

School Net Program – Round 3 (SNP3)

Final Report

VectorWorks Tanzania Year 1 Work Plan Activity ME.2

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Abbreviations

DC District Council

DED District Executive Director

JHUCCP Johns Hopkins University Center for Communication Programs

IEC Information Education Communication

ITN Insecticide Treated Net

LLIN Long Lasting Insecticidal Nets

M&E Monitoring and Evaluation

MC Municipal Council

MoEVT Ministry of Education and Vocational Training

MoHSW Ministry of Health and Social Welfare

NMCP National Malaria Control Program

PMO-RALG Prime Minister’s Office – Regional Administration and Local Government

PSI Population Services International

RAS Regional Administrative Secretary

SBCC Social and Behavior Change Communication

SNP School Net Program

SNP3 School Net Program round 3

SOP Standard Operating Procedures

TCDC Tanzania Communication and Development Centre

TNVS Tanzania National Voucher Scheme

USAID United States Agency for International Development

WECs Ward Education Coordinators

Background

Following several years of operation of the Tanzania National Voucher Scheme (TNVS) and two ITN mass distribution campaigns, Tanzania had achieved significant gains in coverage of ITNs nationally by 2011 (Tanzania HMIS 2011-2012). However, the TNVS alone was not distributing sufficient numbers of ITNs to sustain coverage levels above the 80% target set by the Ministry of Health and Social Welfare (MoHSW). Therefore, in 2011, stakeholder meetings were convened to propose additional “keep-up” distribution strategies to supplement the TNVS. It was determined that a school-based ITN distribution strategy – locally referred to as the School Net Program (SNP) – would be piloted in the regions of Lindi, Mtwara and Ruvuma to assess its feasibility as a means of sustaining ITN coverage in the country. Beginning in 2013, the first round of the SNP (SNP1) was launched with funding from the Swiss Agency for Development and Cooperation and PMI. In its first year, the SNP distributed 437,930 ITNs directly to school pupils in Standards 1, 3, 5 and 7 (primary school classes) and Forms 2 and 4 (high school classes) in the three program regions. Following this, a second pilot round (SNP2) was planned to build on the lessons learned during SNP1. Funded by PMI and implemented by RTI International, SNP2 resulted in distribution of 489,099 ITNs to school pupils (464,893 ITNs) and teachers (24,206 ITNs) in Lindi, Mtwara and Ruvuma. Upon completion of SNP2 it was determined that an additional pilot round was required to further develop the SNP into a model that could be sustainable and scalable at a national level. With funding from PMI, VectorWorks was selected to lead implementation of this third round, SNP3.

VectorWorks is a five-year USAID-funded, global malaria prevention project aimed at supporting countries to achieve and maintain high levels of coverage and use of insecticide-treated nets (ITNs). Project activities focus on three main areas: Policy, Implementation, and M&E. 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 schools. Johns Hopkins University Center for Communication Programs (JHUCCP), in collaboration with Population Services International (PSI), 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 School Net Program (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.

VectorWorks laid out the following objectives for SNP3:

* To build on previous experiences from SNP1 and SNP2;
* To increase co-ownership of the program by the Ministry of Education and Vocational Training (MoEVT) and the National Malaria Control Program (NMCP);
* To develop a less costly and more replicable model for ITN distribution through schools for future scale-up.

What follows in this report is a detailed description of the activities completed by VectorWorks and stakeholders during SNP3, as well as results achieved, challenges encountered, mitigation steps taken to overcome these challenges, and recommendations for future rounds of SNP.

Planning and Program Design

SNP3 was designed to build on experiences from the two previous rounds, taking into consideration identified successes and challenges. In an effort to learn more and to solicit advice regarding potential adjustments for SNP3, VectorWorks met with representatives from previous SNP implementation organizations: RTI, who led SNP2; the National Malaria Control Program (NMCP); and the Swiss Tropical and Public Health Institute (Swiss TPH). During these meetings, two key recommendations were highlighted. First, to increase involvement and program co-ownership on the part of the Ministry of Health and Social Welfare (MoHSW), Ministry of Education and Vocational Training (MoEVT) and Prime Minister’s Office – Regional Administration and Local Government (PMO-RALG). Second, to implement a data validation exercise to improve the quality of the quantification data.

In developing the SNP3 SOP, VectorWorks took these recommendations into consideration and made additions and modifications to the program design accordingly. Having completed the draft SOP, VectorWorks engaged with the LLIN Task Force of the NMCP to present the overall strategy and approach for SNP3 and to solicit buy-in and advice on necessary refinements. Several meetings were held during which VectorWorks gave presentations on the proposed approach and, once concurrence and inputs were obtained, the team made updates on progress during the quarterly meetings for the LLIN Task Force.

Important comments and recommendations were made during the LLIN Task Force meetings. Two examples demonstrate the value of this coordinating mechanism. First, VectorWorks used the NetCALC Tool to model possible scenarios for class selection during SNP3. This modeling identified three optimal scenarios of classes eligible to receive ITNs. The Task Force was provided with a report outlining these scenarios and was requested to discuss and make recommendations for the final class selections. In these discussions, Task Force members highlighted important logistical and political considerations, finally recommending that VectorWorks pursue an adaptation of one of the modeled scenarios for SNP3. The second contribution of the task force to SNP3 planning and design was an endorsement to move ahead with implementation of activities while high level engagement of permanent secretaries from MoHSW, PMO-RALG and MoEVT was ongoing, such that SNP3 timelines would not be delayed. The Task Force assured VectorWorks that the advocacy meeting with the three key permanent secretaries would be organized to discuss SNP3 in the future.

# Advocacy and Engagement

As mentioned above, one of the principal recommendations following completion of SNP2 was that greater emphasis should be placed on creating program co-ownership between the MoEVT and the MoHSW, and on engaging the education sector at the national, regional, district and ward levels. In addition, the PMO-RALG was to be engaged in oversight and management of the program.

In response to this recommendation, VectorWorks held advocacy meetings at the national, regional and district level prior to commencement of implementation activities. Three national level engagement meetings were held, followed by one advocacy meeting in each of the three regions and in each of the 19 districts.

The objectives of both the regional and district advocacy meetings were three-fold:

* To introduce SNP3 to the regional and district authorities, sharing specific details regarding project activities in accordance with the SOP, intended benefits, timelines and roles and responsibilities of partners, including those partners who were engaged in school distribution responsibilities for the first time;
* To allow regional and district representatives the opportunity to ask questions, air concerns and make recommendations regarding SNP3;
* To advocate for and obtain buy-in on key “asks” within the regional and district government structures.

## Regional Advocacy Meetings

Regional advocacy meetings were conducted between May 11 - 21, 2015 in Lindi (May 12), Mtwara (May 14) and Ruvuma (May 21). Prior to each regional advocacy meeting, the national team (comprised of representatives from VectorWorks, PMO-RALG and NMCP) made a courtesy call to the offices of the Regional Administrative Secretary (RAS) and Regional Medical Officer (RMO) in order to confirm details and finalize logistic arrangements for the meeting.

The regional advocacy meetings were officiated by regional PMO-RALG personnel, usually the Regional Commissioner. The meeting began with an opening by a representative of the PMO-RALG, followed by formal presentations addressing the status of malaria in Tanzania (*Mr. Ally Mzava, MoHSW/NMCP*), an overview of SNP3 and changes from SNP2 (*Mr. George Kabulika, VectorWorks*), and the specifics regarding coordination and logistics around ITN distribution for SNP3 (*Mr. Godfrey Mbaruku, VectorWorks*). Particular emphasis was given to advocating for and describing how the three ministries are to be involved in the project implementation, specific roles and responsibilities, and describing the activities and specific timeline that will be followed to reach the program’s objectives. Following these presentations, Mr. Juma Motoka from PMO-RALG advocated for buy-in on several “asks” made of the regional authority detailing the expectations of their involvement in SNP3 (see list below). Finally, meeting participants were invited to have an open discussion about SNP3 and raise any questions, concerns or recommendations they may have.

