governments.

The Urban Malaria Research Project titled "Assessing and reducing malaria transmission in urban-poor areas of Freetown through improvements to housing, water, sanitation, and the environment". It is an initiative of Catholic Relief Services (CRS) commissioned in 2021. This research seeks to establish the prevalence of malaria among the urban poor and determine how the urban poor access health (malaria) services and commodities. This study also aims to investigate the impact that providing effective water, sanitation, and hygiene (WASH) and improved housing services to urban poor areas of Freetown have on malaria prevalence. Field sites include Cockle Bay and Kolleh Town and partners include College of Medicine and Allied Health Sciences – University of Sierra Leone (COMAHSUSL), Sierra Leone Urban Research Center (SLURC), National Malaria Control Programme (NMCP) of the Ministry of Health and Sanitation (MOHS), Statistics Sierra Leone, Western Area District Health Management Team, and Freetown City Council (FCC).

The pilot project targeted at providing improved accommodation for 305 households within Cockle Bay and Kolleh Town informal coastal settlements. The project was developed in collaboration with Centre of Dialogue on Human Settlement and Poverty Alleviation (CODOHSAPA), and the INGO Consortium of CRS, CARE, Action Against Hunger, Concern, and GOAL following extensive research and community engagement. Primarily involves housing upgrading and redevelopment (densification of suitable areas) – providing improved protection from fire and flood, improved sanitation in line with WHO standards and SDG 6, improved road access facilitating more effective waste management systems, and more dignified and safe housing.

The multi-sectoral rabies control pilot adopted a One Health approach for implementation. It launched in April 2022 with strategy consisting of mass dog vaccination against rabies, community awareness campaigns, deworming and treating other diseases in dogs in line with the global strategic plan to eliminate human deaths from dog-mediated rabies by 2030. It administered 4,000 vaccine doses (wards 446 and part of ward 445), and licenses issued to dog owners.

Examples of Freetown City Council indirect environmental management interventions include #FreetownTheTreeTownCampaign – planting 1 million trees, completion of a new drainage system in April 2021 and flood mitigation exercises. Water interventions include improving access to water through rainwater harvesting systems and local water management committees in communities, markets and PHUs. Examples of sanitation interventions include treatment of fecal sludge, cleaning of public space and removal of illegal dumpsites across the city and provision of sustainable alternatives.

Challenges associated with multi-sectoral approaches include:



- Differences in priorities, interests, missions, budgetary and funding constraints when it comes to addressing cross-cutting issues. As a result, this translates to poor coordination, communication, poor data sharing.
- Complexities involved in dealing with multiple parties.
- Finding an intersection between various agendas of different stakeholders is often difficult.
- Lack of trust.
- Resource-intensive (requires significant time for planning, coordination, and communication).
- Lack of recognition of a stakeholder.
- Wrong assumptions (e.g., a false sense of malicious intent).
- Unrealistic expectations.
- Confidentiality, data protection, information sharing across sectors and administrative levels.
- How to measure/assess/demonstrate the impact of multisectoral action (MSA).

Tips for implementation of multisectoral approaches:

 Identify the issue that requires multisectoral collaboration

 Stakeholder mapping early in the process

 Framing issues in a way that is relevant to each sector and/or stakeholder – value proposition; focus on co-benefits and synergies (increase innovation, impact, and scale)

 Identify priorities, competing interests – dig deeper for past incidents that may have led to distrust; pay attention to the political context

 Clarity of purpose – how does each partner define the value proposition? Why does a sector want to collaborate? What are the shared goals?

 ASK: What does success look like for each partner and how will it be measured?

 Community engagement, participation, and ownership

 Managing expectations of involved parties

 Broaden the horizon – explore opportunities with other sectors (e.g., technology)

Key factors to integrate on the ground are:

- Political will and commitment to MSA.
- Identifying an entry point for multi-sector engagement (e.g., National One Health Platform) also a good focal point for coordination.
- Stakeholder mapping early in the process.
- Setting clear goals and objectives.
- Delineating roles and responsibilities for each sector and/or stakeholder involved. Which sector takes the lead?
- Establishing sub-working groups, and setting and monitoring targets for progress.
- Being intentional about communication strategy and information sharing mechanisms critical to building trust.
- Addressing concerns of stakeholders as soon as they arise and ensuring that no stakeholders are marginalised. Listen and ensure everyone is heard.
- Promoting transparency.
- Regular monitoring and evaluation critical for learning and course-correction.

Closing remarks:

• Health is not only an input of planning, but also an outcome.



- Operational and Implementation research necessary to generate evidence on MSA and identify gaps.
- Continuous strategic advocacy for coordination, joint planning, and implementation is necessary when working in an environment where ministries, departments, agencies are accustomed to jealously guarding their resources viewing the gain of other structures as a loss to their own.
- Highly motivated and respected national MSA 'champions' play a vital role in advocacy efforts. Generally, decision-makers or technical experts who have played a key role in facilitating multi-sectoral collaboration and are willing to push this topic as a national political priority.
- Should programme management continue to be centralised?

Hon Erias Lukwago, Kampala, Uganda

(Verbal presentation format)

This presentation will share experiences and best practices from Uganda in relation to the fight against malaria. Collaboration is a key factor in this fight, which is demonstrated by the collaboration of city leaders at this meeting, who are all committed to solving this problem. In our actions, we have tried to evaluate the problem in Kampala and how our policies can align with the global elimination targets. Malaria is everywhere in Uganda and therefore we must assess what needs to be done to see success. This will involve innovation and engagement of policy makers to advocate for vector control interventions. This meeting is a great platform to share and discuss the importance of controlling the vector instead of the parasite. Many interventions currently focus on control of the parasite (prophylaxis etc.), however this is not enough and more emphasis needs to be placed on vector control measures. There are many factors promoting the spread of malaria in Kampala including human population movement, green environments which promote vector breeding and activities of the community such as fishing or other outdoor occupations. We therefore need to consider community level protection, rather than individual, and make vector control everyone's number one priority.

Hon Samuel Onyango Okello, Kisumu, Kenya

(Verbal presentation format)

Kisumu is a city in Kenya, which is situated near Lake Victoria. It is the trading centre of Kenya, with a welldefined trading system linked with Uganda, South Sudan and northern Kenya. Factors such as population growth, urbanization and population movement within Kisumu are putting pressure on the existing infrastructure (such as drainage systems, waste management, sanitation facilities etc.). Currently the city is working to prioritise these issues through implementation of a programme which we hope will also contribute to controlling malaria through environmental management. In order to implement this programme, we must build a community of trust amongst the public and we must factor in sustainability to our strategy. We are trying to build capacity from the ground which promotes community engagement to sustain these activities. For example, we established a local interaction platform in 2010 which promotes collaboration with global stakeholders. This facilitates investment from stakeholders and ensures policy advocacy is embedded in city planning developments to ensure their success and longevity. We must ensure there is a measure of success (metrics within a time frame) and utilise the limited resources available. This will help to deal with the challenge of competing interests for resources from other sectors for other diseases. As a city, we are enthusiastic to be partners and work alongside the Ministry of Health to implement the most effective policies.

Panel Discussion

The questions presented to the panelists were formed from the below concepts: In relation to links to National Ministries of Health and other relevant line Ministries

- One of the main challenges preventing better management and prevention of outbreaks of infectious diseases is the lack of resources and support from national government. What do you think is needed to address this situation and to support the "trickle-down" of funding to the local/city level?
- Multi-sectoral approaches are perhaps easier to organise at the city level. How important do you think it is to ensure that there is a similar level of multi-sector engagement at national level?



• Do you think that the existing tools to support multi-sectoral approaches are adequate and, if not, what would you as mayors and city leaders like by way of additional support?

In relation to City-level governance structures and capacity gaps

- In many cases, city administrations are constantly having to address competing priorities. For example, as a result of the COVID-19 pandemic, revenues have dropped and meant that financial re-allocation has become necessary. What do you think are the most important changes at local level in your governance structures that could facilitate multi-sectoral management of health? Are there opportunities to enact local bylaws are review local building standards and codes?
- Where are the biggest capacity gaps in terms of skills and expertise to manage priority public health issues?

In relation to community engagement challenges and opportunities

- It is well understood that communities you serve can make contributions to managing environmental determinants of a variety of diseases. What do you think are the best ways to enhance community participation and how could their engagement be extended? Could they be more involved in surveillance for example?
- Do you think awareness of vector-borne and other infectious diseases is good in your communities and are they aware that environmental conditions often lead to great incidence and prevalence of diseases?

In relation not funding constraints and opportunities

- Against a background of limited municipal financial resources, there are other opportunities to raise funds, such as support from local-private sector and new ideas such as challenge funds. What are the best options in your cities for generating such revenue?
- Is there a demonstrated capacity amongst communities to manage these funds effectively?

In relation to borrowing ideas from other sectors

- Are there other sectors that we can learn useful lessons from, with respect to national/local/community level?
- Are there other sources of specific sector financing that could be used to support local-level health interventions?

Question: What do you think are the main things that we could do to try and support community-level financing and what sources at the local level could be engaged to mobilise more resources?

Dr Abena Okoh: We have seen a trickle-down approach and therefore we must ensure to strengthen the decentralization and provide more autonomy and support to the local government. The COVID-19 pandemic exposed gaps to be addressed. There should be an allocation of budget to the local level, which is reflected in the national budget to support the prevention and management of outbreaks. Country outputs should be compared to each other to incentivize mobilization of resources at the national level.

