



U.S. President's Malaria Initiative

VECTOR)WORKS

Scaling Up Vector Control for Malaria Prevention

School Net Program (SNP6) Final Report



Swiss TPH
Swiss Tropical and Public Health Institute



MEDA
Malaria Economic Development Associates

 Tulane
University



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Abbreviations

BEMIS	Basic Education Management Information System
DEO	District Education Officer
DED	District Executive Director
DMFP	District Malaria Focal Person
DC	District Council
ITN	insecticide-treated net
LGA	Local Government Authority
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
NMCP	National Malaria Control Program
PMI	President’s Malaria Initiative
PO-RALG	President’s Office - Regional Administration and Local Government
RAS	Regional Administrative Secretary
REO	Regional Education Officer
SNP	School Net Program
SNP1	School Net Program – Round One
SNP2	School Net Program – Round Two
SNP3	School Net Program – Round Three
SNP4	School Net Program – Round Four
SNP5	School Net Program – Round Five
SOP	standard operating procedure
TOT	training-of-trainers
USAID	United States Agency for International Development
WEC	Ward Education Coordinators

Background

The School Net Program (SNP) distributes ITNs through primary schools. It began in 2013 as an additional “keep-up” distribution strategy to sustain ITN coverage levels above the 85% target set by the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) in Tanzania. The first round of SNP (SNP1) was launched in the regions of Lindi, Mtwara, and Ruvuma, with funding from PMI and the Swiss Agency for Development and Cooperation. SNP1 distributed 437,930 ITNs directly to school students in selected primary and secondary school classes. PMI funded and RTI implemented a second pilot round (SNP2) distributing 489,099 ITNs (464,893 to students and 24,206 to teachers) in Lindi, Mtwara, and Ruvuma. VectorWorks, funded by PMI, led the implementation of the third round of SNP (SNP3), fourth (SNP4) and fifth (SNP5) to further develop the SNP model and make it sustainable and scalable at the national level.

SNP, which has evolved since its inception, has witnessed progressive changes after every round of implementation where implementing partners, geographic coverage, and the implementation processes are improved. SNP1 and 2 focused on lower-level engagement by training school teachers and ward education coordinators to conduct quantifications and to supervise ITNs issuing at the school level. SNP3 included ward education officers and district officers to manage quantifications and supervise ITNs distribution, regional- and national-level teams came in for validation and higher-level supervision.

SNP4 initiated a shift of focus from lower level to higher-level engagement by obtaining data from the central government and working closely with national level representation to develop different tools. SNP4 also strengthened and incorporated data collection and reporting within the central government’s existing systems, such as Basic Education Management Information System (BEMIS). During calendar year 2017, the focus of SNP was on sustainability programming by building capacities for national-, regional-, and district-level teams through training-of-trainers (TOTs) and high-level informative advocacy to manage the program at the local level.

Introduction

To have a successfully implemented school net program, VectorWorks had to accomplish a series of activities prior to the actual distribution of ITNs to schools and issuing to students. Such activities include feedback and planning sessions with regional and council coordination teams, quantification of students, validation of quantified data through pre-alert meetings, preparation of microplans, LLINs re-bundling, LLINs transportation and reporting. This report provides detailed account of each of the activities that was conducted prior to and post distribution of ITNs.

Feedback and planning meeting

After a successful completion of SNP5 in 2017 and prior to the commencement of SNP6 in 2018, feedback and planning meetings were held to set a stage for SNP6. The VectorWorks project staff teamed up with officials from National Malaria Control Program and Presidents Office, Regional Administration and Local Government (PO-RALG) to lead feedback and planning meetings as the key platforms to inform key implementing stakeholders of what transpired in SNP5 and re-engage regions and council officials to plan on how to implement SNP6. The meetings were a platform to inform and seek regional and council involvement in the entire process of implementing SNP6.

The meetings were held in three phases. **Phase I** involved four regions whose ITNs were expected to arrive in May and issuing was to happen in May. **Phase II** involved eight regions that were expecting to distribute ITNs between June and July, and **Phase III** involved two regions with expected to distribute ITNs between November and December.

The meetings were designed to first provide feedback on what went well and challenges encountered during SNP5 implementation and lastly planning for SNP6 implementation.

