

VCWG work stream 1  
 Annual Meeting, session 3 – May 3, 2022  
 Q&A in chat function

Note: <i>Questions and responses may have been edited for clarity.</i>	
Session 1: Using data for the optimal selection of IRS and ITNs - National Malaria Program and donor experience and considerations	
Presentation 1: Using data for the optimal selection of IRS and ITNs, presented by Otubea Owusu Akrofi, NMCP Ghana	
Questions	Replies
<p><u>Border Areas</u>            From John Invest - Sumitomo - UK to Everyone 09:28 AM            It seems in Ghana that a lot of the malaria is in border areas, does this not create a big problem?</p> <p>From David Gittelman to Everyone 09:33 AM            Does Ghana coordinate its ITN distribution strategies and share its ITN coverage data with its neighbors Togo, Cote-d'Ivoire and Burkina Faso? If so, how is this done?</p>	<p>It is something we do not yet focus on. We have people coming in from other points, and in many cases populations speak similar languages and do similar things across the border. So invariably we end up covering them to an extent. What we need to do better is to look at this from the higher level where we look at the interventions we have in place and try to have interventions that would work for all the areas.</p>
<p><u>How do you use data to monitor interventions and to change strategy?</u>            From Joe Wagman to Everyone 09:34 AM            Great presentation, Otubea! Was there any discussion of changing which districts were targeted with IRS based on the more detailed risk stratification maps?</p> <p>From Charles Mbogo to Everyone 09:33 AM            What kind of data do you use in the selection of vector control interventions?</p> <p>From Philip Okoko to Everyone 09:32 AM            Since you have limited provision of intervention to just one type per district, what happens if the intervention provided is not driving cases down (kind of an equilibrium)? Would it not make more sense to provide a mix of interventions in such areas to improve outcome/impact?</p> <p>From Richard Reithinger, RTI to Everyone 09:40 AM            Great ppt Otubea. How is Ghana monitoring impact of interventions? Routine HMIS (DHIS2) data and MIS/DHS, or do you do additional post-campaign surveys? Also, how is next year's intervention targeting being influenced by the impact data that you are observing?</p>	<p>Ghana has 30 sentinel sites, and these sites serve as the same sites for both epi and ento data. We take data from these sites monthly and look at the data quarterly. If there is a need to change, we do not switch to another intervention, we think about which insecticide would work better than what is currently being put in place. Review the potential need to change the choice of insecticide. Intervention choice would be looked at after implementing our 2021 to 2025 strategic plan, seeing how far we have gone and then can make those bigger changes.</p>

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<p><u>On mixing interventions</u> From Corine Ngufor to Everyone 09:33 AM Good data and presentation from NMCP Ghana. Do you have any policy to define what type of ITN you combine with what type of IRS? Evidence shows that some combinations of ITNs and IRS may be counterproductive. Do you plan to take that into consideration?</p> <p>Question for presentation 2 from Malawi From Corine Ngufor to Everyone 09:33 AM Malawi: Do you have any concerns over mixing ITN types in the same communities?</p> <p>Question for presentation 4 from the Global Fund From Corine Ngufor to Everyone 10:12 AM Kate. In what countries do you currently support overlaying of IRS and ITNs. Is the combination of ITN and IRS product type taken into consideration?</p>	<p>Ghana: We do not mix IRS with ITNs. What we do is that if we put in for example a mass campaign with new nets in an area, we try to ensure that those new nets go through all channels, including the continuous distribution channels as well so that types are not mixed.</p> <p>PMI technical guidance describes not combining active ingredients to reduce efficacy. Link shared: <a href="https://www.pmi.gov/public_pmi-fy2023-technical-guidance_508_031722/">https://www.pmi.gov/public_pmi-fy2023-technical-guidance_508_031722/</a></p>
<p>From Chrispin to Everyone 09:34 AM Ghana malaria cases seem to be high from the eastern part, are there continuous vector control intervention in these areas that are marked dark red? What's the frequency of entomological surveillance?</p>	<p>A reply to these questions is unavailable at this time.</p>
<p>From Ole Skovmand to Everyone 09:22 AM Question to Ghana/ the program planned a reduction of malaria cases of 90% from 2019 to 2025, how far have you got by now when 50 % of that time has passed?</p>	
<p>Presentation 2: Malawi presentation on use of data to deploy vector control interventions, presented by Michael Kayange, Malawi NMCP</p>	
<p>Questions</p>	<p>Replies</p>
<p><u>PBO nets in following years &amp; collation with coverage data:</u> From Mark Hoppé to Everyone 09:45 AM It would be interesting to see the impact of the PBO nets in the second year after deployment.</p> <p>From Ole Skovmand to Everyone 09:45 AM and especially in 3rd year, if they are still there.</p> <p>From Maria to Everyone 09:49 AM Thank you Dr. Kayange. Following the 2018 campaign, aside from noting the higher malaria cases in districts that received</p>	<p>Yes, we monitored the impact the year after the mass distribution. What we have seen is that there is a significant impact on malaria incidence reduction within the first year after net distribution, we see an all over 50% reduction and the second year we start to lose that impact and by the third year we completely lose the impact. We did investigate to find out what is happening and through durability monitoring we found that nets could last for 2 years. We looked at intervention and found that we do a lot of community engagement, interpersonal communication through door-to-door household visits as we</p>

