

Pending Questions from the

MESA Webinar 1 - Listening to the Community: Malaria from a Health System and Equity Perspective

Questions for Prof. Evelyn Korkor Ansah

1. Did you find good acceptability of RDT-negative results among the febrile clients seeking malaria treatment? Is there a good understanding of non-malarial fevers in the community?

Yes, we found generally good acceptability due to the fact that the movie we produced depicted 2 scenarios. A client who went to the shop and complained of fever and tested negative when the test was done, and another client with a complaint of fever who tested positive for malaria. In the case of the test-negative client, in the movie, he was told he had to be referred to the nearest health facility. We provided a standard referral form on which the shop attendant entered the test results of the client being referred. However, there may not have been 100% acceptance as a few clients were still dispensed an antimalarial after a negative malaria test.

2. How do you think the community will take it if the result is positive but there is no treatment available? Therefore, how are you planning to have a constant supply chain of RDTs and treatment for positive cases?

Antimalarials were and still are the most common over the counter medicine beyond analgesics in those drug shops. These were purely private and we had nothing to do with their drug supply. We did not interfere with it. They had their own existing supply chain. We only supplied the RDTs for free. However, in a subsequent study, the RDTs were sold at a cost that was determined through discussion with the community.

3. The intervention was designed by you and your team as researchers, and then you consulted with communities, and we expect that you received feedback from community members. I would like to hear more about your experience of having to adapt the intervention to locally identified concerns and expectations.

The intervention we had as a team was to "introduce the mRDT into drug retail shops in the intervention areas". The "how" of doing this was what we consulted the community for and engaged with them in order to do this in the way that would work best in the community. Without this consultation, one might have just trained the shop attendants and supplied them with the RDTs so that they test clients that reported to their shops but that may have caused a community upheaval because in the interaction we found that the community was also concerned about whether the test could pick up HIV positivity and this was addressed and re-assurance provided. Community members may have declined being tested and we would never have known why.

4. How different or similar was the approach to community engagement comparing the intervention with the control areas?

The shop attendants in the two areas all attended training organised by us on malaria, signs and symptoms, prevention and treatment.

Those in the intervention areas received one extra day of training which covered RDT testing and safe blood sample taking. So both groups received training. The interaction with community leaders happened in both areas and they were informed that some areas may carry out testing though we did not and indeed could not say where, as the cluster randomization was carried out later by a statistician in London and sent to us.

Questions for Thuan Thi Ngunyen

5. Vietnam borders with other countries, as stipulated in the introduction, is there any data that the malaria parasite comes from the other side?

Thank you for your question. The study I presented in the seminar is located in Bac Ai district of Ninh Thuan province. This location is far from the international border with Cambodia and Laos so malaria transmission is local.

In the forested and border areas located between Vietnam and Laos and Cambodia, there are several ethnic minorities and individuals who often cross the border lines for slash-and-burn and forest work. There are already publications on the issue of "border" malaria, below are publications by researchers at the Socio-Ecological Health Research Unit at ITM (previously named Medical Anthropology Unit) on how mobility contributed to limited effectiveness of vector control tools as well as health services intended to reach these sub-populations (open-access).

Extra Reading:

- Characterizing Types of Human Mobility to Inform Differential and Targeted Malaria Elimination Strategies in Northeast Cambodia (https://www.nature.com/articles/srep16837)
- Re-imagining malaria: heterogeneity of human and mosquito behaviour in relation to residual malaria transmission in Cambodia (https://link.springer.com/article/10.1186/s12936-015-0689-0)
- High Mobility and Low Use of Malaria Preventive Measures Among the Jarai Male Youth Along the Cambodia–Vietnam Border (https://www.aitmh.org/view/journals/tpmd/93/4/article-p810.xml)
- 6. Did you think about using plays or videos, as in Evelyn's presentations, in local languages to improve the malaria knowledge? Would it be useful?