The VectorWorks team traveled and held sessions with individual regional and council coordination teams separately. The sessions were interactive and productive as they provided room for a thorough and detailed discussion with regional and council SNP coordination teams (Regional Malaria Focal Person, Regional Education Officer and Regional Statistician and District Malaria Focal Person, District Education Officer, District Statistician and Statistics and Logistics Officer respectively) in understanding what transpired in SNP5 and planning for SNP6. The team used power point presentations to highlight areas of discussion. Regional and council SNP coordination team members comprised of the following government officers.

Table 1: Regional and council SNP coordination team members

Level	Cadre
Regional	Regional Education Officer (REO), Regional Malaria Focal Person (RMFP) and Regional Statistician
Council	District Education Officer (DEO), District Malaria Focal Person (DMFP), Statistic and Logistic Officer (SLO) and District Statistician

Table 2: PPT presentation covered the following during

SNP5 -2017	Issues covered
What transpired in SNP5	Geographical Coverage during SNP5
	Total LLINs distributed during SNP5
	Successes achieved
	Challenges encountered a) Financial related b) Data related
Planning for SNP6	SNP6 Implementation timeline
	LLINs to be distributed and Eligible classes
	LLINs distribution calendar and reporting
	Orientation of new retirement form

In terms of the key challenges while implementing SNP5 in 2017, the teams identified and discussed the following two key items:

Finance-Related Matters:

During SNP5, two regional and five council teams create budgeting errors by tampering with micro plans template that was shared with them from VectorWorks. VectorWorks worked with specific regional and council teams with budget issues to rectify their budgets. Due to four council coordination team members providing wrong mobile phone, allowances were sent to the wrong people. Accounts had to communicate with Vodacom who owns the M-pesa system to immediately stop transactions for those wrong recipients and reverse transactions. However, despite of the bad experience observed by using M-pesa system, there are advantages to the M-pesa system. First, M-pesa helps in making timely payments to the participants compared to banking systems. Delayed payments demoralizes participants' morale towards work. Second, M-pesa system is much more safe and secure compared to the old system of payment where

accountants used to travel with cash to training/workshop venues to make payments to trainees/participants. VectorWorks worked with councils to get correct mobile numbers and pay their allowances. 29 of 105 council coordination teams submitted expenses reports late, about five months after completion of issuing activities and over seven councils submitted insufficient supporting documents for accountability. Both of these issues caused delayed reimbursements.

Delayed Data entry into BEMIS

A few councils entered data by the deadline dates, but a majority were late, only entering data after the project complained to PO-RALG and with constant reminder from the central government.

As part of SNP6 preparations, coordination teams reviewed SNP6 timelines, quantities of ITNs the project allocated per region, as well as eligible classes to help come up with realistic micro plans.

Table 3: Feedback and planning meetings Roster

S/N	Phase	Regions Involved	Levels	Dates
1	Phase I	Pwani, Morogoro, Mtwara and Lindi	Regional	9th to 20th April 2018
			Council	9 th to 20 th April 2018
2	Phase II	Simiyu, Mwanza, Mara, Shinyanga, Kagera, Geita, Kigoma and Ruvuma	Regional	22nd May to 7th June, 2018
			Council	22nd May to 7th June, 2018
3	Phase III	Katavi and Tabora	Regional	6 th to 13 th August, 2018
			Council	6 th – 18 th August, 2018

Table 4: Feedback and Planning meeting Attendees per Region per Gender

S/N	Region Name	# of Attendees by Gender and Region		
		Male	Female	Total
1	Pwani	24	15	39
2	Lindi	17	10	27
3	Morogoro	24	15	39
4	Mtwara	26	13	39
5	Ruvuma	25	12	37
6	Shinyanga	20	7	27
7	Geita	22	5	27
8	Kagera	20	10	30
9	Mwanza	26	11	37
10	Mara	30	10	40
11	Simiyu	20	5	25
12	Kigoma	30	5	35
13	Katavi	30	5	35
14	Tabora	38	12	50
TOTAL		352	145	497

Training

Training objectives were to:

- Build a common understanding of the SNP process among implementers
- Clarify roles and responsibilities for each implementer
- Conduct skills-based training to ensure that all individuals involved in SNP implementation are confident in their ability to execute their roles

During SNP6 implementation, implementers at different levels (regional-school) were not trained mainly due to the facts that 1) there were no changes in terms of SNP implementers (cadres), 2) the teams that were trained in 2017 for SNP5 were maintained for SNP6 in 2018, 3) there were no changes in terms of SNP implementation processes and 4) SNP6 followed the same implementation processes that were used during SNP5.

