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VECTOR)WORKS
Scaling Up Vector Control for Malaria Prevention

VectorWorks Core Annual Report – Year One

Reporting period: October 1, 2014–September 30, 2015

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Abbreviations

AMP	Alliance for Malaria Prevention
ANC	Antenatal care
AOR	Agreement Officer Representative
BCC	Behavior change communication
CCP	Center for Communication Programs
CD	Continuous distribution
DFID	Department for International Development (United Kingdom)
EPI	Expanded Program on Immunization
GMP	Global Malaria Program
HC3	Health Communication Capacity Collaborative
HWG	Harmonization Working Group
IRB	Institutional review board
ITN	Insecticide-treated net
IVCC	International Vector Control Consortium
JHU	Johns Hopkins University
KM	knowledge management
MAWG	Malaria Advocacy Working Group
MiP	Malaria in Pregnancy
MOP	Malaria Operational Plan
MPAC	Malaria Policy Advisory Committee
NGO	Nongovernmental organization
NMCP	National Malaria Control Program
OR	Operations research
PMI	President's Malaria Initiative
PSI	Population Services International
Q	Quarter
RA	Resident Advisor
RBM	Roll Back Malaria
RD	Resistance to damage
RFP	Request for proposals
SNP3	Tanzania School Net Program Round 3
SRN	Subregional network
SRP	Study Review Panel
TA	Technical assistance
TBD	To be determined
TOC	Transition Oversight Committee
TRAction	Translating Research Into Action
TRP	Technical Review Panel
USAID	United States Agency for International Development
VCTEG	Vector Control Technical Expert Group
VCWG	Vector Control Working Group of the Roll Back Malaria Partnership
WG	Working Group
WHO	World Health Organization

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Background

VectorWorks is a 5-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), and 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 to improve current best practices of ITN distribution and use and/or alternative vector management interventions.

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

Summary of Activities

1. Challenges:
 - a. **Slow start-up:** VectorWorks got off to a relatively slow start, due to overlapping budgets and deliverables from the NetWorks project, and initial under-staffing for the amount of work needed. The first quarter was particularly challenging, but as the NetWorks activities were completed, during Quarter Two we got up to speed.
 - b. **Operations Research agenda:** The Landscape paper commissioned in Quarter Two found that none of the promising new vector control interventions were ready for scaling-up. In addition, our OR concept notes have been unsuccessful with the PMI OR Committee. Time is short to put together a viable OR agenda for the project as a whole. The best prospect at this point for VectorWorks appears to be filling in the gaps in the larger continuous distribution framework by articulating the remaining questions to be answered for the various CD channels, and undertaking the data collection and analysis to answer them. These questions would include the costing analyses currently in process, as well as effectiveness and accountability monitoring of the various channels in different settings. We anticipate discussing the options during our next Expert Committee meeting to be held in February 2016.
 - c. **Durability Monitoring:** this process was delayed in Year One as PMI finalized its internal policy for this activity. Now that this phase appears to be complete, we are optimistic that

the DM processes in new countries can move forward much more rapidly. In Year One we developed all of the documents and tools needed for data collection, developed the durabilitymonitoring.org website, and began planning for DM in three countries: Mozambique, Nigeria, and Burma.

- d. **Graduation:** The new WHO position on “graduation from vector control”, which grew out of VCTEG discussions on “Prioritization” from NetWorks does offer some glimpses of opportunity for exploring combinations of complementary interventions in urban settings with low transmission and high access to diagnosis and treatment. However, the GMP paper was explicitly conservative, and discouraged experimenting. Given the complexity of the situation and the need for intensive monitoring and surveillance the opportunities for further pilot studies in combinations of interventions seems limited and likely to be longer-term. We do not expect to undertake such activities in the next few years.
 - e. **More complex than expected:** The Net Misuse activity has proven more complicated than originally anticipated, but is now starting to move forward as we have finalized contracts with some strong consultant partners. We anticipate significant progress in these deliverables over the next two quarters. Similarly, our Year One work plan was overly optimistic on the process of integrating Continuous Distribution with Mass Campaigns, and potentially reducing the need for national-scale Universal Coverage campaigns. We are now in the process of breaking down this process into smaller steps, articulating the key questions around those steps, and moving forward from there.
2. Opportunities:
 - a. **Commercial sector role in continuous distribution:** with renewed interest from PMI/Tanzania and DFID/Ghana there may be an opportunity to articulate next steps needed in developing a commercial sector role in continuous distribution. PSI will be leading this activity in Tanzania, and we will be actively sharing experiences between the two projects over the next two years.
 - b. **Tanzania** also offers potential for other links to the global/core agenda for policy (continuous distribution, costing of channels, school-based programs, accountability methods) as well as for OR (commercial sector design, residual transmission in Zanzibar)
 - c. **Reorganization of the RBM technical working groups**, with a co-chair role for VectorWorks’ Hannah Koenker in VCWG’s “ITN” work stream, provides an opportunity to lead technical discussions towards practical, data-driven ITN interventions and the clear articulation of remaining questions around ITN distribution. The increased emphasis on country and regional level response to TA needs through the new Country Support Partner Committee (taking on the HWG functions in the new RBM structure) also offers a potential opportunity for increased engagement in continuous distribution at country and cross-border levels. The modalities of being flexible enough to respond to such requests would need to be worked out with PMI in order to take full advantage of such opportunities.
 3. Status of country operations:
 - a. In general VectorWorks is experiencing high carryover funds into Year Two due to late hiring of key staff for country programs.
 - b. Delays in obtaining local IRB approvals in Mozambique matched delays in mass campaign implementation, keeping durability monitoring baseline fieldwork within the 6 month window of opportunity.
 - c. Delayed responses from some PMI field teams have contributed to delays in implementation in Liberia, Ghana, and Nigeria. The project is actively working to improve relationships and communication at country level.

Year One Implementation Timeline and Deliverables Table

See Appendix B for a list of all activities and their associated time lines in the Year One work plan.

Core Progress Report

Objective 1: Develop and Promote Policies at International and National Levels (PC)

PC.1 Roll Back Malaria Support

Overall Summary and Take-Home Points: The RBM Partnership is currently engaged in a major reorganization and restructuring exercise, which is proving to be a time-intensive process for all involved. This reorganization has affected VectorWorks' activities in two ways: first, it has taken up a good bit of project time for supporting the transition planning process; and second, it has resulted in distraction of working group activities (HWG, VCWG and Malaria in Pregnancy [MiP]) due to uncertainty among members.

The restructuring is intended to reshape the RBM Partnership support mechanisms into an efficient team focused specifically on malaria elimination. PMI is leading the Transition Oversight Committee (TOC) and VectorWorks has assisted the TOC by supporting Matt Lynch to co-chair the work stream tasked with designing the Partnership committees.

The RBM Board undertook this major restructuring of the RBM Partnership support mechanisms during Year One because the 2013 external evaluation and the resultant Task Force on Architecture and Governance identified a need for major changes if the goal of malaria elimination is to be achieved. Some key points and issues arising from this process include the following:

1. There is a major division in underlying assumptions about what the purpose of the support mechanisms for the RBM Partnership are intended to be. One component of the RBM Board, including most of the endemic-country members, believe the support mechanisms such as the Board and the Secretariat are intended to be essentially mini-UN agencies, with formal representation from countries, similar to that of WHO. Essentially they see RBM as a UNAIDS for malaria.
2. Others on the Board, including the donors who fund the support mechanisms for the RBM Partnership, see this structure as a mechanism for improving performance. This faction believes that although the support structure is important for building a stronger RBM Partnership identity, it has now become expensive and inefficient and needs to be restructured with a tight focus on efficiency in reaching malaria elimination.
3. This discussion has been held at least twice in VectorWorks Year One; once at the Bangkok meeting and once in Johannesburg when the Task Force on Architecture and Governance presented its report and recommendations. The discussion is beginning anew for the third round, at the December 2015 Board meeting. The clash in perspective is significant because it presents an appearance of a North-South division, and is easily construed to be a donor-driven hijacking of the RBM Partnership.

4. Proposing to reduce the size of the RBM Board and seeming to diminish its authority by establishing the Trustee Council above it have given some endemic country Board members the impression that they are being bypassed and will have less power and participation in the RBM Partnership in the future. This discussion needs to be steered in a more positive direction.
5. The lack of a coordinated and funded transition process mechanism that could produce a communication strategy to reduce negative perceptions, and that has not been able to adequately fund endemic country participation in the TOC work stream meetings, has heightened this tension. The current Secretariat could have played that role, but because of the disestablishment process within WHO, its staff were alienated, unhappy, and did not assist this function; if anything, their actions contributed to heightening the tension.
6. The issue will come to a head in December 2015 when, at the Board meeting, the current Board will have essentially two choices: one, to endorse a new structure and continue the transition process to get it up and running, and vote to dissolve the current structure; or two, refuse to endorse the change, which will provide a confrontational spectacle and result in the continued existence of a rump RBM Board that will not have funding to meet or function but will complicate the emergence of the new structure.
7. Regardless of what happens at the Board meeting, the transition to a new support mechanism will happen. The donors will fund a new mechanism and the partners interested in continuing to fight malaria will use it. Representatives of malaria-endemic countries will express unhappiness at the process but they will have few options, assuming they want to continue to take a globally collaborative approach to malaria control and elimination in their own countries. Other partners will follow the money and continue their work. WHO, with the same donor base, will have no option but to continue to participate, although if the rhetoric becomes intense it is conceivable that it may seek more distance, given its mandate as an agency responsible to Ministers of Health. If the Board votes for a harmonious transition, the RBM Partnership will be able to keep its name and should be able to move forward relatively smoothly. If the Board fights back, there will be a lot of negative press, hand-waving, and noise, but a new structure will take shape by March or April 2016 and start work. It may have to adopt a new name to avoid confusion with the rump RBM Board, which will not have formally ceased to exist, and it will need to organize a reconciliation process with the unhappy constituencies.
8. Either way, it will be important for all Board members (both of the current Board and the new) to engage in a concerted public relations effort to build support for the new RBM Partnership support mechanism structure. VectorWorks will need to be ready to assist in that process, both to support the new Board and to ensure the continued viability of the technical working groups. There are two ways we can do this: through participating in regional briefings and discussions on the new mechanism structure, and through using the technical working groups as platforms for promoting the benefits of a more efficient and focused structure.

Progress Report: VectorWorks team members have been active in supporting two key RBM Partnership activities in Year One: the VCWG, and the TOC. Details on activities in support of these are given below.

Next steps (if any):

- See sections PC.1.A and PC.1.B below.

PC.1.A VCWG Secretariat Support

Overall Summary and Take-Home Points: The VCWG remains one of the highest regarded and most successful technical working groups within the RBM structure. Its rapid growth, close connection to issues also within the Alliance for Malaria Prevention (AMP) agenda, and large number of work streams pose challenges for the new leadership elected during VectorWorks Year One. VectorWorks will continue to engage with the VCWG to maintain its leadership roles, leverage its close relationship with AMP to the advantage of both organizations, and improve the efficiency of the work stream operations within the working group.

Progress Report: The VCWG continues to be supported by Dr. Konstantina Boutsika of the Swiss Tropical and Public Health Institute. Dr. Boutsika's level of effort is now fully covered by a grant from the Swiss Agency for Development and Cooperation. However, VectorWorks is supporting two administrative staff at about 2% level of effort. In addition, Dr. Boutsika has increased her work with the RBM Partnership and has begun supporting four of the RBM working groups (Procurement and Supply Chain Management Working Group, Case Management Working Group, VCWG, and MiP). Therefore, the remaining VectorWorks funds have been used to support participation by Dr. Boutsika in the November planning meeting in Baltimore, and participation by Dr. Christian Lengeler in the VectorWorks Expert Committee meeting in Basel, in January 2015.

In Year One, VectorWorks did not sustain interactions with VCWG work streams beyond the annual meeting. Although this is not a disaster, it does seem to be a lost opportunity to maintain momentum on specific key issues. The VCWG membership has also been distracted by the restructuring process and the RBM Board's decision to financially jettison the technical working groups. That said, the VCWG is the example the Board now uses to show how the working groups should plan to operate. The new VCWG co-chairs are planning to reorganize the existing work streams to weed out the less active/useful ones and focus more energy on the remaining ones.

Next Steps (If Any): VectorWorks plans to continue to support the VCWG through:

- Participation in the 2016 VCWG meetings to engage with practitioners and learn about new tools, challenges, and opportunities arising in the ITN field. This participation will include:
 - a. Preparation and presentation of project activity results and data of interest to the malaria ITN community, and
 - b. Facilitation of travel for endemic-country participants to participate in such presentations and discussions to ensure stronger country to global-level links are strengthened; and
- Working closely with the new work stream designated to focus on ITN-related issues to identify key issues, prioritize actions, and to maintain active communication between meetings.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
VCWG meeting organized and conducted; proceedings posted	VCWG listserv, greater RBM listserv	Completed on time; proceedings posted on RBM Web site

PC.1.B RBM Board Participation

Overall Summary and Take-Home Points: See PC.1 above.

Progress Report: The VectorWorks project director has been actively engaged in the RBM Partnership Board as the alternate member representing the Northern nongovernmental organization (NGO) constituency through Year One. Key activities in relation to the RBM Board have included: 1) support for the Task Force for Architecture and Governance, charged by the RBM Board to review and recommend changes to the structure of RBM Partnership mechanisms, 2) leading the work stream on Partner Committees for the TOC, and 3) attendance at Board meetings.

Task Force on Architecture and Governance: This process has included Matt Lynch's participation in weekly conference calls from October 2014 through May 2015 (most of the calls), attendance at in-person task force meetings in London, Johannesburg, New York, Washington, and Bangkok, and at least six one-to-one phone calls with the consulting team to provide input on specific issues. Matt offered comments on three draft documents/presentations as requested by the consultants. The report of the task force was presented to the RBM Board at a special Board meeting held in Johannesburg in March 2015. At that meeting the TOC was formed and charged with developing detailed terms of reference for the various proposed new mechanisms.

RBM Board Meetings: The VectorWorks project director also attended the RBM Board meetings in Bangkok in December 2014, and Geneva in May 2015 as promised in the work plan. Key issues at the Bangkok meeting included planning for the Task Force on Architecture and Governance meetings and a retreat with the RBM Board. He also had a side discussion with Pedro Alonso of WHO/GMP on repositioning the NetWorks prioritization work as a GMP paper on the "graduation" of subnational areas from vector control measures. The key issue discussed at the Geneva Board meeting was the establishment of the TOC as charged in the Johannesburg retreat and the disestablishment of the current RBM Secretariat at WHO.

Transition Oversight Committee: Matt Lynch is serving as co-chair for the Partner Committee work stream of the TOC. Partner committees are intended to institutionalize three core functions of the RBM Partnership mechanisms: support for advocacy, resource mobilization, and facilitating country access to resources. These functions were previously performed by the Malaria Advocacy Working Group (MAWG), the Resource Mobilization Committee, and the HWG, respectively. Through late August and September Matt Lynch facilitated revisions via e-mail and conference calls to refine drafts of the terms of reference (TOR). At the end of Year One it was apparent an in-person meeting would be needed, likely in Geneva, to finalize the TOR for submission to the TOC co-chairs.

Next Steps (If Any):

- Finalize the TOR for the partner committees: Matt Lynch will shepherd the finalization process to ensure a credible, but flexible TOR is submitted to the TOC co-chairs for inclusion in the TOC recommendations to the RBM Board in time for the December 2015 meeting.
- Start-up process for the new RBM Partnership coordination mechanisms: although the role VectorWorks may be asked to play in getting the new structure up and running is not yet clear, VectorWorks will remain ready to continue to assist in this important process.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. December 2014 board meeting trip report	Trip report and debriefing with Agreement Officer Representative (AOR)	Completed on time; report submitted 1/10/15
2. December 2014 task force meeting trip report	Trip report and debriefing with AOR	Completed on time; report submitted 1/10/15
3. March 2015 Board retreat trip report	Trip report and debriefing with AOR	Completed on time; report submitted 4/16/15
4. Additional task force meetings as posted	Trip report and debriefing with AOR	Meeting attended in Washington on April 16
5. May 2015 Board meeting trip report	Trip report and debriefing with AOR	Completed on time; Trip report submitted 5/18/15

PC.1.C VCWG-10 Meeting Support

Overall Summary and Take-Home Points: See section PC.1.A above.

Progress Report: The VCWG meeting was held in Geneva with unusually high attendance particularly given the requirement for paid registration. More than 200 people attended. VectorWorks team members presented in the CD, outdoor transmission, and durability work streams. Participation in the meeting offered many valuable opportunities for side meetings with representatives of NMCPs, researchers, implementing partners, and donors such as the Global Fund to Fight AIDS, Tuberculosis and Malaria and UK Department for International Development (DFID). Particularly valuable contacts were made with Dr. Fredros Okumu of the Ifakara Health Institute, who is conducting an assessment of risk associated with outdoor exposures in Tanzania. His study design is useful in developing a potential replication study in Ghana. In addition, a contact made through April Monroe has already resulted in a capacity-building workshop being set up within the Tanzania work plan to train research staff at Ifakara Health Institute in qualitative research analysis techniques. A number of field challenges and topical issues were identified through presentations and side meetings, including insecticide resistance, behavioral aspects of vector control, and the need for better data to inform outdoor transmission discussions. Each of these issues

provides VectorWorks with input from field experience to fuel the “action cycle” and guide policy and operations research planning for the project.

The VCWG also sent a clear message to the RBM task force on the value and role of the working groups to the RBM Partnership. The VCWG tasked Pedro Alonso and Matt Lynch as the members of the task force and VCWG who will communicate to the task force that the VCWG will continue with or without RBM. The VectorWorks team wrote a joint trip report with details of the various opportunities identified, including the collaboration with Ifakara Health Institute on researching risk of outdoor exposure behaviors and the intensifying crisis in developing new ITNs for insecticide-resistant settings. Opportunities in piloting deployment of spatial repellents in outdoor settings is also one that VectorWorks is following closely, although this is likely to be further in the future. Following contacts with Dr. Nicole Achee at the meeting, JHUCCP submitted a joint application with the University of Notre Dame for a Bill & Melinda Gates Foundation Grand Challenges grant focusing on spatial repellents for outdoor use, which we recently heard was not successful. We will continue to seek such supplemental funding for opportunities that could be leveraged in furthering the VectorWorks operations research agenda.

Next Steps (If Any):

- VectorWorks will engage with the new co-chairs of the VCWG to ensure that planning for the VCWG 11th meeting will take into account the lessons learned from the 10th meeting and increase the efficiency of the meeting's objectives.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Joint trip report highlighting output from specific objectives	Internal staff debriefing and debriefing with AOR	Completed on time; joint trip report submitted 2/20/15
2. Four VectorWorks presentations at VCWG	VCWG listserv, RBM Web site	Completed on time; four presentations made by VectorWorks team members
3. CD and durability work stream work plans with priorities for 2015	VCWG listserv, RBM Web site	Completed on time, CD and durability work streams reported out to plenary on priorities for next year; formal work plans were not developed per Mod 3, approved 8/5/15.
4. VCWG annual meeting report	VCWG listserv, RBM Web site	Completed on time; VCWG meeting synopsis with participant list, agenda, and presentations is available on RBM Web site

PC.1.D Alliance for Malaria Prevention Participation

Overall Summary and Take-Home Points: AMP has broadened its scope of work on ITN distribution and now is quite active in CD discussions. In particular, its emerging issues work stream is now a key forum for

discussion of new and innovative approaches. AMP and VCWG have traditionally worked closely and it will be important for VectorWorks to continue to participate in both organizations moving forward. VectorWorks presented important technical updates at the 2015 meeting of AMP partners and funded AMP-trained consultants who provided technical assistance for Liberia’s mass campaign. AMP staff revised toolkit chapters on communications and sustaining gains, but the overall toolkit revision process experienced extensive delays.

