

**RCC Phase2 Monitoring and Evaluation of
the Tanzanian ITN strategy**

Retail Audit report (draft)

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Executive Summary

This report presents findings of the 2013 retail audit, where appropriate the 2010/11 results are included for comparison.

Data for the reported retail audit were collected from mid April to late August 2013. The survey included 24 districts that were sampled for the 2008 TNVS household survey. A total of 240 villages/streets were selected for the audit.

A total of 2672 outlets were included in the audit, of which 143 (5.4%) were stocking LLINs within the past three months with reference to the audit date. On the day of the survey 107 (2.6%) of the total outlets had LLINs in stock. In the 2010/11 audit round, 5% of the outlets had ITNs in stock.

Villages/streets with at least one outlet stocking LLINs ranged from 10% in some districts to 70% in two districts. Overall, 84 (35%) of the villages/streets had at least one outlet stocking LLINs.

Of the 143 outlets that were selling LLINs, 66 (46.2%) were accepting vouchers.

Out of the 240 villages, 60(25%) had at least one outlet accepting vouchers. Coverage of the outlets accepting vouchers was variable across districts. While in some districts 6 out of 10 villages had at least one such outlet two districts had no single village with an outlet accepting vouchers. Clustering of such outlets within villages was also observed.

Of the outlets selling LLINs but not currently accepting vouchers, 47 (61%) expressed their willingness to accept vouchers.

Of the outlets that were accepting vouchers, the majority (88%) reported that they were satisfied with the voucher scheme.

Decrease of LLIN sales after implementation of UCC was reported by 45% of the LLIN retailers. The fourth retail audit (2010/11) in districts where UCC had been implemented decrease of ITN sales was reported by 75% of the ITN retailers.

Notwithstanding some challenges, the eVoucher has been very well received by retailers as a much better system compared to the paper-based voucher. Some of the cited positive attributes of the eVoucher are:

- Fast in communicating with the supplier (the supplier recognises from the system that a certain retailer needs a new supply of nets)
- Simple (easy to use)
- Relieves the retailer from cumbersome record keeping requirements
- Saves time and eliminates inconveniences
- Minimises voucher misuse and fraud
- Clears the risk of losing the voucher that women experienced with paper voucher

Introduction

The implementation of Tanzania National Voucher Scheme phase 1 supported a substantial expansion of ITNs use by both pregnant women and infants in the country. However, increase in coverage was slow and equity was not achieved. Diversification of ITNs delivery models to include mass distribution translated into massive increase in ITNs owned by households and subsequently higher coverage of ITNs use. Alongside the mass distribution of free LLINs, the private sector continued to manufacture/procure and sell nets to the public through existing channels. It was anticipated that, the achieved high LLIN coverage in the recent years, would potentially lower the demand of that commodity from the commercial sector and thus impact supply. Considering that success of the voucher scheme as one of the keep-up strategies relies, in part, on the wide availability of nets in the commercial sector, it is relevant therefore to track changes in retail availability of nets throughout Tanzania.

The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) through RCC Phase 2, committed funds to two NATNETS M&E activities, qualitative studies and National level Retail audit. Three rounds of retail census were conducted during the implementation of the fixed value vouchers. The fourth round of retail census (2010/11) was the first for the upgraded fixed top-up vouchers. The round reported here, the fifth, happened when the fixed top-up voucher had been operational for over three years and two to three years had elapsed since implementation of the Universal Catch up campaign (UCC).

Another round of retail census that would assess the impact of free net distribution to LLIN retailers was planned to happen in 2012. However, contracting process was only ready for the audit to happen in 2013. At the time the fourth round (2010/11) was conducted, Universal Coverage Campaign had been implemented in most (17) of the 24 surveyed districts but the time that had lapsed by the time of that survey was not long enough to observe a measurable impact on LLINs availability. That round could be considered as a baseline upon which the impact of the free LLIN distribution on retail availability of that commodity could be evaluated. Nevertheless, the timing of the fifth round (2013) is not precisely optimal for such, owing to the understanding that a large proportion of the free LLINs would have worn out and thus demand for replacing could offset the negative impact of the mass distribution.