The table below shows number of implementers who were trained for SNP5 but were not trained during SNP6 as per the above reasons.

Table 3: Number of SNP5 regional and council trainees by training zone, region, level and gender

Zone name	Regions	Level	# of trainees by gender and region		
			Male	Female	Total
Central zone (Tabora)	Tabora	Regional	3	0	3
		Council	25	6	31
Southern zone (Mtwara)	Lindi, Mtwara & Ruvuma	Regional	8	1	9
		Council	42	18	60
		Council	27	5	32
Western zone (Kigoma)	Katavi & Kigoma	Regional	5	1	6
		Council	45	7	52
Lake zone-1 (Bukoba)	Geita & Kagera	Regional	5	1	6
		Council	44	12	56
Lake zone-2 (Mwanza)	Mara & Mwanza	Regional	4	2	6
		Council	51	17	68
Lake zone-3 (Shinyanga)	Simiyu & Shinyanga	Regional	4	2	6
		Council	37	10	47
Eastern zone (Morogoro)	Pwani & Morogoro	Regional	3	3	6
		Council	39	33	72
Grand total			342	118	460

Quantification and Class Selection

Quantification

Quantification refers to the process of organizing data on the number of students enrolled in each primary school. In SNP6, data for students' quantification was obtained from PO-RALG. This procedure is clearly laid out in the SNP implementation guideline and was adhered to by VectorWorks for SNP6... For 2018, there were 10,108,023 students enrolled in classes 1–7 in 17,557 primary schools across Tanzania mainland. In PMI focus 14 regions, there were 5,998,212 students enrolled in primary schools which is 59.3% of all the enrolled students in Tanzania mainland overall.

Class Selection

Of the total 5,998,212 students enrolled in primary schools in 14 SNP6 target regions, 2,757,969 students (46.0%) from 9,563 primary schools were eligible to receive ITN based on final class selection. Selection of classes was based on data from the central government (PO-RALG) as of June 30, 2018. Class selection maximized the efficiency of distribution to maintain an 85% universal coverage level meaning one ITN for every two people as per National Malaria Control Program Integrated Vector Control Objectives (Ensure adequate access to LLINs of the population at risk according to transmission settings). Table 5 summarizes final quantification for SNP6.

Table 5. Class Selection per Region

S/N	Region	Total pupils enrolled/Region	Eligible pupils/classes	No. of ITNs per Region	No. of Schools	Eligible Classes
1	Pwani	304,568	112,885	112,885	608	1, 2
2	Lindi	186,160	120,576	120,576	504	1, 2, 3, 5
3	Morogoro	480,867	224,381	224,381	885	4, 5, 6, 7
4	Mtwara	275,037	196,278	196,278	664	1, 3, 4, 5, 6
5	Ruvuma	320,332	218,805	218,805	788	1, 2, 3, 4
6	Shinyanga	399,971	216,983	216,983	610	2, 3, 4
7	Geita	570,670	110,294	110,294	607	4, 7
8	Kagera	557,419	231,364	231,364	961	2, 3
9	Mwanza	748,221	361,435	361,435	966	1, 2, 5
10	Mara	565,441	58,123	58,123	818	5
11	Simiyu	429,369	101,859	101,859	531	2
12	Kigoma	471,339	292,385	292,385	652	1, 3, 4, 5
13	Katavi	165,326	74,500	74,500	179	2, 4, 5
14	Tabora	523,492	438,101	438,101	790	1, 2, 3, 4, 5
	Total	5,998,212	2,757,969	2,757,969	9,563	

Logistics

Micro planning

As it was during SNP5, VectorWorks developed and provided each regional and council coordination team with an Excel template for micro planning. Councils developed micro plans

which stipulated cost for supervision and data collection but also the template showed routes for supervision and data collection, as well as hard-to-reach areas. Budgets to support regional and council SNP coordination teams to conduct supervision of LLINs issuing, as well as for collection of LLINs issuing data were developed from the submitted micro plans which mainly covered allowances for Local Government Authority (LGAs) officials participating in these two activities and miscellaneous costs (fuel, boat/car hire, and stationeries, etc.).

After the council coordination teams wrote the micro plans and the regional coordination teams reviewed them, they were sent to VectorWorks for final review, budget development and budget approval. Approved budgets were used to prepare and process funds requested to support councils in supervising ITNs issuing and collecting ITNs issuing data.