VCWG work stream 1  
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<p>pyrethroid nets were you able to collate this with post campaign use studies in these areas?</p>	<p>do the household registration, during which we pass on the malaria prevention messages. These are quite key in trying to stimulate behavior change during ITN distribution and that is why we see high net usage and a huge decline in malaria cases. During the second year, this engagement is not supported financially and see loss of the impact. And during third year we do not see any impact at all. Other studies including MIS and malaria behavior survey show attrition of over 80%, in line with durability monitoring that nets are not lasting three years. Based on this, as a country we have decided to continue with net mass distribution every two years.</p>
<p><b>Ento monitoring</b>        From Philip Okoko to Everyone 09:50 AM        Great presentation Michael! Was wondering what you take into consideration in establishing new entomological sites in the country?</p> <p>From Chrispin to Everyone 09:49 AM        Great Presentation Malawi. Is the distribution of the 13 sentinel sites geographically representative of the country?</p>	<p>A reply to these questions is unavailable at this time.</p>
<p>From John Invest - Sumitomo - UK to Everyone 09:41 AM        Presumably in Malawi pyrethroids are still widely used in consumer products??</p> <p>From Ioana Ursu to Everyone 09:45 AM        Given the results of the pyrethroid nets, and the limited resources, moving forward are you likely to have to sacrifice coverage to use PBO and Dual nets?</p> <p>From Tom McLean to Everyone 09:52 AM        Michael thanks for excellent presentation from Malawi. I am interested in your comment that you would prefer to deploy more IRS. Please can you explain why you would prefer this?</p>	
<p>Presentation 3: Data use for Vector Control Deployment: A Global Perspective, presented by Lilia Gerberg, PMI</p>	
<p>Questions</p>	<p>Replies</p>
<p>From Kate Kolaczinski duplicate to Everyone 09:59 AM @Lilia - or anyone on the line from the Zambia programme - interested to know if</p>	<p>Note: As the GRZ was not present during the meeting, a reply regarding their plans with respect to DDT is not available.</p>

VCWG work stream 1  
Annual Meeting, session 3 – May 3, 2022  
Q&A in chat function