The current audit, however captured some qualitative retrospective experiences of retailers who were selling nets before and after the mass distribution as well as those who stopped selling nets as a result of the mass distribution.

As a strategy to address challenges of paper-based vouchers, MEDA has introduced and is implementing eVoucher system. That system has a potential to overcome most of setbacks of the paper-based voucher. It improves efficiency in several ways and at all levels of its management, minimises chances for misuse, removes risks of misplacement and eases communication between LLIN supplier and the retailer. At the beginning of the retail census, eVoucher was operational in 11 districts of the 24 included in the audit.

The main objective of the fifth round of the retail census is to determine retail availability of LLINs in the general population and assess coverage of voucher operating retailers. Experience of retailers with electronic voucher system is also explored.

This report presents findings of the 2013 retail audit and where appropriate results from the 2010/11 audit are included for comparison.

Objectives

- To determine the coverage of LLINs retail outlets
- To determine the coverage of upgraded fixed top-up voucher operating retailers
- To estimate sales volumes of LLINs

Methods

Study site

Retail audit activities were conducted in the 24 districts NATNETS monitoring and evaluation activities that were selected in 2008. Following changes in administrative units after the last round of retail audit (2011) where some districts had been split to form new districts, update of the database was necessary. For sampling purposes we updated the districts databases accordingly. For the affected districts, new lists of wards and villages were procured from the Prime Minister's Office (Regional Administration and Local Government). The data was processed accordingly and used to update the earlier database. Districts on the list for retail audit that had been affected included, Karagwe, Bariadi, Singida and Sumbawanga Rural.

Sampling

The updated administrative unit's database was then used as a sampling frame to select wards and then villages. From each district, 10 wards were selected and from each of those wards, one village was randomly selected. Each selected village was visited in order to undertake an assessment of availability of LLINs and establish whether an outlet was accepting the TNVS vouchers (paper-based and electronic) in exchange with LLINs.

Districts covered for the retail audit are: Arusha rural, Muheza, Kinondoni, Moshi rural, Kisarawe, Rombo, Rufiji. Simanjiro Mtwara Urban, Nachingwea, Rorya, Namtumbo, Sengerema, Makete, Shinyanga Urban, Mbeya Urban, Bariadi, Sumbawanga Rural, Chato, Iringa Rural, Karagwe, Bahi, Kigoma Urban and Singida Rural.

From each selected village all outlets that fit into the pre-defined criteria will be visited and shopkeepers identified for interviews. Monthly audit of sales levels in the identified outlets was recorded for those who reported to have LLINs in stock within three months from the day of the census. This provided information about availability of ITNs in the private sector as well as those who were accepting vouchers.

A village will be a unit of analysis in line with the target of having one voucher-accepting outlet per village.

Training

Prior to the survey, the team was trained by an experienced research officer for 4 days in January 2013 followed by two days pilot testing in Kisarawe. Just before start of the field work short refresher training was done.

The questionnaire

Similar to the previous rounds of retail census, in each outlet a short questionnaire was administered by a trained interviewer which collected information about: Identification of the outlets, outlet type, stocking LLINs and ordinary nets (untreated), Duration in business, sales volumes, perceived impact of the free distribution of LLINs, Voucher acceptance and Satisfaction with the programme. It was also established whether an outlet was operating the eVoucher or the paper-based. Few open-ended questions were specifically asked for eVoucher.

Timing

Data collection for the 2013 retail audit was done between April 2013 and August 2013. The field team was organised within two groups, each had four enumerators and one field supervisor

Quality control

Similar to the previous rounds of retail audit, quality of data was ensured in several ways:

i) accompanied interviews by the supervisor ii) daily meetings to review completed work, iii) field visitation by the survey manager for supportive supervision.

Data processing

Data from the survey were double entered using Epi-data software. Data analysis was carried out using STATA v.11 software.

Measuring LLIN availability

The retail audit is primarily interested in the extent to which TNVS and free distribution of LLINs might influence LLIN availability and the market for LLINs. This is done through measuring availability of LLINs and gathering experiences of the retailers. The indicator used to measure availability of LLINs is presence of “at least one outlet in a village selling LLINs”.