MAJOR ASKS TO REGIONAL LEADERS

1. RAS and his/her technical team (Regional Malaria Focal Person, Regional Education Officer, Regional School Health Coordinator and Educational and Mobilization Coordinator) are the main coordinators and supervisors/overseers of the project in their respective region
2. RAS and his/her technical team will ensure that primary school pupils’ data are collected in a timely manner and are correct
3. RAS’s technical team does advocacy with high-level district leaders and orients district technical teams (district supervisors)
4. RAS’s technical team will train Ward Education Coordinators (WECs) who are the implementers of the project
5. RAS and his/her team will participate in supervision of the project at all levels (data collection, data validation, ITNs distribution as well as all community mobilization activities)
6. To ensure that all schools secure storage facilities with maximum security
7. To ensure security of ITNs in the whole process of delivery to school level
8. In collaboration with district supervision teams, RAS’s team will work to make sure that ITNs are transported to each school in a timely manner

## District Advocacy Meetings

District advocacy meetings were conducted during the period of May 26 – June 6, 2015, occurring simultaneously in all nineteen districts during this time. Regional technical teams coordinated and led the district advocacy meetings, which were also combined with orientation for the district teams. In most cases both advocacy and orientation to the district teams were conducted in a single day. The district advocacy meetings followed the same structure as did the regional advocacy meetings, with presentations followed by a discussion session. The presentations covered the same topics as the regional-level meetings: the state of malaria in Tanzania, an overview of SNP3 and changes from SNP2, and specifics regarding the roles of all stakeholders in implementation, coordination, and logistics of ITN distribution. Advocacy with the district teams focused on mobilizing their commitment and support to supervising the work of the WECs, consolidating and submitting data, developing micro-plans, and storing ITNs.

### Table 1: District Advocacy and Orientation Meeting Attendees *(source: PSI participant list)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Region** | **District** | **Total Attendees** | **Male** | **Female** |
| **Lindi** | Lindi Dc & Mc | 27 | 23 | 4 |
|  | Ruangwa | 18 | 13 | 5 |
|  | Nachingwea | 14 | 11 | 3 |
|  | Liwale | 13 | 11 | 2 |
|  | Kilwa | 14 | 11 | 3 |
| **Mtwara** | Mtwara Dc&Mc | 18 | 7 | 11 |
|  | Tandahimba | 13 | 10 | 3 |
|  | Newala | 12 | 11 | 1 |
|  | Masasi Tc&Dc | 21 | 16 | 5 |
|  | Nanyumbu | 11 | 10 | 1 |
| **Ruvuma** | Nyasa | 16 | 11 | 5 |
|  | Mbinga | 21 | 16 | 5 |
|  | Tunduru | 17 | 14 | 3 |
|  | Namtumbo | 20 | 14 | 6 |
|  | Songea Dc& Mc | 45 | 25 | 20 |
| **Total** |  | **280** | **203** | **77** |

Across all levels of advocacy, government authorities were cooperative and had a positive attitude toward SNP3. Particularly at regional and district level, in all the meetings, participants from a range of stakeholder groups (government leaders, technical teams, religious and political leaders) showed high level of acceptance and commitment to the program.

The advocacy and engagement meetings were an opportunity for regional and district stakeholders to raise various issues, have these issues clarified, and suggest ideas for SNP3 or future rounds of the program. In some cases, the points raised anticipated challenges for implementation, such as weaknesses of the mobile money transfer system, the potential for inflated quantification numbers from the schools and WECs, the importance of completing distribution prior to the start of the presidential election campaigning at the end of August to avoid confusion, and the importance of clarifying which schools (primary or secondary) classes were eligible for SNP and why.

## Challenges and Solutions for Advocacy and Engagement

* One challenge to the effectiveness of the advocacy meetings was that the different government bodies were not always able to send the most appropriate representative to these meetings. As a result, there were instances in which the meeting discussions did not reach those persons positioned to take action, and follow-up was required.

***Solution*:** Government staff involved should come from levels that are consistent across the government agencies.In the event that designated personnel attend program meetings in the place of higher authorities, they should be reminded to give adequate feedback to the respective authorities to avoid complaints about late or limited provision of information. An official communication plan (described above) could include a section on meeting follow-up, which would help to ensure that meeting information is shared with authorities who were not able to attend.

# Training

Because extensive training sessions were held during SNP1 and SNP2, it was determined that SNP3 trainings would focus on reinforcement of key program activities, as well as instruction on elements of the program that have changed between SNP2 and SNP3. Training sessions took place at the regional and district levels, and orientation took place at the school level. The objective of training was to ensure that all individuals involved in implementation of SNP3 were informed of their roles and responsibilities, and were familiarized with the tools to be used at each stage of the net distribution.

## Regional-level Training

The Regional Technical Team training occurred in parallel with the SOP Review Meeting that took place in Dar es Salaam, Tanzania, between April 28 and 30, 2015. This training included representatives from the Health and Education departments within the Regional Administrative Secretary’s (RAS) office, such as Malaria Focal Persons, School Health Coordinators and Regional Communication Officers, from each of the three program regions. During this training, Regional Technical Teams were oriented to the refined SOP and all project tools, which they then participated in reviewing.

***Results:***

* In total, 12 individuals were trained to serve as members of the Regional Technical Teams, of which 8 were male and 4 were female.

## District-level Training

District Technical Team trainings took place in each of the 19 program districts between May 26 and June 6, 2015, led by the Regional Technical Teams. National supervision teams also participated in all 19 District Technical Team Trainings to ensure that District Technical Teams had sufficient understanding of SNP3 activities and would be able to assume their roles as expected. These trainings included District Malaria Focal Persons, School Health Coordinators, Community Development Officers and representatives from the District Education Office (DEO). The combination of personnel on District Technical Teams varied from district to district depending on the availability of staff in each district.

Each District Technical Team training consisted of a half-day session during which the teams were oriented to the SOP and all program tools (both data collection and issuing tools) that they would be required to use to fulfill their roles and responsibilities during SNP3. After being oriented to each tool, participants were given copies of the tools to read and practice completing. Discussion followed to ensure participants understood where, when and how to use the tools. Data collection tools were distributed to the District Technical Teams immediately after training while issuing tools were to be distributed later, at the same time as ITNs were delivered schools.

***Results:***

* In total, 68 individuals participated in the District Technical Team trainings, of which 31 were male and 37 were female.

## WEC Training

Immediately following the District Technical Team trainings, WEC trainings took place in each district. These trainings included both the WECs and the District Technical Teams and were led by the same Regional Technical Teams who provided the District Technical Team trainings. Each WEC training consisted of a one-day session led by the Regional Technical Teams. The sessions began with the same presentations that were made to the District Technical Teams during the District Advocacy Meetings. These included information on the state of malaria in Tanzania, an overview of SNP3, a description of all program activities, the roles and responsibilities of all implementers, the program timeline, and information on the Social and Behavior Change Communication (SBCC) activities within SNP3. The WECs were then trained on all program tools that they would be required to use during the course of SNP3. After being oriented to each tool, participants were given copies of the tools to read and practice completing. Discussion followed to ensure participants understood where, when and how to use the tools. Data collection tools were distributed to the WECs immediately after training in preparation for the data collection activities to begin, while the issuing tools were distributed at the same time as ITNs were delivered schools.

**Results:**

* In total, 472 WECs were trained, of which 401 were male and 71 were female.

## School-level Orientation

WECs were responsible for orienting Head Teachers to SNP3, including explaining the implementation plans and timeline; explaining teachers’ roles during data quantification and issuing activities; and providing SBCC messages to be shared with pupils. WECs were also expected to instruct teachers on how to fill in project tools and forms, specifically, the program quantification and issuing forms.