Dr Onyeka Erobu: We are currently making a case for ourselves and making wider investment cases for the national government. We have done this through designing several public health interventions around sanitation, environmental management etc. leaning on external technical resources for guidance and evaluation to demonstrate effectiveness of interventions which will encourage engagement from the central government in Freetown. We must be self-sufficient and navigate ourselves and recognize the importance of advocating at every level to make a case regionally, nationally and globally. As a City Council we have identified entry points for multi-sectoral engagement, conducted stakeholder mapping and set clear goals and objectives. Local governments do have the capacity to raise finances but need to not rely on central government to do this.

Hon Erias Lukwago: There is a strong need to allocate the national budget towards helping the fight against malaria. We must advocate for political involvement at all levels to reprioritize and reallocate the framework for malaria control to encourage the national government to be responsive. The central government should



support local governments to have autonomy and a strategic plan specifically for vector control. Effective coordination of budget allocation is needed and investment / support from external partners.

Hon Samuel Onyango Okello: The tax distribution within the country is important. Specifically, who collects the money, what percentage of money is left behind and whose discretion is it to decide the allocation of this money? This is the process of devolution. It is important to develop a good relationship with the central government and develop systems with a good understanding of budget allocation. We should explore the possibilities of working with donors and private investors at the ground / local level to advocate for national support. Interventions and programmes should be assessed regularly to demonstrate their success. Strategies to bring malaria to the forefront of the media are also needed, such as using televised media sources. We must think outside the box and rethink and find ways to communicate with all parties and create awareness to leaders to advocate for support.

Question: Can you identify any specific sector financing that could be used to support local-level health interventions?

Dr Onyeka Erobu: The focus of this Working Group is fostering central collaborations. We are taking several initiatives and interventions but I want to highlight the need to take a step back and start looking at this with a wider lens. Are we at the city level doing what we need to do to build health cities? Freetown have demonstrated that change can be implemented without the support from central government by training people within the community and communicating effectively with other sectors. There are problems with data collection, analysis and dissemination and a strong need to build better data systems which are low cost but effective at the local and city level. There is also a need to build capacity for access to programme design and a platform to share ideas and best practices between cities and leaders. Opportunities to establish partnerships and have direct communication with influential organisations will be very important to support programme success.

Hon Erias Lukwago: The Mayors council provides an important useful platform to promote collaboration and sharing of best practices. It is an opportunity to share local-level experience, raise issues and discuss solutions to solve these issues. We need to amplify our voice to ensure it is heard by national leaders, to raise demands and propose solutions.

Hon Samuel Onyango Okello: We need resources but how can we utilise the resources we already have? The local councils are receiving less funding than previous years from central governments, which results in challenging realities on the ground. We need champions to advocate for increased funding and also ensure appropriate allocation of funding from the government.

Dr Onyeka Erobu: Revenue generation is a very important point. City leaders are in direct contact with communities / constituents and are the first line of contact so it is important to ensure communities have trust. We have previously experienced opposition from central government but in the space of 3 years have increase in support due to generation of automated data collection system and maps using surveillance etc. Reporting data summaries back to the council and making these reports publicly available is useful to demonstrate effective leadership and gain support from other sectors / organisations.

Dr Abena Okoh: A mental shift is needed and people need to understand how their personal / organisational activities impact on community health (housing developers etc.). Health is not just the responsibility of the health sector / Ministry of Health but everyone. Education curricula should include multisectoral ways to improve health. Social and behavioural change campaigns and communication across all levels are needed. Our cities also need support in analysis, interpretation and dissemination of data to aid informed decision making. There is need to make revenue generation easier within the community so this can be put into development projects and improve surveillance / mapping of the city population will facilitate identification of diseases of public health importance.



Healthy Cities, Healthy People (HCHP) initiative - Work Stream I: Malaria in the urban context. Moderator: Sarah Beeching



Background on HCHP Initiative – purpose, aims, objectives and demand for different approaches.

HCHP focuses on urban and peri-urban settings for a range of reasons including:

- Urbanization: From 2000 to 2030 the world's urban population is expected to increase from 2.7 billion to 5.1 billion people i.e. 60% of global population.
- Environment: Urban malaria and vector-borne disease risk varies according to types of construction, waste management, drainage, ditches and water storage that can create breeding sites for vectors.
- Urban vs rural: WHO has recognized the different response required for the response to malaria in urban areas vs rural, to address rapid urban population growth and evolving malaria transmission dynamics in malaria endemic countries.
- Multiple benefits of action: Multi-sector response required to tackle malaria in cities will also help tackle other vector borne diseases, Neglected Tropical Diseases (NTDs) and tuberculosis (TB).

The COVID-19 pandemic highlighted the many existing inequities and divisions in urban settings and One Health principles are increasingly being seen as essential to effective disease control. Many of the interventions need local-level data, and interventions and therefore city level action is key.

The HCHP Initiative launched on 23rd November 2021. See HCHP launch video <u>here</u>. The purpose of this initiative is to support a network of city leaders. The longer-term aim is to mobilise substantial and sustainable support, including financial resources to support multi-sector action on NTDs and vector-borne disease. Particular attention needs to be given to secondary cities which often lack the political power, resources and support of national capitals and commercial centres. It is essential to work with city leaders because many of the indirect (i.e. non health) interventions to tackle vector borne disease fall under the direct responsibilities of local governments.

Looking beyond malaria to strengthen the case for investment. Advantages of a multi-disease focus.

The next phase of the initiative include:

- New approaches to understanding the urban landscape are available and at low cost. These tools need to assist local-level data collection and decision making (simple tools based on excellent science).
- Improved urban design (housing and infrastructure) and access to services can help prevent disease and also strengthen the resilience to disease outbreaks and epidemics. This must be led by mayors and city leaders.

- RBM Partnership To End Malaria Working Group
- Multi-sectoral approaches to the prevention and management of diseases will mean that increasingly those outside the "formal" health sector will play an important role. Local level is where multisectorality comes alive.

In conclusion, through HCHP, common position city leaders have expressed willingness to engage in new partnerships with financing institutions and development banks and include components for environmental management of disease in major infrastructure projects. HCHP approach is supported by cities as an innovative way to test and prove concepts that can be rolled out with domestic or international resources. It also builds preparedness capacity against future zoonotic epidemics.

Ideas exchange at World Café

The objectives of the World Café workshop were to:

- Understand role of city leadership in disease control and identify ways to support and empower city led approaches.
- Share knowledge and expertise on sectors that have greatest contribution to disease control beyond the health sector.
- Identify ways in which communities can be empowered and supported to improve health outcomes.

The main themes covered were:

- Local government: how it works, responsibilities, constraints.
- Water, sanitation, drainage: What measures are required to improve health?
- Housing: How can we improve housing to prevent disease?
- Waste disposal.
- Community engagement.
- Local level surveillance and data collection.

The key questions discussed in relation to each theme were:

- What do you think are the main challenges for this theme and how can these be addressed?
- What are the challenges between national and local level. Are policies and governance structures aligned?
- What do you think are the most important elements that this theme needs to address to enable local-level initiation?
- What are the best ways to fund such local-level activities, and do you have examples?
- How best do you think good practices could be shared between cities and town both in the same country and with others outside?

A summary of discussions is provided below:

1. Local Government: how it works, responsibilities, constraints

District health and municipality teams are responsible for health programme planning, budgeting and support implementation. The main challenges are decentralization, political interference at the district / local government association (LGA) level and planning approval precludes malaria risk identification. Approaches to address these challenges include:

- Strengthening existent multisectoral collaborations.
- Identify and prioritize the key sectors growing mosquitoes construction, agriculture, WASH and mining.
- Identify and appoint a focal point in the LGA district for multisectoral interventions.
- National level training.
- Empower the communities and the LGAs on the need for multisectoral collaboration.
- Include Environmental Impact Assessment as a pre-requisite in grant making.



- Decentralization of budget flows from the national to the local level.

Methods to source funding for multisectoral approaches within local governments include extensive mapping of current and potential funding sources and exploring locally generated revenues such as schools and road tolls.

2. Water, sanitation, drainage: What measures are required to improve health?

The key challenges identified were lack of ownership and responsibility towards the problem, poor infrastructure (planning, informal housing, maintenance, growing population), lack of coordination across multi-sectoral organisations (e.g. WASH), insufficient policy implementation, issues around illegal mining, increased rice irrigation practices and community behavior and attitude. Further challenges between the national and local level include use of taxes and allocation of funds centrally to the local level, lack of enforcement and implementation of laws (e.g. environmental management act), lack of awareness of existing policies, weak coordination of resource allocation, services and planning and unequitable distribution of sanitation and waste management services.

Recommendations to address these challenges include improved education at the primary level, improved infrastructure, development of an informative post on the role of civil engineering in increasing malaria transmission to incorporate into planning documents, reinforcement of policies and conduct a feasibility study engaging both entomologists and sociologists.

The most important elements required to enable local level action include improving sanitation systems and enforcing policies on sanitation and development, sustaining maintenance culture of infrastructure, planning for infrastructure in relation to forecasted population growth and topographical features / landscape, improving training for local water management teams and enforcing penalties for mismanagement of infrastructure.

Methods of funding local-level activities include decentralization of central funding, engagement of private sector e.g. Nigeria Bonny Island example and introducing local taxes.

3. Housing: How can we improve housing to prevent disease?

The key challenges identified were insufficient infrastructure systems (drainage, housing design, sanitation facilities, non-durable screening etc.), increasing unplanned development, illegal settlements, lack of government commitment to enforcing policy, corruption / misappropriation of funding and creation of larval breeding sites at construction sites.

