



Pending Questions from the MESA Webinar 2 - **New Approaches to Improve Malaria Mosquito Surveillance and Control**

Questions for Mercy Opiyo

- 1. Was the difference in household modifications due to the smell of Actellic compared to the zero odour of SumiShield?**

This could be one of the reasons for the differences as Actellic has a very strong smell compared to SumiShield.

- 2. How are you finding community entomology surveillance? What are the main goals achieved/errors/things to improve?**

I am not quite sure if I understand the question. But from what I understand, entomology surveillance is very important to tell us what is going on within the communities. I think now most surveillance programs are quite limited to what they monitor. For instance, the majority of them use routine and a narrow array of sampling tools that may miss a lot of changes in vector behaviors in the communities, under sample or even miss some species. So expanding sampling tools within the programmatic levels needs to be encouraged and tailored to what works for each setting or even regions.

- 3. Now that you have established that people are likely to modify walls after IRS deployment, and this affects IRS efficacy, what are you doing to counter this?**

This is a good question. So first, after deployment of IRS, I think assessing the household wall management can be included in programmatic National Malaria Control Programme monitoring and evaluation. This will also allow us to know where the problem persists.

Second, promoting community awareness may in part minimise these household modifications that inadvertently diminish IRS protective effects, and hence greatly improve the expanded benefit of IRS for a community.

- 4. Thank you for highlighting the importance of human behavior in sustaining coverage of vector control. In your perspective, to what extent is it possible/reasonable to change post-spray behavior or do we need to be thinking more about improving IRS and how we monitor coverage? If it is possible to change post-spray behavior, what approach might you suggest?**

This is a very good question. Community behavior can be quite complex. We could think about it in various ways, as you mentioned already improving IRS and delivery ways that is more acceptable to the communities, having communities on board in the very early stages of development of these products to collect their opinions and what they would like to use us the most, and last if we have to improve the impact of any intervention, we have to make sure that we monitor how the coverage changes within different communities and how such changes affect the targeted disease. Regarding post spray behavior, this is a very great question and myself not being a social scientist, I would like to collaborate more with them to understand how this can be done better, but again listening to community's needs is the best way to improve all as they are the ones who use these interventions.

- 5. How do you know that transmission is outdoor or indoor?**

Great question. This could be looked at in different ways. If most vectors are biting outside and the proportion of exposure is significantly higher than indoors, then it can be concluded that transmission is also ongoing outdoors. But also we can look at it in terms of vectors we are dealing with in a particular community, if we have vectors that are biting mostly outside houses in this case or at times, and at the same time they are efficient in carrying and transmitting the parasites, then as well we could argue that there is outdoor transmission.