

**Second Asia Symposium:
Addressing infectious diseases through sustainable
health systems**
9-11 March 2016

Report



Opening Ceremony

The three-day Bangkok-based Symposium - *Addressing infectious diseases through sustainable health systems* – was organised by [Malaria Consortium](#) to share findings and showcase innovative practices from malaria, dengue and infectious disease research and implementation projects from Asia and Africa. Its aim was to generate interaction among government representatives, donors and implementing organisations for developing plans for effective collaboration to achieve the SDGs through investment in sustainable health systems.

Delegates at the Symposium discussed these regional challenges during the three days, exploring ways to collaborate better and promote mutual learning on key aspects of infectious disease management, such as malaria and neglected tropical diseases or pneumonia. Participants heard about good practices and promising approaches, including what needs to be done to strengthen surveillance and standardise case management regionally. Other topics on the agenda ranged from new mobile health technology to emerging disease outbreaks and influencing health policy in the Asia Pacific Region.

Dr. Amnuay Gajeena, Director-General, Department of Disease Control (DDC) Thailand:

Dr. Amnuay Gajeena, Director-General of the Thai Department of Disease Control inaugurated the Second Asia Symposium in Bangkok with government representatives from across Asia, academics, scientists, donors and international development partners in the audience. He emphasised a number of key points, including:

- The impact of infectious diseases and their negative cost to the economy.
- Malaria cases having consistently decreased in the Greater Mekong Subregion (GMS) from more than 2.9 million a few years ago to 1.6 million cases in 2014.
- Meeting the Millennium Development Goals for malaria for the region.
- Despite all these advances there are still populations that need to be focused on including those associated with forestry, mining and migration.
- Drug resistance can reverse the progress made.
- As we move from control to elimination there is a need to standardise treatment within and across countries.
- Increases in dengue also highlight the need to focus on neglected tropical diseases (NTDs) and make these disease less and less neglected.

Dr. Gajeena also referred to the fact that the Sustainable Development Goals (SDGs) are a good roadmap to guide the fight against malaria and other infectious diseases. He stressed the need to rid this region of malaria, neglected and other infectious diseases for good by 2030 and called for harmony within national responses.

Dr. Allan Schapira, Malaria Consortium Trustee:

Dr. Schapira highlighted that the strength of the meeting is to have a broad group of academics, researchers, and policy makers attending.

This should mean that findings presented throughout the three days create a base of evidence on winning strategies and tools for malaria and NTD control and elimination.

Focus should be put on human ecology, how to adapt and use technology, and using multiple combinations of interventions. It is essential to prioritise, understand what are the most cost-effective interventions, and push through policy changes to ensure malaria and NTDs are eliminated in GMS.

Session 1: National Malaria Control Programme priorities

Malaria and NTDs status in Bangladesh, Cambodia, China, Laos, Malaysia, Thailand, and Vietnam was presented showing a wide variety of risk patterns in countries. Overall, **all countries in the region have faced a steady decline in malaria transmission since 2000**. However, **all countries mentioned the need to work further on cross-border collaborations, identifying ways to mitigate drug resistance, and the impact of funding gaps on activities**. When asked about community engagement and private sector participation in malaria elimination activities participants mentioned **the need to include more communication activities directly with communities to ensure community engagement for malaria elimination**. Specifically, the Bangladeshi representative mentioned the need to tailor communication activities to the local culture and develop strategies that will work within individual communities. The Malaysia representative spoke about identifying high risk areas and investigating how to reach mobile and migrant populations. She also spoke about their experience working with the private sector to give nets to forest and mining workers, and how important that is within high risk areas. The Thai government authorities are not yet working with private sector on elimination, but are starting to approach donors from big enterprises. Dr. Sandii from Myanmar mentioned that in 2015 there was a meeting where local private sector companies made an agreement to share data with the government. It started with only 17 companies, but has grown to more than 100 companies in 2016. Vietnam stressed the need for support from policy makers, especially when it comes to cross-border collaboration. Collaboration will be necessary regardless of the countries' economic situation, as there are always pockets of the population that will need help. The importance of SDGs and the need for harmony within national responses was discussed. Sustainable goals should focus on sustainable actions. Action should not be just functional, but should be adequately applied.