In order to address these challenges, key recommendations include reversing the top-bottom approach, better understanding of current rationale for design and build of houses, improved integration of vector control interventions with policies e.g. consider *Aedes* in recycling systems and re-purpose nets for *Anopheles*. Additionally there is a need for enforcement of water storage regulations, by-laws for public space construction and better pre-planning for urban expansion.

It was felt that there were differences in policies at the local and national level, with a strong need to update the national strategic plan. In particular, lack of coordination in implementation of construction plans, jurisdiction between cities and surrounding settlements and a need to decentralize resource allocation. The theme of hierarchal corruption (elites dominate) was also re-emphasized in relation to mis-alignment between national and local levels.

The most important elements to address to enable local level action include creation of a common platform with all parties / stakeholders present, development of policy frameworks to guide settlement developments and legal frameworks to enforce these policies, empowerment of local communities and identification of



means to generate own resources. Suggestions of approaches to fund these local activities include keeping taxes at the local level and incentives to promote innovation within local enterprises. Peer-learning and integration of cross-disciplinary methods at all levels of education / curriculum are useful ways of sharing good practices between cities and towns.

4. Waste disposal

The key challenges identified include inadequate waste disposal facilities / systems, such as little or no recycling plants, limited equipment for waste collection, lacking landfill sites and poor maintenance of equipment. Issues were also raised with inadequate leadership commitment, lacking enforcement of policy implementation, poor attitude and low education / awareness.

Recommendations to address these challenges include sensitization of communities and social behavior change campaigns, inclusion and emphasis of waste disposal in educational curriculum, enforcement of policies and by-laws, provision of waste bins and equipment by assemblies, non-governmental organisations (NGOs) and the private sector and introduction of small/medium/large scale recycling plants.

It was felt that policies and governance structures did not align due to resource gaps / inequalities, expertise misalignment (districts lacking personnel and data for planning) and centralized policies not being implemented / enforced at the local level.

The most important elements to address to enable local level action include reversing top-bottom approach, improving data collection at the district level, strengthening accountability at the local level and redesigning waste / sewage systems to consider the elimination of breeding sites. Local level waste disposal activities could be funded by setting up local level incentives / competitions e.g. 'waste into wealth', introducing housing modification systems for waste disposal and innovative approaches such supplying methane gas, mined from dumping sites, to houses at a cost. Good practices which can be shared between cities and towns include donor funding conditionalities for sustainable waste management, returning recyclable materials to vendor points, creation of awareness on sustainable waste management at the local level and strengthening of sub-district environment and water committees (or operationalisation where they do not exist).

5. Community engagement

The key challenges identified for engaging communities in multisectoral approaches include political priorities, sufficient representation, defining community needs and engaging stakeholders in decision making, meeting expectation and adequate awareness / understanding of the role and purpose of multisectoral engagement.

The most important elements to address to enable local level action include ensuring communities participate on all stages of programme design and implementation by creating opportunities for dialogue and involving sufficient community representation (leaders, faith organisations, grandmothers, chiefs, hard to reach populations etc.). Sharing examples of success and failures and mobilizing existing funds is also very important. There must be sufficient local government leadership driving the vision of multisectoral engagement and methods must be built on existing community structures (context-specific).

Demonstrating the importance of community engagement and highlighting it's added value is essential to gaining further funding. Funding initiatives such as revised local taxation systems could be explored. Good practices that can be shared between cities and leaders include recognition and positive feedback incentives, mosquito control tax for malaria services, photovoice for surveying problems in the community, empowering ownership within the community at all stages of the process and promoting communication of the value of multisectoral engagement. There should also be a clear feedback system for community members to communicate their needs within the existing structures.

6. Local level surveillance and data collection



The key challenges identified were data quality, lack of expertise in data interpretation and analysis, lack of coordination between national and local systems, 'one size fits all' data systems not adapted to local contexts and inadequate data reporting / feedback systems to national levels to ensure further funding of data systems.

Recommendations to address these challenges include a need to scope / identify current gaps in systems (context-specific) and establish sustainable systems, personnel and tools needed to address these gaps. This should be done by building on existing systems (example of real time monitoring in Guinea Bissau) and enforcement of adequate surveillance systems. There is a need to demonstrate the impact of strong surveillance systems and good data to beneficiaries to secure funding from the private sector. Data quality can be enhanced by the use of complaint systems, adaptation of system for users (consider the appropriate technology), engaging youth organisations and building the capacity of local leaders for data interpretation within local programmes.

Wrap-Up Day 1. Moderator: Sarah Beeching & Graham Alabaster

Thanks were expressed to all speakers, panellists and participants contributing to first day of the MSWG meeting. Additional thanks to meeting hosts and organisers.

Friday 10 February 2023 The Pathfinder Endeavour – Workstream III, Session 1 Panel discussion Malaria & Sustainable Development – Moderators: Peter Mbabazi, Erik Blas

During this panel discussion we heard from country representatives about how they are finding challenging situations within their countries and how they will solve these challenging issues using the Pathfinder Endeavour. The panellists were presented with questions which covered the following topics:

- Areas and populations left behind.
- Underlying structural determinants.
- Communalities with other population health challenges.



Tanzania

Peter M. Gitanya, LLINs coordinator, National Malaria Control Programme (NMCP), Ministry of Health, Community Development, Gender, Elderly and Children

In Tanzania, there is high malaria burden and challenges are faced in four main areas, including the western region of Tanzania bordering Uganda and the Democratic Republic of Congo. Within these high burden areas, there are also communities left behind who are more affected. The Pathfinder Endeavour has come at the right time to support these communities. Underlying determinants for these populations / communities left behind include poor infrastructure, access to health services and population movement. Specific sectors / occupations are at higher risk, such as mining, farming and fishing populations. The opportunity to implement prevention and control measures within these sectors is becoming increasingly important. The Tanzanian



government have recently launched mass campaign interventions to target these high-risk populations such as distribution of bed nets to rice farmers. The country is also prioritising improving infrastructure and other development activities in these areas. The implementation of a multisectoral approach will be fundamental to achieving control and elimination goals in Tanzania.

Uganda

John Robert Ekapu, Senior Advocacy Officer, National Malaria Control Division, Ministry of Health Paul Okot Okello, Commissioner District Administration, Ministry of Local Government

The World Malaria Report has demonstrated the big challenge lying ahead for Uganda, which still has a national level prevalence of 9%. Prevalence levels are different across the country, with some regions having a higher prevalence of approximately 22%. The government weekly surveillance reports allow for identification of districts most affected by malaria.

In total there are 21 districts showing red on the malaria map (high distribution in central and western Uganda) and there are common features across these districts, including inequitable access to health services and control interventions (challenging for hard-to-reach population). The three highest risk populations include the fishing community, sex workers and children. The Ugandan government is currently developing a number of interventions and policies (e.g. those aimed at improving accommodation access for street children). The National Malaria Programme is working to align its policies with our health and social related policies in government. We are confident Uganda will be able to work together to improve the health condition of the population.

Uganda has adopted a model of governance, through which a number of powers and functions have been devolved from the central level to the local government for the provision of services. A key characteristic of this model is for populations to elect their leaders, who are then responsible for the development and implementation of strategic plans. Healthcare falls within the social pillar and the main challenges for achieving malaria control and elimination is insufficient funding, inadequate number of staff in local governments and health facility stock levels.

Poverty undermines the fight against malaria and there is a high level of poverty within the most at-risk communities in Uganda. Social challenges of provision of control tools to populations include access to hard-to-reach populations and cultural beliefs which prevent people from visiting conventional health facilities. Addressing these problems calls for multistakeholder / multisector engagement.

Madagascar

Brune Estelle Ramiranirina, Assistant Technical Doctor, National Malaria Control Programme, Ministry of Public Health

Hanitra Njatonirina, Gender specialist UNDP, Focal point HIV and Health

Madagascar is working towards the National Plan and have made recent progress in malaria elimination with case number decreasing between 2021 and 2022. Madagascar has 114 districts, in which 50% have a high levels of malaria incidence. This is linked to the economic development of the country. Localities facing the most challenges are those with limited access to basic services because health services are situated within the centres, resulting in low coverage of control interventions to some areas. It is also difficult to access information at the district level and for governments to facilitate interventions at the local level. There are challenges around supply and provision of commodities, particularly drugs and other medical equipment. The populations left out / most at risk are those with low access to public health services, particularly children and women's education services. In general, there is an overall limited access to networks of essential resources needed for good health.



The key challenges include high levels of malnutrition and TB, poor access to drinking water, sanitation and drainage as well as insufficient commodity supply to health facilities/systems. There is a need for multisectoral engagement, which promotes inclusive and collaborative partnerships with the Madagascar government to address these challenges.

Ghana

Phyllis Owusu-Achau, High Burden to High Impact Officer, National Malaria Elimination Programme, Ministry of Health

Samuel Passah, Director of Local Governance and Decentralization, Ministry of Local Government

Ghana has different transmission levels across the country, however broadly the northern region and western boarder have the highest prevalence. Availability of roads, access to water, electricity and other basic water give context to the high burden in these regions. It is important to note that while there are three districts with the highest malaria burden, interventions are being put in place in these areas, so they are not populations which are left behind. Within these areas, there are trends of malnutrition among women and children under the age of 5. There are also high rates of Human Immunodeficiency Virus (HIV) and anaemia amongst pregnant women and other issues in relation to access to health care. These issues are underlined by development issues, such as poor infrastructure, inadequate access to water and electricity etc. Resources to address these issues are funded at the national level, which is beneficial for the National Malaria Programme. Interventions are being rolled out to the entire population and more targeted interventions are being conducted to reach the more marginalised populations, such as targeted IRS.