Pre-Distribution District Meetings

VectorWorks team together with Simba Logistics and Equipment Supply (SLES), the transportation vendor, conducted district level pre-distribution meetings prior to transportation and distribution of ITNs to regions and councils. The team visited all the regions and councils involved in the program and met SNP regional and council coordination teams on the behalf of the Regional Administrative Secretary and the District Executive Director offices. The main objective of these meetings was to plan together how to efficiently distribute ITNs in their councils. Other things discussed and shared in these meetings included:

- ITN manifest to assess if the list of schools and ITNs allocated to schools was correct.
- National examination distribution routes so that SLES could use the same routes to distribute ITNs to all the schools from the councils.
- Identification of hard-to-reach areas and alternative strategies to reach these areas during distribution of ITNs.
- .
- Identification of parking area that the large trucks with ITNs would use temporarily at a district designated location while awaiting off-loading into small vans that transports the ITNs to schools.
- Simba's plan for contracting smaller trucks to transport the ITNs from a central point at a district council to each individual school

Table 6: Pre-Alert calendar (2018)

S/N	Region	Pre-Alert Meetings Timeframe			
		July	August	September	October
1	Morogoro	09th – 13th July			
2	Pwani	09th – 13th July			
3	Mtwara	09th – 13th July			
4	Lindi	23rd – 26th July			
5	Ruvuma	23rd – 27th July			
6	Kagera	30 th July	3 rd August		
7	Geita		09 th – 10 th August		
8	Shinyanga		09 th – 13 th August		
9	Mara			17th – 21st September	
10	Mwanza			17th – 21st September	
11	Simiyu				01st – 05th October
12	Kigoma				01st – 05th October
13	Katavi				15th – 26th October
14	Tabora				15th – 26th October

Transportation, Storage, and Distribution

ITN Transport from the National Level to the District Level

During SNP6, VectorWorks received total of 2,769,704 PMI-procured normal PermaNet ITNs and 56,647 PermaNet PBO type of nets. The received consignments of ITNs were transported and distributed to regions and councils. Once in the Dar es Salaam port, they were transported to the respective regions. Transportation and distribution of ITNs to regions and councils was planned to be conducted in two phases and this was influenced by the ITN arrival schedule. **Phase I** of ITN transportation and distribution was done between July and September and comprised the eight regions of Pwani, Morogoro, Mtwara, Lindi, Ruvuma, Geita, Shinyanga and Kagera. A total of 1,374,919 million ITNs were distributed in the mentioned eight regions.

Phase II distribution involved six regions between September and November 2018; the six regions were Mwanza, Mwara, Simiyu, Kigoma, Tabora and Katavi. A total of 1,383,050 million ITNs (including 56,647 PBO nets for Muleba DC) were issued to students.

Table 7: ITNs procured and distributed by regions and corresponding quantities, respectively

S/N	Region	No. of ITNs Procured per Region	No. of ITNs Distributed per Region
1	Pwani	113,560	112,885
2	Lindi	120,000	120,576
3	Morogoro	230,000	224,381
4	Mtwara	193,880	196,278
5	Ruvuma	219,903	218,805
6	Shinyanga	209,920	216,983
7	Geita	120,000	110,294
8	Kagera	276,674	231,364
9	Mwanza	364,832	361,435
10	Mara	60,000	58,123
11	Simiyu	101,900	101,859
12	Kigoma	299,959	292,385
13	Katavi	74,990	74,500
14	Tabora	440,760	438,101
	Total	2,826,351	2,757,969

Storage, Re-bundling, Transportation and Supervision of ITNs to Schools

Using large trucks, ITNs were delivered to districts in bales of 40 ITNs each; the trucks were also used for temporary storage. Re-bundling of ITNs was done as the bales were being loaded into smaller lorries that transported the nets from the district center to the schools (Annex 2). Re-bundling refers to the process of breaking down bales as needed to allocate appropriate number of ITNs by school. The packing list /distribution manifest (see Annex 1) for re-bundling contained a list of all schools in a district and the number of ITNs needed for each school based on data for eligible students.