A one-page laminated reference document was developed for the WECs; it clearly stipulated the roles and responsibilities of the WECs, as well as the teachers, and was intended to be used during orientation of teachers. In addition, WECs were to use sample forms for demonstration during school level orientation. During this orientation, teachers were to be informed that data would be collected for all primary school classes (standard 1- 7) and that the decision on eligible classes for receiving ITNs would be communicated to them at a later time, after VectorWorks compiled registration data from all three regions and eligible classes were selected based on that data.

In summary, teachers’ roles and responsibilities included the following;

* Every Head Teachers shall organize a school meeting where he/she shall inform members of the upcoming SNP3.
* He/she shall work with WEC to prepare school data.
* He/she shall prepare ITNs storage at the school and ensure security of the ITNs upon receipt.
* He/she shall receive ITNs from the transportation company, duly sign the proof of delivery forms and make sure the school remains with a copy of the delivery form.

## Supervision of Training and Orientation

The national team, comprised of representatives of the MoSHW (including NMCP), PMO-RALG, and VectorWorks, led the regional trainings, and supervised the district and WEC trainings. In addition, the regional teams joined the national team in supervising the WEC trainings by district teams. National teams supervision aimed to ensure that trainings and orientations were well conducted to all cadres. The presence of the national team during these sessions was of great value as they provided clarification on various issues which regional and district team could not field in the moment, such as requests for ITN coverage for the elderly. However, neither national, regional nor district teams directly supervised the school-level orientation conducted by the WECs.

## Challenges and Solutions for Training

* The main challenge during trainings was the payment system used; given all its advantages, still it was not effective and efficient to some payees. Some trainees raised concerns after payments were delayed for more than a month after an activity was conducted, which resulted in some mistrust of the program.

***Solution****:* PSI has reviewed their payment system and updated it from using a single mobile company for mobile money transfer to having multiple mobile money transfer companies (Airtel Money, M-Pesa, Tigo-Pesa, Easy Money etc).

* It appears that the quality and duration of the orientation provided to teachers was not uniform across all districts and schools.

***Solution****:* To ensure more consistent orientation of teachers, district technical teams will conduct supervision in collaboration with regional and national teams at the school level. Also, the program will consider whether WEC trainings require additional time, place greater emphasis on the importance of uniformity of WEC trainings, and improve on the tools and aids for orientation provided to WECs. As for the training of district technical teams, during their training, VectorWorks will include data management skills to avoid the challenges and errors in the compilation of quantification and issuing data from SNP3.

# Quantification, Validation and Class Selection

## Quantification

Collection of data from schools on the number of registered pupils was an essential activity for quantification of ITNs for distributions at schools. During the SOP review meeting, participants decided that WECs would play a greater role in data collection. In SNP1 and 2, teachers prepared the lists and submitted the number of eligible pupils to WECs. For SNP3, WECs were to visit each primary school in their ward to collect registration data for each class, segregated by gender, with the support of head teachers. The appointed PMO-RALG staff at the district and regional level would be responsible for collating the quantification data at their respective levels and submitting it to the next level up.

Stakeholders also decided 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 would be selected for SNP3 distribution. In previous SNP rounds, implementers only quantified the classes selected as eligible for SNP. In contrast, the selection of eligible classes for SNP3 was to be based on NetCALC modeling of projected household coverage; therefore, SNP implementers requested enrollment data from all primary school classes to model household coverage based on different scenarios, and use that data to make the final selection of classes for SNP3.

During quantification, the WECs used the SNP3 data collection Form A to obtain numbers of all registered students by class and gender per school. The WECs compiled all school data using SNP3 data collection Form B to tally the total figures for all schools in their ward. They then sent this information to district officers to compile all ward data for the district using data collection Form C, then to the regional officers to compile all district data using data collection Form D, and finally, the regions shared these quantifications with the national level PMO-RALG, MoHSW, and VectorWorks. District and regional technical teams were expected to verify the data that they received was complete, that totals were correct, and forms duly signed. **Through this process, a total of 652,464 pupils were registered in the three region’s primary schools**.

## Validation

During planning meetings, stakeholders jointly decided that SNP3 quantification data should be validated to ensure optimal quantification of ITNs for distribution. In previous SNP rounds, quantification data had not been crosschecked or validated. Validation would entail the identification of schools to be visited by a supervisory team to perform a crosscheck of the data submitted against the data at the school level.

To determine which schools to select for validation, a methodology was developed 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, stakeholders jointly determined a variance threshold of ±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).

VectorWorks convened validation teams with representatives from the MoHSW, MoEVT, and PMO-RALG at the national, regional, and district levels. From July 4 - 24, 2015, the validation teams made in-person visits to the schools and districts selected for validation of their SNP3 quantification data. Of the 335 (17%) schools identified for validation, the validation teams visited 315 (94%) schools. The validation teams compared the quantification data against the completed data collection forms from district, ward and school level, and checked school attendance reports. Roughly 90% (287) of those schools visited had data discrepancies, meaning that the data obtained at schools 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; such inaccuracy of data was considered unacceptable and authorities ordered that all WECs conduct a re-quantification of all classes in all schools of the three regions at their own expense. The SNP3 validation exercise identified a need for the program to improve training and supportive supervision to ensure better data quality in the future.

## Re-quantification

Regional authorities requested that the quantification exercise be repeated at the WECs’ and district authorities’ own expense. A deadline of July 30, 2015 was set for the submission of this new data to the regional authorities by the districts. Re-quantification yielded a total of 640,362 registered pupils in all primary school classes; this represented 12,102 fewer pupils than originally quantified. The difference between original and final quantifications by region was:

* Lindi: -2,008 pupils
* Mtwara: -4,611 pupils
* Ruvuma: -5,483 pupils

## Class Selection

VectorWorks and stakeholders used the re-quantification data to make the final selection of eligible classes for SNP3. VectorWorks partner, Tropical Health, used the NetCALC modeling tool (with preliminary coverage estimates from the SNP2 evaluation) to estimate the number of ITNs needed through SNP3 to reach 80% coverage in each of the three southern 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. To aid in the optimal selection of classes for SNP3, NetCALC was used to model three scenarios for the selection of classes for SNP3. VectorWorks presented the following three scenarios to the LLIN Task Force:

### Scenario 1 of LLIN School Allocation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region** | **LLIN Durability** | **LLIN Need for 80% Access** | **Classes to be Served** | **LLIN to be Distributed** | **Expected Access Rate** |
| Lindi | 3.0 | 132,000 | 1-5, 7 | 140,505 | 81.5% |
| Mtwara | 3.5 | 205,000 | 1-4 | 151,643 | 74.5% |
| Ruvama | 2.75 | 232,000 | 1-4. 6 | 200,485 | 68.2% |
| **Total LLIN** |  | **569,000** |  | **492,632** |  |
| Balance |  |  |  | 7,368 |  |

### Scenario 2 of LLIN School Allocation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region** | **LLIN Durability** | **LLIN Need for 80% Access** | **Classes to be Served** | **LLIN to be Distributed** | **Expected Access Rate** |
| Lindi | 3.0 | 132,000 | 1-5 | 124,825 | 78.6% |
| Mtwara | 3.5 | 205,000 | 1-3, 5, 7 | 173,842 | 77.3% |
| Ruvama | 2.75 | 232,000 | 1-3, 5, 7 | 192,830 | 66.4% |
| **Total LLIN** |  | **569,000** |  | **491,497** |  |
| Balance |  |  |  | 8,503 |  |

### Scenario 3 of LLIN School Allocation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region** | **LLIN Durability** | **LLIN Need for 80% Access** | **Classes to be Served** | **LLIN to be Distributed** | **Expected Access Rate** |
| Lindi | 3.0 | 132,000 | 1-5 | 124,825 | 78.6% |
| Mtwara | 3.5 | 205,000 | 1-4 | 151,643 | 77.3% |
| Ruvama | 2.75 | 232,000 | 1-2, 4-7 | 221,969 | 66.4% |
| **Total LLIN** |  | **569,000** |  | **498,437** |  |
| Balance |  |  |  | 1,563 |  |