Guinea Bissau

Suaré Baldé, General Inspector, Ministério de Administraçao Territorial, Ministry of Local Government Fernando Agostinho, PNLP programmatic consultant. Ministry of Health Paulo Rabna, Health Systems Strengthening Programme Analyst, UNDP

Malaria is a big public health problem in Guinea Bissau and there are regions at high risk of transmission. In Guinea Bissau, the regional partner meeting is an important event in the development of health plans for the country. The meeting is a platform for multisectoral governmental partners to engage, share best practices and inform the strategic health plans of the government. Key outputs of this meeting include provision of support for the Ministry of Health from other government sectors to enable equitable access to health facilities across the country. It is an opportunity to mobilise policy at the local level to address key challenges such as uneven coverage of control interventions across the country. Other key challenges include limited access to health facilities and information for hard-to-reach populations, malnutrition and insufficient access to clean water / sanitation. Interventions / campaigns to address these issues include chemoprophylaxis for children under the age of 5 and distribution of LLINs. Future plans include expansion of malaria control tools for children over the age of 5. It is an important goal to provide equitable access of malaria control tools / health care to everyone in Guinea Bissau.



The Pathfinder Endeavour – Workstream III, Session 2

Introduction to the Comprehensive Multisectoral Action Framework – Malaria & Sustainable Development and the Pathfinder Endeavour - Erik Blas

The Comprehensive Multisectoral Action Framework – Malaria & Sustainable Development, is a refreshment of the 2013 Framework. Its key features include:

- "Comprehensive" = complements and amplifies conventional malaria and selective sectoral approaches.
- *Population perspective to health* included how health is distributed.
- Leave no one behind & sustainable development all 17 SDGs are integral parts.
- *Co-benefits & Mutual accountability* political, technical and public.
- *Structure:* background, causes and approach, major determinants, promising actions, and way forward and examples of interventions.



An overview of malaria cases by WHO region and specifically in Africa:



What if, malaria-critical indicators across all 17 SDGs improved by 5% and reach of conventional malaria interventions improved by 5%? Then, maybe we could inverse the vicious cycle resulting in overall improvements to development and reduction of malaria by 15%.

To sustainable fight malaria we must progress on both sustainable development indicators and malaria strategy indicators.



Two malaria-critical indicators for each of the 17 SDGs



All relevant global technical strategy for malaria indicators

The Pathfinder Endeavour operationalises the Comprehensive Multisectoral Action Framework. It's key features are to:

- "*Try, learn and share*" together in real-life
- **Collaboration** existing structures and resources
- *Three themes* to drive multisectoral action
- Mutual and public accountability

The Pathfinder Endeavour uses cross-learning in the form of Champion Teams (local government, health and development partner, 4 x cross country workshops, and 4 x cross-district workshops). The path structure includes:

- **Pre-assignment** rapid appraisal, select the 'hardest' districts.
- Phase 1: Understand the local situation and determinants, anchor in local ownership – Boost efforts / Steps 1 and 2.
- Phase 2: 'do no harm' 'do good' / Steps 3 and 4.
- **Phase 3**: Priority determinants of malaria and health inequity / Step 5.
- **Phase 4**: Maintain and institutionalize the new ways of working, evt. replicate.

Drivers of the endeavor include 'leave no one behind and sustainability'; a 'malaria free world'; and 'cobenefits'.

"Do what you do best - but do it malaria-smart".



TO BECOMING MALARIA-SMART



 addressing those determinants of malaria where acting alone or concerted efforts by multiple sectors are required.
 A. Malaria-reducing potentials. Review and scale up current activities that could be modified

 Malaria-reducing potentials. Review and scale up current activities that could be modified or added onto to have a malaria-reducing effect, i.e., do good.





Mutual and public accountability is important within participating districts and communities and across participating districts and countries. Comprehensive multisectoral action is a complex intervention in unchartered territories requiring extensive documentation and analysis in the form of near real-time participatory analysis and feedback into action, external participatory evaluation and ongoing and final recommendations for scale-up and replication.

Next steps - Erik Blas, Peter Mbabazi

Rationale and roll-out plan

We are on course to miss the 2030 case reduction goals – and achievements so far are not sustainable. Most experience to date has been with *health-sector-alone* and *selective multisectoral action*, sometimes by individual sectoral actors engaging by doing 'health sector' work. Comprehensive multisectoral action is needed to strengthen and enhance the resilience and sustainability of the *institutional, social, economic, and environmental systems* that underpin and shape specific and general health of populations and how health is distributed. The drivers of the initiative aim to enable political, technical, and public *accountability* with direct and real-time engagement of *citizens*. New ways of working together are needed – each sector and agent should do what it does best – but in a *malaria-smart way*. The Pathfinder Endeavour provides a structured '*try, learn and share*' process for sustainable results in the real world.

The Roll Out plan / preliminary steps include: Testing and review of Rapid Appraisal Tool – RATPath (Ongoing) Tools for each of the five steps to becoming malaria smart – scan for existing tools Indicative commitment by countries Workshop to review / identify tool-gaps (August / September 2023) Adjust existing / develop new tools Formal country commitment (November 2023) Pre-assignment – application of the RATPath (December 2023) First intercountry cross-learning workshop (February 2024)

Formal country commitments

These include the inclusion of multisectoral action in national strategic plans, Pathfinder Champion Teams (MoLG, MoH/NMCP and UNDP) and inclusion in the GC7 funding request.

Financing



Budget estimates from 2023-2025 include: Back office (4-10 countries) – 131,000 USD for general use, 65,000 USD for tools workshop and 20,000 USD for evaluation; inter-country learning workshops (batch of 4 countries) 170,000 USD is allocated; and finally, for in-country programming (each country) – 30,000 USD for in-country facilitation, 144,000 USD for in-country cross learning and 204,000 USD for in-district programming.

The Pathfinder highlights on GF guidance notes include:

Programme essentials:

- Ensure sub-nationally tailored planning considers factors beyond malaria epidemiology such as health systems, access to services, equity, human rights, gender equality (EHRGE), cultural, geographic, climatic, etc.
- Promote evidence-based prioritization for product selection, implementation modality and timing, and frequency of delivery with a focus on ensuring sustained high coverage among the highest risk populations.
- Understand and address key barriers to access.
- Improve and evolve surveillance and data collection tools and processes to enable continuous quality improvement (CQI) and accurate surveillance.
- Support flexibility on implementation strategies including integration within primary healthcare (PHC) as relevant.
- Accelerate transmission reduction.

Cross-cutting areas:

- Equity, human rights, and gender equality.
- Community leadership and engagement.
- Social and behavioural change.
- Pandemic preparedness and response.
- Environment and climate change.
- Urban malaria.
- Challenging operating environments.
- Programme management.
- Sustainability of malaria response.

Resilient and Sustainable Systems for Health (RSSH):

Integrated people-centered services (GF-note)	Comprehensive multisectoral action complements and amplifies:	
 Equity in access Quality of care Responsiveness and participation Efficency Resilience 	 Connects care need, demand and supply. Engages citizens directly and in real-time. Facilitates political, technical, and public accountability. Fosters collaboration and efficient use of collective resources 	
	 Provides a population health perspective. Puts the furthest behind first. Catalyzes action on determinants and root-causes. Engages public, private, and community structures and capacities. 	

The Pathfinder embraces and complements conventional malaria interventions, selective sectoral and SDG approaches – unlocks synergies and releases co-benefits. Such as co-financing of direct / indirect resources, and indirect co-financing. The Pathfinder fits into the GF modular framework: "Resilient and Sustainable Systems for Health (RSSH)" // "Health Sector Planning and Governance for Integrated People-centered Services" // "National health sector strategy, policy and regulation".



Selection of districts to participate

Selection process and criteria is to be confirmed pending the ongoing review of the rapid appraisal tool. Currently, the process includes a scan of all districts in country, identification of 10 districts for further analysis, nomination of five districts to be presented at first intercountry workshop (by each country) and selection of three districts in each country to participate (by intercountry workshop). The final criteria for selection involves the hardest districts, the best people, the strongest local government commitment – expressed in terms of a written statement and the widest diversity of contexts – e.g., variety of underlying causes for malaria persistence.

Illustrative Example of Uganda presented by Peter Mbabazi:

In 2018 Uganda launched the commitment for a malaria-free Uganda, with support from the President, government departments and agencies. Ministries were approached and asked to reflect on what their role was in a malaria-free Uganda.

Specifically, the Ministry of Education was engaged through launching school initiatives such as integrating malaria messages into drama productions. This was very successful in teaching pupils, teachers and headteachers about their role in fighting malaria and this was shared within families and communities. To further this, a series of small booklets were created and disseminated in schools to educate about malaria control. This book series, a form of 'edutainment', was integrated into the national curriculum and even included in exams, demonstrating an example of using political will to drive the development of sustainable malaria control resources.

For the first time in 2019, malaria was viewed as a cross-cutting issue and included in the national budget alongside human rights, HIV, and gender. This was a significant achievement, demonstrating how ministries can plan for malaria. It is essential to outline the actions needed from sectors and what the associated malaria and section outcome will be. Malaria is an issue for every sector and there is a need to make sure district leaders have malaria on their agenda.