Results

Outlets reached in the 2013 retail audit by types along with proportions of those stocking LLINs are shown in Table 1. A total of 2672 outlets were included in the 2013 census round. Similar to the fourth round (2010/11), the majority of the surveyed outlets in the 2013 round were general shops (72.8%), kiosks ranked second (20.2%). Drug shops were also of substantial proportion (5.1%) of the retailers. Within expectation, pharmacies and super markets featured least in the retail audit.

To identify outlets that were selling nets, the respondents were asked whether they had nets in stock on the day of the interview and those who responded with a “No” were asked whether they have had that commodity in stock within the past three months. As shown in Table 1, only 5.4% percent of the outlets had stocked LLINs within the last three months. This estimate was slightly lower than in 2010/11 where 6.7% of the surveyed outlets were stocking bundled nets or LLINs. As expected and consistent with previous rounds, general shops were the main sources of LLINs, 6.2% of the surveyed general shops had LLINs stock within the last three months and 4.6% had stocks at the day of the survey.

Worthy a note is the nearly 2% of the surveyed outlets that had a stock of ordinary nets on the day of the survey and 3% within the past three months. At the time of the 2010/11 audit bundled nets were still in circulation but in 2013 such nets were no longer in the market but had been replaced with LLINs.

Table 1: Outlet types and shops stocking ITNs - All districts

Type of outlet	Total outlets surveyed (% of total outlets surveyed)		Outlet type stocking bundled nets or LLINs (% per each outlet type)*		Outlet type stocking LLINs (% per each outlet type)*	
	2011	2013	2011		2013	
	n (%)	n (%)	On the day of the survey n (%)	Within the past three months* n (%)	On the day of the survey n (%)	Within the past three months* n (%)
Kiosk	546 (21.2)	541 (20.2)	3 (0.6)	6 (1.1)	6 (1.1)	8 (1.5)
General shop	1829 (71.1)	1944(72.8)	113 (6.2)	151 (8.3)	90 (4.6)	121 (6.2)
Supermarket	2 (0.1)	3(0.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Pharmacy	2 (0.1)	14(0.5)	1 (50.0)	1 (50.0)	0 (0.0)	0 (0.0)
Drug shop	190 (7.4)	158(5.9)	9 (4.8)	11 (5.8)	5 (3.2)	8 (5.1)
Other	4 (0.2)	12 (0.5)	3 (50)	4 (66.7)	6 (50.0)	6 (50.0)
Total	2573	2672	129 (5.0)	173 (6.7)	107 (2.6)	143 (5.4)

*Includes those with stock on the day of the survey

Information about electronic voucher was captured in ten of the districts included in the retail audit. The districts are: Briadi, Chato, Kigoma Urban, Kinondoni, Mbeya Urban, Moshi Rural, Namtumbo, Rorya, Shinyanga Urban and Sumbawanga Rural. All outlets that were accepting vouchers in those districts, were operating electronic vouchers.

Table 2 shows the proportion of outlets accepting TNVS vouchers among those stocking LLINs by type of the outlet. Of the 143 that were selling LLINs, 66 (46.2%) were accepting vouchers. This was slightly higher than 42.8% of the outlets that were accepting vouchers among those selling bundled Nets or LLINs in the 2010/11 retail audit. Consistent with the 2010/11 audit round, proportionally, general shops were the most common outlets that were accepting vouchers. None of the pharmacies and supermarkets included in this round of audit was selling LLINs.

Table 2: Percentage of shops accepting vouchers - All districts is it applicable? Change the denominator to had ITNs/LLINs within the past 3 months

	2011		2013	
	Outlets stoking ITNS/LLIN (N)	Accept voucher* n(%)	Outlets stocking LLINs (N)	Accept voucher* n(%)
Kiosk	6	1 (16.7)	8	6 (75.0)
General shop	151	59 (39.1)	121	48 (39.7)
Supermarket	0	0 (0.0)	0	0
Pharmacy	1	1 (100)	0	0
Drug shop	11	9 (81.8)	8	6 (75.0)
Other	4	4 (100)	6	6 (100)
Total	173	74 (42.8)	143	66 (46.2)

*Row percentages

Tables 3 summarises availability of nets within 3 months. In 2010/11 about 8% of the outlets had a stock either of bundled nets or LLINs within the past three months. In 2013 when bundled nets were no longer in the market, stocks of LLINs were in only 5% of the outlets but 3% were selling ordinary nets (untreated). Of the 80 outlets that were selling ordinary nets, 27 were also selling LLINs while 53 were selling only ordinary untreated nets.