The LLIN Task Force discussed the three scenarios and came to consensus on the selection scenario #2 for SNP3, with the request that VectorWorks also include Class 7 in Lindi. Therefore, SNP3 eligible classes were:

* Lindi: Standard 1–5, and 7
* Mtwara: Standard 1–3, 5, and 7
* Ruvuma: Standard 1–3, 5, and 7

In making this decision, the LLIN Task Force considered that consistency in class selection from previous rounds of SNP was important for several reasons. First, keeping the program straightforward and consistent will facilitate the eventual plans for nationwide scale-up. Second, SNP was originally planned so that children who did not get a net in one year would receive a net during the following year; switching eligible classes from year to year may result in a student being missed for two consecutive years, which would likely upset the community. Therefore, it was considered that the scenario should ensure that all school children receive a net at least once during SNP2 or SNP3. However, because the purpose of SNP is to ensure community level coverage of ITNs and not distribution to individual pupils, another consideration was equity in expected coverage levels across regions. This eliminated scenario #1, which was the most inequitable in terms of attainable coverage. Scenario #3 was also discouraged because it left only one class out in Lindi and Ruvuma, which would be potentially upsetting to schools and communities. Scenario #2, with the addition of Class 7 in Lindi, was ultimately selected, with recognition by the LLIN Task Force that there would be a need to focus on Ruvuma at a later date to bring them above 70% coverage.

When comparing quantification of all classes between the first and second round of quantification, there was a total difference of 12,102 pupils. If restricted only to eligible classes, there was a difference of 9,586 pupils, which represents 1.9% of the total ITNs available for distribution (Table 2).

### Table 2. First and second round quantification data for eligible classes, by region

|  |  |  |  |
| --- | --- | --- | --- |
|  | **First-round**  **quantification** | **Second-round**  **quantification** | **Difference**  **(% total ITNs available)** |
| **Lindi** | 140,504 | 138,849 | 1,655 (0.3%) |
| **Mtwara** | 173,842 | 169,890 | 3,952 (0.8%) |
| **Ruvuma** | 192,830 | 188,851 | 3,979 (0.8%) |
| **SNP3 Total** | 507,176 | 497,590 | 9,586 (1.9%) |

## Challenges and Solutions for Quantification and Validation

Quantification and validation of data exercises observed a number of issues/challenges, some of them include;

* About 90% of schools visited for validation had discrepant data (actual figures obtained at schools did not match data submitted by WEC). In some schools it was observed that teachers and WECs exaggerated numbers intentionally for the purpose of obtaining more LLINs for the teachers.

***Solution:*** Education sector at all levels should be more involved in the entire project implementation to ensure that WECs and teachers are performing their roles. Because the MoVET’s role in government is that of high level policy formulation, while the PMO-RALG is charged with the operational management of the education sector and the delivery of services associated with it, in subsequent SNP rounds, VectorWorks will work more closely with PMO-RALG’s education arm on operational issues while working with MoH to ensure MoVET is also included in technical LLIN task force and a policy mandated steering committee meetings.

* The majority of WECs did not pay a visit to schools to collect data, despite being facilitated with trainings and subsistence allowance to facilitate travels during data collection, WECs did not go to schools to collect numbers but instead orders head teachers to send them the numbers - some via mobile phone, text and some in hard copies meaning; WEC never had the opportunity to verify the data before submitting to district officials.

***Solution:*** Education sector at all levels will be very much involved in the entire project implementation to ensure that WECs and teachers are performing their roles.

* Data at district level had issues: Kilwa and Nachingwea in Lindi, Mbinga and Songea DC in Ruvuma, Nanyumbu, Newala and Mtwara DC mixed male and female data in some classes and; entered wrong data in some classes. Kilwa district did not enter data for 3 schools of the same ward.

***Solution***: During district technical teams training data management will be emphasized to avoid errors.

* During validation visits, the teams copied enrollment figures by hand and compared against those figures submitted by WECs. The validated data would then have to be keyed in by staff and the quantification database reconfigured with the new, validated data. Because the order was given to re-quantify, the validated data was not utilized. Had it been utilized, however, copying paper data by hand during visits and keying it in afterwards is time consuming and introduces opportunities for typos and errors in the data.

***Solution***: Explore options for digital data collection during validation visits. Continue to develop data management capacity of district and regional staff to check data for errors before submission.

* Validation visits are time-intensive for all involved. For SNP3, visits were made to over 17% of schools, and as a result validation required three weeks of field travel. With the scale-up to four additional regions for SNP4, the same level of intensity for validation activities is unlikely to be feasible.

***Solution***: SNP4 preparations must take into account budget and time limitations when planning for validation and propose a realistic percentage of schools to be validated, possibly 3-5%.

# Logistics

## Micro-Planning

***Process and parameters for micro-planning***

As part of the training activities described above, Regional and District Technical Teams were oriented to micro-plans, which were designed to help districts prepare for their role in the storage, re-bundling and transportation of ITNs. VectorWorks developed and provided each Regional and District Technical Team with an Excel template for micro-plans. After validating and finalizing quantification for each school, VectorWorks held a micro-planning meeting with each of the 19 districts to firm up the district logistics plans, roles and responsibilities, timelines and budgets for transportation, secure storage, and distribution in schools. Micro-planning assisted district teams in completing the following activities:

* Assessing the space and security capacity of ITN storage warehouses;
* Planning for transportation of ITNs from the districts to the schools, accounting for factors such as distribution routes; fuel requirements; vehicle requirements; delivery schedule; and cost of transport;
* Defining the roles and responsibilities of each official involved in the transportation and issuing of ITNs to schools, including supervision of issuing;
* Developing district budgets to cover all expected costs of SNP3, to include ITN storage, re-bundling, transportation to schools, issuing and supervision.

Each of the 19 the district technical teams prepared a micro-plan for their district, with technical support from VectorWorks, which was to be submitted between July 1-20, 2015 (although micro-plans were not complete until July 30, 2015), and submitted micro-plans to the regional malaria focal persons for Lindi, Mtwara, and Ruvuma. The regional malaria focal persons reviewed and submitted the consolidated micro-plans to VectorWorks partner, PSI for final review, along with fund requests for transportation and storage based on needs identified in the micro-plans. These fund requests and micro-plans formed the basis for contracts developed between VectorWorks and each region, stipulating the region’s roles and responsibilities in ensuring the safe transportation of ITNs from the districts to the eligible pupils in each school. These contracts also specified financial reporting requirements, including the submission of expenditure reports with official receipts upon completion of ITN issuing. Contracts were reviewed and signed by VectorWorks and the RAS of the three respective regions and funds disbursed. Regional officers then instructed district teams to begin movement of ITNs from district warehouses to the schools.

## Challenges and Solutions for Micro-planning

* Micro-plans used for SNP1 and 2 were not available for this exercise, which would have benefitted implementers to build off of what had been used previously. For the next round of school distribution, implementers will be able to improve on the existing SNP3 micro-plans, which have been stored in electronic format by the project for future use.
* Micro-planning was a new responsibility for district authorities during SNP3; most had no experience or prior skills in developing micro-plans. In part due to this lack of experience, it took over four weeks for all 19 micro-plans to be submitted from the districts to VectorWorks despite consistent reminders and follow-up.
* Following the micro-plans also proved to be challenging for many districts. For example, there were cases in which trucks were budgeted for but not used, mostly because the vehicles were not available when they were needed due to a lack of planning ahead.

***Solution*:** The challenges described above are reflective of a lack of capacity and prior experience at the district level. The half-day micro-planning orientation with district authorities was too short for the complexity of the task. District teams sought considerable support from VectorWorks by phone to complete their micro-plans and it was challenging to provide this guidance by phone. VectorWorks partner, PSI recommends that two days be allotted to micro-planning in training for SNP4, especially as many district and regional teams will be new to this exercise.

***Solution*:** Planning and budgeting are central duties for the PMO-RALG in general, and therefore strong involvement by this branch of government is essential for the micro-planning exercise. Intensifying their involvement in SNP4 will be key. VectorWorks can continue to advocate for and include local government authorities in planning and also in supervising all the activities in the region. Their involvement will increase accountability of those assigned to SNP.

