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VECTOR)WORKS

Scaling Up Vector Control for Malaria Prevention

VectorWorks Mozambique Annual Report – Year 1

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Background

VectorWorks is a five-year global malaria prevention project, funded by the President's Malaria Initiative (PMI). The purpose of the VectorWorks project is to support countries to achieve and maintain high levels of coverage and use of long-lasting insecticide-treated mosquito nets (ITNs) as well as to facilitate the adoption of proven alternative vector management interventions, including those targeting specific sites or populations. VectorWorks activities focus on three main areas: policy, monitoring and evaluation, and implementation support.

Project Objectives

Objective 1: Policy—Develop and promote policies at both the international and national levels to encourage sustained, high levels of coverage and use of ITNs and/or alternative vector management interventions.

Objective 2: Monitoring and Evaluation—Design, conduct and analyze results from monitoring, evaluation and operational research activities in order to improve current best practices of ITNs and/or alternative vector management interventions.

Objective 3: Implementation—Promote and support country-level implementation of malaria prevention activities to ensure sustained high levels of coverage and use of ITNs and, as needed, targeted coverage and appropriate use of alternative vector management interventions.

Summary of Activities

Challenges: The most significant challenge faced this year was the delay in net distribution in Inhambane and Nampula Provinces, due to the delayed signing of the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) New Funding Model. Distribution was expected for June/July and was finally implemented in October 2015. The project also faced a long review process by the local institutional review board (IRB) within the Instituto Nacional de Saúde (INS); despite submitting the protocol in April, VectorWorks received final approval in October. The project was fortunate, in a sense, that the delays in distribution timing accommodated the lengthy IRB process.

Overall, VectorWorks assisted the National Malaria Control Program (NMCP) in consolidating a schedule of ITN distribution to begin in 2016, maximizing ITN coverage as well as value for money by rationalizing a rolling mass campaign schedule. Despite initial delays in the durability monitoring, the first round of monitoring is now on track and within the six-month window for all three sites, and the efforts put into development of the Mozambique monitoring protocol and tool development are serving as examples for other PMI countries, via the PMI Durability Monitoring Toolkit. We expect this to continue going forward in Year 2.

Context

In 2014, Mozambique began distribution of more than 7 million nets, roughly 2 million of which are expected to be distributed in early 2015. The Technical Review Panel reviewed Mozambique's concept note to the Global Fund in late November 2014; a preliminary review indicated that a more specific ITN distribution strategy would be needed to qualify for incremental funding to cover the nationwide distribution of ITNs in 2017.

At the same time, Mozambique is beginning durability monitoring of ITNs per updated technical guidance from PMI. Mozambique's geography and transmission zones vary from hot and high transmission in the north, to drier desert areas in the inland provinces, to lower transmission areas in the south. ITNs may not have the same longevity in each context.

Finally, Mozambique has been implementing indoor residual spraying (IRS) in urban areas and select districts throughout the country. The updated concept note to the Global Fund will indicate that IRS and ITN distribution will no longer be conducted in the same areas. However, more evidence is needed to convince all stakeholders that one intervention or the other is most appropriate in a given area, based on transmission intensity as well as user acceptability.

MZ.1 Technical Assistance for ITN Strategy Update (JHUCCP)

Progress Report: VectorWorks facilitated a 1.5-day workshop to assist Mozambique's NMCP and its implementing partners in clarifying their ITN strategy for the next three years. The workshop was conducted in response to anticipated questions from the Global Fund Technical Review Panel about how exactly nets would be delivered. Since 2011, Mozambique has distributed ITNs district by district, as funding has been made available. This has resulted in piecemeal coverage of the country, with a larger batch of 7.6 million nets distributed most recently in 2014 and during the next few months.

Discussions during the workshop centered around trying to maximize protection throughout the country, especially in high-transmission areas in the north, and on the feasibility of undertaking a large-scale campaign in 2017 to replace nets that were distributed in 2014. NMCP, implementing partners and donor representatives all participated fully. At the end of the workshop, it was determined in consensus that the 15 districts that received ITNs in 2012 would have them replaced in 2015, using the available Global Fund allocation. It was also determined that Nampula Province would replace its nets in 2016; this would kick off the national campaign, which would continue in 2017. This plan allows for maximizing coverage throughout the country, while minimizing repetitive distributions to approximately 270,000 people in 2016 within Nampula.

VectorWorks also reviewed the April 2013 NetCALC workshop results with participants and updated the NetCALC model to reflect the consensus way forward and options for beginning a potential school channel for net distribution after the 2017 national campaign. In updating the NetCALC parameters, VectorWorks found that school dropout rates in Mozambique were very high (70 percent). This makes the previously recommended school channel more operationally challenging. VectorWorks agreed with the workshop participants that conducting mass campaigns, strengthening antenatal care distribution (ongoing for two

years) and beginning Expanded Programme on Immunization distribution are likely the most feasible ways forward; these channels also will protect vulnerable groups between distributions.

An important consideration in all scenarios of distribution strategies is the question of effective or functional durability of the distributed ITNs in the context of Mozambique, which should be done following the most recently recommended methodology for durability monitoring of campaign distributions. Accordingly, a study protocol and tools for durability monitoring have been finalized; these materials are in preparation for ethical approval locally and at Johns Hopkins University (JHU).

Plans for Quarter 3 and Quarter 4: This activity has been completed and there are no further plans for Quarters 3 and 4.