Progress Report: VectorWorks participated in the AMP annual meeting to share information and lessons learned from mass campaigns with field implementers and global policymakers, and to share research evidence on topics of importance to ITN distribution implementers, including BCC and behavioral issues around ITNs, net care and repair, and key determinants of successful mass campaigns. VectorWorks collaborated with AMP to provide technical assistance for the Liberia mass distribution campaign, identifying a consultant from within the AMP consultant pool, Dorothy Onyango (see Liberia report for further details). VectorWorks continues to participate in weekly AMP coordination calls. VectorWorks revised the “Communications” and “Sustaining Gains” chapters of *A Toolkit for Mass Distribution Campaigns to Increase Coverage and Use of Long-Lasting Insecticide-Treated Nets* (AMP toolkit); there were subsequent delays in the editorial process, so these revisions are not yet finalized and posted.¹ The field operations director helped facilitate the training for AMP technical assistance providers in February 2015, leading sessions on NetCALC and CD. At the 2015 partners’ meeting in late January, VectorWorks staff made the following presentations:

- Secondary analysis of Nigeria hanging-and-use data and implications for programming (work completed with Global Fund funding)—Albert Kilian
- Care and repair results from Nigeria and Uganda—Hannah Koenker
- Campaign strategies paper results—Angela Acosta
- Continuous distribution pilot results—Matt Lynch
- Ghana outdoor sleeping results—April Monroe

Next Steps (If Any):

- VectorWorks is planning technical updates at the 2016 partners’ meeting and finalizing toolkit chapters.
- VectorWorks should continue to monitor and participate in discussions, particularly the Emerging Issues Working Group.
- Share information as the Tanzania commercial sector component is planned and developed.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Five presentations	Presentation at AMP meeting, AMP listserv	Completed on time; Presentations were made and

¹ The Alliance for Malaria Prevention (AMP). *A Toolkit for Mass Distribution Campaigns to Increase Coverage and Use of Long-Lasting Insecticide-Treated Nets*. Second edition. Alliance for Malaria Prevention; 2012. <http://allianceformalariaprevention.com/resources/AMP%20Toolkit%202.0%20English%20FINAL.pdf>

2. Joint trip report	Debriefing with AOR	PowerPoint slides uploaded to the AMP Web site ; announcement of their availability was made on AMP listserv; trip report was submitted to the AOR on Feb. 20, 2015
3. Revised AMP toolkit	We will share print and electronic versions with our countries and encourage our teams to share the AMP toolkit at technical working group meetings	In progress, pending review of chapters by Marcy Erskine

PC.2 Input into Global Policy

PC.2.A Collaborative Work on Policy Issues with GMP

Overall Summary and Take-Home Points: WHO/GMP recently developed and issued via the Malaria Policy Advisory Committee (MPAC) (September 2015) technical guidance on graduating geographic areas from vector control. This guidance takes an appropriately conservative approach and stresses the need for caution in withdrawing vector control interventions even when transmission has been substantially reduced by interventions. The guidance is brief, however, and leaves a number of questions and issues for additional investigation, with appropriate safeguards. This is a critically important component at this point in time, given resource constraints and the need for greater efficiency in vector control implementation. More data are needed to inform this discussion; therefore, VectorWorks sees an important opportunity to contribute to the discussion through further exploration of potential targeting of interventions in low-risk settings such as urban areas, in which strong surveillance and high access to diagnosis and treatment would, at a minimum, be available.

Progress Report: During Year One, VectorWorks contributed comments to the graduation draft paper and had discussions with the GMP vector control team. We continue to engage with GMP on this issue, but given the conservative tone of the graduation paper itself we do not anticipate this is a topic in which VectorWorks is well-positioned to take a leadership role.

Next Steps (If Any):

- Continue discussions with the GMP vector control team to further describe the important parameters for monitoring alternative vector control interventions, and for describing risk in specific geographic settings.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
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Comments and input to GMP on the vector control “graduation” document	GMP will use in preparing its presentation to MPAC	Graduation paper reviewed by Matt Lynch (ML); GMP is continuing to work on the issue; ML will follow up with GMP
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PC.2.B Articulating the Process of Moving From Campaign to CD

Overall Summary and Take-home Points: This process is much more complicated than originally envisioned, and is going to require a longer and more complex process than described in our Year One Workplan. There are larger gaps in the supportive data, and less technical consensus on whether this process is even possible.

Progress Report: During Year One, VectorWorks prepared and is now finalizing an article highlighting key points and supporting data from the presentation on the CD pilot studies and providing recommendations for how countries should consider the distribution options available to them, including campaigns and CD options.

Apart from work on the above manuscript, VectorWorks was unable to make much progress on this issue. The turbulent RBM transition process prevented meaningful coordination with the HWG, and the SRNs. The policy guidelines portion of this activity were not developed, and there is still a lack of published evidence to support how to select specific CD channels for specific contextual situations.

Next Steps (If Any):

- In Year Two, VectorWorks will make a strong effort to engage with the restructured RBM mechanisms replacing the HWG and attend meetings where consultants will be trained, concept note guidance will be developed, and teams will review concept notes. VectorWorks will also develop a focused strategy for engaging more closely with the Global Fund. Early in Q1 we expect to finalize the manuscript and submit it to an appropriate journal.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Publishable-quality manuscript submitted	Publication sent through VCWG listserv and to specific contacts within the Global Fund, HWG, GMP, and PMI	Being drafted
2. Coordination meetings held, and draft guidance on transitioning to CD created with GMP to move forward to Vector Control Technical Expert Group (VCTEG)	Draft technical guidance developed with GMP and forwarded to VCTEG	Did not happen
3. Presentations to subregional network (SRN) meetings and HWG meetings and/or training workshops	Consultants and NMCP participants in workshops will take key points back to use in their	Did not happen due to RBM transition process

	concept papers	
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PC.3 Promoting Key Indicators

Overall Summary and Take-Home Points: VectorWorks contributed to an educational video on how to calculate and interpret the access indicator. The video had been viewed 327 times as of October 22, 2015.

Progress Report: VectorWorks met with MACRO representatives in early Q2 to discuss the development of training materials for the malaria indicator survey and data analysis trainings, and shared training content with MACRO staff to incorporate into the first of a series of videos explaining the new universal coverage indicators. The first video, on the access indicator, launched on World Malaria Day. In feedback on the HWG concept note guidance document, VectorWorks provided specific data for countries to consider and shared a “do-file” to calculate the indicator. Thus far, no requests for direct assistance have been received, however. Related to this, work on activity ME.7 has also been completed to calculate regional access and use estimates for PMI countries and shared with Malaria Operational Plan (MOP) teams.

Next Steps (If Any):

- VectorWorks will help promote the ITN Access Indicator Snapshot video through its social media platforms.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Training materials for malaria indicator survey and data analysis workshops on calculation of and application of the population access and ITN use indicators	Via MACRO publications, VCWG meetings	Inputs provided to MACRO, deliverable completed
2. Provide updated language and tools (including do-file) for the HWG guidance note, and serve as a resource for calculations as needed	Via HWG	Completed

PC.4 ITN “Misuse” and Local Solutions

Overall Summary and Take-Home Points: This activity was delayed due to the back and forth process of designing the key elements that will make up the final deliverable, a complete ITN misuse-for-fishing toolkit. In August 2015, VectorWorks and PMI came to a consensus on what the elements and end package should look like.

Progress Report: VectorWorks submitted a formal modification for deliverables under the ITN misuse-for-fishing activity, and PMI approved the modification on August 5, 2015 (Mod 2). The updated activity has nine parts that will contribute to the final ITN misuse-for-fishing toolkit. From this reporting period, scopes of work were developed and a competitive bidding process has taken place to hire three consultants. One consultant will carry out a literature review summarizing the current evidence addressing ITN misuse for fishing (piece #1), one will examine the potential harm to aquatic life from pesticides used in ITNs (piece #3), and one will examine the potential harm to fish populations by using small-mesh nets for fishing (piece #4). All three consultants have been registered with Johns Hopkins University (JHU) and the initial start-up meetings have taken place. Piece #2, a report estimating the population in SSA that could potentially misuse ITNs for fishing, was completed in Year One, but the assumptions used to calculate this 'population at risk' were not well-conceived, and the report found that 90% of SSA's population live within 5km of a permanent water body. It was agreed with the AOR that this report will be shelved for the time being; the methodology may prove useful later, or when the remaining pieces of the package are complete, this piece may be formally canceled.

Next Steps (If Any):

- Next steps include monitoring and finalizing the three consultant reports and submitting them to PMI for review. VectorWorks will develop and pretest survey instruments to be used at waterside communities where ITN misuse for fishing has been identified. Once the reports have been approved by PMI and the results from pilot research have been analyzed, VectorWorks will produce a complete ITN misuse-for-fishing toolkit.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Literature review summarizing current evidence addressing ITN misuse for fishing	AOR	In process. A student has been hired to work on the literature review. No action for PMI at this time.
2. Geographic Information System population estimates report	This report will be shelved.	Deliverable shelved per discussion with AOR in October 2015. No action needed from PMI.
3. Potential harm from pesticide technical report	VCWG listserv, environmental listservs, AOR	In process. We are working with JHU Hydrology Department to complete this work. No action needed from PMI.
4. Potential harm in using small-mesh nets for fishing technical report	VCWG listserv, environmental listservs, AOR	Advance Africa has been selected to do the work. No action needed from PMI.
5. Set of survey instruments	AOR	Has not started

6. Summary process manual	AOR	Has not started
7. Pilot test survey instruments in two sites (TBD) report	AOR	Has not started
8. Final decision tree	PMI	First draft was submitted with the proposed activity. No action needed from PMI at this time.
9. Complete net misuse toolkit	PMI	Has not started

PC.5 Malaria in Pregnancy Advocacy Strategy

Overall Summary and Take-Home Points: The advocacy strategy is intended to guide the MIP working group’s promotion of key issues and activities around malaria in pregnancy. A consultant drafted the strategy, but due to delays in receiving comments from members of the MIP WG, as well as misunderstandings around the specific target audiences the strategy is intended to reach, the strategy is not yet complete.

Progress Report: A consultant has drafted the Malaria in Pregnancy (MiP) Advocacy Strategy and a second round of reviews is to be conducted early in Year Two to finalize the strategy. The process has taken longer than expected, but it continues to be of interest to the MIP Working Group (WG). We anticipate completing the strategy and plans to make it operational in Year Two.

Next Steps (If Any):

- Complete the strategy review process and finalize the document.
- Work with the MIP WG members on developing a plan to make the advocacy strategy operational through specific work plan activities.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. MiP WG trip report and presentation	Submission and debriefing with AOR	Cancelation approved by AOR April 22, 2015 (Mod 1)
2. MiP WG trip report and presentation	Submission and debriefing with AOR	Trip report submitted 7/22/15
3. MiP advocacy strategy	MiP WG and PMI listservs, MAWG listserv	Draft strategy in review by MiP members

Objective 2: Design, Conduct, and Analyze Results from Monitoring, Evaluation, and Operational Research Activities to Improve Current Best Practices

Monitoring, evaluation, and operations research activities provide VectorWorks and PMI with the opportunity to provide solid evidence in support of credible recommendations for changes in policy or implementation best practices. For effective impact, the design, conduct, and analysis of this work must be of the highest quality.

ME.1 ITN Durability Monitoring

Overall Summary and Take-Home Points: VectorWorks completed three rounds of revision on the package of durability monitoring tools for data collection, finalizing part 1 of the package at the end of September 2015. The remainder of the package will be developed in Year Two in conjunction with the Mozambique durability monitoring activities. The data repository will likewise be developed as data are collected during Year Two.

Progress Report: In Q2, VectorWorks created part 1 of the toolkit ("Develop standardized guidelines/procedures on how to conduct ITN durability monitoring") to facilitate standardization in durability monitoring; after review by PMI, part 1 components were finalized late in Q4. VectorWorks also set up the Web site durabilitymonitoring.org, with plans to launch it for PMI staff in Q1 of Year Two. VectorWorks staff worked closely with the malaria technical advisors at USAID and the U.S. Centers for Disease Control and Prevention on the toolkit materials to ensure the tools were consistent and comprehensive, and that the monitoring protocol met PMI needs for data collection. Discussions were held in Geneva during the VCWG meeting and by telephone throughout the year to make joint decisions on core and optional elements of the protocol. The components of part 1 of the toolkit are listed below.

1. Detailed protocols including monitoring design, sampling, and timing
2. Standard minimum questionnaires, sample consent forms, random number sheets for household selection during fieldwork
3. Standard training manual and materials for field workers
4. Sample data entry screen
5. Sample budget for each phase of fieldwork
6. Frequently asked questions and/or overall explanation of the methodological approach including a decision-tree diagram
7. Planning timeline and budgeting guidance
8. Training powerpoints and visual aids for data collection teams

At the request of PMI, VectorWorks set aside funds to support dissemination/coordination activities for resistance-to-damage scores, which are being addressed under Innovation 2 Impact, funded by the B&MGF. No requests for activities were received during Year One.

Next Steps (If Any):

- Launch the Web site and toolkit among PMI staff; develop additional tools. We foresee a need to translate the entire package into French.

Status of Deliverables:

Deliverable	Dissemination Plan	Status
1. Guidelines on how to conduct ITN durability monitoring, including data collection templates	ITN Technical Working Group call to the field; recorded Webinar for PMI & RAs; Durability work stream list serve	Package versions completed on January, March, and October 2nd; pending formal approval from PMI
2. Standardized tools for data analysis and reporting		Delayed until Year Two Q2 in conjunction with development of tools for Mozambique study
3. Data repository		Delayed until Year Two as data become available
4. Resistance-to-damage score validation deliverable TBD	TBD	Still TBD

ME.2 Alternative Vector Control Tools

ME.2.A Landscape Report

Overall Summary and Take-Home Points: The VectorWorks scope of work was written to include the introduction of new innovative vector control tools. As a preliminary step, the project commissioned a “landscape report” of the new tools on the horizon and their likely timelines in order to inform project planning.

Progress Report: The landscape paper describing the variety of potential new tools for vector control was completed in time for use as a background paper for the VectorWorks Expert Committee meeting in Basel in January 2015. PMI staff reviewed the paper and disseminated it to members of the VSWG and the International Vector Control Consortium (IVCC). The major conclusions of the paper are that no new tools are ready for VectorWorks to use, but the field is rapidly evolving. In addition, it is clear that no tools on the horizon are as broadly applicable as ITNs, so the additional tools will be complementary niche tools for use in conjunction with ITNs in specific settings. Responses have been received from a number of parties suggesting specific revisions to the landscape paper; those revisions will be incorporated should a revised version be written in the future.

Next Steps (If Any): None are planned at this time.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
Landscape report	Electronic copies sent to AOR for distribution within PMI, electronic copies to VectorWorks Expert Committee members and to T. McClean at IVCC.	Approved 8/14/15 and disseminated as planned, and to VCWG mailing list on 9/23/15

ME.2.B Quarterly Updates on Alternative Tools

Overall Summary and Take-Home Points: The two quarterly vector control updates provide a detailed account of all new vector control literature within the previous quarter, and have been well received by the VCWG community and other in-country teams.

Progress Report: In Year One, VectorWorks completed and disseminated two quarterly vector control updates that included all new literature focusing on relevant vector control studies and highlighting implications. The newsletter was developed using a systematic search in key databases (including PubMed, Malaria World, and by hand-searching tables of contents in specific journals) for literature from the previous quarter (January–March, April–June, July–September, October–December) on alternative tools and paradigms identified in the VectorWorks landscape paper. Of the roughly 600-700 abstracts identified each quarter, 15-20 are selected for inclusion. The quarterly newsletter has been circulated to the VCWG listserv and internally among PMI staff members, and is also posted each quarter to the VectorWorks Web site.

Next Steps (If Any):

1. This report will continue with dissemination planned in November, January, April, July, and October.

Status of Deliverables:

Deliverable	Dissemination Plan	Status
Quarterly newsletter summarizing recent literature on alternative tools (electronic format)	VCWG mailing list, RBM Web site; PMI field and core e-mail lists; link on www.vector-works.org	On track, ongoing

ME.3 CD Costing Analysis

Overall Summary and Take-Home Points: VectorWorks obtained institutional review board (IRB) clearance through Tulane University, the lead for this activity, whose IRB determined that the costing studies were “Not Human Subjects Research.” Data collection for Madagascar was canceled, as the country has postponed continuous distribution activities until at least 2017. Data on Tanzania’s school net program were collected and final verification of actual expenditures will be completed in Year Two. A preliminary

report will be available in the second half of Year Two. Data collection for the Ghana health facility distribution program is scheduled to occur in March 2016.

Progress Report:

Madagascar community distribution: According to the PMI Madagascar team, the community-based distribution program will not be implemented at scale until 2017. As a result, this activity has been canceled, per Mod 3, which was approved in August 2015.

Tanzania School Net Program Round 3 (SNP3): In Year One, VectorWorks conducted data collection for SNP3. Data collection was divided into two components: 1) establishing estimates of effort and time required from different levels of government; and 2) determining actual monetary costs incurred by PMI partners (PMI was the sole funder for SNP3). Data for the first component were collected in August 2015 as part of the procedural audit conducted by Kazi Limited for PMI Tanzania, since they were already visiting a representative sample of schools and conducting interviews with government officials at all levels. Kazi representatives visited 30 schools from 15 districts (5 per districts). Tim Finn of Tulane University CAMRE traveled to Tanzania to train the Kazi data collectors and to collect data for the second component of the VectorWorks and DELIVER projects.

Ghana health facility distribution: Not started, due to scheduling conflicts. Planned for Year Two.

Next Steps (If Any):

- Madagascar community distribution: Check in with the USAID Mission staff later in Year Two to obtain a sense of the timing for scale up.
- Tanzania School Net Program Round 3 (SNP3): Data collection is still ongoing. All of the costs are still sent from field offices to Baltimore and will require further cross-checking. A preliminary report will be available in the second half of this work plan year.
- Ghana health facility distribution: Similar to the Tanzania SNP3 costing activity, VectorWorks will integrate data collection for health facility costing in existing activities, specifically in support supervision. The costing tool will be adapted for distribution to health facilities early in Year Two. In March 2016, Josh Yukich of Tulane University CAMRE will travel to Ghana to train the national supervision team to use the costing data collection tool, which will be appended to the supervision checklist.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Madagascar costing and output data report	Internal reports for preparation of a summary report/article	Canceled in Mod 3, approved 8/5/15.
2. Tanzania costing and output report	Internal reports for preparation of a summary report/article	On track; no action required from PMI
3. Ghana health facility costing update	Internal reports for preparation of a summary report/article	Delayed but planned for Year Two; no action required

		from PMI
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ME.4 External Review of a Durable Wall Lining Study in Tanzania

Overall Summary and Take-Home Points: Matt Lynch participated in a meeting to review the durable wall lining study in Tanzania with Translating Research Into Action (TRAction).

Progress Report: Matt Lynch traveled to Muheza, Tanzania, to visit the project site and participate in the discussions on project design. The design was revised and simplified. Matt submitted a trip report describing the visit and outputs. On his return, Matt was able to assist the TRAction project to find a skilled biostatistician at JHU who is able to carry out the complex sample size calculations; TRAction then contracted with the statistician. A further meeting of the Study Review Panel (SRP) was held late in Year One, but VectorWorks was unable to participate in that meeting.

Next Steps (If Any):

- Matt Lynch plans to participate in any future meetings of the SRP when they are held, in consultation with the PMI Activity Manager.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
Trip report; entomology component report to SRP chair	Trip report to VectorWorks AOR; SRP report to SRP chair	Complete trip report submitted 1/22/15; AOR reviewed 2/3/15 and passed on to M. Alilio.

ME.5 Continuous Distribution Evidence Base

ME.5.A NetCALC 3.0

Overall Summary and Take-Home Points: NetCALC 3.0 beta version was finished just after the Q4 deadline and has been disseminated. The associated user instructions were updated and completed, along with the background document describing how NetCALC was developed. It is now available on vectorworks.org, and was disseminated through VCWG listserv and social media.

Progress Report: NetCALC was updated to include half-year increments for expected ITN longevity, additional pull system options in the CD module (for socially marketed nets and full retail), and a complete rework of the school option to allow more flexibility to select school classes over time. A fourth update, facilitating transfer of data from module 1 (coverage) to module 4 (free modeling) is still pending. The fifth update, calculating the percentage of households that will be reached using combinations of different channels, is not feasible within NetCALC itself; VectorWorks will address this in a companion do-file/set of instructions in Year Two.

Next Steps (If Any):

- Update NetCALC training materials (quiz answers) and reach out to trainees with new beta version.
- Complete transfer of data from coverage module into the free modeling module
- Complete do-file/instructions for calculating households reached

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
NetCALC 3.0 beta version	Year Two: VCWG and AMP presentations in 2016 annual meetings; VCWG and AMP listservs, HWG and AMP trainings, SRN meetings	Interim beta version submitted 10/23/15, next version not yet completed.

ME.5.B Dissemination of NetWorks CD Findings: Papers on CD Pilots in Madagascar, Ghana, and Nigeria

Overall Summary and Take-Home Points: The Nasarawa report was completed. The Ghana manuscript is nearly complete. The Madagascar manuscript is next. The papers will be submitted to a journal in early Year Two.

Progress Report: VectorWorks completed the report on the Nasarawa pilot. Most (90%) of the manuscript for the Ghana Eastern Region pilot was drafted; once this internal review begins VectorWorks will begin drafting the Madagascar program manuscript.

Next Steps (If Any):

- Finish the equity analysis for the Ghana Eastern Region paper, then finalize and submit the paper to PMI.
- Draft the manuscript for Madagascar.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Publishable-quality manuscript on community CD pilot in Madagascar	Peer-reviewed journal, VCWG	Delayed but now in progress; no action required from PMI
2. Publishable-quality manuscript on school-based distribution in Eastern Region of Ghana	Peer-reviewed journal, VCWG	On track; no action required from PMI
3. Nasarawa CD pilot final report	Report only	Submitted to PMI 8/6/15; Mission and AOR approval received 9/21/15. Shared through social media and posted to vector-works.org.

ME.6 Publication Fees for NetWorks Articles

Overall Summary and Take-Home Points: Of the seven papers intended for publication in Year One, four were published, one was sent back for a second round of peer review, one was completed and is currently in review, and one is in draft form.

Progress Report: VectorWorks has published articles produced under NetWorks as detailed in the Status of Deliverables chart below. Articles were disseminated through the vector-works.org website, the VCWG listserv, the MERG listserv, and the AMP listserv.