Annex 1: A sample of ITNs packing list/distribution manifest

KATAVI SNP6- SLES DISTRIBUTION MANIFEST FOR MLELE DC (Standard 2, 4, and 5)						
Sl#	Ward	Village	School Name	Total Nets	Bales	Louse net
1	Ilela	Masigo	MASIGO	139	3	19
2	Ilela	Ilela	ILELA	260	7	0
3	Ilela	Mapili	MAPILI	467	12	2
4	Ilunde	Ilunde	ILUNDE	643	16	3
				1549	38	29
5	Inyonga	Kalovya	KALOVYA	322	8	2
6	Inyonga	Kamalampaka	KAMALAMPAKA	315	7	35
7	Inyonga	Inyonga	INYONGA	613	15	13
				1250	31	10
8	Kamsisi	Kamsisi	KAMSISI	797	19	37
				797	19	37
9	Nsenkwa	Mtakuja	MTAKUJA	299	7	19
10	Nsenkwa	Nsenkwa	NSENKWA	426	10	26
				725	18	5
11	Utende	Wachawaseme	WACHAWASEME	214	5	14
12	Utende	Kusa	KUSA	226	5	26
13	Utende	Mgombie	MCOMBE	787	19	27
				1227	30	27
GRAND TOTAL				5548	138	28

Prior to delivery to schools VectorWorks informed all head teachers through a push SMS platform, to prepare for the arrival of ITNs at their schools. In every delivery route, a supervisor familiar with the routes from the district council escorted ITN delivery trucks and vehicles.

Annex 2: LLINs re-bundling and loading of LLINs into small vehicle



Accountability of ITNs: Transportation and Delivery at Schools

Using a mobile application developed by SLES VectorWorks ensured that deliveries were made to the right locations in the right quantities. When a transporter arrived at the school, the mobile phone application would check the location's GPS coordinates to ensure it was in the right location. The mobile phone application provided the number of ITNs the school was to receive. The notification of the number of ITNs delivered, as reported by the driver, was automatically sent to a central, cloud-based database, which VectorWorks, NMCP, and SLES staff could access remotely to monitor deliveries in real time. Paper documentation was firmly administered in which case Goods Received Notes (GRN) (see Annex 3) were used when handing over ITNs at school level and were signed by both ITNs recipient (head teachers) and by transportation vendor's officials involved in the distribution process of ITNs.

Annex 3: A sample of Good Received Note

Sihbo Logistic
No. 17505

MR. LIMU MUKU
S/M MBANSA
MPANDA

GOODS RECEIVED NOTE (SCHOOL DELIVERY)

Receiver Designation: HEAD TEACHER
SLES District Issuing Officer: JAMMEL
School Name: MBANSA
Date: 25/10/19 Time: 11:40 AM
Dispatch Note: 5523
Vehicle/truck No.: T-343 C2B
Ward/Village: IPABW IPABWA / MBANSA
District Name: MBANSA DC

No.	Details/Description	Bales	Nets
	MOSQUITO NET	10	28
TOTAL		10	28

Remarks: RECEIVED IN GOOD CONDITION
Name of Receiver: MORRIS A. MBE
Name of Delivery Officer: ALY JAJA
Signature: [Signature]
Signature: [Signature]

0625109204

The school signing officials were left with a copy of GRN for filing. All district councils were also left with copies of all goods received notes from all individual schools for filing at council level. SLES submitted completed GRN to VectorWorks. After receipt and review of these GRNs, VectorWorks staff downloaded delivery data from the electronic database into excel sheets, compared the numbers of ITNs allocated to the amounts delivered, and authorized payment for the SLES invoices.

ITN Issuing

A total of 2,757,969 ITNs, out of 2,826,351, were physically delivered to 9,563 schools in the 14 regions comprising of 105 district councils. There are 186 district councils in Tanzania mainland hence coverage of SNP is 56.45% of all district councils in the country.

Initially ITN issuing to primary school pupils was planned to happen in three phases based on the ITN arrival and transportation plan. However, ITNs for the last two regions of Katavi and Tabora (initially Phase III regions) arrived earlier, so phase II and phase III regions were merged. Phase I happened between July 16th and September 30th 2018 whereby a total of 1,374,919 ITNs were delivered in eight regions namely Pwani, Morogoro, Mtwara, Lindi, Ruvuma, Kagera (except Muleba DC), Geita and Shinyanga. In Phase II, ITN distribution and issuing was conducted between 24th September and 9th November 2018 and involved six regions namely Mwanza, Mara, Simiyu, Kigoma, Katavi and Tabora whereby a total of 1,383,050 ITNs were distributed this included 56,647 PBOs for Muleba. ITN issuing in Muleba council did not happen alongside other councils during LLINs issuing in Kagera region. Issuing of special PBO nets in Muleba council was left for 5th – 9th November, 2018 upon arrival of the PBO nets in country.