Proportion of outlets that had in stock drugs for treating malaria compared closely between the two rounds of retail audit (10.5% in 2010/11 and 10.1 in 2013).

Table 3: Availability of bednets and other related products

Item	2007/8 2011		2013	
	N	n (%)	N	n (%)
Bundled nets	2573	81 (3.1)	2672	-
LLINs		120 (4.7)		143 (5.4)
Ordinary nets		-		80 (3.0)
Anti-malarials		271 (10.5)		271 (10.1)

Availability of LLINs by district

Presence of retailers stocking and selling LLINs is fundamental to access by voucher recipients and the general population that needs LLIN for replacement or covering new sleeping spaces. Geographical access is here measured as “at least one outlet within a village/street” as an indicator of access. Starting with number of retailers included in the audit, Rombo district ranked number one followed by Shinyanga Urban and Arusha Rural ranked third. However, Shinyanga Urban district had the highest number outlets stocking LLINs (26) followed by Sumbawanga Rural district (14) and then Rorya district (12).

Geographical access to LLINs, measured by at least one LLIN outlet per village/street indicated that Kinondoni and Rorya districts had the highest proportion of the surveyed streets/villages with at least one outlet stocking LLINs (70% each). This was followed by Sengerema and Sumbawanga Rural districts, where 60% of the villages had at least one LLIN outlet. Clustering of LLIN outlets within villages and streets was observed in several districts, the most pronounced clustering was in Shinyanga Urban district where of the 26 LLIN outlets, only 5 streets had at least one such an outlet. Other districts where clustering of LLIN outlets was observed are Chato, Sumbawanga Rural and Rorya. In each of the two districts, Mtwara Urban and Karagwe only one village had at least one outlet stocking LLINs out of the 10 streets/villages included in the retail audit (10 in each of the two districts). In Makete district, none of the retailers included in the audit were stocking LLINs.

Table 4: Availability of LLINs by districts consider deleting the column

District	Number of outlets		Outlets stocking ITNs/LLINs within 3 months n (%)		Village/street has at least one outlet stocking LLINs in 3 months. n (%)	
	2011	2013	2011	2013	2011	2013
Arusha Rural	181	231	5 (2.7)	4 (1.7)	4 (40)	3 (30)
Bahi	86	52	8 (9.3)	6 (11.5)	7 (70)	5 (50)
Bariadi	69	131	2 (2.9)	6 (4.6)	2 (20)	5 (50)
Chato	121	83	17 (14.0)	9 (10.8)	7 (70)	2 (20)
Iringa Rural	58	52	4 (6.9)	3 (5.8)	4 (40)	3 (30)
Karagwe	43	63	6 (14.0)	1 (1.6)	6 (60)	1 (10)
Kigoma Urban	84	88	3 (3.6)	5 (5.7)	3 (30)	3 (30)
Kinondoni	260	145	28 (10.8)	9 (6.3)	8 (80)	7 (70)
Kisarawe	127	67	5 (3.9)	2 (3.0)	1 (10)	2 (20)
Makete	47	21	4 (4.0)	0	3 (30)	0
Mbeya Urban	221	87	12 (5.4)	4 (4.6)	5 (50)	3 (30)
Moshi Rural	94	160	4 (4.3)	2 (1.3)	2 (20)	2 (20)
Mtwara Urban	78	43	4 (5.1)	1 (2.3)	4 (40)	1 (10)
Muheza	122	114	1 (0.8)	5 (4.4)	1 (10)	3 (30)
Nachingwea	60	59	4 (6.7)	4 (6.8)	4 (40)	4 (40)
Namtumbo	58	90	6 (10.3)	3 (3.3)	5 (50)	3 (30)
Rombo	202	303	9 (4.5)	6 (2.0)	6 (60)	4 (40)
Rorya	51	171	3 (5.9)	12 (7.0)	2 (20)	7 (70)
Rufiji	146	77	9 (6.2)	5 (6.5)	7 (70)	4 (40)
Sengerema	61	106	2 (3.3)	11 (10.4)	2 (20)	6 (60)
Shinyanga Urban	135	240	15 (11.1)	26 (10.8)	5 (50)	5 (50)
Simanjiro	86	151	10 (11.6)	2 (1.3)	7 (70)	2 (20)
Singida Rural	103	55	5 (4.9)	3 (5.5)	5 (50)	3 (30)
Sumbawanga Rural	80	83	7 (8.8)	14 (16.9)	5 (50)	6 (60)
TOTAL	2573	2672	173 (6.7)	143 (5.4)	105 (43.8)	84 (35%)