<p>there is any on-going thinking about whether to move away from DDT use, or if the plan is to continue. And if to continue, is the main justification the need to include an additional mode of action in the rotation plan?</p>	<p>From a PMI perspective, in 2020 and 2021 PMI provided technical assistance to GRZ IRS programs which included the spraying of DDT. However, it is unclear if the GRZ will continue to include DDT as an insecticide rotation option due to various challenges. PMI has been supporting use of organophosphate products since 2012 and clothianidin products since 2019.</p>
<p><b>Presentation 4: Intervention and product selection by country programmes with Global Fund grants, presented by Kate Kolaczinski and Htin Kyaw Thu</b></p>	
<p><b>Questions</b></p>	<p><b>Replies</b></p>
<p>@Htin: Is GF supporting procurement of larvicides in any country?</p>	<p>A reply to this question is unavailable at this time.</p>
<p><b>Session 2: Technical updates Teams 1 &amp; 2: Using data to inform optimal selection and deployment of core interventions and addressing biological threats</b></p>	
<p><b>Presentation 1: Defining malaria operational research priorities for sub-Saharan Africa, presented by Roger Tine, PMI Insights</b></p>	
<p>El Hadji Amadou Niang: To Pr Roger Tine: Which counties NMCPs were involved in this assessment? And how comparative were there challenges?</p>	<p>PMI Insights: Altogether, 14 NMPs from the following countries were involved in the stakeholder consultation process: Benin, Burkina Faso, DRC, Ghana, Kenya, Liberia, Madagascar, Mozambique, Nigeria, Rwanda, Senegal, Uganda, Zambia, and Zimbabwe.</p> <p>In the forthcoming report, we highlight the most commonly reported challenges in malaria control and elimination implementation, across the different thematic areas (e.g., prevention, chemoprevention, case management, SBC, SME, etc.). For the research priorities that emerged out of this process, we only included topics that were identified by at least 3 NMCPs and/or malaria-endemic research institutions as priority research topics or that were identified by at least 3 of the different stakeholder groups that were engaged in the consultation process. Altogether 33 research priorities were identified through the stakeholder consultation process and then went through the external evaluation process to help with ranking the priorities.</p>
<p><b>Presentations 2&amp;3: NNP interim results, updates from pilot evaluations in Rwanda and Nigeria, presented by Dr Aimable Mbituyumuremyi and Okefu Ohoji Okoko</b></p>	
<p>Ole Skovmand: Is the 13% extra reduction with G2 significant different to that of the standard nets?</p>	<p>Aimable Mbituyumuremyi: Yes, the 13 % reduction is an extra reduction compared to standard.</p>

VCWG work stream 1  
 Annual Meeting, session 3 – May 3, 2022  
 Q&A in chat function

	<p>Joe Wagman: The final analyses will evaluate the statistical significance of the differences. It will be especially interesting to interpret the statistical significance in Rwanda, which was the lowest burden setting of all the New Nets Project pilot studies.</p>
<p>David Gittelman: On human behavior findings in Rwanda, did reported irritation from chemicals and difficulty breathing while using new nets differ substantially from previous reports in using standard nets, if those data are available?</p> <ul style="list-style-type: none"> <li>○ April Monroe: Great question, David! And thank you Philip for the nice presentation. I had a similar question - were there any differences in how participants experienced/used the new nets compared to previous ones they've had?</li> </ul>	<p>Aimable Mbituyumuremyi: Irritation, skin rash, difficulties in breathing were reported with all types of nets.</p> <p>Differences in the use and experience of nets were mainly related to design features of the nets. Qualitative results from Rwanda show that most participants favored conical nets that were distributed in previous campaigns compared to the rectangular nets distributed in 2020. Many participants found that rectangular nets were harder to hang compared to conical nets, though the difficulties in hanging their nets did not inhibit use in most cases. Some respondents also mentioned preferring blue nets received prior to 2020 because they did not show as much dirt. This may have led to more frequent washing because participants described deciding when to wash their nets in part based on cleanliness.</p>
<p>Olivier Bret: Dr Aimable, thanks very much for the very nice presentation. My question is regarding the aim to compare cost-effectiveness between two net types (and IRS+nets). Did you consider a cluster-randomized trial instead of a design of one district per intervention type to measure effect? For example, the difference in proportions of <i>An. gambiae</i> and <i>An. funestus</i> between the districts could bias results.</p>	<p>Joe Wagman: Not in these pilot evaluation settings, no. The goal was to complement the efficacy results from the two ongoing CRTs (one in Tanzania and one in Benin) with operational effectiveness data from several pilots. Though the biases inherent in the ecological/observational study designs will be important to consider when interpreting results, they should be more reflective of 'real world' implementation scenarios and provide useful guidance to NMCPs in a broader range of transmission settings.</p>
<p><b>Overall Q</b></p>	
<p>Sian Clarke: Here is a question that I used to follow but have now lost track: ITNs were initially welcomed because they conspicuously killed 100% of bedbugs in a couple of days. Bedbug resistance to pyrethroids was reported a while ago: has it spread and is it</p>	<p>Hannah Koenker: There are some reports of ITN disuse because of increased bedbug activity. A few of the durability monitoring activities are now monitoring bedbug presence to see if we can get more quantifiable results from a number of locations.</p>

VCWG work stream 1  
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Q&A in chat function