## Transportation and Storage

***Procurement of ITNs***

ITNs were procured by the DELIVER project and stored in a national warehouse in Dar es Salaam, Tanzania. They were consigned to VectorWorks in July 2015 to be transported from the national warehouse to the districts.

***Sub-Contracting of transporters***

Through a competitive bidding process, VectorWorks partner, PSI, selected two private transportation companies (CMTL and Travel Partner) to sub-contract to transport the ITNs from the national warehouse to each of the 19 districts. The decision to award two transport companies with a portion of the job was to ensure efficiency and minimize the risk of delay in execution.

***ITN Transport from National-level to District-level***

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 between July 14-23, 2015, and was based on the first round of quantification numbers. Upon arrival in the districts, ITNs were received by the district officials, who supervised offloading of the trucks. The transportation to districts took place according to the timeline presented in Table 4 below. A total of 500,000 ITNs were transported to the 19 districts.

### Table 4. ITN Transportation from Dar es Salaarm to Districts

|  |  |  |  |
| --- | --- | --- | --- |
| **Date**  **(Departure from**  **National-level)** | **Truck/Container ID Number** | **Region** | **No. bales** |
| 14/07/2015 | T944GTC & T233CWB | Kilwa | 625 |
|  | T321DDV & T476DDG | Lindi DC | 580 |
|  | T130CSD | Lindi DC/MC | 403 |
|  | T931BAG | Kilwa | 125 (plus 2 loose bales) |
| 15/07/2015 | T551DDT | Masai | 250 |
|  | T848AUL | Ruangwa | 451 |
|  | 1336BWM | Masasi | 250 |
|  | T806AJU | Liwale | 456 |
|  | T251ABJ | Nachingwea | 345 |
|  | T666BFS | Nachingwea | 346 |
|  | T233CWB & T944GTC | Mtwara | 625 (plus 4 loose bales) |
| 16/07/2015 | T908DDB & T242CWB | Mtwara | 502 |
|  | T740AKR | Newala | 250 |
|  | T324DDV & T494DCC | Nanyumbu | 562 |
| 17/07/2015 | T908DDB & T321DDV | Nyasa | 568 |
|  | T737DDF | Songea MC | 396 |
|  | T130CSD | Songea MC | 346 |
|  | T233CWB & CAXU7193266 | Songea DC | 617 |
| 21/07/2015 | T114AHR &T702ABJ | Tandahimba | 826 |
|  | T122ACG & T961BDK | Newala/Masasi | 801 |
| 22/07/2015 | T854CJT | Masasi | 276 |
|  | T881DBU & T629DBY | Namtumbo | 717 (plus 2 loose bales) |
|  | T814AHR & T430DDR | Tunduru | 850 |
| 23/07/2015 | T941CDK & T699CNQ | Mbinga | 710 |
|  | T211AFT | Mbinga/Tunduru | 530 |
|  | T791ABM | Tunduru | 85 |
|  |  | **TOTAL** | **12,500 Bales**  **40 ITNs/bale = 500,000 ITNs** |

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.

***Storage and Re-bundling in the Districts***

After micro-planning was complete and the ITNs transported to district stores, district teams took ownership of the ITNs and led the process of re-bundling of ITNs into packages according to each school’s need, as determined by the final quantification data, labeled with the school name and quantity of ITNs contained. ITNs were stored at district warehouses until they were ready to be transported to schools.

***ITN Transport from District-level to Schools***

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 micro-plans. ITNs were transported from the district warehouses to the schools between August 13 and August 25, 2015. Transporters were instructed to drop off ITNs at schools during school hours to enable school staff to distribute nets to pupils that very day in as many cases as possible.

***Accountability of ITN transporters***

Transporters signed a contract that necessitated them to have a delivery note to be signed by the district authorities and returned to VectorWorks upon offloading. Routine calls were made with the appointed contact person at each district to confirm the actual number of ITN received before the transporter left the district.

***Supervision during Re-bundling and Transportation***

During the loading of ITNs at the national warehouse, VectorWorks staff were present to make sure the exercise went smoothly and to make sure the correct quantities of ITNs were loaded in the trucks, as per the respective district quantifications. Supervision also assessed the condition of ITNs and the quality and security of storage. The goal was for supervision teams to visit all district warehouses employed in storage and re-bundling activities during SNP3. Supervision of re-bundling and storage was conducted at 14 of the 16 district warehouses (Masasi DC and Masasi TC shared a warehouse, as did Lindi MC and Lindi DC.) Re-bundling and transportation of ITNs to schools had been completed in the two remaining districts (Nyasa in Ruvuma and Tandahimba in Mtwara) before the supervision team arrived in those districts.

MoHSW/NMCP, PMO-RALG, and regional teams visited all districts to ensure that transporters executed the ITN transportation according to the micro-plan 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 and Solutions for Transportation and Storage***

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).

* For trucks transporting nets to schools, route start up time was a challenge. In most places, the distribution routes started after 11:00 am, which was three hours late of the planned start time. Delays were due to poor planning and lack of coordination at district level regarding start times. This late start resulted in delivery to some schools after school hours, in particular those that were very far away.

***Solution***: All district staff and transporters must take scheduled route start times seriously. In the future, it is recommended that district and transportation staff plan ahead and coordinate one day prior to loading. In some cases, trucks can be loaded with ITNs a day before or load ITNs very early in the morning in order to comply with the scheduled route start time.

* The number and type/size of distribution vehicles that were secured by each district was not always sufficient for the specific routes and number of bales needed. This ocurred when districts failed to contract the correct number and size of trucks according to the micro-plan. This also ocurred when districts failed to arrange for motorbikes or boats to meet trucks en route and carry a portion of the nets the final stretch to hard to reach areas.

***Solution****:* Ample time is required for trainings with district staff on ITN distribution logistics including micro-planning. Micro-planning process need not end after producing the micro-plan; districts will need support in operationalizing the micro-plans, in particular for securing the needed transportation.

* An over-supply of ITNs were delivered to some schools due to poor data collection during planning phase and poor data received from WECs. Heads of schools should have played a larger role in data integrity.

***Solution***: All personnel to be involved in the process, including heads of schools, should be oriented on the importance of providing clear and correct data and consequences incurred in cases of incorrect data submission.

* Plans for loading trucks in some districts were incorrectly executed; as a result some of the schools received less number of supplies and some more than the required.

***Solution****:* Joint support supervision during transportation of ITNs helps to corrects any deviation from the plans straight away. Supervisory teams re-allocated the correct numbers of ITNs, issuing books and comic books according to the quantities required in schools

* Some routes were supplied by drivers only which was against the SOPs, lacked proper ITNs distribution information (i.e. when to start issuing to pupils and which delivery documents were to be left at school premises after distribution.

***Solution****:* All trucks should be have an oriented escort person other than the driver. This means adherence of SOPs throughout the transportation and issuing at schools should be followed.

* In some districts i.e Liwale (Lindi region), the supervisory teams noted that re-bundling activity was not completed by the time they arrived to conduct supervision of transportation and issuing. The district team only commenced re-bundling activities when the supervisory team arrived.This suggests a failure in management by the district technical teams.

***Solution:***Joint support supervision plays an important role during transportation of ITNs as it corrects any deviation from the plans straight away. The training given to them should also make sure that they understand importance of being accountable. Involvement of PMO RALG will also help them have a sense of accountability by knowing that it is their responsibility and have a sense of ownership.

# Issuing

## ITN Issuing at Schools

Based on the final quantifications, 498,158 pupils were eligible for SNP3. VectorWorks served a total of 494,407 pupils (49% male, 51% female) with ITNs during the SNP3 issuing period in August 2015, reaching 99.2% of the target. All 1,919 primary schools targeted for SNP3 were reached. The difference the achievement and the target is due to, in part, to absent pupils at issuing. Another reason for the difference was inaccuracies in re-quantification data, despite efforts to re-quantify, a few WECs submitted incorrect data, resulting in either over or under delivery of ITNs to schools. The 3,751 ITNs that were not distributed in schools during SNP3 issuing have all been collected and stored at Lindi Regional Hospital awaiting a final decision on their destination by MoHSW and PMI. ITN delivery and issuing documents at all levels with exception of very few places were duly filled.