Next Steps (If Any):

- Complete all remaining manuscripts and submit to appropriate journals.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Campaign strategies comparison paper	Peer-reviewed journal, VCWG	PMI approval on manuscript received 7/21/15; resubmitted for second round of review at Malaria Journal 8/20/15
2. Uganda hang up	Peer-reviewed journal, VCWG	Published in PLOS One 3/16/15
3. Ghana outdoor sleeping	Peer-reviewed journal, VCWG	Published in Malaria Journal 1/28/15
4. Nigeria durability	Peer-reviewed journal, VCWG	Published in Malaria Journal 3/24/15
5. Uganda care and repair quantitative	Peer-reviewed journal, VCWG	Published in Malaria Journal 9/22/15
6. Nigeria Cross River schools	Peer-reviewed journal, VCWG	PMI approval on manuscript received 9/24/15; submitted for peer review at Malaria Journal 9/30/15
7. Hole index methods	Peer-reviewed journal, VCWG	In progress; internal draft received by CCP in Q4

ME.7 Subnational Analysis of Access: Use Ratio

Overall Summary and Take-Home Points: An initial report on regional access and use rates for each country that receives PMI support was completed in early April and updated again in late April for use during MOP visits. The follow-on analysis incorporating rainfall timing has been delayed, with mixed results from the initial model. Further work is needed to clarify the rainfall variables included in the net use model.

Progress Report: VectorWorks used Demographic and Health Survey and malaria indicator survey data sets to more closely examine rates of ITN use and ITN access based on subnational time frames for dry season, early rains, and late rains. This analysis is in progress for all PMI countries for the last 5 years (where

data are available) to assess patterns in net culture by region and by rainfall timing. Preliminary analysis, including rainfall estimates for the most recent data set from each PMI country, was completed and results are being presented as a poster at the American Society of Tropical Medicine and Hygiene 2015 meeting.

Next Steps (If Any):

- PMI to provide formal approval for ME.7.1
- Finalize follow-on analysis and manuscript.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. PMI report on access indicator showing stratification by region, season and risk group	AOR to circulate to wider PMI team and RAs. In-country presentations during technical assistance visits	Submitted to PMI 4/6/15 and again with updates on 4/24/15. Not formally approved.
2. Publishable paper based on the results from above report	VCWG	Delayed, but in progress

ME.8 Operations Research

ME.8.A VectorWorks Expert Committee Meeting

Overall Summary and Take-Home Points: The Expert Committee met early in Year One to outline the project’s OR agenda and develop a set of concept notes to submit to the PMI OR Committee.

Progress Report: The first VectorWorks Expert Committee meeting took place in Basel in January prior to the AMP and VCWG meetings. VectorWorks staff members Hannah Koenker, Matt Lynch, Albert Kilian, Christian Lengeler, and Megan Fotheringham attended and discussed the alternative tools landscape report, reviewed priority research questions for the project, and laid out research priorities for the 5 years of the project. The priorities are described in activity ME.8.B. VectorWorks wrote a report summarizing the meeting and disseminated it to PMI and Expert Committee members.

Next Steps (If Any):

- A second EC meeting was convened early in Year Two, and a third is planned for February 9 2016 following the VCWG. These will be described in the Year Two semi-Annual report.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
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Research agenda for VectorWorks, with timeline	Project work plan	Submitted 2/19/15 Not formally approved by PMI
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ME.8.B Concept Notes and IRB Preparation for Identified Study Topics

Overall Summary and Take-Home Points: Through the VectorWorks Expert Committee, VectorWorks developed three operations research concept notes and submitted them to the PMI Operations Research (OR) Committee. Two were rejected and the third was tabled indefinitely.

Progress Report: During the January Expert Committee meeting, five concept note topics were identified. Three were developed and submitted in early May 2015. After deliberation, Concept Notes 1 and 5 were rejected; Concept Note 2 was tabled until PMI consensus is achieved. VectorWorks staff members have been exploring concept note ideas for the third topic to be submitted in Year Two. Likewise, Concept Note 4 is dependent on results from the TRAction study in Tanzania.

Next Steps (If Any):

- VectorWorks continues to pursue research topics that can be described in ways that the PMI OR Committee will understand and support, as well as topics that are non-OR programmatic research and evaluations.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Concept note for study to validate methodology/ies for rapid monitoring of ITN coverage	PMI OR committee	Rejected by PMI OR Committee
2. Concept note for study of net integrity and risk of parasitemia and IRB submission if approved	PMI OR committee	Tabled by PMI OR Committee
3. Concept note for study to document the risk of outdoor transmission; IRB submission if approved	PMI OR committee	Further discussion during Q1 Year Two
4. Concept note for study to evaluate operational issues related to durable wall liners; IRB submission if approved	PMI OR committee	For further discussion pending TRAction meetings in Year Two
5. Concept note for developing a semi-field testing protocol to calibrate resistance-to-damage scores with field damage	PMI OR committee	Rejected by PMI OR Committee

ME.9 Net preference literature review

Overall Summary and Take-Home Points: In August 2015, as part of Mod 3, VectorWorks added a literature review on net preferences and their influence on net use, an activity suggested by member of the AMP Emerging Issues Working Group.

Progress Report: The literature review was drafted and submitted in early October to PMI for review; secondary data analysis was conducted using available DHS/MIS datasets to evaluate the associations between shape of ITNs and use of ITNs.

Next Steps (If Any):

- Presentation of initial results to Emerging Issues Working Group and to PMI
- Finalize the report, for possible discussion at next VCTEG meeting

Deliverable	Dissemination Plan	Status / Action for PMI
Report on net preferences	PMI internal, potentially VCTEG	In progress

Objective 3: Promote and Support Country-Level Implementation of Malaria Prevention Activities

Implementation of ITN distribution at country level is a complex challenge and continues to be a focus of the VectorWorks project.

IM.1 Revise the ANC-Expanded Program on Immunization (EPI) Guide (“Keep Up Guide”)

Overall Summary and Take-Home Points: VectorWorks solicited comments internally and externally to assess the kinds of updates the guide needs. VectorWorks will draft and share the appended guidance and a “What’s New” one-pager early in Year Two.

Progress Report: In June 2015, VectorWorks contacted several people from WHO, UNICEF, Population Services International (PSI), and the MiP Working Group to solicit comments on the guide. Despite a couple of reminders, we received no comments. Although UNICEF staff expressed an interest in reviewing it and even requested an extension, ultimately, UNICEF did not provide feedback. In parallel, VectorWorks carried out an internal review of the guide, collected tools referenced in the guide, and uploaded them to the VectorWorks Web site.

Next Steps (If Any):

- As planned, VectorWorks will append guidance on issues we identified during the NetWorks project assessments of ANC-EPI distribution and CD programs. The appended guidance covers supply chains (thresholds and resupply), documentation, and data flow. PSI will contribute a

section on potential roles for the private sector. VectorWorks will draft and circulate a “What’s New” one-pager.

Status of Deliverable:

Deliverable	Dissemination Plan	Status / Action for PMI
Updated ANC-EPI <i>Keep Up Guide</i> and <i>What’s New</i> one-pager	AMP listserv, VCWG listserv, PMI RAs, and ITN in-country working groups during TA visits (USBs loaded with the guide and templates/tools will be distributed)	On track; no action required from PMI

IM.2 Community Distribution Guide

Overall Summary and Take-Home Points: The guide has been drafted and submitted to PMI. VectorWorks had not received PMI feedback before end of Year One. Once feedback is received, the project will make edits, resubmit for final approval, and then proceed to layout and dissemination.

Progress Report: VectorWorks hired Kate Kolaczinski and Emmanuel Obi to draft the guide. They carried out interviews with key informants and reviewed documents, and wrote the report for submission to PMI.

Next Steps (If Any):

- Once PMI approves the text it will be sent for layout and final approval. VectorWorks will then disseminate the guide as described in the Status of Deliverables table, below.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
Community distribution guide	AMP listserv, VCWG listserv, PMI RAs, and ITN working groups in-country during TA visits (USBs loaded with the guide and templates/tools will be shared in country); HWG consultant trainings and SRN meetings	Submitted 9/14/15; PMI feedback received 11/5/15

IM.3 Upgrade Online CD Toolkit

Overall Summary and Take-Home Points: To assess how to improve navigation of the Continuous Distribution toolkit, VectorWorks developed a protocol and instrument to test the online toolkit and, in August 2015, interviewed people on its usability. VectorWorks has analyzed the data and drafted a report of the findings. It will be submitted to PMI after final review. Overall, the toolkit can be improved by adding more resources, removing multiple references to the same resource, highlighting recent additions, and including resources that can be customized or used as templates. VectorWorks will implement these

improvements over the next quarter. The usability testing allowed VectorWorks to gain valuable feedback on how intended users perceive our products.

Progress Report: This activity involved improving the online toolkit navigation and layout, and uploading new relevant products, including those in IM.1 and IM.2 above. We have uploaded tools and documents from activities IM.1 and IM.2 as they have become available. We have also collected usability testing protocols used by the Knowledge for Health (K4Health) Project for other online toolkits and used these to develop a protocol and interview guide for usability testing the online toolkit. Usability testing requires a small sample; no more than 4 to 8 interviews are generally recommended.

In August 2015, VectorWorks staff conducted usability testing interviews with four malaria professionals in Dar es Salaam, Tanzania. Following a specific protocol, these interviews consisted of the interviewees navigating the Toolkit and providing feedback on the layout, content, and ease of navigation. Interviews were audio recorded and transcribed. VectorWorks has analyzed the data and drafted a report of the findings, and will submit a report to PMI once it undergoes a final internal review.

The report includes detailed recommendations for improving the toolkit. Interviewees appreciated the online toolkit and found it visually appealing. Overwhelmingly, their main recommendation was to add more tools and documents to make it a more comprehensive resource for vector control professionals. Additional recommendations included these:

- Remove multiple references to the same resource.
- Highlight recent additions to the toolkit.
- Include templates or customizable resources.
- Use colors or symbols to help users differentiate between the different sections of the toolkit.
- Include tools from a wider range of countries.
- Avoid using acronyms and reduce technical jargon.
- Add a comments feature or mechanisms to allow users to engage with the toolkit authors.

Next Steps (If Any):

- In the next quarter, VectorWorks will finalize the usability testing report and submit it to PMI. VectorWorks will implement several of the usability testing recommendations to improve the online toolkit, and upload products from IM.1 and IM.2 once they are finalized. On the basis of preliminary findings, we will compile a more comprehensive step-by-step guide to CD that will include all the resources from the toolkit and templates for carrying out a successful CD campaign (activity IM.8 in the Year Two work plan).

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Usability testing protocol and report	Staff e-mail list, AOR submission	Protocol is complete and report is drafted; after final review both will be submitted to PMI for review

2. Updated CD toolkit	AMP listserv, VCWG listserv, PMI RAs, and ITN working groups in-country during TA visits (to be added to USBs for distribution)	New tools were uploaded in Q4, and, based on usability testing report, additional improvements will be made as part of Year Two activity IM.8
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IM.4 Integrating Net Care BCC into Implementation

Overall Summary and Take-Home Points: This activity involves disseminating project experiences in BCC for ITN care and the relationship between BCC and prolonged net lifespan. VectorWorks disseminated these experiences through several channels over the course of Year One and drafted a guide that will be finalized in Year Two.

Progress Report: Data collected under the NetWorks project suggest that gains in net lifespan can be obtained by promoting changes in net care behaviors and attitudes, especially behaviors that prevent damage to ITNs. These data and experiences with on net care have been disseminated through several channels:

- Hannah Koenker shared net care and repair BCC data and her implementation experiences in a presentation at the AMP annual partners’ meeting in January 2015.
- VectorWorks staff discussed lessons learned about net care and repair BCC during in-person conversations with members of the AMP and VCWG during the AMP/VCWG annual meetings in January, and in August 2015 with researchers at the London School of Hygiene and Tropical Medicine and Ifakara Health Institute in Tanzania.
- The NetWorks summary document on net care was finalized in February 2015. It provides an easy-to-read description of implementation experiences and research results in Nigeria and Uganda (available with the [Care and Repair of LLINs online toolkit](#)).
- A manuscript describing the results of the NetWorks BCC pilot in Nigeria was published in January 2015, and the results of the NetWorks BCC pilot in Uganda were published in September 2015, both in *Malaria Journal*.

Publication of the Uganda data helps paint a more complete picture for developing net care BCC. VectorWorks has drafted a step-by-step guide for integrating ITN care key messages into ITN BCC, which will be shared with PMI for review in Q1 of Year Two.

Next Steps (If Any):

- Finalize the guide and disseminate it.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
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Step-by-step guide to integrating ITN care key messages into existing ITN BCC platforms	AMP, VCWG, Communication Community of Practice Working Group, Health Communication Capacity Collaborative/Springboard, Core Group e-mail groups	Will be finalized in Q1 of Year Two for review by PMI
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IM.5 Designing Accountability Mechanisms for ITN Distribution

Overall Summary and Take-Home Points: Much of the groundwork for the report has been completed. Consultants were identified in Q4 and a list of key informants and documents to review is being developed now.

Progress Report: This activity is intended to provide guidelines and tactics for minimizing opportunities for fraud in ITN distribution, both through continuous and campaign mechanisms, and for rapidly detecting and mitigating losses due to fraud in ITN distribution. A request for proposals (RFP) for a consultant to review current procedures and propose improvements was drafted late in Q2 and revised on the basis of input from staff with the USAID DELIVER Project and Systems for Improved Access to Pharmaceuticals and Services Program; staff from both programs provided helpful input that resulted in a much-improved RFP. Consultants Hamisu Hassan and Kate Kolaczinski were engaged via Tropical Health. VectorWorks is currently collecting documents and names of people to serve key informants for the consultants.

Next Steps (If Any):

- The consultants will review documents and conduct approximately 15 key informant interviews. This information will be used to draft the report.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
Report on fraud prevention and risk mitigation measures for ITN distribution programs. If deemed valuable, a report and recommendations for wider distribution will be prepared	Review by project and AOR, PMI	Delayed, but in progress

Project Management

PM.1 Start Up

Overall Summary and Take-Home Points: The VectorWorks project is now fully operational.

Progress Report: VectorWorks set up all subawards for all partners including with the Swiss Tropical and Public Health Institute, which was delayed and set up only for Year Two. The knowledge management (KM) program position was filled, which was highlighted in the VectorWorks proposal staffing plan. The VectorWorks core work plan and associated budget were approved on March 16, 2015. The project Performance Monitoring Plan was approved on August 14, 2015. Finally, the project has a final branding plan and marking strategy, which was disseminated to the partners for appropriate marketing and consistency across the project.

Net Steps (If Any): None.

PM.2 Knowledge Management

Overall Summary and Take-Home Points: Since hiring a knowledge management (KM) officer in July 2015, VectorWorks has made a major effort to integrate KM into our planning and documentation processes.

Progress Report: In early Q4 VectorWorks hired a KM officer, designed the project Web site, launched communications activities, and drafted a promotion and dissemination strategy. In addition, we began putting systems in place to support internal KM and leveraged the work plan writing activity and the Performance Monitoring Plan to outline several dissemination channels for specific deliverables.

Next Steps (If Any): None.

PM.2.A Web Site

Overall Summary and Take-Home Points: Vector-works.org was launched in April 2015, and since then, it has undergone a series of updates to be completed early in Year Two.

Progress Report: In December 2014, VectorWorks has developed a new project Web site, <http://www.vector-works.org>, using a Word Press template and some outside assistance with design. The Web site was revised in Q2 and launched on World Malaria Day, April 25, 2015. Since the launch, additional feedback from PMI was received and the Knowledge Management Officer made updates, added more project resources, and improved the design and look of the site. The final updated site will be ready early in Year Two.

Next Steps (If Any):

- Work with a temporary Web site specialist to complete the necessary updates to the Web site.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
VectorWorks Web site	Including Web site address in correspondence, project documents, and maintaining a project e-mail listserv	Launched April 25, 2015; updates ongoing with input from PMI

PM.2.B Knowledge Management

Overall Summary and Take-Home Points: VectorWorks hired a KM officer in July 2015, who has since completed many of the internal KM tasks.

Progress Report: VectorWorks completed a Deliverables and Dissemination Dashboard, an updated core agenda tracker, an internal procedures manual, and a draft dissemination strategy. These activities seek to improve process and flow for reporting and dissemination activities. In addition, a Facebook page, Twitter handle, VectorWorks brochure, and newsletter template have been completed as a means to improved external communications.

Next Steps (If Any):

- Complete the dissemination strategy and submit it to PMI for final review.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Internal KM procedures manual	E-mail	Completed in September 2015, shared internally with staff
2. Dissemination strategy	E-mail	Submitted draft 10/12/15, feedback to be incorporated in final version, in Q1 Year Two

PM.3 Gender Aspects of ITN Distribution and Use

Overall Summary and Take-Home Points: In project Year One, VectorWorks actively brought gender onto the project agenda. Through a global gender analysis and development of a gender strategy, we identified key opportunities for gender integration throughout the project. We also engaged on emergent gender considerations through a number of channels. This included team meetings to discuss findings from the gender analysis and strategy; meetings with team leads to identify opportunities to integrate gender into activity planning; regular engagement with the JHU Center for Communication Programs (CCP) Gender Community of Practice, including a "peer assist" to inform gender analysis design and a formal presentation on gender analysis findings; and engagement with USAID, including a presentation and discussion led by the USAID Senior Gender Advisor at the Year Two work planning meeting. Year One activities related to gender aspects of ITN distribution and use have laid the groundwork for continued engagement and strategic gender integration throughout the life of the project.

Progress Report: The gender analysis report and project gender strategy have been reviewed and approved.

Next Steps (If Any):

- Moving into project Year Two, VectorWorks will implement the gender strategy across core and country-level activities. The VectorWorks team will continue to engage with the CCP Gender Community of Practice and USAID’s Senior Gender Advisor.

PM.3.A Gender Analysis

Overall Summary and Take-Home Points: VectorWorks staff carried out a global gender analysis to systematically incorporate gender into the three project objectives. The analysis identified a paucity of information about the association between gender and malaria, and considerable opportunities for the project to expand the knowledge base on the topic through research, policy, and implementation activities. The findings of the gender analysis were used to directly inform the project gender strategy.

Progress Report: A desk review was conducted on gender domains as they relate to distribution and use of ITNs. This included a review of published literature on gender and malaria, and a review of work completed under the NetWorks project. Gender analysis findings were presented to the CCP Gender Community of Practice and the VectorWorks team for input and discussion. The gender analysis report was reviewed and approved by PMI, including the Senior Gender Advisor.

Next Steps (If Any): None.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
Internal report on gender analysis findings	PMI, including senior gender advisor, via e-mail VectorWorks team and partners at the Year Two work planning meeting	Approved 8/25/15

PM.3.B Gender Strategy

Overall Summary and Take-Home Points: Development of a project gender strategy was an important step toward strategically integrating gender across key project objectives. The strategy will be used to guide core and country-level activities throughout the life of the project.

Progress Report: The VectorWorks gender strategy was developed on the basis of key challenges and opportunities identified in the gender analysis report. The strategy provides recommendations for integrating gender across the three focus areas of the VectorWorks project: policy, monitoring and evaluation, and implementation. PMI, including the Senior Gender Advisor, has reviewed and approved the strategy.

Next Steps (If Any):

- No additional action is required on the strategy document.
- Begin implementing the strategy in project Year Two, across core and country-level activities.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
Gender strategy for VectorWorks project	PMI, including senior gender advisor, via e-mail. VectorWorks team and partners at the Year Two work planning meeting	Submitted 10/5/15; Approved 10/9/15

PM.4 Project Communications, Coordination, and Reporting

Overall Summary and Take-Home Points: VectorWorks has successfully stayed on track with project communications, coordination, and reporting.

Progress Report: VectorWorks has conducted weekly calls with the internal project team, weekly calls with our senior management team and PMI, and monthly calls with our partners. Three regularly scheduled financial reports have been submitted. The first financial report was submitted February 15, 2015; the second report was submitted May 15, 2015; and the third was submitted August 15, 2015. The fourth and final report is attached with this annual report.

