Editorial

# Malaria vaccines as prevention strategies: for more studies on community perception

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Proper implementation of efficient malaria control tools is essential to program success and public health. Millions of lives are affected annually due to the disease, and despite widespread treatment and prevention efforts, malaria remains a scourge on the African continent[1]. Important strategies to prevent the disease involve (1) use of vector control measures, such as insecticide-treated nets (ITN) or indoor residual spray (IRS) and (2) the development of vaccines that protect humans or reduce transmission. Successful implementation of these strategies can result in significant malaria reduction[2], but this requires careful consideration of the communities in which these strategies are implemented. A deep understanding of community perceptions and expectations is fundamental to crafting an effective malaria reduction strategy.

In his paper published in the Malawi Medical Journal, Parker et al. addresses important questions regarding the assessment of community perception in malaria-endemic areas. The authors discussed the practical limitations of bed net usage based on common behaviors that perhaps were not considered during program design; for example, in the evening, many community members chat with neighbors outside prior to going to bed, and despite proper bed net usage, they can still contract malaria. This may foster the perception that ITNs are ineffective. Further, understanding community perceptions will not only identify challenges and limitations, but may also reveal possible improvements, solutions, and alternative strategies. One common perception is that insect repellents could be provided for routine use by the community, and not just by tourists. In addition, engaged community members are ultimately responsible for social mobilization, increasing public awareness, and education on prevention efforts.

While several studies have evaluated community perception on vector control, a strategy successfully implemented in the field, few have analyzed the acceptability of malaria vaccines, a much newer approach for malaria control and eradication. Many types of malaria vaccines are currently under development and several are being tested in clinical trials[3], but some questions related to malaria vaccines need evaluation. Among the three countries selected for pilot implementation of RTS,S vaccine, Ghana and Kenya have published studies assessing community perceptions of malaria vaccines[4,5] and studies in Malawi will be similarly important.

Intramuscular delivery of malaria vaccines is generally well-accepted[6], but the protection achieved by this route is relatively modest and short-lived[7]. In contrast, intravenous delivery may confer a higher level of protection[8,9] but we still do not know how communities view the implementation of an intravenous vaccine. Several questions need to be addressed in future studies of malaria vaccines: can the community understand, accept, and promote the idea of receiving a whole organism vaccine? What do people in endemic areas think about vaccines made with genetically attenuated parasites? Are they receptive to the idea of receiving a transmission-blocking vaccine that can protect the community, but not themselves directly? Listening to the community can improve the strategies already implemented or in development. Let's hear what they have to say.

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