Time in LLIN business

Across time, estimates of the number of years/months an outlet has been selling nets gives an indication of the retail dynamics of that commodity at that level. As with the previous rounds of audits, the 2013 round asked respondents to state the number of months they had been stocking bednets (specific for treated and untreated). During the 2010/2011 round of retail audit, bundled nets were still in the market as well as LLINs, only LLINs are reported here. Figure 1 shows that for both rounds of the retail audit, most outlets had been stocking LLINs/ITNs for less than 4 years. However, within expectation, a higher percentage of outlets had been stocking LLINs for a longer time period (4+ years) in the 2013 round than. Proportions of the newest outlets in stocking LLINs are closely comparable for the two rounds (12% and 13% for 2010/11 and 2013 rounds respectively). Considering that the 2013 round and the 2010/11th were more than two years apart, it would be expected that a large proportion of those in the 1-3 years category to have moved to the 4-6 years category. However, the 4-6 year category was

only 20% of the outlets, thus suggestive of dropouts.

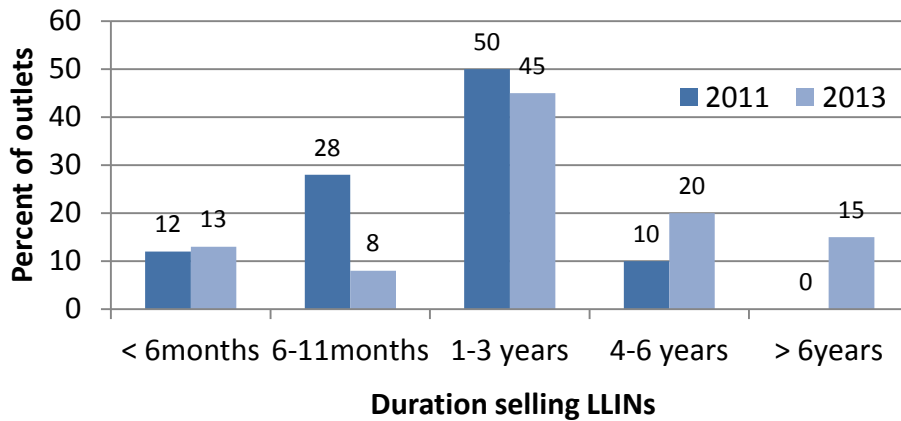


Figure 1: Time in LLIN business

Estimates of reported time in LLIN business disaggregated by outlet status provide a comparison between outlets that were accepting vouchers against those selling LLINs but not accepting vouchers at the time of the audit. Figure 2 communicates an interesting message – vouchers play a key role of retaining retailers stocking and selling LLINs. While most of the retailers that were not accepting vouchers had been selling LLINs for a maximum of three years, over 50% of those accepting vouchers had been stocking and selling that commodity for at least 4 years.