Status of Deliverables:

Deliverable	Dissemination Plan	Status / Action for PMI
1. Weekly internal conference call (annotated agendas)	n/a	On track
2. Weekly PMI/project director-deputy director coordination call (call minutes)	AOR	On track
3. Annual project work plan planning meeting	PMI project team	Complete
4. Internal planning meeting	n/a	Complete
5. CCP worldwide meeting	n/a	Complete
6. Finance orientation for subaward monitoring	n/a	Complete
7. Bimonthly PMI update meetings, travel Baltimore-Washington over the year	n/a	On track
8. Narrative progress reports	AOR	On track
9. Financial reports	AOR	On track
10. Project supervision Ghana (trip report)	AOR, PMI/Ghana	Complete, submitted 4/16/15

Cost Share Update

At this point in time, we calculate the cost-share contributions for VectorWorks as follows:

Source	Amount	Applicable Period	Cumulative Total	Amount Needed (10%)	Notes
DFID/Ghana	\$877,745	October 1, 2014–June 30, 2015	\$877,745	\$814,800	Surplus \$108,312
CCP Discretionary Spending – Severance	\$45,367.76	2015	\$45,367.76		
Swiss Agency for Development and Cooperation	Konstantina Boutsika level of effort for support to RBM working groups	October 1, 2014–March 31, 2015	TBD		

Appendix A: VectorWorks Performance Evaluation Plan

Appendix B: Deliverables Table

Code	Deliverable	Status	Timing			
		9/30/2015	Q1	Q2	Q3	Q4
PC.1.A	VCWG meeting conducted	Completed		X		
PC.1.B.1	RBM 12/2014 board meeting trip report	Completed	X			
PC.1.B.2	RBM 12/2014 task force meeting trip report	Completed		X		
PC.1.B.3	RBM 3/2015 board meeting trip report	Completed			X	
PC.1.B.4	RBM additional task force meeting trip report	Completed			X	
PC.1.B.5	RBM 5/2015 board meeting trip report	Completed			X	
PC.1.C.1	VCWG meeting joint trip report	Completed		X		
PC.1.C.2	Presentations from VCWG meeting	Completed		X		
PC.1.C.3	CD and Durability work stream workplans	Completed		X		
PC.1.C.4	VCWG Annual meeting report	Completed		X		
PC.1.D.1	Presentations from AMP meeting	Completed		X		
PC.1.D.2	AMP meeting joint trip report	Completed		X		
PC.1.D.3	Revised AMP toolkit	In Process				X
PC.2.A.1	Input on vector control "graduation" document	Not Started		X	X	
PC.2.B.1	Manuscript on transitioning from campaigns to CD	In Process			X	
PC.2.B.2	Guidance on transitioning from campaigns to CD	Not Started			X	X
PC.2.B.3	Presentation to SRN/HWG meetings/workshops	Not Started				X
PC.3.A.1	Training materials on access:use indicator	Completed		X		
PC.3.A.2	Update HWG guidance on access:use indicator	Completed		X		
PC.4.1	GIS report on population estimates	In Process		X		
PC.4.2	Potential harm from insecticide leaching report	In Process			X	
PC.4.3	Potential harm from small-mesh nets report	In Process				X
PC.4.4	Literature review summarizing evidence addressing LLIN misuse for fishing	In Process			X	
PC.5.1	MIP WG trip report and presentation	Cancelled		X		
PC.5.2	MIP WG trip report and presentation (Geneva)	Completed				X
PC.5.3	MIP advocacy strategy	In Process				X

ME.1.1	Durability monitoring guidelines	In Process		X		
ME.1.2	Durability monitoring standardized tools	In Process			X	
ME.1.3	Durability monitoring data repository	In Process			X	
ME.1.4	Validation of RD score - inter-lab (consultative meeting/writing)	Not Started			X	X
ME.2.A.1	Landscape report on alternative vector control tools	Completed		X		
ME.2.B.1	Quarterly newsletter alternative vector control tools	Ongoing			X	X
ME.3.1	Madagascar costing and output data report	Cancelled			X	
ME.3.2	Tanzania costing and output data report	In Process				X
ME.3.3	Ghana health facility costing update	Postponed				X
ME.4.1	External review of DWL study Tanzania trip report	Completed		X		
ME.5.A.1	NetCALC 3.0	In Process				X
ME.5.B.1	Manuscript Madagascar community distribution pilot	In Process			X	
ME.5.B.2	Manuscript on Ghana school distribution pilot	In Process			X	
ME.5.B.3	Nasarawa CDD pilot report	Completed			X	
ME.6.1	Campaign strategies comparison paper	In Process		X		
ME.6.2	Uganda Hang Up paper published	Completed		X		
ME.6.3	Ghana outdoor sleeping paper published	Completed		X		
ME.6.4	Nigeria durability paper published	Completed		X		
ME.6.5	Uganda C&R endline published	Completed			X	
ME.6.6	Nigeria Cross River schools published	In Process			X	
ME.6.7	Hole Index Methods paper published	In Process			X	
ME.7.1	PMI report on access indicator	Completed			X	
ME.7.2	Sub-national use of access:use ratio published	In Process				X
ME.8.A	VectorWorks research agenda	Completed		X		X
ME.8.B.1	Concept note on ITN monitoring	Completed			X	
ME.8.B.2	Concept note parasitemia and net integrity	Completed			X	
ME.8.B.3	Concept note on risk of outdoor transmission	Postponed			X	
ME.8.B.4	Concept note on DWL operational issues	Postponed			X	
ME.8.B.5	Concept note for linking RD scores with field damage	Completed			X	
ME.9	Net preference lit review	In Process				X
IM.1	ANC-EPI guide	In Process			X	
IM.2	Community distribution guide	In Process			X	

IM.3.1	Usability testing protocol and report for CD toolkit	In Process				X
IM.3.2	Updated CD toolkit	In Process				X
IM.4	Guide for integrating C&R into ITN BCC platforms	In Process				X
IM.5	CD accountability recommendations report	In Process				X
PM.1.1	Field Operations Director hired	Completed		X		
PM.1.2	KM Officer hired	Completed		X		
PM.1.3	Budget Analyst hired	Postponed		X		
PM.1.4	Tropical Health subaward	Completed		X		
PM.1.5	PSI subaward	Completed		X		
PM.1.6	Tulane subaward	Completed		X		
PM.1.7	MEDA subaward	Completed		X		
PM.1.8	Swiss TPH subaward	In Process		X		
PM.1.9	Branding and marking plan	Completed		X		
PM.1.10	Core workplan	Completed		X		
PM.1.11	Performance monitoring plan	Completed		X		
PM.2.A	Website	Ongoing		X		
PM.2.B	Internal KM procedures manual	Completed		X		
PM.2.B	Dissemination strategy	In Process		X		
PM.3.A	Gender Analysis	Completed			X	
PM3.B	Gender Strategy	In Process				X
PM.4.1	Weekly internal conference call agendas	Ongoing	X	X	X	X
PM.4.2	Weekly PMI/VectorWorks coordination call	Ongoing	X	X	X	X
PM.4.3	Annual workplan meeting	Completed	X			X
PM.4.4	Internal planning meeting	Completed				
PM.4.5	CCP worldwide meeting	Completed			X	
PM.4.6	Finance orientation for subaward monitoring	Completed				X
PM.4.7	Bi-monthly PMI update meetings	Completed	X	X	X	X
PM.4.8	Narrative progress reports	Completed			X	
PM.4.9	Financial reports	Completed	X	X	X	X
PM.4.10	Project supervision Ghana trip report	Completed		X		



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President's Malaria Initiative

VECTORWORKS
Scaling Up Vector Control for Malaria Prevention

VectorWorks Ghana Annual Report – Year 1

Reporting period: October 1, 2014 –September 30, 2015

Cooperative Agreement # AID-OAA-A-14-00057

Submitted to: U.S. Agency for International Development/President's Malaria Initiative

November 15, 2015



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Acronyms

ANC	antenatal care
CCP	Johns Hopkins Center for Communication Programs
CMS	Central Medical Stores
CWC	child welfare clinics
DHMT	district health management teams
EPI	Expanded Programme on Immunization
GES	Ghana Education Service
GHS	Ghana Health Service
ITN	insecticide-treated mosquito net
M&E	monitoring and evaluation
MaVCOG	Malaria Vector Control Oversight Committee
MCH	Maternal and Child Health
NMCP	National Malaria Control Program
NMT	national monitoring team
PMI	President's Malaria Initiative
PTA	parent-teacher association
RHMT	regional health management team
Peers RUN	Peers for Regular Use of Nets
SHEP	Schools Health Education Program
USAID	U.S. Agency for International Development
VCWG	Vector Control Working Group

Background

Year 1 of the VectorWorks Ghana project began with pre-approval for specific activities, followed by approval of an interim work plan in February 2015. Approval of the interim work plan facilitated timely start-up of the project and laid a strong foundation for implementing Year 1 activities. By the end of this interim phase, the project recruited and oriented new staff.

The project consulted with its main partners, the Ghana Health Service (GHS) and the National Malaria Control Program (NMCP), to integrate approved VectorWorks activities into the NMCP's annual work plan; this was in line with the goal to increase Ghana's capacity to develop, monitor, and implement appropriate vector management interventions. The project also consulted with the Ghana Education Service (GES) and the Schools Health Education Program (SHEP). In May 2015 the project received approval for the full Year 1 work plan, which integrated interim work plan activities. This report covers all activities carried out in Year 1.

Summary of Activities

In Year 1, VectorWorks Ghana worked to strengthen capacity for effective planning, implementation, and monitoring of insecticide-treated net (ITN) distribution in Ghana. The project designed activities to complement NMCP activities and to address gaps in planning, supervision, monitoring, and accountability in mass and continuous distribution activities.

VectorWorks Ghana facilitated improved health facility-based distribution in four regions— Upper East, Northern, Ashanti, and Brong Ahafo. Key accomplishments included formation of a national monitoring team (NMT), reorientation of regional and district health management teams (RHMTs and DHMTs), and on-the-job training for health facility staff across the four regions.

VectorWorks Ghana also supported the point mass distribution campaign of the NMCP in two regions—Brong Ahafo and Western—through training of subdistrict supervisors on validation of community population data for ITN quantification and support for monitoring of point mass distribution activities.

In addition to improving ITN distribution systems, VectorWorks Ghana piloted Peers for Regular Use of Nets (Peers RUN), a behavior change communication program to improve ITN use in 35 communities.

In collaboration with the GES/SHEP parent-teacher association (PTA), the project held malaria update information meetings in five southern regions of the country—Volta, Eastern, Central, Greater Accra, and Western. These meetings aimed to sustain school malaria prevention education activities started during the predecessor NetWorks project.

To facilitate effective coordination across national stakeholders, VectorWorks Ghana supported ITN subcommittee meetings, attended Malaria Vector Control Oversight Committee (MaVCOC) meetings, and produced and distributed the *Ghana Malaria Action Alert* to sustain advocacy and collaboration among leadership of the country and the malaria programs partnership. Finally,

VectorWorks Ghana shared lessons learned at an international forum through participation of the chief of party and GES representative at the Vector Control Working Group (VCWG) meeting in Geneva.

Challenges

Shortage of ITNs at health facilities in the regions

Implementation of the health facility-based orientation and monitoring of ITNs depended upon availability of nets at the antenatal care (ANC) and child welfare clinics (CWCs) in the various regions and districts. During the first year, only four regions received an adequate supply of ITN for facility-level distribution, thus VectorWorks was not able to carry out its planned activities in all six regions. VectorWorks will work closely with the USAID | DELIVER PROJECT to ensure that the various regions receive nets at their regional and district locations on time for the second year's facility-based continuous distribution activities.

Increasing demand on VectorWorks staff time from NMCP

The point mass distribution campaigns of the NMCP require a sufficient number of trained technical workers. The NMCP depended on VectorWorks for this support, especially in the areas of validating community population data, training of volunteers, supervision, and monitoring of the distribution of nets at the various distribution points. These tended to take staff away from the other project activities for too long. VectorWorks will continually engage with the NMCP to ensure fair distribution of staff along the various activity lines and to improve capacity within the NMCP to meet these needs.

Competing activities for attention at the DHMTs and the District Education Directorates

Competing activities often led to postponement and delays in implementing some project activities, especially on-the-job training of health workers in continuous distribution and the organization of PTA malaria update meetings.

Regular and continuous consultation with these key stakeholders, including NMCP, R/DHMTs, GES, and SHEP, and regular engagement of regional and district malaria focal persons helped in mediating the effects of this challenge.

Opportunities

Regional and district health monitoring teams demonstrated enthusiasm and interest in being included in the monitoring of health facility-level distributions. This is a remarkable opportunity, which the project will capitalize on. In Year 2 VectorWorks proposes to support all RHMTs to draw up realistic monitoring schedules that will enable them to support the DHMTs in ensuring facility-

level workers follow established processes in distributing and documenting net distributions at the facilities. VectorWorks will also support the organization of regional review meetings that will enable DHMTs to share experiences among themselves.

Finally, VectorWorks Ghana has developed a positive relationship with the NMCP that is built on mutual trust and effective communication. The NMCP has expressed gratitude for the dependability and responsiveness of the VectorWorks Ghana team. This relationship has established a positive foundation on which to build Year 2 activities.

Status of Country Operations

Due to the closure in June 2015 of the e-Enhanced Social Marketing Initiative funded by the UK Department for International Development, VectorWorks lost the services of the compliance and monitoring officer who would have shared his time between the two projects in managing the monitoring and evaluation issues. This situation resulted in the continuous distribution manager taking on the additional responsibility of working with the M&E manager of the USAID Systems for Health project and the M&E unit of the NMCP to resolve data issues concerning planning and implementation of project activities. VectorWorks Ghana is working to address this challenge in Year 2 by hiring an M&E consultant to support project activities.

Status of Submitted Deliverables

VectorWorks Ghana has submitted all but two deliverables included in the approved Year 1 work plan for PMI's review. The project will submit the remaining two deliverables (summary report on the PTA malaria update meetings and the end-of-pilot report for the Peers RUN program) by the end of November 2015 once it has completed the activities. VectorWorks Ghana is currently waiting on PMI approval to disseminate the second issue of the *Ghana Malaria Action Alert*, submitted at the end of September.

Policy (PC) Activities

GH.PC.1 Coordination

GH.PC.1.A ITN Subcommittee Meetings

Progress report: VectorWorks Ghana supported two ITN subcommittee meetings during the year. The project held these meetings to plan for the implementation of point mass distribution campaigns in the Brong Ahafo Region in May and in the Western Region in June 2015. At each of these meetings, VectorWorks stressed the importance of its role in the campaign, which involved

helping the DHMTs and the subdistrict teams to validate population data to ensure equitable allocation of ITNs to the various communities.

Next steps: A major point that will continue to be central to discussions at future ITN subcommittee meetings is the availability and transportation of nets to various regions and districts when their campaign times are due. VectorWorks will continue to keep close contact with concerned partners, especially the USAID | DELIVER PROJECT and the NMCP, and will ensure adherence to the plans drawn for allocation and transportation of ITNs to the regions.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Minutes of ITN subcommittee meeting	PMI, NMCP, GHS	Q3	Share meeting minutes with audience via email	Submitted; no action required
Minutes of ITN subcommittee meeting	PMI, NMCP, GHS	Q4	Share meeting minutes with audience via email	Submitted; no action required

GH.PC.1.B MaVCOC Meeting

Progress report: VectorWorks participated in two MaVCOC meetings in Year 1. These meetings served as important forums for various vector control projects, agencies, and companies from both public and private sectors to present updates of their ongoing activities. VectorWorks’ discussion of health facility-level distributions, documentation, support for community mobilization, and behavior change communication for continuous and point mass distribution often attracted lively discussion of community members’ attitude towards continuing net use and other prevention behaviors.

Next steps: VectorWorks will continue participating in MaVCOC meetings in Year 2 as this will provide opportunities to keep all partners informed of continuous distribution and net use activities.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Minutes of MaVCOC meeting	PMI, NMCP, GHS	Q2	Share meeting minutes with audience via email	The NMCP releases meeting minutes. The project has not submitted minutes to avoid redundancy of efforts. VectorWorks will not include meeting minutes as formal deliverables in Year 2.
Minutes of MaVCOC meeting	PMI, NMCP, GHS	Q3	Share meeting minutes with audience via email	
Minutes of MaVCOC meeting	PMI, NMCP, GHS	Q4	Share meeting minutes with audience via email	

GH.PC.1.C Vector Control Working Group Meeting in Geneva

Progress report: The VectorWorks chief of party and the SHEP coordinator of the GES participated in the VCWG meeting in Geneva in January 2015. Participating in the VCWG meeting enabled the two officials to share Ghana’s experience in carrying out the school continuous distribution program in 2014 with other country representatives, especially Tanzania, which was about to initiate its own large-scale school distribution program. Lessons learned from Pakistan’s “lady health worker and community partners” community-based net use promotion program helped in developing and implementing the Peers RUN pilot program.

Next steps: VectorWorks will support participation in this meeting in Year 2 for an NMCP representative to share lessons learned in implementing key activities such as the health facility-level continuous distribution program, point mass distribution activities, and behavior change communication activities.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Summary participants report	PMI, NMCP, GHS, GES	Q2	Share participants report with audience via email	Submitted; no action required

Implementation (IM) and Capacity Building

GH.IM.1 Support for Health Facility-Based ITN Distribution

GH.IM.1.A Formation and Orientation of National-Level ITN Monitoring Team

Progress report: VectorWorks Ghana worked with the NMCP and GHS to form a national ITN monitoring team. The NMT comprised members from the NMCP; Maternal and Child Health Division; Expanded Programme on Immunization (EPI) Division; Central Medical Stores; the Health Promotion Unit; Policy, Planning, Monitoring and Evaluation unit; and other implementing partners.

VectorWorks Ghana conducted a two-day workshop for the NMT on the concept of ITN continuous distribution, training, and monitoring of health personnel at all levels on health facility-based ITN distribution. This approach aimed to provide a platform for stakeholders in antenatal and child welfare programs to discuss issues associated with the implementation of health facility distribution and to provide multisectoral solutions in addressing these issues. During the workshop, the NMT agreed on timelines for the orientation of DHMTs and the monitoring of ITN distribution in health facilities in regions where health facility-based distribution was ongoing.

VectorWorks reviewed training guidelines developed by the NetWorks project, NMCP, and other partners for all levels of health facility-based ITN distribution. The project then revised the guidelines based on lessons learned during the NetWorks project’s implementation in Ghana and experiences from other countries. The project used the revised training guidelines for orientation at the national level.

The functions of the NMT as agreed upon at the workshop are as follows:

- Training of regional and district monitoring teams who will in turn train health facility staff involved in continuous distribution implementation.
- Provision of monitoring support to regional and district monitoring teams to ensure implementation of continuous distribution is consistent with implementation guidelines.
- Continual review of continuous distribution implementation guidelines and provision of inputs to finalize the guidelines.

Next steps: The standing NMT will facilitate the training of regional and district teams in five regions in Year 2.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
List of members of the national ITN monitoring team	PMI, NMCP, GHS, EPI, MCH, CMS	Q2	Share list of members in an official letter to heads of all GHS units and divisions	Submitted; no action required
Report on proceedings of orientation for national ITN monitoring team	PMI, NMCP, GHS, EPI, MCH, CMS	Q2	Share orientation workshop report with audience via email	Submitted; no action required
Timelines for regional- and district-level reorientation and monitoring of health facility-based ITN distribution	PMI, NMCP, GHS, EPI, MCH, CMS, RHMTs	Q2	Send official letters to heads of all units and divisions and RHMTs to notify them of timing of regional reorientations	Submitted; no action required
Final revised general ITN CD guidelines, and training guidelines for training at all levels	PMI, NMCP, GHS, EPI, MCH, CMS	Q3	Share training guidelines with all stakeholders via email	Submitted; no action required

GH.IM.1.B Reorientation of Regional and District Health Management Teams for Monitoring of Health Facility-Based ITN Distribution

Progress report: VectorWorks trained a total of 615 regional and district officers from four regions (Upper East, Northern, Ashanti, and Brong Ahafo) to provide on-site training to health facility staff involved in ITN distribution. These officers received training on:

- The role of ITN in malaria prevention
- The health facility ITN distribution model
- Roles and responsibilities
- ITN logistics and supply chain
- Distribution, record keeping, reporting, and monitoring of ITN
- Communication and social mobilization

As a prelude to the discussions on the implementation of health facility distributions, NMTs led a review of data from the district health information management system (DHIMS 2) to showcase the performance of districts, discuss best practices, and discuss challenges and ways to address them as teams visit health facilities. Members of the regional and district monitoring teams have the responsibility of overseeing health facility-based ITN distribution and will ensure facilities receive ITNs, educate and distribute to target beneficiaries, document and report ITNs distributed.

Next steps: VectorWorks will support the regional and district monitoring teams with supportive supervision to health facility staff in Year 2.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Documentation of members of regional ITN monitoring teams	GHS, PMI, NMCP, EPI, MCH, CMS	Q3	Share list of members of regional and district teams and information on follow-on activities with GHS divisions and units	Submitted; no action required
Report on proceedings of orientation of regional monitoring teams	GHS, PMI, NMCP, EPI, MCH, CMS	Q3	Share orientation workshop report with audience via email	Submitted; no action required
Timelines for district-level reorientation	RHMTs, DHMTs, MCH, EPI	Q3	Send official letters to members of regional ITN monitoring teams and DHMTs to notify them of timing of district level reorientations	Submitted; no action required
Report on orientation of district monitoring teams	RHMTs, NMCP, MCH, EPI	Q3	Share report with audience via email	Submitted; no action required
Timelines for on-the-job training of health workers at health facilities	RHMTs, NMCP, MCH, EPI	Q3	Share report with audience via email	Submitted; no action required
CD documentation chart	DHMTs, ANC & EPI	Q3–Q4	Distribute charts through DHMTs	Submitted; no

	Clinics			action required
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GH.IM.1.C. On-the-Job Training and Monitoring of Health Facility-Based Distribution

Progress report: VectorWorks worked with the NMCP, NMT, regional and district health management teams to provide orientation and on-the-job training to 6,289 ANC clinics, CWCs, and medical stores officers in 1,428 health facilities in four regions (Upper East, Northern, Ashanti, and Brong Ahafo). Trained district monitoring teams supported by regional teams visited each health facility, and with the aid of a checklist, the teams assessed progress and gaps in documentation and record keeping, education on ITN use and care, ITN logistics, and supply chain. The project conducted a pre- and posttest assessment with cumulative scores of 63.7% and 85.7% respectively. District and regional teams identified the following key gaps:

- Poor documentation of ITNs issued to ANC registrants and children due for the measles 2 dose in the respective registers, tally books, and monthly reports, resulting in non-reporting in DHIMS 2.
- Non-adherence to minimum and maximum stock levels and requisition protocols resulting in stock outs. In some facilities, there were no tally cards to keep records of ITNs received and issued to beneficiaries.
- Difficulty in transporting ITNs from regional warehouses to district/health facility stores due to absence of funds. There are no funds allocated for the transportation of ITNs from regional stores to health facilities. Districts and health facilities rely on internally generated funds to transport ITNs. ITNs are distributed free of charge.