Discussion - All

- Looking at the timelines for the global fund, is there an opportunity for countries to include multisectoral engagement within the application forms?
 - It was answered that this is a process currently ongoing and discussed at high levels, involving many partners to determine how to make this application process easier. However, as mentioned in the presentation the Pathfinder Endeavour fits into the GF modular framework RSSH.
- How can we best 'try learn and share' with limited funding to 'try'?
 - It was answered that currently formats for planning are challenged when activities serve multiple objectives in multiple sectors. It is important to recognise the need to change our perspective in malaria control. Comprehensive multisectoral action requires only very small amounts to 'try, learn and share' while have huge potential returns of investment in terms of cost-effective processes and sustainable outcomes. These returns will be documented as part of the Pathfinder Endeavour.
- Uganda has high level commitment from the President, for countries that do not have this level of commitment, how can they champion multisectoral approaches and how can we help countries to prioritise which multisectoral actions are most applicable to their countries?
 - It was answered that the Pathfinder Endeavour is designed to support countries to do exactly that through a dynamic process of learning across districts and countries, champion teams at national and district levels, and mutual support and technical assistance throughout the entire journey.



Submitted abstracts Work Stream I: Malaria in the urban context

WHO initiative to stop the spread of Anopheles stephensi in Africa - Seth Irish (WHO GMP)

There are many key features which make the spread of *Anopheles stephensi* such a concern. First of all it is a major malaria vector from south Asia, and has shown its ability to serve as a vector there. It was first found in Africa in Djibouti in 2012. One major concern is its ability to use urban larval sites, such as water storage tanks, tires, buckets, or open air water storage for drinking or other purposes. One factor working against its role as a vector is its preference to bite cattle or goats, however, when these hosts are not available, they can bite humans. Despite its preference for cattle or goats, when it does bite humans infected with malaria, it is a competent vector. *Anopheles stephensi* is often used in the laboratory for transmission experiments for this reason, and one study in Ethiopia found it to be a better biological vector than *An. arabiensis*. Finally, it has been shown to be resistant to many of the insecticides used in public health, such as pyrethroids, carbamates, and organophosphates.

The WHO has developed an invasive species tab to its Malaria Threats Map to help show the spread of *An. stephensi.* Soon we will also be adding points for negative findings, that is, where *An. stephensi* has been searched for but not found. The WHO are working to understand the impact of *An. stephensi* through epidemiological monitoring as well as through modelling studies. The epidemiological monitoring in Djibouti has been the most striking, with a huge impact in malaria cases since 2012. While some of this may be correlation and not causation, the widespread finding of *An. stephensi*, including sporozoite positive specimens, indicate that there may be a link between *An. stephensi* and malaria transmission in Djibouti. More recently, an outbreak during the dry season in Dire Dawa Ethiopia was studied in a case control study and again, *An. stephensi* was the main malaria vector found, and proximity to a *An. stephensi* larval site was correlated with higher odds of malaria.

When models are developed to understand the spread and impact of *An. stephensi*, it appears that a spread of *An. stephensi* to suitable areas in Africa could result in increased risk for up to 126 million people. And a similar spread in Ethiopia could result in a 50% increase in cases (although it should be noted that there are extremely wide confidence intervals for this estimate). To push the global community towards the development of a coordinated response to the spread of *An. stephensi* in Africa, an initiative was launched recently. This initiative is formed of 5 key aims: 1) information exchange, 2) increasing collaboration, 3) strengthening surveillance, 4) prioritizing research and 5) developing guidance. Implementing the appropriate response is key. Risk of too much investment could result in reduced funds/attention for malaria in rural areas however too little investment could result in delay in determination of appropriate control tools, leading to increased spread across Africa and increased malaria in urban settings.

This initiative will be followed up by an update of the vector alert (originally put out in 2019), and in early 2023, WHO will have a partners convening with the aim of jumpstarting collaboration and information sharing between the countries in Africa.

Submitted abstracts

Work Stream IV: The role of private commercial sectors in malaria

Harnessing the private sector for malaria elimination in Guyana - Sean Wilson (JHU CCP-Guyana)

Breakthrough ACTION is USAID's flagship global social and behavior change (SBC) project, led by the Johns Hopkins Center for Communication Programmes. It uses a human-centered design approach in Guyana to support malaria control and elimination efforts and Partners with the National Malaria Programme & Public Relations/Health Promotion Unit, Ministry of Health, to improve malaria outcomes among mining communities in three of the four endemic regions of Guyana.



In Guyana, malaria prevalence is highest among men in the hard-to-reach malaria-endemic mining communities in the hinterland regions. Mining activities create favorable environments for mosquito breeding and malaria services are very limited in these remote hinterland areas. The population is about 750,000 persons, there were 21,138 reported malaria cases in 2021 and four regions accounted for 98% of the total cases.

The gold mining sub-sector accounted for 8.8% of gross domestic product (GDP) in 2021 and is the 3rd largest non-oil sector of the economy – and more than 60% of total non-oil export earnings. The sector employs 15,000+ and potential gold reserves worth US\$35 billion. While malaria is recognized as a priority health problem, and has received significant attention and funding from the Government and other partners, the Ministry will be hard-pressed to address the funding gaps. Given the funding gaps and other dynamics such as the high transportation cost to reach miners with malaria services, insufficient information about the locations of, and number of miners, the Ministry recognized the urgent need for the establishment of a public private partnership, however private sector attempts to engage the National Malaria Programme in participating in the malaria response had been unsuccessful due to no follow through from NMP and blaming the private sector which led to a buildup of dissatisfaction and mistrust between sectors. Breakthrough ACTION had dialogue with both sectors to hear their interest in co-developing a framework for collaboration. The Guyana Malaria Public Private Partnership Platform (GMP4) Framework was developed, outlining how the two sectors can partner to foster collaboration and sustainability of national malaria programming. An inception workshop was hosted in November 2022 to further develop additional ideas for collaboration and identified several quick wins.

Two major quick wins include sharing of information to update NMP LLIN plans and dissemination of SBC materials co-developed the National Malaria Programme, Public Relations/Health Promotions Unit and Breakthrough ACTION. Following the inception workshop the GMP4 was launched on Malaria Day in the Americas.

Lessons learned:

- Engage partners individually prior to bringing them together this helps to ensure better understanding and reduces the potential for conflict.
- Identify innovative ways to keep the partners engaged and maintain momentum.
- Remain calm and neutral during any "venting" and seek to find joint solutions.

Next steps involve implementing the quick wins from the inception workshop, updating the GMP4 Framework based on inputs from stakeholders and the workshop report and organize planning meetings to finalize the framework and governance structure of GMP4 and discuss budgetary issues.

Heterogeneity of malaria in Kampala City, Uganda - Marion Natukunda (Ministry of Health-Uganda)

Uganda is third in global contribution of malaria cases and there is significant heterogeneity of malaria is seen in the country, across regions, districts and even divisions/sub counties/cities. The urban settings i.e. Kampala City have generally low malaria burden. However, with increasing travel among others, burden has been increasing in the cities. A good understanding of spatial distribution of malaria in urban settings is therefore important for tailoring of interventions for urban malaria control. Kampala is made up of 5 divisions and each division has a medical/public health department responsible for health matters of the population. Services are provided in both public and private facilities.

Routine Health Management Information Systems (HMIS) (DHIS-2) data was analyzed to:

- 1. Describe the epidemiology of malaria in Kampala.
- 2. Describe the distribution of cases by division and age group.



- 3. Compare trends in test positivity rate and incidence of malaria in Kampala city between 2020 and 2022.
- 4. Map malaria service providers in Kampala.
- 5. Recommend areas for actions.

Results for distribution of malaria cases by division and gender showed Makindye, Nakawa and Rubaga divisions have the most malaria cases reported in the year 2022 and most malaria cases were diagnosed in females in all divisions except Central division. In all divisions, adults 20years + contribute the most malaria cases in Kampala followed by 10-19 year olds, the 5-9 year old age group had the least reported malaria cases in Kampala and very few cases of malaria in pregnancy are reported (most are from Nakawa division).

The private sector dominates malaria service provision in Kampala City. Makindye, Nakawa and Rubaga have the most private service providers and this may have implications on quality of care and surveillance of malaria. Private for profit (PFP) facilities dominate the service delivery landscape and there is a concentration of facilities towards the south western part of the central division. The average test positivity rate (TPR) in 2022 was 25% for Kampala and TPR is highest in Makindye and lowest in Central division.

The divisions report an average of 2200 to 2800 malaria cases per month and Makindye, Rubaga and Nakawa report the most monthly cases. Central division has the highest monthly average malaria incidence ~ 3 per 10,000 people and The other divisions report <1 case per 10,000 people per month. Central has the least population with a high day time population. Highest incidence in all age groups is from Central division and most people get care from the central business district (Central division). 10+ year the most at risk of malaria in Central division however it is important to know the residence of these cases.

In conclusion there is heterogeneity of malaria seen in Kampala

- Makindye division reports the most cases of malaria in Kampala.
- Central division has the highest incidence of malaria.
 - The metro area population of Kampala in 2022 was 3,652,000 (double the population of the city).
 - Most working people get care in the central business district.
- Adults >20 years old contribute the most malaria cases.
- Private sector players provide the most malaria services in the city.

Recommendations:

- Stratification is key for malaria intervention packaging in cities.
- Adults population should be targeted with malaria prevention messaging to curb transmission to younger age groups.
- Private sector support for malaria service delivery and surveillance should be emphasized.
- Surveillance to capture residence of cases to aid mapping of interventions.

Improving malaria programming in Freetown Sierra Leone through multisectoral approaches: Exploring determinate factors for malaria transmission in formal and informal communities - Abdul Koroma (CRS-Sierra Leone)

In 2021 & 2022, CRS conducted a malaria prevalence study at different seasons in 4 communities in western urban district of Freetown (2 informal settlements and 2 formal settlements). The objectives were to establish the baseline prevalence to inform planned housing improvements & WASH interventions in the slum communities within the informal settlements.