A brief presentation from Dr. Jigmi Singay from WHO SEARO and another from Dr. Siddhi Aryal from Malaria Consortium closed this panel. Dr. Aryal mentioned the challenges in eliminating malaria. "Malaria is still a public health problem in the GMS due to climatic and ecological changes, the migration of people working in rural economic border areas or in economic development activities such as forestry, mining, plantations and road building has also resulted in the spread of drug resistance. This makes eliminating malaria in the region even more urgent." The need for harmonisation in policy making strategies was addressed. To align with the SDGs, the session urged countries to align different programmes, leverage resources and maximise results.

Session 2: Surveillance and Monitoring and Evaluation (M&E)

Several projects and tools for M&E were presented during this session. The opening session highlighted some of the key challenges still existing for malaria elimination surveillance. Risk stratification in Indonesia and Swaziland were presented as a very useful tool to focus the scope of interventions for malaria elimination. Dr. Bayo from WHO ERAR hub addressed the need to change the mode of action from a control mindset to an elimination mindset.

Questions from the audience focused on military engagement in elimination activities, the role of mining activities, tools for malaria elimination (diagnosis) and community engagement.

In disease control/elimination activities, military involvement can help with (1) ensuring military has appropriate case management, and facilitate handout of prevention materials to military staff working in the forest; (2) Ensure soldiers are treated correctly and get screened/treated; (3) Provide logistical support including helicopters, ships, and shipping of goods.

As for mining activities, it was agreed that not all mining activities are equal and tailored answers need to be given to each specific situation.

In general, passive case detection should rely on what diagnostic tools are available for everyone taking into account the feasibility of having more sensitive tools. At the moment we should maintain microscopy and use PCR for determining the resistance profile of populations. There are new tools in the pipeline that are more sensitive and can identify more infections that are hopefully more sustainable than current PCR technologies.

Finally, despite the common agreement that community engagement is a key to malaria elimination, participants suggested such assumptions need to be translated into action.

Session 3: Vector control for outdoor and indoor disease transmission

The session was opened by a brief presentation by Dr. Jeffrey Hii who highlighted gaps in malaria outdoor transmission and dengue indoor transmission. Some potential tools to close this gap were then shared by panel members. Results from the insecticide-treated clothing study conducted in Myanmar were shared along with some considerations about the acceptability and willingness from rubber tappers to pay for these type of cloths. Despite good acceptance, improvements in the way the cloths are impregnated need to be tackled to make this tool more effective in protecting individuals from outdoor malaria transmission.

Benefits of using Ivermectin as a malaria elimination tool were also presented. As this drug was proved to reduce survivorship of *Anopheles* mosquitoes, if given with antimalarial drugs (for example through mass drug administration), it can have a larger impact as it has the potential to reduce parasites and vectors density.

Preliminary results from a malaria elimination pilot survey conducted in Cambodia were also presented highlighting the need to pay special attention to artemisinin resistance patterns registered.

Questions to panel members helped to clarify that animals can be a good host for Ivermectin and potentially be used to reduce mosquito populations but it depends on how important the vectors are in that community. No resistance was confirmed among other NTDs for Ivermectin, but could be a possibility.

As for ITC it was clarified that there are no standardised tests, and they need to take hand washing into account. Preliminary lab test results were briefly touched upon but further research is needed.

An MSF representative explained the final results of an elimination pilot will be presented in May 2016 and clarified 23% of village population comes to be tested voluntarily.

Session 4: Migrants, mobile and hard to reach populations

Mr. Jorchai, a migrant community representative who works in the Myanmar side of the Thai-Myanmar border, explained malaria is quite common in his village. However he goes to the Thai side for treatment as it is closer – but it is still almost a one-day drive. He referred more support is needed and expressed the need for more protective measures like bed nets in his village. A Thai representative explained that when he comes to work in Thailand he is eligible for free bed nets. Mr. Jorchai's testimony highlighted the need to work on health education and provide information as well as supportive services for treatment in communities. It was evident that the barriers that migrant and mobile populations (MMPs) face in accessing health care services need to be addressed.