**Issuing – Lindi**

No. nets issued = 135,820

**Issuing – Mtwara**

No. nets issued = 169,849

**Issuing – Ruvuma**

No. nets issued = 188,738

## Challenges During Issuing at Schools

* Not all WECs re-collected the quantification data or submitted accurate re-quantification data, despite being instructed to do so by the Regional Administrative Secretaries (RAS) and DEDs. In some schools this led either to an under- or an over-supply of nets. In these cases, WECs were requested to collect all ITNs remaining in their schools at the same time as they collected issuing data from the teachers, and to submit both to the district for reallocation to schools under-supplied. This ITN reallocation was documented using reallocation forms developed by VectorWorks; one for transfer of ITNs out of a school and the other for receiving ITNs by a school. These forms were to be signed by two parties - a teacher and a supervision team member; one copy remained with the school while the other was submitted to the district for documentation purposes. Despite this documentation, reallocation was felt to be a tedious job that was done under high pressure; it had to be completed in a short time frame and required extra care for proper documentation.

**Solution**: In order to avoid or minimize reallocations, initial quantification data should be as accurate as possible, enough time for re-bundling should be allocated to ensure a thorough process with complete packing lists, and re-bundling in districts should be supervised by national and regional teams. For SNP4, in addition to greater emphasis on improved quantification, VectorWorks can consider modifying the SOP to include re-bundling instructions as well as very specific instructions for school staff, WECs, and districts to report and mitigate an over or under supply of ITNs to schools.

* During the procedural audit, teachers and head-teachers expressed doubts about their duties on the day of issuing.

***Solution***: School staff requested that VectorWorks design a checklist for their use during issuing day that details the steps to be followed before, during and after issuing. Given the length of time between their orientation and issuing, this tool could be an easy to use reminder of their tasks. This checklist can also include some key messages so that teachers are able to answer queries from parents in a comprehensive and consistent way.

* The SOP stated that students who were absent on issuing day should be given their ITN upon returning to school; however, the SOP also stated that issuing should be complete within 24 hours of ITN drop-off at schools and gave no instruction on how to address the chronic absenteeism of many students. Teachers reported that in some cases, they needed up to six days to distribute all ITNs to their class, causing some confusion and delays in completing issuing and sharing issuing data. In addition, some teachers reported that students can be absent for weeks at a time. In these cases, ITNs could be stored at the school for long periods, awaiting the student’s return, thereby increasing the likelihood that the ITN will be lost or damaged.

***Solution***: Provide more guidance to schools on how to handle pupils who are absent on issuing day, including providing a phone number for teachers to call for guidance during issuing, establishing a secure location at schools for storing ITNs for absent students, and setting an official deadline on how long schools ought to wait for absentee students before returning any undistributed ITNs back to the district.

* Teachers, head-teachers, WECs and transporters who had questions or doubts during issuing were not sure who to consult for answers. Supervision teams with regional authorities are only able to visit a sub-set of the schools, so a clear mechanism for quick consultations with regional authorities is required.

***Solution***: In addition to improved orientation, VectorWorks can add into the SOP, a procedure to be followed when schools need to clarify information or report an issue. An “emergency” phone number for calls or SMS that reaches an appointed regional technical team member directly (to minimize time for the message to travel up the chain from the school, to the WEC, to the district and finally to the region) can be provided to respond to questions that arrive during the issuing process.

* A complaint reported by many teachers during the procedural audit was the lack of an incentive for their participation in SNP3. Teachers were appreciative of being issued with ITNs during SNP2, noting that they too live in the same areas as the students and are affected by malaria. Also, they commented that, by providing them with ITNs, they can better serve as role models for ITN use in their community. The decision not to provide teachers with an ITN was based on the need for the SNP to be a sustainable model of school-based distribution. It was felt that issuing an ITN to all primary school teachers each year would be unsustainable at a national scale.

***Solution***: The solution to this challenge is not straightforward. In planning SNP4, stakeholders may re-visit this discussion, noting that the overall purpose of the SNP is to sustain ITN coverage. The school-based distribution strategy targets school pupils as the recipients of the ITNs but they are not intended to be the sole users of the ITN. Schools are considered a channel by which ITNs can be supplied to the community. Provision of ITNs to teachers would serve to increase community coverage and may incentivize them to fully participate in the program. On the other hand, in the pursuit of greater ownership of SNP by the MoEVT, teachers should, over time, consider their role in SNP as one of their regular annual duties in execution of their job responsibilities.

## Supervision During Issuing

VectorWorks, in collaboration with government representatives, conducted supervision activities to oversee the issuing of ITNs in schools from August 12 to August 26, 2015. Supervision was intended to observe whether program procedures were followed and to provide support to the regional and district teams during ITN re-bundling, delivery to schools, and issuing to pupils. During the course of supervision, teams crosschecked program documents, including proof of delivery forms, conducted key informant interviews, and directly observed activities to confirm whether proper procedures were followed at various stages of ITN transport, delivery, and issuing. Forms were checked that the numbers of ITNs were correct and matched packing lists, as well as if forms were duly completed and signed.

Three supervision teams were formed at the national level and were comprised of representatives from VectorWorks, PMO-RALG, and the MoHSW. Each team was allocated to a region where they were joined by the Regional Technical Team. Upon arrival in each district, members of the District Technical Team joined the supervision teams for all activities in that district. Schools were selected to receive supervision visits randomly, with each supervision team focusing on specific ITN transportation route(s).

Supervision activities included:

* **Desk review:** Program documents were thoroughly reviewed to determine whether procedures were followed and properly documented. Some of the documents reviewed during supervision include: Proof of ITN Delivery Forms, ITN reallocation documents and packing lists.
* **Direct observation:** Supervision teams observed the following activities and, using checklists, they documented whether official program procedures were followed:
* *ITN transportation to schools*: Teams observed whether ITNs were delivered in a timely manner and in the right quantities, and whether the deliveries were documented appropriately.
* *ITN issuing*: Teams supervised the issuing of ITNs to pupils, particularly focusing on whether procedures for record keeping and documentation were adhered to, and if there was an excess or shortage of nets at schools.
* **Key informant interviews**: A range of stakeholders was interviewed, including members of the Regional and District Technical Teams, WECs, Head Teachers and class teachers. During these interviews, checklists were used to determine whether program procedures were adhered to.
* **Physical counting:** Teams randomly visited several eligible classes that were issued with ITNs to count pupils who received nets.

Supervision activities afforded the opportunity to observe key program successes, such as:

* There was a strong positive response from the community, especially pupils. The children were very pleased to receive their nets and were enthusiastic about taking them home to their families. Further, many teachers highlighted that school attendance was greatly improved when the pupils knew that they were due to receive their nets.
* Good cooperation from regional, district authorities and other stakeholders. In most cases, upon arrival at regions and districts, supervision teams were given a warm welcome and promised support. Further, in some districts (Masasi DC and Masasi TC), the DEDs themselves participated in the supervision of issuing.
* Because of the micro-planning exercise, districts were able to arrange special transportation requirements to deliver ITNs to hard-to-reach areas. For instance, in Kilwa district hiring of a boat was successfully incorporated into the transportation plan in order to reach schools located on islands.
* The issuing of ITNs in schools was completed just prior to the commencement of campaigning for the Tanzanian national election. VectorWorks considered this extremely important to reduce the potential for the program being associated with any political party or candidate.

***Results***

* A total of 404 (21%) out of the 1,919 primary schools in the program regions received a supervision visit during issuing.
* 23 individuals from the national level participated in the supervision activities; this included representatives from VectorWorks, PMO-RALG, MoHSW and TCDC.
* There was significant involvement in supervision on the part of the Local Government Authority. In all 19 districts, District Technical Teams participated in the supervision activities, and in addition, some District Executive Directors (DEDs) participated.