Next steps: VectorWorks will support regional and district teams in Year 2 to continue to offer on-the-job coaching to health facilities to strengthen ITN supply chain, improve documentation and reporting, and enhance the capacity of staff to educate ITN recipients on ITN use and care. This will improve DHIMS 2 report on health facility ITN distribution.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Report on on-the-job trainings of health facility workers	RHMTs, NMCP, MCH, EPI	Q3–Q4	Share report with audience via email	Submitted; no action required
Timelines for on-the-job training of health workers at health facilities	RHMTs, NMCP, MCH, EPI	Q3–Q4	Share report with audience via email	Submitted; no action required

GH.IM.2 Support for Point Mass Distribution of ITN

VectorWorks supported the NMCP and partners in the point mass distribution of ITNs in the Brong Ahafo and Western Regions of Ghana. Areas of support included campaign planning, training of subdistrict supervisors to validate household registration data, and monitoring of the distribution exercise.

GH.IM.2.A Training of Subdistrict Supervisors on Validation of Community Population Data for ITN Quantification

Progress report: VectorWorks trained a total of 145 and 136 subdistrict officers in data validation in the Brong Ahafo and Western Regions respectively. National and regional trainers conducted on-site trainings for subdistrict officers. The process involved the use of a tool to check household registration data against existing community population data to detect variances.

Subdistrict supervisors, after going through the validation process and checking for errors, produced data that reflected household numbers for distribution of ITNs to prepositioning sites for the exercise.

Next steps: VectorWorks will include this exercise in the revised point mass distribution guidelines and will apply it to the five remaining regions due for distribution in Year 2 activities.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Report on proceedings of subdistrict-level trainings in two regions	PMI, NMCP, GHS, RHMTs, DHMTs	Q2	Share training reports with audience via email	Submitted; no action required
Populated validation tools from each subdistrict/district	NMCP, RHMTs, DHMTs	Q2–Q3	Share populated tools with audience via email	Submitted; no action required
Report on visit to identified subdistricts and communities to review ITN quantification	PMI, NMCP, RHMTs, DHMTs	Q3	Share report with audience via email	Submitted; no action required
Final ITN quantifications for two regions	PMI, NMCP, RHMTs, DHMTs	Q3	Share final ITN quantifications with audience via mail	Submitted; no action required

GH.IM.2.B Monitoring of Point Mass Distribution of ITN

Progress report: VectorWorks supported the NMCP and the Brong Ahafo and Western Region health directorates in monitoring the distribution of 1,380,497 ITNs and 1,438,345 ITNs in the two regions respectively. This support was in the form of personnel and vehicles. Monitoring teams ensured distribution of ITNs in accordance with pre-registered households and allocation of ITNs to households in accordance with the universal coverage policy of one ITN for every two people in a household. The project also emphasized education of community members on ITN use and care during the distribution.

Next steps: VectorWorks will provide support to the NMCP and regional health directorates in three remaining regions in Year 2.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Report on monitoring of mass distribution in two regions	PMI, NMCP, RHMTs, DHMTs	Q3	Share monitoring reports with audience via email	Submitted; no action required

GH.IM.3 Community Mobilization and Behavior Change Communication

GH.IM.3.A Peers for Regular Use of Nets (Peers RUN) Program

Progress report: VectorWorks is implementing the pilot Peers RUN program in 35 communities in seven districts, one district from each of the seven regions. Key activities that the Peers RUN program has undertaken so far include the following:

- (a) Developed and distributed a Peers RUN implementation guide to DHMTs, GES District Directorates, and SHEP coordinators of implementing districts.
- (b) Trained a total of 184 Peers RUN volunteers and their supervisors.
- (c) Held community meetings/durbars in all 35 communities during the pilot launch, volunteers introduced the pilot program to communities along with malaria-themed drama performances by school children, and DHMTs and community leaders called for improved use of nets to prevent malaria.
- (d) Produced Net Use Reminder Cards and posted them on doors in households that volunteers visited.
- (e) Volunteers visited a total of 3,912 households to promote net use and care during the first one-and-a-half months of implementing the pilot in six of the seven regions.
- (f) Engaged a total of 45 primary schools in implementing the program in these regions.
- (g) Addressed complaints from community members about worn-out nets. The complaints came mostly from the Central, Northern, and Upper East Regions where the last mass

distribution happened three years ago; the next distribution will take place in November 2015.

- (h) Volunteers also visited churches, markets, CWCs, and ANCs, and participated in community meetings organized by Chiefs and Queen mothers to educate the people on ITN use and care.
- (i) School health officers/teachers have begun to use weekly worship sessions at school assemblies as forums for disseminating messages on malaria prevention.
- (j) Malaria information sharing has become part of District Head Teachers meetings in the Central Region especially.

Next steps: VectorWorks project officers, district directors of health and education through their assigned staff, will continue to monitor the activities of the volunteers and their supervisors through the end of October 2015, which also marks the end of the pilot. The project will develop and disseminate a final monitoring report on the pilot at a stakeholders' meeting in the second week of November. Participants will include NMCP, GES, national SHEP, district directors of health and education from pilot districts, and selected Peers RUN volunteers.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Report on stakeholders' design workshop	PMI, NMCP, GHS, GES, DHMTs, District Assemblies	Q3	Share report with audience via email	Submitted; no action required
List of selected pilot districts	RHMTs, DHMTs	Q3	Send official letters to RHMTs and DHMTs to choice of districts for piloting of program	Submitted; no action required
Communication materials for Peers RUN	BCC subcommittee, NMCP, GHS, GES, SHEP, RHMTs	Q3-Q4	Distribute communication materials to households through CHOs and volunteers	Distribution complete; no action required
Summary monitoring report from Peers RUN activities in pilot communities	PMI, GHS, NMCP, GES, SHEP, RHMTs, DHMTs	Q3-Q4	Share report with audience via email	Incomplete; will share report once Peers RUN pilot is completed. Expected Q2 of Year 2
Midterm progress reports from pilot districts	PMI, GHS, NMCP, GES, SHEP, DHMTs	Q4	Share report with audience via email	Incomplete; will share reports once activity is completed. Expected Q2 of Year 2

GH.IM.3.B Community Mobilization for Point Mass Distribution

Progress report: VectorWorks employed the services of information vans to disseminate information to 150 commercial and highly mobile communities. The project worked with 15 FM radio stations in the Western Region through Live Presenter Mentions to rally communities to support household registration and to communicate dates and distribution points for the campaign. Additionally, VectorWorks produced 2,000 location marker posters to direct community members to distribution sites. The VectorWorks community mobilization effort ensured greater involvement and acceptance of the registration by community members who followed up to distribution points to redeem their coupons. This resulted in a redemption rate of more than 95%.

Next steps: VectorWorks will submit the electronic version of the distribution point location marker poster to NMCP for adoption and production for the mass distribution activities in the remaining five regions.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Report on community radio and mobile vans use	PMI, NMCP, GHS,	Q3	Share report with audience via email	Submitted; no action required
Report on production and distribution of location marker posters	PMI, NMCP, GHS	Q3	Share report with audience via email	Submitted; no action required

GH.IM.3.C Parent-Teacher Association Malaria Update Meetings

Progress report: The project held PTA malaria update meetings in the five southern regions— Volta, Eastern, Central, Western and Greater Accra. In all, there have been 1,678 meetings. National SHEP officers, district SHEP coordinators, and circuit officers of the GES received orientation and led the organization of these meetings. The project developed a five-page document titled *Basic Information on Malaria Prevention* as a resource for facilitating the meetings, and has distributed 1,147 copies so far to district directors, circuit supervisors, and SHEP coordinators who found them highly valuable. A total of about 154,423 people in the Volta, Greater Accra, Eastern, Central, and Western Regions participated in these meetings and benefited from the malaria prevention messages. Participants included parents; teachers made up of Chiefs, Queen mothers, and other community leaders; market women; farmers; fisher folks; and civil servants.

Next steps: PTA malaria update meetings will not continue in Year 2. Instead, orientation of PTAs, SMCs, and other SCOs will become part of activities for facilitating the school-based ITN distributions planned for 2016.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Report on PTA malaria updates meetings	PMI, NMCP, GHS, SHEP, GES	Q3	Share report with audience via email	Submitted; no action required
Report on production and distribution of malaria information sheets	PMI, NMCP, GHS, SHEP, GES	Q3	Share report with audience via email	Submitted; no action required

GH.IM.3.D Publication of Ghana Malaria Action Alert

Progress report: VectorWorks planned two issues of the *Ghana Malaria Action Alert* for Year 1. The first issue, “Invest in the future Defeat Malaria,” supported commemoration of World Malaria Day. The project printed and distributed 20,000 copies to various divisions and institutions of the Ministry of Health/Ghana Health Service, various government ministries, the GES, and national and regional houses of chiefs. VectorWorks finalized the second issue, “Sustaining health facility level distribution of ITNs in Ghana—Stakeholders involvement is key,” and presented it to PMI for approval before printing.

Next steps: There will be no further production of this advocacy newsletter through the VectorWorks project. Preliminary discussions with the NMCP indicate a desire by the NMCP to take up continued printing of this advocacy material. VectorWorks will provide some technical assistance for future issues on point mass distribution and schools-based distribution campaigns, as needed.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
15,000 copies produced	PMI, NMCP, GHS, GES, RHMTs, DHMTs, SHEP, schools	Q3	Print and distribute hard copies through GHS and GES commodity supply systems	Submitted; no action required
15,000 copies produced	PMI, NMCP, GHS, GES, RHMTs, DHMTs, SHEP, schools	Q4	Print and distribute hard copies through GHS and GES commodity supply systems	Submitted; awaiting PMI approval for distribution

Project Management (PM)

GH.PM.1 Project Setup and Operations

GH.PM.1.A Headquarters Staff

Progress report: Technical and administrative support from headquarters in Baltimore focused on responding to field office needs. April Monroe provided technical backstopping for the project at 60% LOE, Chris Matroniano supported financial administration at 10% LOE, and Matthew Lynch and Hannah Koenker provided higher-level management support at 5% LOE. Shola Robinson provided remote imprest financial documentation support at 20% LOE, and Kendra Hill provided institutional review board expertise at 5% LOE.

GH.PM.1.B Field Operations

Progress report: Ato Selby, Field Operations Director for VectorWorks, provided technical assistance and field operations support for the project at 30% LOE.

GH.PM.1.C Field Staff

Progress report: During Year 1, six technical staff supported project implementation. These included the continuous distribution manager and five program officers. The finance and administration manager and her assistant provided administrative and finance management support while the chief of party had overall technical and administrative oversight. There were also four drivers to support VectorWorks Ghana activities.

GH.PM.1.D Field Office

Progress report: The VectorWorks Ghana field office incurred expenses associated with both start-up and operations. Start-up required four laptop computers for new staff, computer software, mobile phones, printers, and office furniture. Operating costs included fuel, vehicle insurance, vehicle maintenance, office rent, generator fuel, generator and AC maintenance, and information technology support.

GH.PM.1.E Local Travel

Progress report: Local travel included ground transportation with VectorWorks vehicles. Some journeys to the Northern and Upper Regions were also undertaken using local air travels.

GH.PM.1.F Vehicle Repair

Progress report: The project repaired three available vehicles to ensure safe and reliable local transportation for project activities. Two of the vehicles are still under warranty and were repaired

at no charge. The third vehicle, which is a 2009 version of the Ford Explorer, continued to break down quite often and sometimes spent long periods at the workshop of the servicing company. This had adverse effects on staff movement to the field and led to delays in implementation of some activities. After the current series of repairs, the use of this vehicle will be restricted to local Accra and short distance travels, as traveling long distances might pose dangerous challenges.

GH.PM.1.G Field Staff Training

Progress report: VectorWorks conducted a two-day-training for new staff on the concept of ITN continuous distribution, the strategy and plans for the year, and project administrative issues. The project also used the session to clarify the role of VectorWorks and its program officers in supporting the point mass distribution campaigns in the various regions. Weekly staff update meetings led by the chief of party also provided opportunities for staff to continually learn from each other and share experiences. The chief of party will continue to lead weekly and biweekly update meetings to keep staff abreast of various developments on the malaria in the areas of program implementation, partnerships, malaria prevention, and net use.

GH.PM.2 Technical Assistance and Travel

GH.PM.2.A Technical Assistance Trips- Field Operations Director

Progress report: During this period, Ato Selby traveled from Nairobi to Accra on three separate occasions to provide technical assistance to the VectorWorks Ghana team. He provided technical assistance for planning meetings, support for the training of new staff, and facilitated the orientation workshop for the national ITN monitoring team.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Trip report	PMI	Q2	Share report with PMI via email	Submitted; no action required
Trip report	PMI	Q2	Share report with PMI via email	Submitted; no action required
Trip report	PMI	Q3	Share report with PMI via email	Submitted; no action required

GH.PM.2.B Technical Assistance Trips—Chapter Lead

Progress report: April Monroe traveled from Baltimore to Accra to provide technical assistance to the country team. She supported the training of new staff and the orientation of the national ITN monitoring team.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Trip report	PMI	Q2	Share report with PMI via email	Submitted; no action required
Trip report	PMI	Q3 or Q4	Share report with PMI via email	This trip was not made; no action required

GH.PM.2.C Chief of Party to Headquarters

Progress report: The chief of party attended the CCP worldwide meeting in June. The chief of party did not travel to headquarters for the VectorWorks Year 2 planning meeting due to ill health; the continuous distribution manager represented him.

Deliverable	Audience	Timing	Dissemination Plan	Status/Action for PMI
Trip report on worldwide meeting	PMI	Q3	Share report with PMI via email	Submitted; no action required
Trip report on work planning meeting	PMI	Q4	Share report with PMI via email	Did not attend; no action required

GH.PM.2.D Continuous Distribution Manager to Headquarters

Progress report: The VectorWorks continuous distribution manager, Prince Owusu, traveled to Baltimore for the Year 2 work planning meeting. In addition to meeting with headquarters staff to plan for Year 2 activities in Ghana, the trip provided an opportunity to share country experiences and to better appreciate the context and rationale for activities planned for Year 2.



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President's Malaria Initiative

VECTOR)WORKS

Scaling Up Vector Control for Malaria Prevention

VectorWorks Liberia Annual Report – Year 1

Reporting period: October 1, 2014 –September 30, 2015

Cooperative Agreement # AID-OAA-A-14-00057

Submitted to: U.S. Agency for International Development/President's Malaria Initiative

November 15, 2015



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Background

VectorWorks is a five-year global malaria prevention project, funded by the President's Malaria Initiative. 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 (LLINs), 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 long-lasting ITNs and/or alternative vector management interventions.

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

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

Summary of Activities

VectorWorks supported the Liberia National Malaria Control Program (NMCP) and its partners in the provision of technical assistance to implement the emergency nationwide mass distribution of 2,832,250 LLINs.

VectorWorks also supported the development and implementation of antenatal care (ANC) and institutional delivery (ID) supportive supervision in all of Liberia's 15 counties. Following the supportive supervision, the intention was to provide an on-site orientation of all health staff involved in the service delivery of ANC and ID. The project did not achieve the on-site orientation due to delays caused by the mass LLIN distribution campaign and the challenging road conditions, compounded by the onset of the rainy season. VectorWorks expects to incorporate on-site orientation for ANC and ID health staff into the routine quarterly monitoring visits by county health supervisors.

The implementation of supportive supervision activities across all 15 counties amplified the challenge of ANC/ID recording and reporting inconsistencies and inadequacies. The project will address this challenge through the implementation of on-site orientation of ANC/ID staff and the revision of the health management information system (HMIS) reporting form.

VectorWorks initiated discussions with the NMCP and updated the NetCALC simulation tool, as Liberia has expressed interest in adopting an additional LLIN continuous distribution channel. It has been proposed

that VectorWorks pilot the school distribution channel in two counties to help inform the adoption of the additional channel.

Context

In Liberia, malaria remains a major threat to public health, with pregnant women and children under 5 years old at higher risk. The National Malaria Strategic Plan includes a three-tiered integrated vector management approach, which aims to increase LLIN ownership in this population. This approach aims to provide LLINs through mass distribution to all family units—and targeted distribution to pregnant women visiting ANC for the first time and when they return to the clinic for delivery—to increase LLIN coverage for prevention of malaria transmission.

Over the past several years, Liberia implemented periodic focal mass campaigns on a county-by-county basis. The country is now transitioning to comprehensive national campaigns, to occur every three years. Since 2008, Liberia has distributed nearly 4.6 million LLINs via rolling campaigns and through ANC clinics. In 2014, NetWorks assisted with logistics and behavior change communication planning for an early 2015 emergency distribution. This emergency distribution delivered 2,832,250 nets nationally using an allocation strategy of three nets per household.

A recent ANC/ID assessment by the USAID | DELIVER PROJECT indicated that there is confusion around when to distribute LLINs, how to reorder and resupply, and how to record data into the monitoring systems. Transport plans and funding for movement of nets from the county level to health facilities remain unclear. Additionally, supervision and monitoring are minimal and hampered by lack of fuel and poor road infrastructure.

In Year 1, VectorWorks supported ANC/ID distribution. VectorWorks worked with the NMCP and other stakeholders to introduce supportive supervision to address the challenges of when to give out nets, how and when to reorder and resupply, and how to record data in the various monitoring systems. VectorWorks also supported the formation and orientation of national- and county-level monitoring teams—76 county health supervisors received an orientation on how to conduct ANC/ID supportive supervision monitoring in the 589 health facilities in 15 counties.

VectorWorks has also engaged the National Malaria Control Program to look at additional channels of ITN continuous distribution with the aid of NetCALC and data from relevant institutions.

LB.1 Supportive Supervision for ANC/ID Rollout

Progress report:

VectorWorks conducted a number of orientations for supportive supervision for ANC/ID from July to September 2015. In preparation for these orientations, VectorWorks met with the NMCP and partners to organize the national training of trainers and the county trainings. A half-day supportive supervision orientation and on-the-job training for national-level training and monitoring teams took place in April, 2015. The teams were made up of representatives from the NMCP, Family Health Department, Supply Chain Management Unit and the USAID | DELIVER PROJECT. VectorWorks introduced the participants to the

tools for continuous distribution of LLINs and ANC/ID supportive supervision checklists. After the national level supportive supervision orientation was completed VectorWorks conducted an orientation with the NMCP FHD Officers for county level supportive supervision and supported the county level orientations in all the 15 Counties. The orientations focused on the use of the CD Documentation Job Aid and the Supportive Supervision Checklist in supervising the Health Facility ANC/ID LLIN routine implementation. In August 2015, VectorWorks walked the national level participants through the NetCALC modeling simulation for Liberia. Participants also received a detailed reorientation on the implementation of the ANC/ID routine distribution of LLINs, with special emphasis on the suggested recording and reporting tools to use during various levels of implementation. Based on the discussion, VectorWorks developed and printed a documentation job aid for the ANC/ID routine distribution for LLINs.

In conjunction with the NMCP and the Family Health Department of the Ministry of Health, trainers oriented and equipped 76 county health supervisors with the necessary skills to conduct supportive supervision in all 589-health facilities in the 15 counties. The supportive supervision exercise in the health facilities began in September 2015; however, NMCP expected to receive counties' reports by the end of October 2015. To assist in the supportive supervision exercise, county health teams received sets of documentation job aids and supportive supervision checklists with summary reporting forms.

As stated above, there was a delay in supportive supervision activity due to the late resumption of fieldwork after the mass LLIN campaign. Bad road networks from Monrovia to the counties, compounded by the onset of the rainy season, also caused delays.