<p>causing a problem? Will it be a reason why people like new-a.i. nets?</p>	<p>Joe Wagman: Preliminary qualitative results from the pilots include a few statements that bed nets protected from bed bugs and a few statements that they brought/were not effective against bed bugs. It doesn't seem like this will be a reason that people avoid new ITN types, but it is something worth monitoring.</p>
<p>Session 3: Technical updates, Teams 3 &amp; 4: Capacity building, localization, and private sector involvement for sustainable vector control and Addressing non-biological threats</p>	
<p>Presentation 1: Capacity building, localization, and private sector involvement for sustainable vector control, presented by Samuel Asiedu</p>	
<p>10:37:51 From Joe Wagman to Everyone: Another great example of private-sector involvement with Malaria Control and Elimination programming is Goodbye Malaria in South Africa and Mozambique.</p>	<p>Mary Kante: Thanks @Joe, appreciate the suggestion. We are beginning work on Team 3 objectives and we will connect with them as well.</p>
<p>10:38:51 From El Hadji Amadou Niang to Everyone: Any lesson sharing on how to sensitize and get private sector to get involved and support National Malaria control efforts?</p> <p>10:40:35 From JMiller to Everyone: Great to see the list of many private sector activities-where can we find out more? Is there a website or another touch point? Thanks Samuel</p>	<p>Mary Kante: Thank you El Hadji Amadou, Janee, and Levi for these questions. We are beginning the exploration of how we can best support private sector involvement. One thought is that we should organize a smaller dedicated discussion this year.</p>
<p>10:41:34 From D. Levi Hinnah to Everyone: Do we have any mechanism for VC PS programs development?</p>	
<p>10:44:25 From Michael Macdonald to Everyone: For NGOs working in emergency relief the very detailed environmental assessments and pesticide safe use plans required by some donors for IRS is a very high bar where they need technical support.</p>	<p>Michael Macdonald: <a href="https://endmalaria.org/vector-control-humanitarian-emergencies">https://endmalaria.org/vector-control-humanitarian-emergencies</a></p>
<p>Presentation 2: Raising the floor on nets update and marginal willingness-to-pay for a more durable net analysis, presented by Eddie Thomsen and Amanda McCoy</p>	
<p>10:55:18 From Ole Skovmand to Everyone: question to McCoy: a more durable net may be heavier, how much will that impact your distribution costs?</p>	<p>Amanda McCoy: So far we have used very generalized distribution costs (Wisniewsky et al), and it would be great if we could obtain additional information on more specific distribution costs in different countries, including the impact of heavier nets.</p> <p>We would also like to be able to factor in other costs (quality assurance and any other</p>

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 Annual Meeting, session 3 – May 3, 2022  
 Q&A in chat function

	<p>costs occurred once the nets reach the country, not accounted for in figures for distribution costs.          Would be grateful for any suggestion on where we might find further information.</p>
<p>10:56:52 From David McGuire, IVCC/NNP to Everyone: Hopefully the discussion around improved durability will also consider issues around user-centered design. Increased physical durability could actually lead to reduced use if nets become less attractive (i.e., less soft to touch, harder to hang/tie up, etc.). Also it may be that depending on how people are using and caring for their nets could lead to more targeted reinforcement rather than applying improvements to the entire net, which could minimize price increases. Let's consider the users and not just focus on the performance of nets in the lab.</p>	<p>Amanda McCoy: Thank you very much this is really useful feedback. We look forward to following up to get further inputs from you on this once we've made some additional progress. This is exactly the sort of thing we need further information on.</p>
<p>10:56:53 From Olivier Briet to Everyone: Amanda, did you also consider increased durability in terms of proportional increase in retention time rather than in absolute months? E.g. 8% increase in retention time (leading to 1 month extra for Sudan, and several months at the other end of the spectrum).</p>	<p>Amanda McCoy: We haven't yet, thank you very much for the suggestion.</p>
<p>10:57:16 From John Invest - Sumitomo - UK to Everyone: Price vs durability ... so theoretical. Durability varies from country to country anyway and generalisation is dangerous.</p>	<p>Amanda McCoy: Yes absolutely agree and that's exactly why the retention data from Bertozzi-Vila et al, as well as our own price data from PMI and PQR are key inputs (with real life data).</p>
<p>10:59:03 From Derric Nimmo to Everyone: This is great data. It would be a good idea to get an idea from manufacturers whether these prices are realistic.</p>	<p>Amanda McCoy: We would love to hear manufacturer feedback on realistic prices of making nets more durable.</p>