Table 8: SN6 ITNs delivered versus Issued per Region

SN	Distribution Region	No. of ITNs Delivered per Region	No. of ITNs Issued per Region	Balance
1	Pwani	112,885	112,315	570
2	Lindi	120,576	120,038	538
3	Morogoro	224,381	223,261	1,120
4	Mtwara	196,278	196,253	25
5	Ruvuma	218,805	218,695	110
6	Shinyanga	216,983	216,942	41
7	Geita	110,294	110,294	0
8	Kagera	231,364	231,165	199
9	Mwanza	361,435	361,433	2
10	Mara	58,123	57,972	151
11	Simiyu	101,859	101,907	(48)
12	Kigoma	292,385	292,371	14
13	Katavi	74,500	74,504	(4)
14	Tabora	438,101	438,101	0
	Total	2,757,969	2,755,251	2,718

Table 9: School ITN Distribution Timeframe (2018)

S/N	Region	ITN Distribution Timeframe				
		July	August	September	October	November
1	Morogoro	16th – 26th July				
2	Pwani	16th – 26th July				
3	Mtwara	16th – 26th July				
4	Lindi	27th July	6 th August			
5	Ruvuma	30th July	9 th August			
6	Kagera		06th – 17th August			
7	Geita		13th – 18th August			
8	Shinyanga		13th – 20th August			
9	Mara			24th September	05th October	
10	Mwanza			24th September	05th October	
11	Simiyu				8th – 19th October	
12	Kigoma				8th – 19th October	
13	Katavi				22nd October	2nd November
14	Tabora				22nd October	2nd November

Leftover ITNs

SNP implementation processes and procedures have not changed between SNP5 and SNP6, thus the SNP Implementation Guidelines on how to manage the remaining ITNs were followed. Leftover ITNs were redistributed to students from non-eligible classes. The school head teacher, in collaboration with the academic teacher, collectively identified students who perform well above others in their subjects and they issued them with remaining ITNs as an incentive to do better and encourage others to work hard.

VectorWorks received total of 2,769,704 normal nets and 56,647 PBO nets from PMI procuring agents and distributed to schools a total of 2,757,969. It should be noted that the decision to deploy PBO nets in Muleba district-Kagera region came when all forecasting and orders were done including normal nets for Muleba hence the decision created excess nets (56,647) leaving behind a balance of 68,382 normal PermaNets. If Muleba had received the normal nets, there would have been a balance of 11,735 obtained by deducting 56,647 from the remaining 68,382. VectorWorks is working with MoHCDGEC through NMCP to re-direct these remaining ITNs into the routine health facility distribution.

ITNs Issuing Data collection

Data collection and aggregation of ITNs issued to students was done by following a procedure that has been laid out in the implementation guidelines: class teachers aggregated class-issuing data and submitted it to the head teacher. Ward Education Coordinators (WECs), in collaboration with head teachers, then aggregated class-issuing data to determine the school issuing data. The WECs collected school issuing data from all schools in his/her ward and kept them at the ward level. The SNP council coordination teams were responsible for visiting all WEC's offices and collecting school issuing data. After ITNs issuing data was collected at the council center from all schools, the data entry exercise started.

Unlike in SNP5 where ITN issuing data was entered into Basic Education Management Information System (BEMIS) at council level after collecting hard copies of issuing data from ward level, in SNP6, BEMIS faced technical challenges and PORALG who owns the system is still working to get it functional. VectorWorks prepared an Excel template for aggregation of ITN issuing data, the template was shared to all councils for them to enter school ITN issuing data once collected from ward level (See Annex 4) as an immediate and attentive back up system due to BEMIS system being down. The plan is to upload issuing data into the BEMIS system when it is functional.

Annex 4: LLINs Issuing Data Compilation template

SNP 6: LLINs Issuing Data Compilation Template																								
SN	Region	District	Ward	School	Owner	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Total		Grand Total		
						Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls		Boys	Girls
2	KATAVI	Mlele	Ilela	ILELA	Government																0	0	0	
3	KATAVI	Mlele	Ilela	MAPILI	Government																	0	0	0
4	KATAVI	Mlele	Ilunde	ILUNDE	Government																	0	0	0
5	KATAVI	Mlele	Inyonga	KALOVYA	Government																	0	0	0
6	KATAVI	Mlele	Inyonga	KAMALAMPAKA	Government																	0	0	0
7	KATAVI	Mlele	Inyonga	INYONGA	Government																	0	0	0
8	KATAVI	Mlele	Kamsisi	KAMSISI	Government																	0	0	0
9	KATAVI	Mlele	Nsenkwa	MTAKUJA	Government																	0	0	0
10	KATAVI	Mlele	Nsenkwa	NSENKWA	Government																	0	0	0
11	KATAVI	Mlele	Utende	WACHAWASEME	Government																	0	0	0
12	KATAVI	Mlele	Utende	KUSA	Government																	0	0	0
13	KATAVI	Mlele	Utende	MGOMBE	Government																	0	0	0
						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Supervision during ITNS Issuing at School