Status of Deliverables:

Deliverable	Q1	Q2	Q3	Q4	Status
Supportive supervision orientation	x				Complete
Microplan		x			Complete
Recording and reporting tools: <ul style="list-style-type: none"> Documentation job aid for routine distribution of long-lasting ITNs in Liberia National- and county-level ANC/ID supportive supervision checklist County-level summary reporting form 		x	x		Developed and pretested
Monitor health facility-based ITN distribution			x	x	Started first round in September 2015
Finalize and print documentation job aid for routine distribution of ITNs for Liberia		x	x		Complete

Review the supportive supervision microplan			x		Complete
Proposed dates for the orientation of the county-level health monitoring teams.		x	x		Complete
Assist the NMCP and the county health teams to devise monthly reporting guidelines for ANC/ID distribution of ITN and IPTp of malaria in pregnancy activities			x		Complete
Coordinate closely with the USAID DELIVER PROJECT for the start of the second-phase rollout of ANC/ID in the remaining nine counties		x	x		Complete

Next steps:

- Compile county supportive supervision reports and share with stakeholders
- Support LLIN data management and revise the HMIS form to correctly capture the number of LLINs given to pregnant women at institutional delivery
- Plan for the on-site orientation of ANC and ID health staff to improve upon documentation at the facility level
- Conduct quarterly monitoring of health facility-based ITN distribution

LB.2 Technical Assistance for Liberia LLIN Strategy Planning

Progress report: VectorWorks provided technical assistance in August 2015, through CCP, to facilitate discussions at the national level to update the country’s long-lasting LLIN strategy. The technical assistance focused on updating Liberia’s national NetCALC modeling with current data. This updated model will enable the NMCP and major stakeholders to agree upon the best course of action, one that sustains LLIN coverage and use over the next three years. In addition to the ANC/ID distribution, VectorWorks suggests that the country’s LLIN continuous distribution strategy include school distribution. A meeting was conducted with the Liberia Ministry of Education, to discuss the potential channel and to collect the National Education Statistics Booklet 2014. Data from this source was incorporated to simulate the Liberia National NetCALC. The introduction of an additional LLIN continuous distribution channel will require an extensive consultation with the relevant stakeholders and ministries. The questions that remain to be answered include the proportion of households that have primary school-going children, the source of nets for the school distribution, the cost of implementing the school channels and the planning needs with the Ministry of Education.

Status of Deliverables:

Deliverable	Q1	Q2	Q3	Q4	Status
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Introduction to NetCALC and Liberia-specific NetCALC modeling exercise		X			Complete
Workshop to update Liberia's LLIN strategy				x	Rescheduled for Year 2
Draft recommendations report				x	Rescheduled for Year 2

Next steps:

- One-day consensus meeting with national stakeholders to agree on the additional continuous distribution channel for Liberia
- Pilot the additional continuous distribution channel to fine-tune the strategy
- Facilitate the development of the continuous distribution guidelines for Liberia

LB.3 Technical Assistance in LLIN Mass Distribution Campaign for the NMCP

Progress report: VectorWorks worked with a consultant, Dr. Dorothy Onyango, to provide long-term in-country support for the planning and implementation of the mass distribution campaign for LLINs in Liberia from February 17th to July 8th, 2015. VectorWorks funded her support from February 17th through April 30th, and the Alliance for Malaria Prevention funded the remainder. Dr. Onyango supported the NMCP and implementing partners with the finalization of the campaign plan of action, timeline, and budgets, as well as supporting tools and documents required for campaign implementation. Dr. Onyango focused specifically on technical elements, such as finalizing the communication strategy and monitoring and evaluating activities. Together with a logistics advisor from the Alliance for Malaria Prevention, she also supported the logistics aspect of the campaign.

Dr. Onyango participated in the validation of the malaria strategic plan, the development of the PMI Malaria Operational Plan (MOP), the RBM roadmap development and the launch of two new PMI projects along with regular daily engagement with the two PRs and PMI within the LLIN campaign. She also supported the Advocacy, Communication and Social Mobilization efforts by engaging the traditional leadership councils in Monrovia, reviewed brochures and posters before being finalized, developed the first draft of the radio LLIN hang-up messages, and drafted the press statements that was given by the NMCP Program Manager for a press conference.

Dr. Onyango updated the final campaign timeline and conducted site visits to provide oversight and ensure coordination at the county level. She also monitoring three training sessions in two counties, revised the general Community Health Volunteers manual, and trained the NMCP monitors. She was engaged in supervision and monitoring activities including developing tools, guidelines and templates, specifically data collection. In her final report, Dr. Onyango provided a table that outlines key recommendations from the Liberian Emergency Campaign.

A number of logistical challenges were reported causing delays in the campaign. The first major obstacle was clearing nets at the port and delivering them to the central store. Nets were stuck at the port for 8 weeks. The second major challenge had to do with the procurement process for transporters and district stores. Because all the major campaign procurements had been submitted as a single package, all other procurements were also put on hold. Due to the rainy season, the costs for the movement of nets increased. Due to late hiring, the logisticians were not trained within the regular training cascade causing some miscommunication and misalignment in timing of all activities.

The official campaign launched on April 25th and completed on June 30th, 2015, distributing 2.8 million nets from Monrovia to households, and involving 90 districts in 15 counties.

Status of Deliverables:

Deliverable	Q1	Q2	Q3	Q4	Status
Strengthen capacity of NMCP and partners' staff who are transitioning from macro- to microplanning for mass distributions of LLINs		x	x		Complete
Support distribution, coordination, monitoring, and evaluation of the campaign		x	x		Complete
Micro- and macroplans		x			Completed on March and updated in April 2015
Tools, guidelines, and templates, specifically data collection tools D01, D02, D03; monitoring tools MT, MS, MC; end-process tools EP1, EP2, EP3; gCGV training manual; monitors reporting templates; updated timelines, logistics tracking templates		x	x		Complete
Weekly updates, trip report, and final report		x	x		Final report submitted and then endorsed by the NMCP on August 26, 2015.

Project Management

Work Plan and Reporting

Progress Report: PMI approved the VectorWorks Year 1 work plan on February 2, 2015 and a semiannual report in May 2015. VectorWorks has submitted quarterly financial reports and semiannual progress reports on time.

Status of Deliverables:

Deliverable	Q1	Q2	Q3	Q4	Status
Year 1 annual work plan	x				Approved by PMI
Quarterly financial reports	x	x			Complete
Semiannual progress report	x	x			Complete
Annual report				x	Complete



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VECTOR)WORKS

Scaling Up Vector Control for Malaria Prevention

VectorWorks Mozambique Annual Report – Year 1

Reporting period: October 1, 2014 –September 30, 2015

Cooperative Agreement # AID-OAA-A-14-00057

Submitted to: U.S. Agency for International Development/President's Malaria Initiative

November 15, 2015



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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



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VECTOR)WORKS
Scaling Up Vector Control for Malaria Prevention

President's Malaria Initiative

VectorWorks Nigeria Annual Report – Year 1

Reporting period: October 1, 2014 –September 30, 2015

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Background

The VectorWorks Project is a five-year (2014–2019) project funded by the United States President’s Malaria Initiative (PMI). The project goal is to support countries to achieve and maintain high rates of coverage and use of vector control and management interventions other than indoor residual spraying. Project activities focus on three objectives: policy; monitoring, evaluation, and operations research; and implementation.

PMI/Nigeria has asked VectorWorks for support in monitoring the durability of insecticide-treated mosquito nets (ITNs). The durability monitoring study will provide the Nigeria Malaria Elimination Programme (NMEP), Roll Back Malaria partners, and PMI with valuable information regarding the performance and estimated “useful life” of the ITN distributed during the current round of mass campaigns. VectorWorks and PMI/Nigeria will collect the data in a manner that allows it to link with some of NMEP’s entomological monitoring sites. This will enable interpretation of ITN durability data in the context of vector dominance, biting behavior, and insecticide resistance.

PMI’s durability monitoring guidelines require data collection for up to 36 months post-distribution. VectorWorks’s work plan currently covers only the first 24 months of data collection. In addition, VectorWorks will work to strengthen in-country capacity to plan, carry out, and interpret such studies by using local partners and principal investigators and by conducting a data analysis and dissemination workshop.

Summary of Activities

Year 1 durability monitoring activities were postponed due to the delay in net distribution in Zamfara and Ebonyi States. However, Nigeria’s activities have benefited from the finalization of PMI’s global standard durability monitoring protocols as well as tablet-based data collection forms from Mozambique. During the Year 2 work plan discussions, the project added Oyo State as a third durability monitoring site. With the completion of the Zamfara (September 2015), Ebonyi (September 2015), and Oyo (April 2016) net distributions, as well as the finalization of the global PMI protocols and tools, VectorWorks is well-positioned to begin durability monitoring activities in Year 2.

Activities

NG.1 ITN Durability Monitoring

Progress Report: The start of durability monitoring activities were postponed due to the delay in net distribution in Zamfara and Ebonyi States (the planned June 2015 distribution took place in September 2015). However, the program benefited from finalization of PMI global standard durability monitoring protocols as well as the development of tablet-based data collection forms from Mozambique (finalized in Year 1, Quarter 4). Some of the materials completed include:

1. Detailed protocols including monitoring design, sampling, and timing
2. Standard minimum questionnaires, sample consent forms, random number sheets for household selection during fieldwork, and hole index tools
3. Standard training manual and materials for field workers
4. Sample data entry screen
5. Detailed operational budget template
6. Digital data entry system

Plans for Year 2:

1. Dr. Albert Kilian will travel to Nigeria to plan the durability monitoring study. He will meet with PMI, NMEP, and other stakeholders to strengthen their capacity in planning and designing these types of studies, and will finalize the selection of sites, sampling frame, and operational plan for the survey.
2. Adaptation of standard tools to the Nigeria context and receipt of ethical clearance from the Nigeria health research ethics committee and from the Johns Hopkins Bloomberg School of Public Health institutional review board.
3. Conduct the first round of data collection to establish a baseline/cohort in all three sites
4. Conduct the 12-month assessment in Zamfara and Ebonyi States

Deliverables	Status
Durability monitoring protocol	Postponed to Year 2, Q1
Schedule of fieldwork	Postponed to Year 2, Q1
Baseline assessment results summary from Zamfara, Ebonyi, and Oyo	Expected Year 2
12-month assessment results summary from Zamfara and Ebonyi	Expected Year 2
12-month assessment results summary from Oyo	Expected Year 3
24-month assessment results summary from Zamfara and Ebonyi	Expected Year 3
Reports from any additional data collection activities; final report, manuscripts	Expected Year 4–5

NG.2 Data Analysis and Dissemination Workshop

Progress Report: Due to the postponement of durability monitoring activities, VectorWorks rescheduled this workshop from Year 2, Quarter 2 to Year 3, Quarter 3.

Plans for Year 2: N/A

Deliverables	Status
Workshop agenda	Expected Year 3
Workshop report	Expected Year 3

Project Management

NG.PM.1 Work Plan and Reporting

Progress Report: PMI approved VectorWorks' Year 1 work plan in June 2015. VectorWorks has submitted quarterly financial reports and semiannual progress reports on time.

Plans for Year 2: VectorWorks is in the process of submitting the Year 2–3 work plan, which reflects the scheduling changes due to the postponement of durability monitoring activities.

Deliverables	Status
Year 1–2 work plan and monitoring plan approved by PMI Nigeria	PMI approved the work plan on June 2, 2015
Quarterly financial reports	Completed
Semiannual reports	Completed

Annex 1. Monitoring Plan

Outcome 1: NMEP and partners understand the concept of the durability monitoring and have the capacity to plan, implement, analyze, and interpret it according to established guidelines.

	Indicator/Milestone	Source	Due Date of Activity	Date Completed
Output 1.1	At least two staff of NMEP and three principal investigators (PI) of entomological sites trained in durability monitoring (DM) study design and planning	Progress report	January 2016	Delayed; moved to Year 2
Output 1.2	At least two staff of NMEP and three PI of entomological sites participate in the “data analysis workshop” after the baseline data collection	Travel report analysis workshop	October 2016	Delayed; moved to Year 2
Output 1.3	Trained NMEP staff and PI analyze the Year 2 data in parallel to VectorWorks team and receive feedback on results	Progress report	October 2017	Delayed; moved to Year 2
Output 1.4	Trained NMEP staff and PI analyze the Year 2 data in parallel to VectorWorks team and come up with the same results	Progress report	October 2018	Delayed; moved to Year 2

Outcome 2: Durability monitoring activities are implemented according to plan and of high quality

	Indicator/Milestone	Source	Due date	Date Completed
Output 2.1	Protocol and research tools developed	Progress report	December 2015	Delayed; moved to Year 2
Output 2.2	Protocol received clearance from JHU institutional review board and Nigeria human research ethics committee	Progress report	January 2016	Delayed; moved to Year 2
Output 2.3	At least 90% of expected sample achieved and data collected at baseline	Baseline assessment report	August 2016	TBD
Output 2.4	At least 90% of expected sample achieved and data collected at Year 1	Year 1 report	May 2017	TBD
Output 2.5	At least 90% of expected sample achieved and data collected at Year 2	Year 2 report	May 2017	TBD
Output 2.6	At least 90% of expected sample achieved and data collected at Year 3	Year 3 report	May 2018	TBD
Output 2.7	Final data for physical and insecticidal durability available	Final report, durability monitoring website	August 2018	TBD

Outcome 3: Durability monitoring results are disseminated and action taken or recommendations made accordingly

	Indicator/Milestone	Source	Due date	Date Completed
Output 3.1	Interim Year 2 results presented and discussed at Integrated Vector Management (IVM) Committee	Progress report	December 2017	TBD
Output 3.2	Final durability monitoring (baseline to Year 3) results presented and discussed at IVM Committee and recommendations issued	Progress report	June 2019	TBD
Output 3.3	Joint publication of results submitted to journal	Manuscript	March 2019	TBD



President's Malaria Initiative



VectorWorks Tanzania Annual Report – Year 1

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ACRONYMS

BCC	behavior change communication
CCP	Center for Communication Programs
IHI	Ifakara Health Institute
ITN	insecticide-treated mosquito net
LLIN	long-lasting insecticidal net
M&E	monitoring and evaluation
MoEVT	Ministry of Education and Vocational Training
MoHSW	Ministry of Health and Social Welfare
NMCP	National Malaria Control Programme
PMI	President's Malaria Initiative
PMO-RALG	Prime Minister's Office Regional Administration and Local Government
PMP	project monitoring plan
PSI	Population Services International
Q	quarter
SNP	School Net Program
SOP	standard operating procedure
TNVS	Tanzania National Voucher Scheme
WEC	ward education coordinator

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 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 (M&E), and implementation support.

To maintain universal coverage of ITNs, Tanzania's strategy includes the distribution of ITNs through schools. In 2013 and 2014, Tanzania's National Malaria Control Programme (NMCP) and partners piloted school-based ITN distribution, locally referred to as the School Net Program (SNP), in the three southern regions of Lindi, Mtwara, and Ruvuma. Through this school-based distribution pilot, ITNs were distributed to school children in classes 1, 3, 5, and 7 (primary) and Forms 2 and 4 (secondary).

PMI/Tanzania requested the VectorWorks project to support the local partners in the implementation of the third round of the school-based ITN distribution pilot in the same three regions as the first two rounds of the pilot. SNP3 was expected to build on previous experiences, increase co-ownership of the program by the Ministry of Education and Vocational Training (MoEVT) and the NMCP, use data to base decision-making on eligible classes, and develop a more replicable model for ITN distribution through schools for future scale-up.

Reporting Period

VectorWorks activities in Tanzania began on January 1, 2015. This semiannual report describes the progress of VectorWorks during the nine-month period from **January 1 to September 30, 2015**, corresponding to **Quarters 2–4** of the project year.

Summary of Activities

During SNP3, VectorWorks worked with stakeholders and implementing partners at all levels to coordinate, plan, implement and monitor the distribution of 500,000 ITNs through 1,919 schools. VectorWorks facilitated key stakeholder and implementer engagement as well as advocacy meetings at the national, regional, and district levels. Together with stakeholders, the team developed the SNP standard operating procedures (SOP); conducted trainings for national-, regional-, district-, and ward-level technical personnel; carried out validation of quantification data; and supervised ITN transportation and issuing. In addition, the team carried out an assessment to plan the re-introduction of ITN distribution through antenatal care and immunization services.

The project experienced a number of challenges. The most notable challenge was the poor quality of registration data submitted by the ward education coordinators (WECs). VectorWorks was able to effectively engage the regional administrative secretaries and district executive directors in getting the WECs to resubmit corrected registration data, which VectorWorks then validated during variance checks

and in-person visits. More details on this and other challenges are below and in the forthcoming SNP3 final report.

Policy and Advocacy (PC)

Under SNP3, VectorWorks advocated engagement and buy-in from key stakeholders at the national, regional, and district levels within the two ministries involved in the school distribution: the MoEVT and the NMCP within the Ministry of Health and Social Welfare (MoHSW). Engagement of the MoEVT is important to promote sustainability and reduce costs of the SNP, as education sector staff from the regional level all the way to the school level would be expected to contribute to the SNP effort in several ways, as described in the sections that follow. Advocacy meetings were useful in engaging partners, clarifying roles and expectations, coming to consensus on timelines, and enabling partners to ask questions and discuss any concerns. Additional details can be found in the VectorWorks report on the proceedings of the advocacy activities.

PC.1 Advocacy, Engagement, and Macroplanning With All Stakeholders

National-level buy-in of the concept of co-ownership of school-based ITN distribution by the MoEVT and MoHSW/NMCP

Progress report: National-level advocacy was the focus of Quarter 2 activities under VectorWorks. The project initiated national-level advocacy primarily through meetings of the NATNETS steering committee and the ITN Task Force. VectorWorks met with the deputy permanent secretary of health from the Prime Minister's Office Regional Administration and Local Government (PMO-RALG) to advocate and foster a high level of engagement from the Ministry of Health and Social Welfare (MoHSW) and the MoEVT for school-based net distribution in Tanzania. The PMO-RALG agreed to host a meeting of the relevant authorities of MoHSW and MoEVT in Quarter 3 or Quarter 4. The meeting with the PMO-RALG also led to the nomination of two focal persons from the PMO-RALG's office to work with implementing partners on SNP3 activities. The PMO-RALG's office distributed letters to the regional administrative secretaries of the three SNP regions. In addition, VectorWorks shared the implementation plan and activities for SNP3 on several occasions with national-level stakeholders at the NMCP's ITN Task Force meetings, a forum that discusses ITN issues in country and draws many stakeholders including donors, implementers, and academia. In all, national-level advocacy was successful in obtaining buy-in from the PMO-RALG office; however, this required a prolonged timeline and resulted in re-scheduling of subsequent advocacy activities from Quarter 2 to Quarter 3.

Regional-level engagement

Progress report: Regional-level engagement followed national-level buy-in through a series of meetings with regional authorities. Due to scheduling delays to meet with high-level national officials as a gateway to reach out to the regions, VectorWorks conducted regional engagement activities in Quarter 3 instead of Quarter 2. VectorWorks and national-level NMCP staff traveled to each region and convened regional technical teams to support SNP3. With regional-level authority buy-in, the regional technical teams from the three regions traveled to Dar es Salaam to participate in the review meeting of the SOP, described under activity IM.3 below. After reviewing the SOP, the regional teams developed macro-level plans to plan

for timelines and implementation of SNP3 in each region. After finalization of the SOP, the VectorWorks and national team traveled to each region to finalize regional advocacy and begin district advocacy. These regional advocacy meetings were officiated by staff from the PMO-RALG in the region, usually the regional commissioner. The purpose of these meetings was to emphasize how the three ministries were to be involved in the project implementation, outline specific roles and responsibilities, and describe the activities and specific timeline to follow in order to reach the program’s objectives. In total 95 participants attended regional advocacy meetings.

District-level engagement

Progress report: Similar to the regions, each district formed district technical teams to support SNP3. District-level advocacy meetings followed regional-level advocacy meetings and occurred in late May and early June, simultaneously in all 19 districts. VectorWorks had trained regional technical teams who coordinated and led the district advocacy meetings, which included training for the district teams. In most cases both advocacy and orientation to the district technical teams occurred in a single day. Combining advocacy and training meetings allowed for efficiencies in time and travel. Similar to the regional advocacy meetings, district advocacy focused on mobilizing the commitment of the district authorities and the district technical teams. In particular, regional administrators and VectorWorks requested district technical teams to supervise the work of the WECs, consolidate, and submit district data to the regions, develop district microplans, and store ITNs. In total 280 participants attended the district advocacy meetings.

Deliverable	Audience	Timing	Dissemination Plan	Status
Meeting minutes of steering committee and LLIN Task Force meetings	PMI, NMCP, MoHSW, MoEVT	Q2	Share meeting minutes with audience via email	Complete
Report on proceedings of regional- and district-level informative and advocacy meetings	PMI, NMCP, MoHSW, MoEVT, LLIN Task Force, regional administration, district administration	Q2	Share report with audience via email	Complete
Macro-level plans for school-based ITN distribution	PMI, NMCP, MoHSW, MoEVT, LLIN Task Force, regional administration, district administration	Q2	Share macro-level plans with audience via email	Complete

Presentations and supporting materials for regional- and district-level informative and advocacy meetings	NMCP, MoHSW, MoEVT, LLIN Task Force	Q2	Share final presentations used at meetings with audience via email for their records	Complete
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Implementation (IM)

IM.1 Initial Meeting With SNP1 and SNP2 Implementers on Lessons Learned, Best Practices, and Recommendations for Future Implementation

Progress report: Two different groups implemented the first two rounds of SNP, called SNP1 and SNP2, in 2013 and 2014. Their documented experiences were important learning opportunities for the PMI and NMCP on the strengths and areas for improvement of the SNP. In January 2015, the VectorWorks field operations director and members of the VectorWorks team in Tanzania met with personnel from the NMCP ITN Cell, Research Triangle Institute International, and Tanzania Red Cross Society to discuss results of the previous school distributions, lessons learned, and recommendations for improvements for SNP3. Recommendations from these meetings informed the finalization of the VectorWorks Tanzania work plan, and the planning and implementation of SNP3.