## Challenges and Solutions During Supervision of Issuing

***Challenges in supervision logistics:***

* While supervision visits conducted by national teams progressed smoothly 21% schools were visited by these teams, WECs did not did not visit the schools under their purview to conduct supervision activities, despite this responsibility being conveyed to them during training. The program had counted on the WECs to conduct these visits, such that the majority of schools would have received some form of supervision.

**Solution**: Supervision during ITN issuing will be emphasized more clearly to WECs during training, and a supervision checklist for WECs can be developed which can be collected by district authorities.

**Issues uncovered during supervision visits:**

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

* Some schools were not using the VectorWorks issued forms to properly document ITN delivery to schools (delivery note) or issuing to pupils (issuing booklet). Reasons for this included using district delivery notes instead, forgetting that the project had shared issuing forms, and shortage of project issuing booklets at schools.

***Solution:*** Greater emphasis on use of project tools will be placed during orientation and training.

* Some WECs failed to adequately instruct the head teachers in the details of their responsibilities. As a result, in some schools the SOPs for issuing were not implemented appropriately, for example, some teachers did not have pupils sign the ITN issuing books when they received their net. In other districts, the WECs suggested that class teachers fill in the names of pupils prior to issuing, which created an opportunity for misuse and was in violation of the SOP. These situations were corrected in real time during supervision.

***Solution****:* Extend training for WECs by one day so that the SOP can be thoroughly covered as well as their duties in orienting teachers. Supervise the orientation of teachers by WECs.

* Schools that were at the end of transportation routes and may have received nets too late in the day to distribute to students that day, were a source of vulnerability to fraud as nets were stored overnight by teachers. *S*upervision teams visited schools that received their nets late in the day. During these visits 47 oversupplied nets were found in two schools. These nets were collected and reallocated to the schools with a deficit.

***Solution:*** The continued engagement of PMO-RALG will be leveraged to continue to build a culture of accountability for fraud.

# Monitoring and Evaluation

VectorWorks reviewed the data collection and monitoring and evaluation tools used during SNP 1&2 tools to develop the tools for SNP3. These tools included data collection forms (part of the SOP), data compilation templates, validation checklists and templates, micro-plan templates and ITNs issuing supervision checklists.

The monitoring and evaluation component paid much attention on quantification data for ITN issuing. Data was collected from all primary schools and compiled at different levels: at ward level by WECs who submitted to district authorities, at district level by district malaria focal persons submitting through the District Executive Director’s office to the regional authority, and at the regional level by regional malaria focal person who also submitted to VectorWorks, where it was compiled for sharing with national stakeholders. Hard copies were used at schools, wards and districts, at which point the data was digitized and submitted in both soft and hard copy to the regional level.

In addition to the quantitative data management system for monitoring and evaluation described above, VectorWorks obtained qualitative information though holding regional review and feedback meetings in each of the three regions several weeks after ITN issuing was complete. Feedback meetings were intended to provide implementation updates including success and areas of programmatic improvement. A total of 107 people took part in the 3 regional-level feedback meetings; 28 participants in Mtwara, 39 participants in Lindi, and 40 participants in Ruvuma. The recommendations that arose from these meetings are described in the recommendation section below.

## Challenges and Solutions for Monitoring and Evaluation

* VectorWorks encountered three main challenges in this data management system. First, the WECs were not given clear enough guidance regarding whether to include in quantification pupils who were only temporarily registered at a school or pupils who were absent for several months but not discontinued; the former should not have been quantified and the latter should have. Second, the district teams were unable to provide supportive supervise and monitor the WECs during data collection, which led to discrepancies and errors in data. Third, some district officers were not able to master the SNP3 data entry and compilation templates well enough to submit clean and complete data sets to the regional level. This complicated the review and compilation process and also increased the burden of data validation. The low capacity for data management at the district level also was apparent at the time of compiling ITN issuing data, which proved to be a challenging task for district staff and took several weeks longer than anticipated to complete.

***Solution***: Build in opportunities for capacity building in data management with district and ward staff throughout the program, by including additional training time on data collection with WECs, and basic data management and data entry skills with district and regional staff. Build in time for checking that data is clean and complete at the district and regional levels before submitting to the next level. Ensure that there is enough time in the implementation timeline for regional and district officers to make monitoring visits and calls during data collection.

# Key Program Achievements

The overarching objective of SNP3 was to issue 500,000 ITNs to primary school pupils in the regions of Lindi, Mtwara and Ruvuma. In addition to this objective, SNP3 had intermediate milestones, which were also essential components in successful completion of the program. Determining progress toward these milestones by identifying key program achievements is necessary to inform future program scale-up and provide recommendations for implementation of the next round of the SNP. A summary of program achievements is listed below.

### Table 5: Key Programmatic Achievements of SNP3

|  |  |
| --- | --- |
| **Program Activity** | **Key Achievements** |
| **Policy and Advocacy** | * VectorWorks conducted the following core advocacy meetings: * 3 National level engagement meetings * 3 Regional level advocacy meetings * 19 District level advocacy meetings * Across all levels of advocacy, government authorities were cooperative and positive on SNP3 plans and expectations. Particularly at regional and district level, in all the meetings, participants from all the groups (government leaders, technical teams, religious and political leaders) showed acceptance and commitment to the program. * There was active discussion in all of the regional and district advocacy meetings, which allowed participants to raise issues for clarification, and suggest ideas for SNP3 or future rounds of the program. |
| **Training and Orientation** | * Trainings were conducted in all the three project regions and 19 districts at different levels i.e. regional, district and ward level. The number of people trained and/or oriented is as follows: * 3 Regional technical teams: 12 Officers (8 male and 4 female) * 19 District technical teams: 68 Officers (31 male and 37 female) * 552 WECs trained/oriented (440 male and 112 female) |
| **Data quantification and validation** | * Quantification data was collected from all 1,919 primary schools in the program regions * Of the 335 schools identified for validation, 315 (94%) were visited during validation. 90% of the schools visited were found to have data discrepancies between the school-level data and the data submitted by the WEC. * The validation and re-quantification exercise uncovered 12,102 “ghost pupils”; from 652,464 in the initial quantification to 640,362 after validation. * The validation and re-quantification exercise “rescued” 9,586 ITNs. The first-round quantification data gave a total of 507,176 eligible pupils, while the second round gave a total of 497,590. |
| **ITNs transportation to schools** | * A total of 500,000 ITNs were transported to the 19 districts based on first-round validation data. Reallocations were subsequently made based on the second-round, post-validation quantification data. |
| **Supervision of issuing and Issuing** | * A total of 494,407 pupils (49% male, 51% female) were issued with ITNs. Eligible pupils were 498,158. All 1,919 schools were issued with ITNs. * With a few exceptions, LLINs delivery and issuing documents at all levels were duly filled. * A total of 404 (21.05%) out of the 1,919 primary schools in the program regions were visited during supervision of issuing. |
| **Monitoring and evaluation** | * M&E tools developed to collect data on both quantification and issuing from the class level all the way up to the regional level. All tools captured information by gender. * Data was successfully collected from classes, schools, wards, districts and regions using the M&E tools, and PMO-RALG was engaged in reviewing all data submitted. * Activities were monitored throughout all activities and stages of the program, per the project design and within timelines. This was accomplished, in part due to the efforts of monitoring teams from the national, regional and district level of the program. |

### Table 6: Key Performance Indicators for SNP3

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **Definition** | **Targets** | **Achievements** |
| ***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. | National: 2  Regional: 3  District: 19 | National: 2  Regional: 3  District: 19 |
| ***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. | 95% | 94.6%  Lindi: 93%  Ruvuma: 95%  Mtwara: 98% |
| ***Percentage of distribution points (schools) that received the correct number of nets*** | **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. | 100% | TBDa |
| ***Number of people trained in ITN distribution*** | 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. | **528**  Regional: 10  District: 122  WEC: 396 | **552**  Regional: 12 (66% male; 33% female)  District: 68 (46% male; 54% female)  WEC: 472 (85% male; 15% female) |
| ***Number of ITNs distributed*** | 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. | 500,000 | Channel: Schools  Total: 494,407  Lindi: 135,820  Ruvuma: 169,849  Mtwara: 188,738 |
| ***Percentage of schools visited by supervision team*** | **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. | 90% | 21%b |
| ***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. | 100% | Students:  Total: 99.25% (49% male, 51% female)  Lindi: 97.5%  Ruvuma: 99.9%  Mtwara: 99.9% |

*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.*

# Challenges and Recommendations for the Future

VectorWorks experienced challenges during the implementation of SNP3, which provide valuable information about necessary modifications that will ensure more effective and efficient program operation in future rounds. Based on the challenges described below, VectorWorks makes a series of recommendations for program adaptation.