Various representatives did supportive supervision during ITN issuing: from central government (PO-RALG, MoHCDGEC), local government (Regional and Council teams), and VectorWorks staff. The regional and council level representatives were the regional and council SNP coordination teams: Regional Education Officer, Regional Malaria Focal Person, Regional Statistician, District Education Officer, District Malaria Focal Person, District Statistician and Statistics and Logistics Officer. In **Phase I** regions of Pwani, Morogoro, Mtwara, Lindi, Ruvuma, Geita, Kagera and Shinyanga supervision activities were conducted in schools from July 16 to August 30, 2018. Supervision in **Phase II** regions of Mwanza, Mara, Simiyu, Kigoma, Katavi and Tabora started immediately as ITNs issuing started on 24th September to 9th November 2018. Schools were randomly selected for supervision visits, with each supervision team focusing on a specific ITN delivery route(s). The national and regional technical teams visited 408 schools (9.58%) out of 4,261 total visited schools, whereas the district technical teams visited 3,853 schools (90.42%) out of 4,261 schools. Overall 4,261 (44.56%) schools out of 9,563 were visited during supervision of ITN issuing. Supervision was intended to observe whether program procedures were followed and to provide any necessary technical support during the time when the ITNs were issued at any level. It was intended to enhance the communication and collaboration between the regional and district officials and the subcontracted transporter on ITN re-bundling, delivery to schools, and issuing to students.

VectorWorks provided all supervision teams with supervision checklists to help them thoroughly conduct the supervision. During supervision, teams cross-checked program documents (including GRN forms), conducted key informant interviews, and directly observed activities to confirm proper procedures were followed at various stages of ITN transport, delivery, and issuing. Supervision checklists were used to determine that schools received the correct number of ITNs per manifest/packing lists, and that information was correctly recorded. Based on feedback from supervision teams, the following were identified as being good practices in the field:

- The community, especially students, had a strong positive response. The students were very pleased to receive their ITNs and were enthusiastic about taking them home to

their families. As it has been in established regions, many teachers highlighted that school attendance was greatly improved when the students knew they were due to receive their ITNs.

- Most schools were well informed on the classes that were eligible for ITN distribution.
- No school reported issues with secure storage space when nets had to be stored for a night.
- Most schools distributed ITNs to students within the first three days of receiving the nets from the transporter.
- The national, regional, and district-level authorities showed a good level of coordination and cooperation during joint supervision exercise.
- During ITNs delivery to schools, documents verifying quantities per school were signed by both the school teacher and the private transporter, and they were stamped.
- Most ITNs were delivered to schools during working hours with few exceptions in areas where either the delivery trucks had breakdown, roads were not good, or due to heavy rains.
- VectorWorks through SLES shared with council coordination teams the ITNs manifest, which helped council teams during supervision to verify whether schools received the right quantities of ITNs.

Handling of ITN Issuing Books

SLES transported ITN issuing books along with ITNs from Dar es Salaam to individual schools in all 14 regions (105 councils). After the ITN issuing books were printed, they were handed over to the contractor with a clear distribution plan that indicated how many books, per school, by level (class issuing books and school issuing books). An independent report detailing materials distribution accomplishment was turned over to VectorWorks, mainly detailing management of the distribution with copies of proof of delivery documents.

Community Mobilization Activities

VectorWorks did not implement separate school-based mobilization activities; SNP messages were built into the wider continuous ITN distribution radio campaign which discussed and created national wide awareness about Chandarua Kliniki program (health facility-based distribution of ITNs), the campaign talked about proper and consistent ITN use, and ITN care and repair.