Deliverable	Audience	Timing	Dissemination Plan	Status
Trip report on engagement with LLIN Task Force group and past implementers, including recommendations for reducing costs per ITN delivered and implementing a co-led, replicable school-based ITN distribution	PMI, NMCP, LLIN Task Force	Q2	Share trip report with audience via email	Complete

IM.2 NetCALC Modeling of ITN Coverage Estimates for SNP3

Progress report: In the three pilot regions of Lindi, Mtwara, and Ruvuma, the design of the SNP assumed that the Tanzania National Voucher Scheme (TNVS) would complement it. With the discontinuation of the TNVS in 2015, ITN distribution through schools alone may not be able to attain the expected 80% coverage. VectorWorks partner, Tropical Health, used the NetCALC modeling tool to estimate the number of ITNs needed through SNP3 to reach 80% coverage. VectorWorks conducted preliminary modeling of the current ITN coverage in the three regions in April 2015, using data provided by the NMCP and past SNP implementers. Due to limitations in the available data at that time, VectorWorks produced an interim preliminary report on the NetCALC output. The interim preliminary report indicated that the 500,000 ITNs for distribution in SNP3 will not suffice to attain 80% coverage in the three regions, and the need was closer

to 800,000 ITNs. Although the data on coverage prior to SNP2 were limited, this preliminary report informed the decision to include only primary schools in SNP3 with the goal of reaching more households with an ITN, as primary school attendance is higher than for secondary school.

In July 2015, with more refined data available, Tropical Health revised the NetCALC modeling and produced a revised report. The revised report was based on preliminary coverage estimates from the SNP2 evaluation (conducted by the Tanzania Measure Evaluation Associate Award) and initial quantification of pupils enrolled in all primary school classes in the three regions. The NetCALC output indicated that, assuming an ITN median survival of three years, 687,500 ITNs would need to be distributed in 2015 to reach 80% ITN access. Therefore, while the 500,000 ITNs for SNP2 may not suffice to attain 80% coverage in the three regions, the ITN gap was lower than in the preliminary report, as coverage following SNP2 was higher than previously estimated. To aid in the optimal selection of classes for SNP3, the NetCALC report included three modeled scenarios for the selection of primary school classes and allocation of ITNs through SNP3. VectorWorks presented the three scenarios to the LLIN Task Force, which decided to distribute SNP3 ITNs as follows:

- Lindi: Standard 1–5, 7 (class 7 in Lindi was added after validation; see IM.4 below)
- Mtwara: Standard 1–3, 5, 7
- Ruvuma: Standard 1–3, 5, 7

Deliverable	Audience	Timing	Dissemination Plan	Status
<p>Recommendations report for SNP3 based on NetCALC modeling, showing:</p> <p>Current ITN coverage for each of the three pilot regions</p> <p>Estimates of coverage to achieve in each of the three regions through SNP3 in the absence of the TNVS using the same classes as SNP2, and coverage estimated if classes are modified for SNP3 (if modification of classes can result in improved coverage)</p>	PMI, NMCP, LLIN Task Force	Q2	Share report with audience via email	Complete

M.3 Review and Printing of SOP, Data Collection, and Reporting and Monitoring Forms

Progress report: VectorWorks hosted a three-day consultative meeting (April 28–30, 2015) with stakeholders from the PMO-RALG, NMCP, and MoEVT from the national level and from each of the three regions to review and update the existing SOP and tools for SNP. This was an opportunity to include lessons learned from the past two rounds of SNP as well as to propose innovations to the procedures. During this meeting, NMCP and regional representatives presented on past SNP implementation results,

lessons learned, and recommendations for SNP3. Two specific recommendations made were to: (1) Provide clear directives to teachers on how to use the remaining ITNs at schools after distribution, if any; and (2) strengthen the involvement of lower-level government officials, especially ward executive officers (WEC) and village executive officers, in the SNP process. The group was split into teams, and each team reviewed assigned sections of the SOP and/or tools, then presented their proposed revisions in plenary, followed by a discussion to arrive at consensus among the full group. The group endorsed the following main changes to the SOP:

1. The involvement of WECs in class quantification
2. The need to issue ITNs to students shortly after the supply arrives at schools
3. The need for districts to share ITN quantifications with regional authorities and for the PMO-RALG to be the central point for ITN quantification data where national partners will receive official data

By the end of the meeting, the group submitted a draft revised SOP and tools (all in Kiswahili) to VectorWorks who refined it and shared the final document with the NMCP, LLIN Task Force, and other relevant implementing partners for further review and approval. The strong presence and participation from PMO-RALG, MoHSW, and MoEVT at all levels was encouraging and showed good signs of an effective collaboration of the key ministries for a successful implementation of SNP3 and future scale-up. Through the review meetings, VectorWorks and partners strengthened the procedures and tools for use in SNP3 with the goal of improved implementation over previous years. There was also a better understanding by all participants of roles and responsibilities for all levels (national and regional) and their engagement in activities, including supervision, data validation process, microplanning and ITN distribution.

In addition, the SOP review meeting proved to be an opportunity for the teams from the three regions to meet in separate groups to develop their region-specific macro-level plans for SNP3, which included the timeline for preparatory activities, distribution, and monitoring of SNP3. The teams discussed the timeline in plenary and each region was to submit its final macro-level plan to the national-level team. Shortly after this meeting, VectorWorks held advocacy meetings in each region, building on the engagement and planning that began during the review meeting.

Deliverable	Audience	Timing	Dissemination Plan	Status
Final revised SOP in English and Kiswahili, with quantification, validation, and monitoring tools	PMI, NMCP, MOH, MoEVT, LLIN Task Force, regional administration, district administration	Q2	Share copies of the final revised SOP document with audience via email. Field M&E officer shares hard copies with the 3 regional and 19 district administrations (two copies for each)	Complete

IM.4 ITN Quantification and Validation of Quantification Data

Progress report: To ensure simplified and replicable ways of providing verifiable data for ITN quantification for school-based ITN distribution, VectorWorks worked with stakeholders at all levels to conduct the quantification for ITN distribution. During the SOP review meeting, participants decided that WECs would be involved in quantification, that the PMO-RALG would be responsible for collating the quantification data and sharing it, and that all pupils enrolled in **all classes (standard 1–7) of the 1,919 primary schools** of the three regions would be quantified, even though not all classes will be selected for SNP3 distribution. In previous SNP rounds, implementers only quantified the classes selected as eligible for SNP. However, the selection of eligible classes for SNP3 was to be based on total need and NetCALC modeling to improve household coverage; therefore, SNP implementers requested data on all classes of the WECs.

During quantification, the WECs used the SNP3 data collection form to obtain numbers of all registered students by class and gender. The WECs sent this information to district officers to compile by district, then to the regional officers to compile by region and finally, the regions shared these quantifications with the PMO-RALG, MoHSW, and stakeholders. During quantification, a total of 652,464 pupils were registered in the three region's primary schools.

Validation exercises followed soon after quantification. To determine which schools to select for validation, VectorWorks developed a methodology that compared the SNP3 quantification data against the SNP1 and/or SNP2 issuing data to provide a data variance percentage for each school. As part of this validation methodology, using data obtained from the MoEVT, partners determined a variance threshold of $\pm 30\%$ per school as the cutoff point for selecting schools requiring validation based on the 70% national survival rate for primary school (see SNP3 Data Validation Report for the detailed methodology).

The VectorWorks team, convened validation teams with government representatives from the MoHSW, MoEVT, and PMO-RALG at the national, regional, and district levels, to conduct data validation at the district and school level from July 4 to July 24, 2015. The validation teams made in-person visits to the schools selected for validation of their SNP3 quantification data. Of the 335 schools identified for validation, the validation teams visited 315 (94%) schools; roughly 90% of those schools visited had data discrepancies, meaning that the data obtained during validation was discrepant when compared against the data originally submitted by the WEC.

During validation, it became clear that most WECs did not visit schools to collect the original quantification data in person, despite receiving the training and travel allowance to do so. Rather than going to schools, many WECs instructed head teachers to send them the numbers via mobile phone, text, or hard copy, implying that the WECs did not have the opportunity to verify the data before submitting it to district officials.

In addition, it was expected that at each level of data compilation (regional and district), the regional and district malaria focal persons would compile and review the data before submitting it to the next level; however, district focal persons did not cross-check or review the data received from WECs. It also became clear that district officers had challenges in managing the quantification data due to inexperience or low capacity for data management. VectorWorks presented these findings to the district and regional authorities; they ordered that all WECs conduct a re-quantification of all classes in all schools of the three regions at their own expense. Re-quantification yielded a total of 640,362 registered pupils in all primary

school classes; this represented 12,102 fewer pupils than originally quantified. VectorWorks and stakeholders used the post-validation quantification data to make the final selection of eligible classes for SNP3, including the addition of class 7 in Lindi (as noted in IM.2 above). Each district also used this data to prepare their microplans for ITN transport from the district stores to each school. Finally, the SNP3 validation exercise identified a need for the program to examine how training and supportive supervision can be improved to ensure better data quality in the future.

Deliverable	Audience	Timing	Dissemination Plan	Status
Report on validation exercise of ITN quantification	PMI, NMCP, LLIN Task Force, regional administration, district administration	Q3	Share copies of report on validation exercise with audience via email	Complete
Final ITN quantifications for regional, district, wards, and school levels	PMI, NMCP, LLIN Task Force, regional administration, district administration, WECs	Q3	Share copies of final ITN quantifications with audience via email. M&E officer shares hard copies of the ITN quantification with regional-, district-, and ward-level audiences.	Complete

IM.5 Microplanning Meetings

Progress report: After VectorWorks validated and finalized quantification for each school, the project held a microplanning meeting with each of the 19 districts to firm up the district logistics plans, roles and responsibilities, timelines and budgets for transportation, secure storage, distribution, and the monitoring of distribution in schools. The microplan was intended to prepare the district for the movement of ITNs to the districts and their subsequent distribution in schools. The microplans took into account the time and cost needed for storage of ITNs in the districts, re-bundling ITNs for each school, routes for distribution to reach each school, number and type of trucks needed to transport the ITNs to school, and the roles of the regional, district, and ward officers. To prepare for the microplanning meeting, VectorWorks partner, PSI, met with district teams to orient them on how to prepare the microplan using a pre-designed template spreadsheet. The districts had between July 1 and July 20, 2015, to complete and submit their microplans to the regional malaria focal persons for Lindi, Mtwara, and Ruvuma. The regional malaria focal persons

reviewed and submitted the consolidated microplans to PSI for final review. PSI distributed funds for ITN distribution based on the approved microplans.

VectorWorks initially intended to develop microplans in both English and Swahili; however, during the orientation, district and regional malaria focal persons felt that it would suffice to develop the microplans in English.

Deliverable	Audience	Timing	Dissemination Plan	Status
Finalized microplans for 19 districts in English and Kiswahili	PMI, NMCP, LLIN Task Force, regional administration, district administration, WECs	Q3	Share copies of final microplans with audience via email. M&E officer and PSI share hard copies of the microplans with audience at regional and district levels, including signed letters from the regional administrative secretaries.	Complete

IM.6 Training and Orientation

Progress report: Following initial advocacy and the SOP review, VectorWorks facilitated SNP3 training and orientation sessions at the regional, district, and school levels to ensure that all participants involved in SNP3 understood the program objectives, activities, timeline, and their roles and responsibilities within it. Because training sessions were held previously for SNP1 and SNP2, VectorWorks focused SNP3 trainings on elements of the program that changed since SNP2, on reinforcement of key program activities, and on familiarization with the tools to be used at each stage of the program. At the regional and district levels, training was combined with advocacy activities, making for more efficient use of time and travel.

The **regional technical team** training occurred in parallel with the SOP review meeting that took place in Dar es Salaam, Tanzania, on April 28–30, 2015. VectorWorks led this training of trainers, which included representatives from the health and education departments within the regional administrative secretary's office, such as malaria focal persons, school health coordinators, and regional communication officers, from each of the three program regions. During this training, VectorWorks oriented regional technical teams to the refined SOP and all project tools, which they had previously participated in reviewing. VectorWorks trained 12 individuals at the regional level to serve as members of the regional technical teams, whose subsequent responsibility would be to train the district teams and the WECs.

The **district technical team** training took place in each of the 19 districts from May 26 to June 6, 2015, led by the regional technical teams with supervision by the national team. District teams were oriented to the SOP and all program forms, such as the data collection and issuing tools, that they would be required to use to fulfill their roles. Participants practiced completing these forms during the training. During the training, the regional technical teams also reviewed the data compilation template with the district trainees, as district teams were expected to compile all of the data from the wards. The district technical teams were composed of district malaria focal persons, school health coordinators, community

development officers, and representatives from the District Education Office. The combination of personnel on district technical teams varied from district to district depending on the availability of staff in each district. In total, 68 individuals participated in the district technical team trainings, of which 31 were male and 37 were female.

Ward education coordinator training took place in each district immediately after the district technical team trainings. The regional technical teams led the training, and district technical teams were also present for the WEC trainings. In total, 472 WECs participated in the training, of which 401 were male and 71 were female. During training, WECs received an overview on the state of malaria in Tanzania; an overview of SNP3; a description of all program activities, participant roles and responsibilities, and program timeline; and information on the social and behavior change communication activities within SNP3. The WECs then received training on all program tools required during the course of SNP3.

Teacher and head teacher orientation took place in each school from May through June 2015. WECs led the orientations at each school within their ward, under the supervision of the district technical teams. Orientations focused on describing the responsibilities of the teachers and head teachers in quantification and on ITN issuing day at their school. The trainers also reviewed the forms they were to fill out with the teachers and head teachers.

In total, 552 individuals participated in training sessions, of which 440 were male and 112 were female. Twelve individuals received training at the regional level to serve as members of the regional technical teams for SNP; 68 individuals received training at the district level to serve as members of the district technical teams for SNP; and 472 WECs received training also at the district level to serve as the main program implementers and data collectors. Overall, participants responded well to the training, which set the foundation for implementation of subsequent program activities.

Deliverable	Audience	Timing	Dissemination	Status
Report on all training activities, including the training agenda, training materials, list of attendees, and action items	PMI, NMCP, LLIN Task Force, regional administration	Q4	Share copies of the training report with audience via email	Under final review by VectorWorks

IM.7 Transportation and Storage of ITNs

Progress report: Prior to movement of ITNs to the districts, VectorWorks assessed all district storage spaces to ensure they were adequate in capacity, security, and were free of cost or for a nominal cost for use by SNP3. The transportation of ITNs from the warehouse in Dar es Salaam to the 19 districts took place in July 2015. Movement of ITNs to the district stores was based on the first round of quantification numbers. After VectorWorks validated and finalized quantification figures near the end of July, the number of ITNs required in each district warehouse changed slightly. Therefore, VectorWorks redistributed some of the ITNs among district warehouses to ensure proper numbers of ITNs in each district. The small number of unallocated ITNs were stored in Lindi. After microplanning was completed, VectorWorks, along with district teams, oversaw the process of re-bundling of ITNs in each district according to the numbers to be dropped

off in each school. During the period of SNP issuing, transporters contracted by the district teams transported the re-bundled ITNs to each school, making drop-offs according to the microplans. Transport of ITNs followed logistics plans and costing, as developed during the district-level microplanning led by PSI.

Deliverable	Audience	Timing	Dissemination Plan	Status
Report on ITN transportation from the Medical Stores Department to districts and to schools	PMI, NMCP, LLIN Task Force, regional administration, district administration	Q4	Share copies of report on ITN transport with audience via email	Under final review by VectorWorks

IM.8 Supervision

Progress report: VectorWorks scheduled supervision of trainings, transportation, and ITN distribution to occur in Quarters 3 and 4. VectorWorks and/or the SNP3 technical teams supervised the following activities: training of district officers and ward officers, orientation of teachers, transportation of ITNs, and distribution of ITNs. The supervision teams bore witness to several challenges and sought to mitigate these issues.

Supervision of trainings: The national team supervised the regional and district trainings, while regional teams supervised the WEC orientations. The presence of national and regional supervisors during these sessions was of great value as they provided clarification on various issues. Neither national, regional, nor district teams directly supervised the orientations that WECs gave to school head teachers.

Supervision of transportation: MoHSW/NMCP, PMO-RALG, and regional teams visited all districts to ensure that transporters executed the ITN transportation according to the microplan and agreed schedule. Additionally, district technical teams ensured that escorts/supervisors from the district executive director's office accompanied all routes. These escorts/supervisors were responsible for ensuring proper delivery of ITNs according to school needs and also overseeing the signing of proof-of-delivery forms by both the transporter and head teacher. Some routes were selected randomly and sometimes delivery routes were followed as part of delivery tracking. Furthermore, district technical teams informed WECs of the exercise and the expectation that every WEC will supervise delivery of nets in their ward. Challenges observed included late departures (resulting in several hours of tardiness in delivery), insufficient numbers or wrong types of vehicles used, errors in numbers of commodities loaded, and some trucks not having an escort (other than the driver).

Supervision of ITN distribution: During issuing, supervision teams including members of VectorWorks, NMCP, PMO-RALG, and Ministry of Education (MOE), visited 313 (16.3%) of the 1,919 primary schools in the program regions. Teams also conducted supervisory visits at 14 district warehouses. During the course of supervision, teams crosschecked program documents, conducted key informant interviews, and directly observed activities to confirm whether proper procedures were followed at various stages of ITN transport,

delivery, and issuing. Some of the challenges observed during supervision included non-adherence to the SOP, poor record-keeping, and incorrect quantities of ITNs delivered to some schools.

Deliverable	Audience	Timing	Dissemination Plan	Status
Three regional reports on supervision of trainings	PMI, NMCP, LLIN Task Force, regional administration, district administration	Q4	Share copies of report on supervision of trainings with audience via email	Under final review by VectorWorks
Three regional reports on supervision of ITN transport from district to schools	PMI, NMCP, LLIN Task Force, regional administration, district administration	Q4	Share copies of report on supervision of ITN transport with audience via email	Under final review by VectorWorks
Three regional reports on supervision of school-based ITN distribution	PMI, NMCP, LLIN Task Force, regional administration, district administration	Q4	Share copies of report on supervision of school-based ITN distribution with audience via email	Under final review by VectorWorks

IM.9 Assessment of Potential Continuous Distribution Channels for SNP Regions

Progress report: Through this activity, VectorWorks and PMI originally intended to support ITN coverage in the three SNP regions by conducting an assessment to better understand and characterize the population that is missed by school distribution, and explore possible mechanisms to reach them. However, it is expected that Tanzania Measure Evaluation Associate Award survey evaluation of the reach and coverage of SNP2 will provide some of this information. Since the final SNP2 evaluation data was not likely to be available before the end of VectorWorks Year 1, it was not possible to sufficiently define this activity in Year 1. As a result, VectorWorks canceled this activity through an approved modification in July 2015. The project reprogrammed a portion of the funds to support other activities (IM.10 and PM.3) and reprogrammed the balance of funds to support Year 2 activities.

IM.10 Qualitative Analysis Workshop

VectorWorks added this activity to the Year 1 work plan via modification #1. Dr. Fredros Okumu, Research Scientist and Head of Environmental Health and Ecological Sciences at Ifakara Health Institute (IHI), reached out to VectorWorks following the annual meeting at the Vector Control Working Group Outdoor/Residual Transmission work stream for support in building the capacity for qualitative research among the team of malaria researchers at IHI, and in particular with the small group working on characterizing human

behavior aspects of outdoor malaria transmission. This opportunity offered VectorWorks the chance to meet an immediate need for qualitative research capacity strengthening, gain a greater understanding of outdoor malaria transmission, and establish a connection for future collaboration between VectorWorks and IHI. Two VectorWorks staff from CCP in Baltimore (April Monroe and Gabrielle Hunter) traveled to IHI to conduct a three-day workshop on qualitative research methods, data management, and analysis. Following the workshop were several days of field visits and one-on-one mentoring with a subgroup of researchers working with qualitative data. The subgroup of researchers were at different stages in their qualitative research studies; therefore, VectorWorks tailored these one-on-one meetings to meet each researcher's individual needs. VectorWorks provided technical support in the areas of data quality and management, use of Atlas.ti software, analysis, and qualitative manuscript writing. The project held a separate meeting in Dar es Salaam with Dr. Fredros Okumu, Mr. Prosper Chaki, Dr. Sarah Moore, and Dr. Lena Lorenz to discuss opportunities for collaboration between IHI and the VectorWorks project, including upcoming research on net care and repair behaviors and outdoor transmission. Additional details are provided in the trip report.

Deliverable	Audience	Timing	Dissemination Plan	Status
Trip report presenting outcomes of workshop, recommendations for completing analysis and dissemination of study findings, and opportunities for future collaboration	PMI	Q4	Share trip report with audience via email	Complete

Monitoring and Evaluation (ME)

ME.1 Internal Project Monitoring

Progress report: VectorWorks worked with PMI/Tanzania to develop the performance monitoring plan (PMP), which PMI approved in Quarter 3. The M&E officer compiled data of the project's achievements against the PMP (see Appendix 1). VectorWorks made submissions against two targets in the PMI Tanzania Monitoring and Evaluation Management Services (TMEMS) database in Quarters 2, 3, and 4 as requested by PMI/Tanzania.