After Mr. Jorchai's testimony, the panel presented some of the approaches used for MMPs. It was highlighted we have to focus interventions on the needs and behaviours of each specific community instead of trying to set a package of interventions. All panelists agreed that in this specific case, one size does not fit all as different populations have different behaviours and consequently different needs.

Surveillance among these groups was identified as a key challenge. Examples from a cross-border project at the Cambodia-Lao border were reinforced by Health Poverty Action assessment results presentation on MMPs. An innovative way of quantifying the populations' movement was presented as a potential tool to address this knowledge gap.

Questions made by the audience helped clarify on Medical Action Myanmar presentation. It was explained they do give incentives per patient for mobile health workers. A publication is coming out shortly on costs for remote village workers (\$2000/year) for mobile village health workers (VHWs), most of the costs going to monitoring and training of VHWs. Frequency of monitoring can be reduced after people being trained properly. Some of the challenges related to the rainy season were also addressed (e.g. when up to four people are needed to carry motorbikes over streams). Besides, the need for integration of different treatments and diagnoses was also highlighted. However, this integration can only happen if there is easy diagnosis and relevance to malaria. In that sense malnutrition is a clear opportunity.

The integration was a focus of discussion as with the decrease in malaria cases, VMW's work may be scaled down but there will still be a need for surveillance and these workers are essential for that.

Day 2

Session 5: Behaviour change communication (BCC)

This session on BCC addressed the need to reinforce methods and tools for malaria elimination. Once again, the importance of the role that communities play in delivering these messages and translating them into practice was highlighted. BCC interventions not centered in communities' needs tend to produce little to no effect as they might not be understood by targeted populations.

Examples from Thailand and Malaysia reinforced this point. An overview on existing BCC issues and challenges addressed the need to engage communities throughout the process of raising awareness and effectively mobilise people for disease control and elimination. Lessons from HIV helped to support the core idea of tailored messages to specific needs of specific populations instead of delivering standardised approaches.

Questions from the audience mentioned the stigma that can be associated with testing for HIV in a clinic and how the message should be turned around from someone at risk to someone who is working to stop the spread of disease.

Session 6: Health Systems Strengthening and aligning resources for elimination

Session started with some examples of Malaria Consortium work projects in Africa where implementation is done at a large scale but with a clear focus in strengthening health systems.

Several presenters highlighted the need to be gradual in strengthening health systems specific to surveillance. For example, they stressed that if paper based systems themselves are not working, it is not ideal to go straight to mobile phone technology. Preference would be in cleaning and fixing the system before going to technological platforms. In addition, readiness and preparation were highlighted, especially in making sure that everything is in place, before jumping into technical platforms and modeling. Based on experience, presenters expressed opinion that even though they may be less expensive, basic phones are not as good as smart phones or tablets for use in surveillance or reporting purposes at the community.

Modeling can be used for community based-interventions in Thailand, however more complex models need good data. In Thailand, community health workers (CHWs) do not always have access to other ethnic groups, who have their own systems. Different places have different needs.

Session 7: Neglected Tropical Diseases

There are other infectious diseases which pose challenges in the region. For example, in 2015, Thailand experienced a significant increase in the reported cases of dengue with an increase of more than 50 percent in infections compared to 2012. With 15,412 dengue cases and 38 deaths in 2015 in Cambodia, and 97,476 reported cases and 61 deaths in Vietnam, according to the World Health Organization, this tropical disease is far from eliminated. The session was chaired by Dr Bill Hawley and covered several topics including management of severe malaria, dengue in the GMS - from assessments to implementation, NTDs in the GMS - Outlook, projects and future plans, "Base of the pyramid" marketing of mosquito repellents in Ghana and development of spatial repellent prototypes and Malaria in pregnancy in the GMS: major findings from report commissioned by PMI/CDC. Participants and presenters engaged in discussions: one of the emerging themes was that for dengue there has not been a great evidence for community-based vector control. Everyone called for better evidence and research studies along with better M&E.