A cross sectional study was used to investigate prevalence of malaria at different transmission seasons. There were two arms of the study: 1) formal community with good WASH and housing structures and 2) informal



community with poor WASH and housing structures. The primary target population was children aged 6-59 months.

Results during the low transmission period (August-September 2021) in formal settlements were 11.1% and 10% in informal settlements. During the high transmission period (June-July 2022), prevalence was higher in the formal settlement (13.6%) compared to the informal (8.7%) amongst children <5. Traditional housing and modern housing was present in both settlement types (8.1% and 7.5% respectively). Conclusions and next steps:

- Conduct third rounds of malaria prevalence and a Knowledge, Attitude and Practices (KAP) survey.
- Work with Transform Freetown consortium consider housing improvements as a supplementary intervention for malaria control in Urban slums.
- Work with civil society organizations and other non-governmental organizations to promote advocacy.
- Support the nationwide ITN campaign.
- Promote malaria social behavior and communication messages.
- Capacity building for health care workers and community health volunteers.
- Work with communities to develop action plans on how to address malaria.

Submitted abstracts Work Stream II: Agriculture and malaria

Rice irrigation farming and malaria transmission in Karonga District, Northern Malawi - Muwoli Dokowe (CRS-Malawi)

Malaria is a major public health problem in Malawi and accounts for 36% of all OPD visits and 1.1% of all global malaria deaths. Irrigation agriculture can create favorable breeding habitats for mosquitoes at the same time promotes economic growth, enhance food security and alleviate poverty. Studies in sub-Saharan Africa including Malawi have shown increase in malaria risk and malaria vectors abundance associated with rice irrigation. This justifies need to design and implement interventions that promote growing rice while mitigating the associated malaria risk. This is a CRS Agency wide strategy to promote multi-sectoral approach in the fight against malaria. In Malawi the study is being done in collaboration with Government institutions (Health and Agriculture), institutions of higher learning and private research institutions.

The objectives of this study were to determine malaria risks attributed to agricultural rice production within households:

- To evaluate the effect of proximity of human dwellings (households) to rice irrigation on prevalence of malaria infection among household members in rice irrigation schemes in Karonga district.
- To assess the effect of proximity of human dwellings (households) to rice irrigation on indoor densities of *Anopheles* mosquitoes in rice irrigation schemes in Karonga district.

A cross-sectional study was conducted in both dry and rainy season. Data collection was conducted at the individual and household level. Preliminary results from data collection during the dry season show low cases of malaria however it is expected that cases of malaria will increase during rainy season. The majority of individuals are sleeping under mosquito nets, though most of them had lost the insecticide. Respondents perceived malaria prevalence to be higher during the rainy season at household and community level. The most common prevention methods used were use of treated and un-treated bed nets.

In conclusion, malaria cases (3.7%) though deemed low during the time of data collection, are still higher than the national statistic of 1.8%. Data analysis for the first round is continuing and the second round of data collection in March/April (rainy season). Linkages between the Ministry of Health (MoH) and Ministry of Agriculture (MoA) should be improved to increase awareness on the rice irrigation agriculture impact on malaria and there are plans to deploy relevant potentially impactful malaria interventions in rice schemes using study results.



Rice cultivation practices and malaria vector ecology: the need for cross-sector collaboration - Harrison Hardy (University of Greenwich-UK)

Rice agroecosystems provide habitats conducive to malaria vector breeding and Africa is increasing its rice production capacity. System of Rice Intensification (SRI) is a "set of interdependent agronomic practices that modify current plant, soil, water, and nutrient management", which is a climate-adapted methodology that aims to increase rice yields whilst reducing agricultural inputs. The SRI agroecosystem is a fundamentally different environment so are the vector species also fundamentally different too. Sampling (larval dipping and emergence trapping) was conducted in four SRI and four non-SRI fields in the Mkindo irrigation scheme in Tanzania.

Preliminary data and analysis show SRI is associated with higher vector densities and productivity. Larval abundance in SRI fields increased with time, but little variability over time in non-SRI. SRI increased larval abundance may be explained by a greater availability of discrete habitats – i.e. more small pools forming. Species composition data found the same species present in each cultivation type, *An. coustani* was found in non-SRI, species evenness higher in non-SRI and majority of Anophelines in SRI were *An. gambiae s.l.*, likely *An. arabiensis*. The available surface area of water was more variable in SRI fields, compared to non-SRI, over time and no observed appreciable differences in pH, dissolved oxygen, salinity, or temperature. Total dissolved solids were generally higher in SRI and more variable over time. In conclusion, the SRI agroecosystem appears to be a more productive habitat for malaria vectors.

Rice production contributes to the malaria problem, and alternative practices can modulate this relationship however currently, there is limited interaction between public health/entomology and the rice production sector. As we head towards elimination, the need to control malaria in rice fields will become more and more important. Cross sector collaboration is key here as changes in rice cultivation affect the rice/malaria relationship.

There is a need for cost effective, simple, and time-efficient methods with targeted control, if needed. Routine surveillance using larval sampling creates difficulties with specimen transport and species identification and emergence traps may provide a reliable alternative for regular monitoring. Integrative control methods are needed that promote mosquito control strategies but do not impinge on rice productivity, such as:

Bacillus thuringiensis israelensis (Bti) application in tandem with fertilisers - Bti mixed with fertiliser significantly reduced *An. gambiae s.l.* abundance, rice yields were not affected and the greatest reduction was found when following normal fertiliser schedule.

Application of organic fertilisers with larvicidal qualities such as chicken manure - chicken dung exposure significantly reduces *An. gambiae s.l.* adult production, chicken dung is an effective fertiliser for rice and also promotes predators of mosquitoes and rice pest.

Mosquitocidal alternative wetting and drying (AWD) schedules - where AWD is applied, irrigation schedules are highly variable and up to five dry days may be required to kill 100% of larvae. Effects on crop yield should be considered, but SRI research suggests AWD is beneficial.

Key messages:

- Rice cultivation increases malaria transmission and cultivation practices can modulate this relationship.
- Involvement of the rice production sector is critical for reducing malaria vector populations and mosquito control.
- Rice agronomists, medical entomologists, and policy makers must work together.



• Available mosquito control interventions should be applied, but they must not impinge on rice production.

Suppressing the breeding of malaria vectors in African rice fields using modified rice cultivation practices - Kallista Chan (LSHTM, UK)

Rice areas bring more malaria, and, in the future, they will become a problem in elimination settings. The Ministry of Health in Africa are planning for elimination of malaria and the Ministry of Agriculture plan to scale up rice growing to ensure food security. The paddies paradox (rice fields generate a large amount of malaria vectors, but the amount of malaria in rice communities remains unaltered or is decreased) has been re-examined due to the wrong counterfactual (mosquitoes were never harmless – the paradox depends on inequity), changing intervention coverage and the aim to achieve malaria elimination in Africa.

This relationship was re-investigated in a meta-analysis and it was observed that we can no longer say that rice farming brings greater protection and instead could bring greater risk. In the future, as we look towards elimination, rice areas will become more strategically important as a problem. When researchers (both agricultural and public health) are informed of this issue, it can be interpreted in two ways, first, that there is an inevitable trade-off between health and food security which is a reason to delay the expansion and intensification of rice in sub-Saharan Africa. Secondly, that the health sector needs to provide more antimalaria interventions like insecticide-treated nets and antimalarial drugs. However, neither response is appropriate because it is unrealistic to stop growing rice: food security is vital for a growing African population and because the currently available set of malaria interventions can only provide a partial and temporary solution. The role of the agricultural sector is to stop being part of the problem, and start being part of the solution.

There is a need to find methods of growing rice that minimises mosquito production and there are many promising interventions and modified methods of rice cultivation that can minimise the number of mosquitoes emerging from rice fields including methods of larviciding and intermittent irrigation in rice fields – but these methods are unlikely to be applicable across all settings and would need to be tested across a variety of rice field settings. This means that the agricultural and health sectors should not only collaborate but that the agricultural sector should take the lead in this problem. Agriculturalists are already always looking for new and improved methods of growing rice so whilst they are doing that – and already taking into account of things like water use, weed production and sometimes, greenhouse gas emissions - mosquito numbers can be added as another parameter to account for. In order to encourage the agricultural sector to take up this research and development task, there is a need to collect:

1. More (and better) evidence on the rice-malaria relationship

More evidence on the effect of rice cultivation on malaria risk in sub- Saharan Africa is needed (beyond observational studies and better country representation). More studies of different designs are required – including longitudinal studies comparing malaria risk before and after the introduction of rice crops, geospatial analyses of rice distribution and malaria indicators and inclusion of all entomological and epidemiological indicators to provide a clearer picture of the rice-malaria story. Future studies also need to address questions of equity by including potential confounding factors associated with rice cultivation like socioeconomic factors, housing, bed-net coverage, and use of antimalarial drugs.

2. Calculate the rice attributable fraction of malaria

To help us get more attention to this problem, more evidence on the effect of rice cultivation on malaria risk in Africa is needed, especially estimating the burden of rice-attributable malaria. Learning from climate change agronomists, we found out that the agricultural sector was very receptive when they heard that 11% of anthropogenic methane is from rice growing. We need to find an equivalent for malaria.

3. Develop better rice and mosquito monitoring methods



The current methods of dipping are far too laborious and subjective and agronomists don't need to visit their fields that often to monitor rice production (1 time per week for agronomists compared to 2-3 times per week for entomologists). There are some promising ideas for new methods of monitoring mosquitoes, including using environmental DNA and image analysis, and these need to be developed. Sampling programmes that better capture mosquito density and dynamics that can be easily adopted to agronomists are needed.