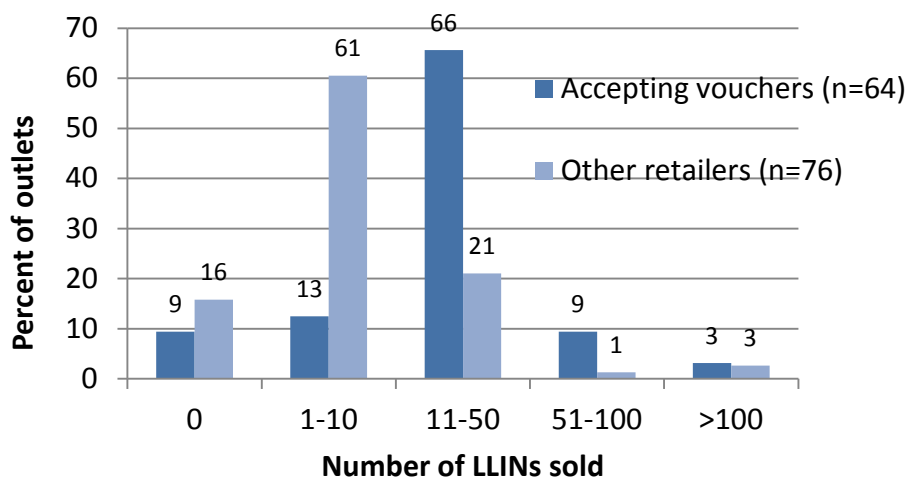


Figure 2: Time in business by voucher acceptance status

Several things keep the retailers in business among those accepting vouchers; feel valued, satisfaction derived from serving the community, boosting sells of other commodities

“I feel very happy the way we are valued in delivering this service to the extent that we have been given for free, T-shirts with “hati Punguzo” logo” (retailer, Muheza).

“When women come I serve them shortly, I feel very good to serve the community that surrounds me, there is no problem I have very good relationship with my customers” (retailer, Rorya)

“When I have many voucher customers it also increase sales of other commodities such as insect repellants and others, when they see them they get enticed to buy them” (retailer, Rorya).

“To me charging TZS 500 is not a problem, because I do not invest anything and it provides an opportunity to all women needing a net to be able to get one” (retailer, Simanjiro)

Voucher acceptance by districts

Presence of outlets accepting vouchers is a prerequisite for a pregnant woman or an infant to access LLIN. Clearly, a retailer has to stock LLINs to be able to receive vouchers. As such proportions of outlets accepting vouchers were derived using the outlets that stocked LLINs as denominators. As shown in Table 5, overall, 43% of the outlets selling LLINs were accepting vouchers (paper or electronic), but the proportions varied widely across districts. While a 100% of the LLIN outlets in a district were accepting vouchers, some were only as low as 11% (Mtwara Urban and Makete districts had no single outlet accepting voucher within the villages/streets included in the audit).

In absolute numbers, Bahi, Rorya and Shinyanga Urban districts had the highest numbers (6) of outlets accepting vouchers. Excluding those districts that had no single retailer accepting vouchers, Moshi Rural, Karagwe and Chato districts had the minimum numbers (1 each). Surprisingly, Chato and Karagwe districts were among the highest in the 2011 round of retail audit.

While in most of the districts, the retailers that were accepting vouchers were distributed such that their numbers were equal to the number of their villages/streets, clustering (more than one per village/street) was observed in some districts, Arusha rural, Bahi, Muheza, Rombo and Shinyanga Urban districts. Rorya district had the highest number of villages with at least one retailer accepting vouchers (6), followed by Sumbawanga Rural and Bahi (5 each). Chato, Karagwe and Moshi Rural had only one village each with at least one LLIN retailer accepting vouchers.

Overall, in the 2010/11 round of retail audit, 30% of the 240 villages/streets had at least one LLIN retailer accepting vouchers. That indicator for 2013 was 25% among 240 villages/streets included in the retail audit.