## Overarching Challenges

* In spite of significant advocacy efforts, the MoEVT still demonstrated limited engagement during SNP3.
* The mobile payment system used to issue per diems and other payments was inefficient and resulted in significant delays (in some cases up to one month) in receipt of payment by payees. This caused frustration and a sense of mistrust amongst payees.
* There was limited capacity for data management at the district level, which resulted in poor quality data being submitted to the national level, as well as delays in compilation of data into district-level reports. In some districts, the data submitted by WECs was incorrectly entered into the data system (e.g. data for males and females being transposed), or was missed completely when reports were being compiled.
* There were instances of non-adherence to the SOP by some stakeholders in the course of implementation. Examples of such non-adherence included poor record-keeping, failure to use project tools appropriately, and incorrect quantities of ITNs being delivered to some schools.
* Failure of some WECs to perform their roles and responsibilities. This was first identified during validation visits, where it became clear that WECs had not visited schools to collect the first-round quantification data but had requested head teachers to submit data to them via phone call or SMS. Additionally, not all WECs re-collected the quantification data, despite being instructed to do so by the RAS and DEDs. In some schools this led either to an under- or an over-supply of ITNs. Also, some WECs failed to adequately instruct the head teachers in the details of their responsibilities, which led to lack of adherence to the SOP at the school level, and some WECs did not participate in supervision of issuing at their schools.
* Ensuring consistent, accurate communication regarding program objectives, activities and timelines was a challenge given the large number of stakeholders and organizations and government authorities involved in implementation. It would be advantageous to develop an official communication plan. This could be a systematic format for regular communication about SNP that flows from national to regional and district level, and allows for communication to feed back up to national level in case of doubts or updates to timelines from the district or regional levels. For example, VectorWorks may set up a bi-weekly call between national and each regional team to check on progress of activities, in which regional teams are expected to report updates from their contacts with each district. In this way, communication channels are set up in anticipation of problems or missed deadlines.
* Chronic absenteeism of pupils has contributed to ITNs remaining in schools for longer periods than was expected after completion of issuing, as the SOP stated that teachers were to keep the ITNs for pupils who were absent on issuing day until the pupil returned to school, at which point the ITN should be given to them. This absenteeism also led to delays in the WECs being able to compile and submit school-level issuing data.

## Recommendations for Future Rounds of SNP

**Engagement**

* Of all the programs SNP3 showed high level of engagement of different stakeholders at all levels, this could be replicated in other programs. Despite this, the MoEVT engagement was limited in SNP3, and the overwhelming recommendation is that stronger efforts are made to increase the engagement and buy-in from this ministry, starting with asking for greater support at high level MoEVT meetings.
* It will be beneficial for the MoEVT to be more involved in supervision activities because the project is implemented in schools representatives from the MoEVT would have helped to smooth issues encountered during supervision of implementation at the school level.
* VectorWorks strived to be highly transparent and accountable through the frequent use of courtesy calls, wrap-up and feedback meetings with stakeholders. This was well received by local government authorities and implementing partners. In future rounds of the SNP, these feedback meetings should be included in program plans from the outset.
* In the event that designated personnel attend program meetings in the place of higher authorities, they should be reminded to give adequate feedback to the respective authorities to avoid complaints about late or limited provision of information. An official communication plan (described above) could include a section on meeting follow-up, which would help to ensure that meeting information is shared with authorities who were not able to attend.

**Program Planning**

* VectorWorks should develop a stand-alone and clear implementation guideline that indicates how all aspects of the program will be conducted. This guideline will be a strong support to the current training manual.
* Program plans and timelines should be shared with all government authorities and organizations involved in implementation in advance – ad hoc communication should be avoided – to allow for more careful planning, higher levels of participation, and to give time for VectorWorks to provide support requested by individuals and groups involved in implementation.
* In future rounds of the SNP, more buffer time should be planned for in the program timeline. This will allow different partners, especially government, to avoid any rush or overlapping of activities as they are also involved in other programs and routine activities.

**Training**

* It is recommended that future rounds of the SNP rethink payment modalities, especially the mobile money transfer system, which has caused complains and distrust in money issues in SNP3. Participants specifically requested VectorWorks to use more than one mobile money transfer company; however, this was not planned for or achieved during SNP3.
* It is recommended that VectorWorks develop more detailed and clearer training materials, as well as longer trainings for WECs and teachers. VectorWorks should also supervise teacher training. Finally, several aspects of the SNP will need to be greater emphasized during trainings; those aspects are described in earlier portions of this report.
* VectorWorks should add a training module on data management for district staff.

**Quantification and Validation**

* Obtaining reliable quantification data from the WECs was a challenge. The process of data validation helped raise awareness of government officials that data quality is important and garnered political support for re-quantification. Ensuring data is of quality (either original or re-quantified data) remains a challenge, and a combination of better training and supervision is recommended.
* In order to avoid having issues related data, there should be adequate involvement of Regional Education Officer (REO) and District Education Officer (DEO). The composition of regional and district technical teams should include officers from REO’s and DEO’s offices.
* Capacity building (training) is recommended for Regional and District Technical Teams on data-related issues and micro-planning to enable them to better manage project data, build in mechanisms to check data accuracy and flag discrepancies, and prepare comprehensive micro-plans.
* Timeline delays in validation and re-quantification had the cascade effect of delaying the final micro-planning process, and consequently the disbursement of funds to districts to begin ITN issuing. Adequate time should be ensured for the micro-planning process to be completed and carefully reviewed. This will also allow for sufficient time for the issuing of funds to regions and districts, which is based on the budgets laid out in the approved micro-plans.
* The procedural audit recommended that the time interval between quantification and net distribution should be shortened to reduce the likelihood insufficient or excess quantities of nets were delivered to schools. VectorWorks will consider this recommendation.

**Re-bundling and Issuing**

* During issuing, supervision teams should arrive at the district level earlier in order to allow observation of all preparation activities that take place in advance of re-bundling, distribution and issuing.
* Transporters should be informing Head Teachers of the arrival of nets several days in advance so they can adequately prepare and inform teachers, parents and pupils.
* WECs, transporters and head teachers should have an emergency phone number on hand to call or SMS regarding any issues or questions that come up during issuing. This number should reach a designated regional staff member directly who is available for these calls during the period of issuing.

**Supervision**

* More consistent and regular supervision of WECs is needed to ensure that procedures are followed optimally. District technical teams should thoroughly supervise the WECs with the support from DEOs office to ensure that they perform their roles as expected.
* A comprehensive supervision plan was extremely beneficial during SNP3 and should be incorporated into planning for all future rounds of the SNP. Appropriate supervision allowed for identification of issues as they arose and provided the opportunity to rectify errors and address challenges in a timely manner.

# Annexes

1. Final quantification and validation tables
2. Micro-plan template
3. Proof of delivery form
4. ITN reallocation form
5. Packing list
6. Supervision checklist
7. Powerpoint slides from the wrap-up meetings held after issuing
8. Review meeting report with trip report
9. Supervision report
10. Transportation report