Ultimately, agricultural and health researchers should work together to develop rice cultivation techniques that can minimise mosquito production whilst sustaining yields i.e. achieving the goals of food security and striving for malaria elimination in sub-Saharan Africa.

The Bonny Island Malaria Elimination Project- Anastasia Isodje (Nigeria LNG, Ltd.)

Bonny Island is a semi-urban community in Rivers State, Nigeria and host community to Nigeria LNG Ltd. (NLNG) 6 train natural gas liquefaction plant. The company is currently funding three healthcare corporate social responsibility projects (CSR) on the Island, including the BNYMEP to make Bonny Island Nigeria's first malaria-free zone.

The report of the malaria burden on the healthcare facilities and community led to the decision by the company's executive management to eliminate malaria from Bonny Island. The following assessments were considered the irreducible minimum for the project conceptualization: Health Systems Assessment, Bonny Malaria Indicator Survey and Advocacy Communication, Social Mobilization Mapping/Profiling and insecticide resistance survey (in collaboration with PMI).

Key baseline findings highlighted gaps in the health system, malaria prevalence of 5.4%, hot spots in low income settlements of >32% and the poorest communities most affected. Operational Management Committee was set up to drive community action and to ensure every household is reached with every intervention.



Early 2022, a mass net distribution campaign was conducted (nets supply and distribution assistance from PMI). And reduction as high as 99% was observed on the island – community structure and engagement contributed to this. Post net campaign, social and behavior change communication was conducted, with findings showing overall 78% slept under nets.



Submitted abstracts Work Stream V: Multi-sectoral messaging

Malaria-Nutrition Integration in Tanzania using multi-sectoral Approach - Evelyn Johansen (CRS-Tanzania)

This project is an example of a multisectoral approach to community services. Village Health and Nutrition Days (VHND) have implemented since 2016, which provide an opportunity for introduction of malaria services. These have high attendance and support from mother facility. There are 8 sections to the project: WASH and environmental sanitation, registration, nutrition services, health services, early childhood development corner, cooking demonstration, agriculture and food security and reporting and feedback.

Objectives of the study:

- Reduce the morbidity and mortality due to complications of malaria in children under 5 years.
- Share learning of feasibility and effectiveness of integrating services.
- Advocate for the use of VHND as a platform for integration of services for children under 5 and their caregivers.

The implementation plan was as follows: Document Review of malaria prevalence and learning from Madagascar, stakeholder identification and analysis, introduction to government, formation of Malaria-Nutrition governing body, review of Standard Operating Procedures, introduction of project to Regional and Council Health management team and finally, orientation of the standard operating procedures (SOP) to Nutrition Officers.

Significant achievements include buy in of the government and all other stakeholders, incorporation of malaria services in the SOP for VHND, establishment of a working group, CORPs identification and orientation of 7 District Nutrition Officers.

Nest steps for the project will include:

- Training of CORPs on Malaria Community Case Management (mCCM).
- Community Health Workers and Community Leaders to be sensitized and capacitated to build demand-Implementation for both malaria-nutrition interventions.
- Joint supportive supervision & coordination.
- Learnings to be shared with MoH policy reviews and scale up.

Preliminary findings from baseline studies in CRS Cameroon Malaria-HIV-Education multi-sectoral project - Leslie Chingang (CRS-Nigeria)

Malaria and HIV infections are two leading causes of morbidity and mortality in Cameroon. Malaria and HIV co-morbidity are associated with poor outcomes for both diseases. Malaria contributes to 5-8% of all causes of non-attendance among school children in Africa, which is equivalent to 50% of all preventable absenteeism. A pilot intervention to reduce the effects of malaria on HIV and schooling outcomes among orphans and vulnerable children (OVC) and their families in a President's Emergency Plan for AIDS Relief (PEPFAR) funded project is being implemented by CRS using a multisectoral case-management.

Specific objectives of the pilot baseline study were:

- To examine knowledge level on the effects of malaria on HIV among teachers, caregivers, and local health care providers.
- To assess knowledge level on the effect of malaria on education outcomes among teachers, caregivers, and local health care providers.
- To determine the prevalence of school absence as a result of suspected malaria incidence among school going OVC.

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A baseline assessment used cross-sectional design and mixed method approach was applied to collect quantitative and qualitative data through both secondary sources and primary sources. The study scope was limited to respondents who are already enrolled in KIDSS within selected health districts of the Littoral and Southwest regions. Schools and health facilities were also limited within the same health districts. A stratified random sampling technique was adopted to inform selection of project participants and project database was used to determine target population sampling frame. Purposive sampling was used to identify key informants within same health districts. Questionnaires and KII guides were used to collect data upon pre-testing and training of independent enumerators. Descriptive analysis was used to analyze quantitative data while qualitative information was used to complement findings.

Key preliminary findings from the baseline data demonstrate that:

- 69% of caregivers reported malaria-HIV coinfection worsens illness.
- 22% reported malaria affects HIV drug adherence.
- 83% school teachers have witnessed cases of suspected malaria amongst pupils.
- 41% absenteeism in school is due to suspected malaria symptoms.
- 41% of cases affected on performance.
- 55% of school absenteeism lasts for 3-5 days.

In conclusion the prevalence of malaria in the last three months prior to data collection was considerably high among respondents and correlates with the relatively low proportion of respondents who sleep under an ITN throughout the year. Incidents of malaria is associated to absenteeism and low performance among school going children and schools do very little to support prevention and treatment of malaria. CRS will use study findings to implement effective strategies and establish multisectoral collaborations to mitigate the effects of malaria on education among vulnerable populations.

Saturday 11 February 2023

Panel discussion on mining and corporate responsibility Roundtable on mining industries and corporate responsibility – Moderator: Samuel Asiedu

Panellists

Ashley Armarego, Newmont Ghana Gold Limited Magdalene Bakari, Gold Fields Ghana Limited Kwesi Gyeni Annor, AngloGold Ashanti Iduapriem Limited

Samuel Asiedu (SA) introduced panellists (background listed below) and a brief overview of the session was presented. The theme of the session was challenges and opportunities of the mining sector in the management of malaria and other vector borne diseases.

1. Newmont Corporation

Ashley Armarego

Senior Regional Director - Safety and Health at Newmont Corporation. Ashley is an experienced Senior Manager mining professional with 30 years of experience in health & safety, and business improvement (Lean/Six Sigma). He is comfortable with both direct and indirect leadership of major initiatives in the commercial, business improvement, health & safety, and production areas. Prior to his role, Ashley was the Director – Health & Safety Business Improvement at Newmont Corporation, Perth, Australia.

2. Gold Fields Ghana Limited Magdalene Bakari



Unit Manager-Health Services, Gold Fields Ghana. Magdalene is a product of the University of Ghana Medical School with 10 years of experience in healthcare. Magdalene has a master's degree in occupational medicine from the University of Manchester, UK.

3. AngloGold Ashanti Iduapriem Limited Kwesi Gyeni Annor

Health Manager for AngloGold Ashanti Iduapriem Mine in Tarkwa. Kwesi is a medical doctor by profession with specialization and interest in occupational hygiene, public health and health management. He has close to 10 years of experience in industrial and corporate health. He is a product of University of Ghana Medical School, University of Munich, Germany and has a master's degree from University of Manchester, UK.

Annor leads the mine's malaria programme. For instance, he led an ITN distribution and support programme within the host communities of the AngloGold Iduapriem mine in 2017 and has since played active role in all workplace malaria interventions on the mine and beyond. Currently AGAMal is implementing a larval source management intervention in Tarkwa being sponsored by the Gold Mine.



Question 1: Mining companies normally execute various Corporate Social Responsibility (CSR) as part of the social license needed for operationalization for their businesses. What are in the portfolio for CSR for your organization?

Ashley Armarego: Two operations are currently being run in Ghana with the 3rd in the process of construction. The company has five strong values: safety, integrity, sustainability, inclusion and responsibility. These values are integrated into all decisions that we make and we are very conscious of the communities we are operating within. We have requirements around the employment of local personnel, environmental regulations and community health and safety regulations.

Magdalene Bakari: Mining companies have a responsibility to give back to the societies and communities in which they operate. We have a set of rules which guide our everyday work, including respect and responsibility towards the people we work with and within the communities we work in. We have a responsibility to ensure the environment is left in the same or better state than before our operations. In regards to CSRs we have been involved in many activities such as the provision of healthcare facilities and provision of equipment and stocks to these facilities. We have also invested in education by setting up schools and assisting with teacher training and the sanitation sector.

Kwesi Gyeni Annor: Safety, environment and sustainability are some of the key principles we operate by and we ensure to conduct responsible mining. In our CSR we have involvement at both the community and government level to assist authorities to work alongside communities to implement control measures. We have assisted in opportunities within the health sector, through the establishment of health centres.

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Question 2: What motivated your organization to consider vector control (malaria) as a CSR?

Magdalene Bakari: As an organization we understand the relationship between malaria, the environment and socioeconomic factors. We were witnessing a high increase in employees reporting malaria, resulting in both poor health of employees and lost time to the company. Indirectly, employees were also off work due to looking after spouses, children etc. who has malaria and there was also a noticeable psychological impact to employees caring for loved ones with malaria. This in turn, negatively impacts company production levels and increased accidents / hazards in the work place. Safety is our number one priority in the workplace and it is therefore these factors which acted as motivation to reduce the number of malaria cases within the work place.