Health IEC is expected to help increase uptake of service, but as demonstrated in the study in Bac Ai, several other challenges, i.e. mobility, slash-and-burn farming, living conditions in the forest field (no electricity, little or no mobile phone coverage etc), far distance to public health facilities constrained access to and uptake of public health interventions. At the Socio-Ecological Health Research Unit at ITM (previously named Medical Anthropology Unit), researchers have developed the PASS model, a holistic theoretical approach to health seeking behavior and access to care (that includes a section on knowledge and practice). Please find details of the PASS model in the following paper: "The PASS-model: a model for guiding health-seeking behavior and access to care research" (https://doi.org/10.4081/malaria.2012.e3).

7. You highlighted that efforts to reduce exposure to malaria vectors should not be limited to just providing community members with the tools (such as better housing, bed nets etc). There are in fact factors linked to the livelihoods of community members that are quite complex to understand. What kind of recommendations do you have for malaria control programs, which mostly focus on the mere uptake of the technologies?

I think the application of (bio)technologies to solve the problem of persistent malaria will need to take into account how different stakeholders and the target population understand, perceive the meanings of the technology and actually use the technologies. Marginalized populations and stakeholders working with these populations might have different ways of interpreting and using the technology that are different from intended purposes and uses by the technology designer/developer (see papers from 1-3, on G6PD testing in Vietnam and Bangladesh and trial on topical mosquito repellent in addition to LLINs in Cambodia). In addition, without properly understanding and accounting for the local factors, and relevant methodological approach and measurement of LLIN in mobile populations, vector control strategies and overall malaria control strategies could run the risk of pseudo measurements (See papers from 4-6 on traditional nets in Peru, Heterogeneity of human and mosquito behaviour + A critical enquiry into variability of insecticidal net use in Cambodia, Misdirection in malaria control). The situation of persistent malaria in Vietnam is not the lack of public health service, but rather the service is not inclusive and accessible to all target populations, whose demographic characteristics are varied. On theoretical models to health seeking behavior and access to care (See the paper on the PASS model, "The PASS-model: a model for guiding health-seeking behavior and access to care research" (https://doi.org/10.4081/malaria.2012.e3).

Extra Reading:

- Diagnostic Practices and Treatment for P. vivax in the InterEthnic Therapeutic Encounter of South-Central Vietnam: A Mixed-Methods Study (https://www.mdpi.com/2076-0817/10/1/26)
- Precarity at the Margins of Malaria Control in the Chittagong Hill Tracts in Bangladesh: A Mixed-Methods Study (https://www.mdpi.com/2076-0817/9/10/840/htm)
- Factors influencing the use of topical repellents: implications for the effectiveness of malaria elimination strategies (https://www.nature.com/articles/srep16847)
- Traditional Nets Interfere with the Uptake of Long-Lasting Insecticidal Nets in the Peruvian Amazon: The Relevance of Net Preference for Achieving High Coverage and Use (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0050294)
- Re-imagining malaria: heterogeneity of human and mosquito behaviour in relation to residual malaria transmission in Cambodia (https://link.springer.com/article/10.1186/s12936-015-0689-0)
- Misdirection in the margins of malaria elimination methods
 (https://www.tandfonline.com/doi/full/10.1080/09581596.2019.1597965?scroll=top&needAccess=true)
- 8. Bednet coverage and consistency in use is much higher in the new village compared to the old village. this is impressive, however how to sustain this outcome, given that the people are constantly going back to their old homes near the forest?

Thank you for your question. It is key for malaria elimination strategies in the population like the Ra-glai to ensure effective interruption of vector-human transmission in both the new and old village. People do not "go to the forest", they live there. While ensuring high LLIN, IRS in the new village is important, additional attention should be given to effective vector control in the old village where people live, exposure is high, and is the source of "forest malaria". In the context of outdoor transmission in Vietnam, vector control tools are needed to be adapted to and practical for people when they live, move, and work in the forest. These adapted tools will have to take into consideration outdoor transmission and that when staying in the old village, the difference between indoors and outdoors is very clear as the house has open-structured that allows mosquitos to fly in and out easily. In addition, to sustain high acceptance and use of LLINs or LLHN, the population needs to be sensitised of the benefits of using these tools correctly to protect their health. In the Socio-Ecological Health Research Unit at ITM (previously named Medical Anthropology Unit), researchers have developed a theoretical model for health seeking behavior and access to care, with details on acceptability and an example of acceptability categories for bednets. Please see the paper attached.