Deliverable	Audience	Timing	Dissemination Plan	Status
Final performance monitoring plan (PMP)	PMI	Q2	Share copy of PMP with audience via email	Complete

ME.2 Documentation and Dissemination

Progress report: VectorWorks documented the implementation process of SNP3 for the purpose of documenting achievements, challenges, lessons learned, and recommendations for the future. VectorWorks engaged a professional photographer who traveled to the three regions capturing key moments in the school distribution. The project uploaded a collection of selected, edited, high-quality resolution photographs to the Photoshare website and submitted them via this annual report at the following link: <http://www.photoshare.org/images/search/grid/vector%20works>. With the support of a student intern, VectorWorks also submitted two success stories on the SNP3 experience based on interviews conducted by VectorWorks staff in the field. The VectorWorks team is in the final stages of compiling the final SNP3 report to share with PMI and other stakeholders. The final report will also include input from the procedural audit report to be finalized early in Year 2.

Deliverable	Audience	Timing	Dissemination Plan	Status
SNP3 final report, including lessons learned	PMI, NMCP, MoEVT, LLIN Task Force	Q4	Share a copy of the final report with the audience via email. Disseminate the lessons learned verbally at an ITN task force meeting.	Under final review by VectorWorks
High-quality resolution photographs	PMI, NMCP, MoEVT, LLIN Task Force	Q4	Share digital photography images with the audience via email, Dropbox, or CD, depending on final file size	Complete

ME.3 Procedural Audit

Progress report: VectorWorks released a request for proposals to select an external agency to conduct a procedural audit and cost assessment of SNP3 and to produce a report on their findings. Through a competitive bidding process, VectorWorks selected Kazi S.A. The purpose of the procedural audit was to gauge how well the SOPs were followed along the different levels of implementation and the supply chain, identify challenges to implementation, obtain feedback on the program from various levels, and obtain data about SNP3 implementation costs. VectorWorks worked closely with Kazi to develop the data collection tools and interview guides for data collectors to use in a selected sample of schools, and in their corresponding wards, districts, regions, as well as at national level.

After a series of coordination meetings, Kazi and VectorWorks co-led a training session for data collectors. Data collection in the schools, districts, wards, and regions occurred during SNP3 issuing in August. Kazi entered, cleaned, and analyzed the data in September. In Quarter 1 of Year 2, VectorWorks provided

detailed feedback to Kazi on two drafts of the final report, which Kazi will finalize and share with PMI and other stakeholders for feedback, also in Quarter 1 of Year 2.

Initial findings reported by Kazi include:

- Procedures were largely followed and paperwork was generally completed
- Greater engagement is needed with the MoEVT
- A regular and systematic communication systems would help connect all levels communication across all levels
- More advance notice provided to schools of ITN arrival would enable teachers to better organize for issuing
- Providing greater technical support to districts in implementation of microplans will help distribution run more smoothly

Deliverable	Audience	Timing	Dissemination Plan	Status
Procedural audit report	PMI, NMCP, MoEVT, LLIN Task Force, VectorWorks	Q4 Note: Upon approval of the Year 1 PMP, the timing of this deliverable changed to Q1 of Year 2	Share a copy of the procedural audit report with the audience via email	Under final review by VectorWorks

Program Management (PM)

PM.1 Program Management

Progress report: The CCP field office in Tanzania has been managing field activities since the start of Quarter 2, and the CCP team was fully assembled by the end of Quarter 2. VectorWorks’ partner PSI was engaged in Quarter 2 as well, and coordination has been ongoing among partners and with stakeholders in Tanzania, including the Tanzania Capacity and Communication Project. The VectorWorks teams in Tanzania and Baltimore have held regular weekly conference calls. David Dadi, Malaria Manager from CCP in Tanzania, traveled to Baltimore to participate in the VectorWorks annual planning meeting in July. Short-term technical assistance support through international travel by CCP and PSI staff supported project management and activity implementation.

PM.2 Project Reporting

Progress report: Regular emails and conference calls have been ongoing within the VectorWorks team. VectorWorks submitted the first semiannual technical report in May, covering the period between January and March 2015. Email reports to PMI have not occurred every two weeks during the course of Year 2;

rather, communication has been at times more or less frequent depending on the need. In addition, the VectorWorks team has taken advantage of several in-person opportunities to keep PMI up to date on activities, including participation at the Roll Back Malaria Vector Control Working Group annual meeting in January, the Malaria Operational Plan meetings in Tanzania in March, regular meetings with the NMCP and the LLIN Task Force and NATNETS steering committee in Tanzania throughout the year, and during short-term technical assistance visits by CCP and PSI.

Deliverable	Audience	Timing	Dissemination	Status
Year 1 work plan	PMI	Q2	Share work plan via email	Complete
Reports by email to PMI biweekly	PMI	Q2, Q3, Q4	Share biweekly reports via email	Communication held according to frequency needed
Quarterly financial reports	PMI	Q2, Q3, Q4	Share quarterly financial reports via email	Complete
VectorWorks Tanzania semiannual report	PMI	Q3	Share semiannual report via email	Complete

PM.3 Planning for Scale-up

Progress report: VectorWorks added this activity to the work plan in response to a request by PMI/Tanzania to significantly scale up the project in Year 2. PMI approved the additional activity through a modification in July 2015. The scope for VectorWorks/Tanzania in Year 2 will include expanding school-based ITN distribution to four more regions for a total of seven regions, and initiating a new mechanism for ITN distribution to pregnant women at the first antenatal clinic visit and to infants at the 9-month measles vaccination in two regions. To prepare for scale-up, VectorWorks conducted a scoping trip to Tanzania that involved meeting with staff within the maternal and child health unit and the NMCP at the MoHSW, as well as with the Medical Stores Department. The project held meetings at the national level, as well as in the two regions of Mwanza and Mtwara. Ato Selby, Matthew Lynch, Angela Acosta, Frederick Persoons, and Gabrielle Hunter participated in the trip. The trip proved valuable in establishing initial parameters for the health facility distribution, including the decision to make use of as many existing structures and procedures as possible, and to establish a robust accountability mechanism that will flag discrepancies between expected and actual numbers of ITNs delivered and issued. In addition, VectorWorks developed a staffing plan for the Tanzania office and conducted interviews for the position of chief of party. A trip report that VectorWorks submitted to PMI detailed the discussions and findings of the scoping trip and outlined key points that informed the draft Year 2 work plan and scopes of work for tasks in Year 2.

Deliverable	Audience	Timing	Dissemination	Status
Trip report with draft work plan and scopes of work as described above	PMI	Q4	Share trip report with audience via email	Complete

Appendix 1: VectorWorks Tanzania Year 1 Performance Monitoring Plan

INDICATOR	DEFINITION	SOURCE	FREQUENCY	TARGETS	ACHIEVEMENTS
1. Number of review and planning meetings held with Ministry of Education and Vocational Training (MoEVT) and Prime Minister's Office Regional Administration and Local Government (PMO-RALG)	This indicator intends to measure the level of MoEVT involvement in reviewing and planning the performance of SNP. Levels are national, regional, district, and ward. A meeting is considered held with MoEVT and PMO-RALG if MoEVT and PMO-RALG representatives were in attendance.	Meeting reports	Semiannually	National: 2 Regional: 3 District: 19	National: 2 Regional: 3 District: 19
2. Percentage of schools with variances that received a validation visit	Numerator: The number of schools visited by validation teams. The teams verify quantifications against actual class lists in the schools. Denominator: The total number of schools that will distribute nets in the current round with variances in quantification beyond the predefined buffer.	Validation reports	Semiannually	95%	94.6% Lindi: 93% Ruvuma: 95% Mtwara: 98%
3. Number of districts with a complete microplan	A complete microplan will be defined in the standard operating procedures.	Microplan meeting reports	Semiannually	19	19

<p>4. Percentage of distribution points (schools) that received the correct number of nets</p>	<p>Numerator: Number of distribution points that received the correct number of nets as defined in the transport plan. Denominator: The total number of locations where beneficiaries will go to receive nets. For Tanzania SNP3, it is the number of schools that will distribute nets in the current round.</p>	<p>Transport report</p>	<p>Semiannually</p>	<p>100%</p>	<p>TBD^a</p>
<p>5. Number of people trained in ITN distribution</p>	<p>This is a global VectorWorks and PMI indicator. This is defined as the number of people trained with VectorWorks funds in ITN distribution. For Tanzania SNP3, training locations are national, regional, and district.</p>	<p>Training reports</p>	<p>Quarterly and semiannual</p>	<p>528 Regional: 10 District: 122 WEC: 396</p>	<p>552 Regional: 12 (66% male; 33% female) District: 68 (46% male; 54% female) WEC: 472 (85% male; 15% female)</p>
<p>6. Number of ITNs distributed</p>	<p>This is a global VectorWorks and PMI indicator defined as the number of ITNs distributed through mass, continuous, or routine distribution channels. VectorWorks must have funded the transport of nets to storage sites or distribution points. For Tanzania SNP3, the channel is schools.</p>	<p>Distribution reports</p>	<p>Quarterly and semiannually</p>	<p>500,000</p>	<p>Channel: Schools Total: 494,407 Lindi: 135,820 Ruvuma: 169,849 Mtwara: 188,738</p>
<p>7. Percentage of schools visited by supervision team</p>	<p>Numerator: The number of schools visited by supervision teams during the issuing period. Denominator: The total number of schools that will distribute nets in the current round.</p>	<p>Supervision report</p>	<p>Semiannually</p>	<p>90%</p>	<p>21%^b</p>

8. Number of targeted beneficiaries who received a net, by type, location and gender*	Numerator: The number of targeted beneficiaries who received a net. Denominator: The number of targeted beneficiaries registered. For school distribution, the types of targeted beneficiaries are students and teachers. Locations are regions and districts.	Distribution reports; quantification reports	Semiannually	100%	Students: Total: 99.25% (49% male, 51% female) Lindi: 97.5% Ruvuma: 99.9% Mtwara: 99.9%
9. Percentage of audience who recall hearing or seeing a specific US government-supported BCC message on ITNs, by sex and age	Numerator: The number of targeted beneficiaries who recall hearing or seeing a specific BCC message on ITNs. Denominator: The total number of targeted beneficiaries. For school net distribution, the targeted beneficiaries include school-aged children (7 years) and above in the three regions of Lindi, Mtwara, and Ruvuma.	Survey/evaluation reports	Annually	TBD ^c	N/A ^c

**Outcome-level indicators achieved by SNP3, such as ITN ownership, household access, population access, and equity can be assessed by reviewing any SNP3 evaluation data that may become available in the future, if/when an evaluation is planned.*

Year 1 results comments:

^a Pending transport drop-off data from PSI.

^b During the SNP3 planning phase, WECs were expected to conduct supervision during issuing but this specific component was not included in the trainings of WECs. While they did collect data from schools during the issuing period using the issuing data collection tools designed for SNP3, they did not actually conduct what can be considered formal supervision for school distribution during ITN issuing. Therefore, only the supervision visits to schools that were conducted by the national supervision teams is counted against this indicator.

^c This indicator is not applicable to Year 1 activities, as VectorWorks was not tasked with conducting BCC activities during Year 1.



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President's Malaria Initiative

VECTOR)WORKS
Scaling Up Vector Control for Malaria Prevention

VectorWorks Zimbabwe Annual Report – Year 1

Reporting period: October 1, 2014 –September 30, 2015

Cooperative Agreement # AID-OAA-A-14-00057

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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-level coverage and use of ITNs and, as needed, targeted coverage and appropriate use of alternative vector management interventions.

Summary of Activities

In Zimbabwe, about 4,355,000 ITNs were distributed in 48 districts from 2012 to 2014 through mass distribution campaigns to ensure that all people at risk of malaria (60% of total population) had access to an ITN. Further plans are under way for another mass ITN distribution in 2016 to replace the ITNs distributed in the previous mass distribution campaigns. Beyond the 2016 mass distributions, Zimbabwe plans to channel ITNs to households on a continuous basis to help sustain coverage levels. These channels include antenatal care clinics, Expanded Programme on Immunization, schools, and community (using village health workers). The objective of the continuous ITN distribution in Zimbabwe is to help sustain the agreed national target of 90% ITN coverage.

VectorWorks developed a guideline document for implementing ITN continuous distribution through the proposed channels and is currently using it for the pilot implementation of ITN continuous distribution in four selected districts (Mount Darwin and Mazowe districts in Mashonaland Central Province, and Hurungwe and Makonde districts in Mashonaland West Province). Zimbabwe will use lessons from the ITN continuous distribution pilot to scale up implementation in all districts at risk of malaria beyond 2016.

Technical assistance for ITN continuous distribution

In Year 1, the VectorWorks project provided technical support to the Zimbabwe National Malaria Control Program (NMCP) and its partners in the implementation of the ITN continuous distribution pilot. The project supported the NMCP and Population Services International (PSI) both remotely and in country to plan, implement, and monitor health facility-based, community-based, and school-based ITN distributions in participating districts.

Support for microplanning and monitoring of school-based ITN distribution

During the year, the NMCP and implementing partners agreed to conduct school-based ITN distribution in all districts of the Mashonaland Central and Mashonaland West provinces instead of only four pilot districts as earlier planned. The VectorWorks project provided support to the in-country partners for the microplanning and monitoring of activities for the successful implementation of the school-based ITN distribution in the two provinces in September 2015.

Process evaluation of ITN continuous distribution pilot

In order to assess the effectiveness of implementation of activities and also document challenges and lessons for future scale-up, the VectorWorks project conducted a process evaluation of the ITN continuous distribution pilot in July 2015. The project has shared an evaluation report with PMI, NMCP, and PSI.

Challenges

There was a delay in the start of ITN continuous distribution activities in one district (Mazowe District) in Mashonaland Central Province due to delays in planned related studies in this district. Also during the year, a number of planned activities could not be implemented according to the anticipated timelines in the remaining three pilot districts. This was due to the schedules and availability of key personnel at all levels. The project surmounted this challenge by working closely with these key personnel to plan and reschedule activities for effective implementation. Future timelines for activity implementation should closely consider schedules of key government personnel and competing activities.

Opportunities

During the implementation process of the ITN continuous distribution pilot, the project used lessons learned in its review of activities and tools and to inform better implementation. VectorWorks will apply these lessons in other countries where the project supports implementation of ITN continuous distribution.

The progress report below includes detailed updates on activities conducted in Year 1 as approved by the USAID/Zimbabwe mission.

Progress Report

ZM.1 Technical Assistance for ITN Continuous Distribution Pilot

Progress report: In January 2015, the field operations director of the VectorWorks project had a conference call with the PMI/Zimbabwe and in-country implementing partners to discuss and plan activities for the ITN continuous distribution pilot. This meeting informed the finalization of a work plan that VectorWorks submitted to the USAID/Zimbabwe mission for approval. Throughout Year 1, the field operations director had regular conference calls and also face-to-face in-country meetings with PSI, the key in-country implementing partner, and NMCP to discuss updates, challenges, and recommendations for the implementation of the ITN continuous distribution pilot in the four selected districts. Agreed-upon recommendations were effected at all levels to improve ITN distribution activities.

In April 2015, the field operations director provided orientation for the national, provincial, and district monitoring teams on intensive supervision for health facility-based ITN distribution. As part of the orientation process, the field operations director also led the teams to conduct intensive supervision visits to a few health facilities implementing ITN distribution in Makonde District. The national, provincial, and district monitoring teams used the experience from these initial visits for the supervision of ITN distribution in the remaining health facilities in the pilot districts.

Deliverable	Audience	Timing	Dissemination Plan	Status
Meeting notes and recommendations on challenges being faced during implementation	PMI, MOH, NMCP, PSI	Q2–Q4	Soft copies of meeting notes will be shared with audience via e-mail	Complete. Shared meeting notes and updates with PMI, PSI, and NMCP.
Trip report on orientation for national-level monitoring team, and the initial stage of intensive monitoring	PMI, MOH, NMCP, PSI	Q2	Trip report and meeting with PMI/Zimbabwe	Conducted debriefing meeting with PMI/Zimbabwe in April 2015. Shared trip report with all stakeholders in May 2015.

ZM.2 Support for Microplanning and Monitoring of School-Based ITN Distribution

Progress report: During the monthly update calls, the VectorWorks project discussed implementation of school-based ITN distribution. In these calls the project confirmed that country partners had agreed to implement school-based ITN distribution to all districts in Mashonaland Central and Mashonaland West provinces, and not limit it to the [four](#) pilot districts only.

Distribution in schools was planned for September 2015. Based on the new plan and proposed preparatory activities, the project developed a revised draft school ITN distribution implementation schedule and shared it with PSI for further review and finalization with in-country stakeholders. This implementation schedule outlined the preparatory activities and the proposed timing for implementation, phasing activities out in both provinces in order to conduct them effectively. In April 2015, the VectorWorks project received and reviewed the data from schools for ITN quantification and discussed the process for verifying enrollment data. PSI used the final implementation schedule and the school enrollment data in the planning and implementation of school-based ITN distribution in the two provinces.

The VectorWorks project's field operations director was also in country in September 2015 to support partners in the detailed microplanning for the successful implementation of school-based ITN distribution. The field operations director also joined the national monitoring team to monitor distribution activities that had started at some levels in both provinces by September 2015. The monitoring visits also served as an opportunity for the collection of further information on challenges, best practices, and recommendations for future scale-up of the school-based ITN distribution process. VectorWorks shared a trip report with recommendations for further improvement in the school-based ITN distribution process with PSI and PMI.

Deliverable	Audience	Timing	Dissemination Plan	Status
Finalized implementation schedule for school-based ITN distribution activities in the pilot districts	PMI, MOH, MOE, NMCP, DEOs, PSI	Q2	Soft copies of final implementation schedule to be shared via email	Complete. Shared final implementation schedule with all stakeholders and used it for planning and implementation of school-based ITN distribution.
Finalized district- and school-level ITN quantification for the two provinces	PMI, MOH, MOE, NMCP, DEOs, PSI	Q3	Share final quantifications with audience via email	Complete. Shared final ITN quantifications with all stakeholders at all levels and used them to guide ITN supplies to schools in September 2015.
Trip report on monitoring of school-based ITN distribution in the two provinces	PMI, MOH, MOE, NMCP, PSI	Q4	Share trip report and meet with PMI/Zimbabwe	Conducted debriefing meeting with PMI/Zimbabwe in September 2015. Shared trip report with all stakeholders in October 2015.

ZM.3 Process Evaluation of ITN Continuous Distribution Pilot

To inform scale-up of ITN continuous distribution in Zimbabwe, the VectorWorks project conducted a process evaluation of the ongoing pilot in the two provinces. The objectives of this evaluation were to:

- Document the processes involved in the continuous distribution of ITNs through antenatal care clinics, Expanded Programme on Immunization, community, and schools.
- Identify issues and challenges that emerged during the implementation of the pilot.
- Identify best practices and provide recommendations to inform the scale-up of ITN continuous distribution.

Progress report: The VectorWorks project developed a research protocol for the process evaluation of the ITN continuous distribution pilot with input from in-country stakeholders. The Johns Hopkins University institutional review board (IRB) and the Medical Research Council of Zimbabwe reviewed and approved this research protocol.

The VectorWorks project conducted fieldwork for the process evaluation in July 2015 in selected districts in Mashonaland Central and Mashonaland West provinces. Project staff conducted field activities with PMI, NMCP, and PSI. VectorWorks submitted a trip report and final process evaluation report to PMI and implementing partners. The process evaluation report outlined detailed recommendations for all aspects and activities for ITN continuous distribution.

Given that the ITN continuous distribution scale-up is planned to commence beyond the 2016 mass distributions (over a year from the writing of this report), Zimbabwe is well positioned to plan a successful and large-scale ITN continuous distribution program as it has adequate time to use the recommendations from this pilot.

Deliverable	Audience	Timing	Dissemination Plan	Status
Finalized protocol for IRB (local and JHU) approval, as needed	PMI, MOH, MOE, NMCP, PSI	Q2	Submit copies of protocol to local and JHU IRB	Finalized and submitted the protocol and received approval from local and JHU IRB in April 2015.
Trip report on process evaluation	PMI, MOH, MOE, NMCP, PSI	Q3	Share trip report and meet with PMI/Zimbabwe	Conducted debriefing meeting with PMI/ Zimbabwe in July 2015. Shared trip report with stakeholders in September 2015.
Final report on process evaluation of ITN continuous distribution pilot	PMI, MOH, MOE, NMCP, PSI	Q4	Share copies of final report with audience via email	Complete. Shared final report with all stakeholders in September 2015.

ZM.PM.1 Work Plan and Reporting

Progress report: The VectorWorks project developed and submitted a work plan to the USAID/Zimbabwe mission in January 2015 for approval. VectorWorks submitted a semiannual report on the project's planned activities and progress to PMI in May 2015. This report is in fulfillment of agreed plans to submit an annual report on the project's progress throughout the year of implementation.

Deliverable	Audience	Timing	Dissemination Plan	Status
Annual work plan approved by PMI/Zimbabwe	PMI	Q2	Share copies of work plan with audience via email	Submitted annual work plan to PMI in January 2015.
Semiannual and annual progress reports	PMI	Q2, Q4	Share copies of reports with audience via email	Submitted semiannual report in May 2015. Submitted annual report in November 2015.