Session 8: New tools and in e-health, m-health and diagnostics

Prof. Arjen Dondorp from MORU chaired this session that had a total of five interesting presentations that ranged from application developers talking about "Using open and innovative technology to help underserved communities in the context of malaria and NTDs" to "Design thinking, ideation and discovery: The process of turning an abstract concept into a practical application". Practitioners talked about "M-health and e-health in malaria elimination", "Efficacy of Bubble CPAP in the management of hypoxemic young children with severe pneumonia" and "Pneumonia Diagnostics Project Results and Way Forward." In the context of use of tools and technology in malaria elimination, there was an acknowledgement that it is important to work with plantations owners. Associations of migrants can be difficult to engage or constitute but farm/plantation owners are more reliable as contact points. If CHWs could be embedded in the plantations, it increases the quality of information received. It's also important to have a public/private mixed strategy, as the pharmacies have information on the patients that they sell to which is unavailable elsewhere. However, we need to be selective of who we choose to be partners, to make sure we get the right data. The session ended with an interactive exhibition on the tools and devices.

Session 9: Influencing malaria and health policy in the Asia Pacific Region

Dr Jeeraphat Sirichaisinthop from the Bureau of Vector Borne Diseases, Thailand led the session that had presenters from APLMA, USC, Malaria Consortium and Malaria No More who covered various interesting topics, such as "Uniting the region behind 2030", "National advocacy for malaria resource mobilisation: Bridging the gap between donor and domestic financing", "Turning Evidence into Policy" and "Best Practices in Health Advocacy Applicable to Malaria".

Presenters agreed that there is an urgent need to find more domestic resources for which the communities need to develop a domestic advocacy plan. GMS countries can't rely solely on international donors or taxation at the national level, especially in decentralised systems. Speaking on the limitations of advocacy needed to change policy, APLMA highlighted the need for partners to support them. Malaria Consortium shared experiences of how research leads to policy change and ways in which donors prefer proven interventions, adding the need to link advocacy to research programmes.

Session 10: Emerging disease outbreaks and threat to global security

The final session of the Second Asia Symposium was a panel discussion with GMS health policy makers, national programme managers, intergovernmental agencies, bilateral partners, technical agencies, iNGOs on what could be done in the Asia Pacific and GMS region. Dr John R. MacArthur, Director at CDC-TUC Thailand made a key note presentation on "Emerging Infections, threat to global security and health systems response", followed by a discussion and Q&A chaired by Robert Seabrook - Malaria Consortium Trustee.

The NMCP delegate from Vietnam mentioned that border collaboration is important in the context of health, but no clear example exists as a way forward and noted that there was more to be done to harmonise the work done by countries in the border areas. Malaysia has regulations established in terms of cross-border work, and they have regular meetings with neighbouring countries, mentioning both neighbouring countries need to place equal emphasis. Bangladesh said that there is a need to address agents, host, and the environment as without addressing either one of these elements, elimination cannot happen. However, doing that is hard without similar initiatives on the India/Myanmar side of the border.

Private sector delegates, represented by J&J mentioned the need to focus on the consumer. Programmes can have everything available for sale, but if the people in the village only have limited money to spend, what will they do? There is a need to develop a sustainable way to provide cheap, effective products that focus on the end user.

The EU delegate talked about the need to focus on building the social systems at the ground level. Focusing on vertical programmes doesn't work if you are going for eradication, you need to strengthen the system.

CDC-TUC commented about the interrelatedness in disease control across the borders. Middle-Eastern and Thai MERS patients came to Thailand in search of better health care - systems are important. Thai systems were strong enough to catch suspected cases. If we are going to truly eliminate we need to address health systems as a whole.

Closing the symposium, Malaria Consortium's Chief Executive, Charles Nelson, said that unless the participants follow up on the talks, things will likely not change for the better. Stressing on the efforts to continue, he mentioned that there is an urgency as it's not long before our current tools will be lost. There is a need for a health systems approach and to link to other diseases' management.

About Malaria Consortium: Malaria Consortium works with partners, including all levels of government, to improve the lives of all, especially the poorest and marginalised, in Africa and Asia. We target key health burdens, including malaria, pneumonia, dengue and neglected tropical diseases, along with other factors that impact child and maternal health.

For more information on the Symposium or this report, please contact Dr Siddhi Aryal, Malaria Consortium Asia Director, s.aryal@malariaconsortium.org



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