Ashley Armarego: Our key value is safety, so as an organisation we analyse our health and safety risks across our global operations. We have a range of different safety programmes in place to manage the associated safety risks which are very real within the mining industry. There are a range of risks which we are dealing with as an organisation including both the physical and mental wellbeing of our 8,000 employees. We have data to show the high burden / risk of malaria amongst the workforce. In response, we have set up malaria control programmes across our two sites, which are being managed on the ground-level and includes spraying of potential breeding sites. In addition we are providing education and awareness to employees as these are also significant challenges in malaria control. Keeping up to date data of case numbers is also very important and we have seen a decline in cases amongst our workforce. Last year there was a push to be focusing on non-immune expats in which malaria poses a significant risk. We still need to continue ensuring our locals and nationals benefit from these programmes. Examples of successful control programmes include COVID-19, in which we supported vaccination of 100% of our work force and provision of PCR machines and set up lab facilities.

Kwesi Gyeni Annor: Malaria from a mining perspective is a serious health risk to employees because of the malaria itself and the high risk nature of mining. If employees are sick and this is ignored by the organisation, the employee is at significant risk of accident. Malaria is therefore also impacting the productivity of the workforce and these factors all contribute to the motivation towards implementing malaria control programme within the workforce.

Questions 3/4/5:

- What has been the success and challenges for implementing the malaria programme?
- What has been the feedback from workers and their dependents as well as host communities?
- Who are your partners/collaborators in your vector control intervention since mining is your core business? (Do you have partners? Either local or National? What are their roles?).

Ashley Armarego: We have implemented a fairly structured programme across our operations since they commenced. In regards to success, we have seen a steady decline in malaria cases and overall awareness within the workforce has increased. We have targeted non-immune expats, who are unfamiliar with malaria, and this has been very successful. The challenge for us is complacency and education as some people view contracting malaria as something which is unavoidable and therefore we must continue to raise awareness and provide education. We must think of innovative ways to engage with employees / communities. Other challenges include ensuring control measures are applicable to the different living conditions of people within the communities (access to bed nets, housing infrastructure etc.). This requires the engagement of other sectors and organisations.

Kwesi Gyeni Annor: With regards to success, we have seen a decline in number of cases and we have opened a large number of facilities within communities. We have also had success within our community education programmes and sanitation facilities within housing units. We have experienced challenges in control due to factors such as globalisation, increasing resistance to control measures etc. Improving education and community engagement needs to come from innovative approaches such as including session on the radio



about malaria control in the mining industry. In order to successfully achieve elimination there needs to be a multi-organisational approach with engagement from the government in supporting private sector organisations which are implementing control measures. Education is key for this and partnering with Ghana Health Services has been important in achieving our desired results.

Magdalene Bakari: We have very strong connections with Ghana Health services within our communities and the district and regional health directors too across malaria and other health programmes. The success of what we have achieved is through these genuine partnerships because they understand their people and communities and can provide influence within communities. This allows us to identify the knowledge and expertise we do / do not have and fill the knowledge gaps. Everyone in this room has the potential to be a useful resource for our programmes by sharing knowledge, experiences and best practices.

Questions 6/7/8:

- Do you think the mining companies would be interested and should be involved in national vector control intervention? If 'yes', what role should the mining companies be playing?
- What should the National Malaria Programme do in order to attract the mining industry to support national vector control activities in Ghana?

Ashley Armarego: The questions should be, 'should all industries be interested and involved in national vector control interventions?', because I do not think it should just be the responsibility of the mining industries because they are already present. If any industry has employees operating within country, who are at risk of malaria then they should play a part in mitigating this risk. This includes programme operators, malaria experts etc. We all have a responsibility to come up with a coordinated approach to eradicate malaria.

Magdalene Bakari: The answer is yes and we will be looking to improve our vector control programme moving forward. Education plays a major factor in achieving this and sustaining the trend we are seeing in case decline. In addition to education, what is malaria, how best can we control it? Improve people attitudes towards sanitation. Moving from education we feel the need to control the existing vectors through methods of larviciding and IRS. We need to further explore the use of biological control as this has minimal impacts on the environment. We have conducted extensive roll out of repellents to workforce, however we are not achieving sufficient coverage due to the high cost of repellents.

Kwesi Gyeni Annor: Currently, mining organisations have been doing what they think is needed to support vector control activities in Ghana, however I think there should be support from the public to the private sector to guide the activities private sector are undertaking. It is important we are having this conversation, there are some key challenges that need to be addressed such as insecticide resistance requiring coordinated surveillance efforts at sites etc.

Discussion – All

- It was commented that it is really useful to see examples of private sectors companies successfully implementing vector control activities as part of their CSR. This comes in steps: 1) looking at the situation within your company and how you can best support your employees / families etc., 2) understanding the communities you are setting up operations in and applying control measures to meet these needs and 3) assessing your activities that may contribute to malaria cases (creating mosquito breeding sites etc.). These are processes outside of your normal business operations which may require additional expertise / assistance. Finally 4) we must look at synergies between sectors because this will enable sustainability of control programmes.
- It was commented that it is extremely important to create interpretable metrics and have transparency within organisations.
- It was commented that there is a strong need to get the relevant parties together to enforce action around some of the topics discussed in today's meeting.

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- Representatives from the National Malaria Programme acknowledged the support from the mining industry however expressed the need for better synergies and reporting into national strategic plans. The work being done is very commendable but there needs to be better processes in place for NMPs to receive the data to enable NMPs to provide the commendation needed to private sector companies. This is a promising starting line to encourage involvement of other industries but there is a strong need to ensure objectives between private and public sectors are aligned. A platform to have these discussions would be of use.
- It was commented that it is important that we scope who the big industry players to decide who else we
 need to engage in the conversation. This meeting has provided a good starting point / platform to harness
 available resources and approaches to engage other sectors (e.g. banking). Because private sectors are
 business / commercial focused, it will be a challenge to ask them to feed into existing reporting systems
 and therefore we must create these systems to streamline this process and promote data sharing. Many
 institutions are willing to facilitate these engagements (work has previously been conducted by Johns
 Hopkins University to scope the potential private sector partners) and this could be built upon to
 strengthen the discussions had today.
- It was asked, where necessary, how do we prioritize environmental controls (such as larviciding) in the agenda? It was answered that from a private sector perspective, funding is available but the technical expertise is not and therefore proposals for funding and engagement from the private sector must also be aligned with technical expertise and guidance.
- It was asked if panellists could summarise a 'tag line' which can be used to encourage and promote private
 sector engagement in vector control activities? It was answered that this 'tag line' should be developed
 around the idea "do you really care"? Because all organisations should be operating health programmes
 because they really care about their employees, not to meet KPI health metrics etc. and therefore
 employees health should be at the heart of these programmes.





List of acronyms and initialisms

AFR	African Region
AGAMal	AngloGold Ashanti Malaria Control Limited
AMA	Accra Metropolitan Assembly
ARMPC	Advocacy and Resource Mobilization Partner Committee
AWD	Alternative Wetting and Drying
BNYMEP	Bonny Island Malaria Elimination Project
Bti	Bacillus thuringiensis . Israelensis
CARE	Cooperative for Assistance and Relief Everywhere
CHAI	Clinton Health Access Initiative
CORPs	Community-owned Resource Persons
CRG	Community, Human Rights and Gender
CRS	Catholic Relief Services
CRSPC	Country / Regional Support Partner Committee
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
DHIS	District Health Information System
GC7	Global Fund Grant Cycle 7
GF	Global Fund
GMP	Global Malaria Program
НСНР	Health Cities Healthy People
HIV	Human Immunodeficiency Virus
INGO	International Non-Governmental Organisation
ІРТр	Intermittent preventive treatment of malaria during pregnancy
IRI	Institute for Climate and Society
IRS	Inside Residual Spraying
ITNs	Insecticide Treat Nets
JHU CCP	Johns Hopkins Center for Communication Programs
KII	Key Informant Interviews
KPI	Key Performance Indicator



Ksh	Kenyan shilling
LSHTM	London School of Hygiene & Tropical Medicine
LGA	Local Government Association
LLINs	Long Lasting Insecticide Nets
MMDAs	Metropolitan, Municipal and District Assemblies
MoA	Ministry of Agriculture
МоН	Ministry of Health
MOHS	Ministry of Health and Sanitation
MoLG	Ministry of Local Government
MPR	Malaria Programme Review
MSA	Multi-sectoral Action
MSWG	Multi-Sectoral Working Group
MTR	Mid Term Review
NGO	Non-Governmental Organisation
NMEP	National Malaria Elimination Programme
NMP	National Malaria Program
NSP	National Strategic Plan
NTD	Neglected Tropical Disease
OPD	Out Patient Department
OVC	Orphans and Vulnerable Children
PMI	President's Malaria Initiative
PNLP	Le Programme National de Lutte contre le Paludisme
RBM	Roll Back Malaria
RSSH	Resilient and Sustainable Systems for Health
SBC	Social and Behavior Change
SCPC	Strategic Communications Partner Committee
SDG	Sustainable Development Goal
SMC	Seasonal Malaria Chemoprevention
SOP	Standard Operating Procedure
SRI	System of Rice Intensification



- TA Technical Assistance
- TB Tuberculosis
- TPR Test Positivity Rate
- TRP Technical Review Panel
- UNDP United Nations Development Programme
- VBD Vector Borne Disease
- VCWG Vector Control Working Group
- VHND Village Health and Nutrition Days
- WASH UNHCR Water Sanitation and Hygiene
- WHO World Health Organisation