Status of Deliverables:

Deliverables	Q1	Q2	Q3	Q4	Status
Trip report	X				Completed
Draft and final recommendations/responses to the Global Fund Technical Review Panel	X				Completed
Presentations from the workshop	X				Completed

MZ.2 ITN Durability Monitoring (Tropical Health)

Progress Report: VectorWorks designed durability monitoring for ITNs in three sites across Mozambique: Tete, Inhambane and Nampula Provinces, where ITN distribution occurred in May 2015 (Tete) and October 2015, to maximize potential differences in environment and net use practices. Ethical approval from JHU and INS was obtained in late October 2015, in time for training and fieldwork in Year 2. This has allowed the first round of durability monitoring to occur within the required six-month window post-distribution.

VectorWorks is working through its primary monitoring and evaluation partner, Tropical Health, and also capitalizing on the strong infrastructure and local knowledge of INS, the research body of the Ministry of Health. VectorWorks will strengthen capacity at INS by involving staff in protocol development, field team training and supervision and analysis, where possible.

In May, Tropical Health made a preparatory visit to Mozambique. Albert Kilian met with co-investigators Ana Paula Abilio of INS and PMI field teams, established working relations with all study partners (especially NMCP and INS), and clarified roles and responsibilities in planning, implementation and analysis/reporting. Following this visit, Tropical Health drafted a plan for strengthening capacity through monitoring—NMCP and INS staff will serve as coordinators, supervisors and data collectors for the fieldwork. Coordinators and key NMCP and INS staff will also be involved in the process of sampling data cleaning and analysis so that in the future they can undertake these monitoring activities on their own.

Tropical Health developed a number of tools in the preparation of the monitoring that will not only serve the Mozambique teams but will also be useful for other PMI countries undertaking durability monitoring.

The main tool is a digital data entry system for smartphones or tablet PCs based on the open source Open Data Kit developed by researchers of the University of Washington (USA). The system is flexible enough to allow easy data entry with the necessary relational database creating separate data output for households, household members and nets, and it can easily adapt to local needs. Because it allows multiple data entry languages, the same file system can be used in different PMI countries. Other tools include an Excel spreadsheet to facilitate easy and quick population proportionate sampling of clusters and a detailed operational budget template.

Plans for Year 2: The first round of monitoring will take place in mid-November 2015. Monitoring will start with a week of training for coordinators and data collectors from the first province, followed by two separate local trainings in the other two provinces. After this, fieldwork will simultaneously start in all three provinces with the Tropical Health team in presence at least for the first few days. The coordinators will upload data from the tablet PCs daily to a secure cloud-based folder for each province, and check it immediately for data quality. After fieldwork, the Tropical Health team will collate and analyze the data, and share the report on first-round results with PMI and NMCP.

The major priorities for Year 2 will be to:

- Ensure that emphasis is put on strengthening capacity during all phases of durability monitoring
- Prepare logistics for the initial training and data collection
- Ensure high-quality fieldwork for the initial establishment of the ITN monitoring cohorts
- Analyze the initial data and disseminate the baseline study report
- Prepare for 12-month monitoring rounds in May (Tete) and October (Inhambane and Nampula)
- Prepare the data analysis workshop with the first round of monitoring data. This will most likely take place early 2016 after finding a date suitable for all participants.

It is expected that the durability monitoring will not produce reliable and actionable results until at least the Year 2 data are available in early 2017.

Status of Deliverables:

Deliverables	Q1	Q2	Q3	Q4	Status
Durability monitoring protocol and research tools		X			Final local and JHU approval received October 2015
Schedule of fieldwork			X		Completed in Q4
Six-month survey report				X	Not completed due to distribution delays; will be done Q2 of Y2
A data dissemination/analysis workshop				X	Not completed due to distribution delays; moved to early 2016

MZ.3 Data Dissemination and Translation

Progress Report: Due to delays in ITN distribution in Nampula and Inhambane, the first round of monitoring is taking place in November 2015, and thus this activity is being moved to January 2016.

Plans for Year 2: In early 2016 VectorWorks will conduct a data dissemination workshop to release preliminary results from the durability study. The project also will work with INS and partners in a hands-on analysis workshop. We will go through methods of analysis and data preparation for producing succinct reports from the durability monitoring data. Translation costs for written documents and reports are included in this activity, including simultaneous translation as needed. The exact date will be agreed with NMCP and INS after the baseline data collection is finished.

Status of Deliverables:

Deliverables	Q1	Q2	Q3	Q4	Status
Workshop agenda and report				X	Not completed due to distribution delays
Translated documents				X	Not completed due to distribution delays

Project Management

MZ.PM.1 Work Plan and Reporting

Progress Report: VectorWorks' Year 1 work plan was approved by PMI on February 20, 2015. Quarterly financial reports and semiannual progress reports have been submitted on time.

Plans for Year 2: VectorWorks is in the process of submitting the Year 2 workplan, which was delayed pending confirmation of field support funding amounts and scope of work.

Status of Deliverables:

Deliverables	Q1	Q2	Q3	Q4	Status
Year 1 annual work plan and Mozambique-specific project management plan approved by PMI Mozambique		X			Completed
Quarterly financial reports	X	X	X		Completed
Semiannual progress report			X		Completed

MZ.PM.2 Supervision

Progress Report: Due to delays in ITN distribution and subsequent delays in data collection and dissemination, supervision by Ato Selby did not take place.

Status of Deliverables:

Deliverables	Q1	Q2	Q3	Q4	Status
Supervision trip report				X	Not completed due to distribution delays
Presentations				X	Not completed due to distribution delays

Deliverables Status Chart

Activity	Q1	Q2	Q3	Q4	Status
MZ.1 Technical Assistance	x				Completed November 2014
MZ.2 ITN Durability Monitoring					
<ul style="list-style-type: none"> Protocol development and IRB 	x	x			Protocol completed April 2015; IRB completed in October 2015
<ul style="list-style-type: none"> Fieldwork (baseline) 			x		Not completed due to distribution delays; will occur November 2015
MZ.3 Data Dissemination Workshop				x	Not completed due to distribution delays