VectorWorks conducted social behavior change communication (SBCC) activities to intensify program awareness about processes and eligibility for obtaining an ITN for both SNP and Chandarua Kliniki. The targeted regions were Katavi, Kigoma, Morogoro, Pwani, Simiyu, Shinyanga, and Tabora and Zanzibar. The project implemented these targeted activities in 14 mainland regions with the highest malaria prevalence with a particular focus on consistent use of ITNs, and proper care, repair, and washing of ITNs in basins. It has reached communities with key messages for each focus area through experiential media in the form of road shows and public announcements in selected regions, districts, and wards.

VectorWorks implemented a radio campaign to promote at large, national scale up of Chandarua Kliniki program in the entire country and mentions of SNP in target regions. In the fourth quarter of year four, VectorWorks put two questions (recall and knowledge of Chandarua Kliniki) into the Omnibus Survey machinery that informed the project to what extent the campaign reached people but also draw more lessons from other demographic information.

Ipsos conducted the survey from July to September 2018 involving a sample of 2000 study respondents with 58% being female and 42% male. Because SNP is implemented in 14 out of 26 regions, VectorWorks did not field a question on omnibus machine which is nationally representative regarding exposure and knowledge. Analysis report depict that exposure to Chandarua Kliniki message is 62% for those who either heard or seen the message “Chandarua Kliniki” whereas 61%+ of respondents were knowledgeable about the beneficiaries of Chandarua Kliniki. The summary report, which is heavy on Chandarua Kliniki, implies SNP messages also penetrated through the community.

Summary of Challenges, Solutions, and Recommendations

Table 10 summarizes the observed challenges and, also, details mitigations that were deployed to ensure the program was not hampered, it also provides a list of recommendations for future rounds of SNP.

Table 10. Challenges, Solutions, and Recommendations for Future SNP

Activity	Challenge Encountered	Solution Put in Place	Recommendations/In the Future
Feedback and Engagement Meetings	Late arrival by invitees	Sessions had to delay to allow reasonable number of participants to arrive before sessions could start	VectorWorks through PO-RALG office will continue to insist on adhering to the program schedule
Pre Alert meeting	Some LGAs didn't pay enough attention to the meeting in ensuring all schools were included in the list and quantities of ITNs allocated were correct as a result 3 schools were left out/forgotten	Schools were identified and reported to the higher authorities (REO's office) in making sure the missed schools are included in the list	VectorWorks will continue to insist on making use of these meetings so as to rectify any issues before start of ITNs delivery and issuing
ITNs transportation, and supervision to schools	In several councils, some schools had ITNs delivered in the late evening and after school operation hours, the main cause was time delays by transporters in offloading and signing documents, in		VectorWorks will work with SLES and district-based coordination teams to optimize routes per each van carrying ITNs to ensure there are no delays.

	a given van route		
ITNs data management/discr epancy	Some councils reported to have issued more ITNs than the amount that was delivered to them	VectorWorks informed PORALG and PORALG ordered councils to re-do data entry. It was realized that some data errors were done at council level while some at school level	PORALG will continue to insist LGAs on data quality and timely data until when it becomes a culture
ITN data management system	BEMIS has faced technical challenges hence SLOs were not able to enter ITN issuing directly into the system as it was in the SNP5	VectorWorks has prepared an ITN issuing data template for council teams to record issuing data in the interim	PORALG is still working on the system.

Monitoring and Evaluation

The project-monitoring plan provides a framework for systematically collecting and using data to monitor the activities and achievements of the VectorWorks project in Tanzania. It documents specific key results that VectorWorks Tanzania intends to achieve and the progress made toward the targets.

Key activities during SNP6 implementation included quantification of eligible number of pupils; selection of eligible class; regional- and council-level feedback meetings where the project implemented SNP5; advocacy meetings and trainings for regional and council coordination teams in the new regions of project implementation; transportation of ITNs to distributions points; supervision during ITNs distribution; and issuing to beneficiaries.

VectorWorks project coordinated and monitored all SNP 6 activities. The project conducted 14 regional level feedback and advocacy meetings that included participants from respective councils; VectorWorks project also distributed a total of 2,757,969 ITNs to 9,563 schools in the 14 regions of implementation; including 56,647 PBO nets distributed in Muleba district in *School Net Program (SNP6) 2018 Final Report*

Kagera region. PMI procured all the nets VectorWorks distributed in the 14 regions. VectorWorks Tanzania issued a total of 2,755,251 (99.9%) to 9,563 in the 14 regions; and supported national and regional technical teams to conduct physical visits to 4,261 (44.56%) schools out of 9,563.