Table 5: Outlets accepting vouchers by district and villages

District	Number of outlets that had ITNS/LLINs within 3 months		Outlets accepting vouchers n (%)		Village/street had at least one outlet accepting vouchers n(%)	
	2011	2013	2011	2013	2011	2013
Arusha Rural	5	4	3 (60)	4 (100)	3(30)	3 (30)
Bahi	8	6	7 (87.5)	6 (100)	7(70)	5 (50)
Bariadi	2	6	1 (50)	4 (67)	1(10)	4 (40)
Chato	17	9	6 (35.3)	1 (11)	6(60)	1 (10)
Iringa Rural	4	3	3 (75.0)	2 (67)	3(30)	2 (20)
Karagwe	6	1	6 (100)	1 (100)	6(60)	1 (10)
Kigoma Urban	3	5	2 (66.7)	2 (40)	2(20)	2 (20)
Kinondoni	28	9	3 (10.7)	2 (22)	2(20)	2 (20)
Kisarawe	5	2	1 (20.0)	2 (100)	1(10)	2 (20)
Makete	4	0	3 (75.0)	0	3(30)	0
Mbeya Urban	12	4	1 (8.3)	2 (50)	1(10)	2 (20)
Moshi Rural	4	2	2 (50)	1 (50)	2(20)	1 (10)
Mtwara Urban	4	1	2 (50)	0	2(20)	0
Muheza	1	5	1 (100)	4 (80)	1(10)	3 (30)
Nachingwea	4	4	4 (100)	3 (75)	4(40)	3 (30)
Namtumbo	6	3	4 (66.7)	3 (100)	4 (40)	3 (30)
Rombo	9	6	4 (44.4)	3 (50)	4(40)	2 (20)
Rorya	3	12	3 (100)	6 (50)	2(20)	6 (60)
Rufiji	9	5	3 (33.3)	2 (40)	2(20)	2 (20)
Sengerema	2	11	0	2 (18)	0(0)	2 (20)
Shinyanga Urban	15	26	3 (20.0)	6 (23)	3(30)	4 (40)
Simanjiro	10	2	4 (40.0)	2 (100)	4(40)	2 (20)
Singida Rural	5	3	5 (100)	3 (100)	5(50)	3 (30)
Sumbawanga Rural	7	14	3 (42.9)	5 (36)	3(30)	5 (50)
TOTAL	173	143	74 (42.8)	66 (46)	71(30)	60 (25)

TNVS acceptance and satisfaction amongst ITN sellers

Similar to the findings of the previous survey rounds, most of the retailers accepting vouchers (87%) reported that they were satisfied with their operations with the net supplier. The remaining 13% expressed their sources of dissatisfaction, the most dominant complains were delays in delivering new supplies, poor telecommunications between the retailers and A to Z and requirement of travelling to collect nets rather than getting door delivery services. Of those outlets that were stocking LLINs but not accepting vouchers at the time of the interviews, 61% expressed willingness to be involved in the voucher scheme in the future. That was lower than in the 2010/11 round where 94% indicated willingness (Table 6). As would be expected a higher percent of those on eVoucher were satisfied with their dealing with the supplier– 91% compared to 85% of the paper-based (not shown in the table).

Table 6: Voucher acceptance and satisfaction

	2010/11		2013	
	Number of retailers stocking ITNs/LLINs	n (%)	Number of retailers stocking LLINs	n (%)
Accepting vouchers	173	74 (42.8)	143	66 (46.2)
Satisfied with	74	61 (82.4)	66	58 (87.9)
Willingness to accept	99	93 (93.9)	77	47 (61.0)

Some narrations from the retailers that expressed dissatisfaction were very specific:

“I am not satisfied because several times when I call them (supplier), they do not bring nets in time. Many times they inconvenience me by requiring me to send my vouchers to a neighbouring village. At times they direct me to send my vouchers to Malandizi and leave them there where it takes up to four weeks before I receive my supply from a neighbouring village” (retailer, Kisarawe).

“The system is not satisfactory, my understanding is that the supplier is supposed to bring the nets to me but when you call to inform them that you have run out of nets, they tell you to travel to town for supply. You do accordingly and they do not even contribute to your travel expenses. At times they tell you that the vehicle has a technical problem “use your fare when you get here we will refund you”. On some days they refund you, on others they just toss you, you hear “ooh, go we will send money through Mpesa”. Just lies, things are not good since I started accepting vouchers, it is only now that they have brought the nets to me” (retailer, Singida rural)

Drop outs from voucher acceptance

To assess whether there were dropouts, retailers were asked as to whether they had ever been accepting vouchers in the past but stopped. Less than one percent 17(0.6%) 2013 (0.65%) responded with “yes” and gave reasons for their decision to drop out. Among various reasons stated by the retailers, the most common ones were i) Sales went down due to mass distribution of free nets, few customers and general issues related to the system.

Some of the drop-outs elaborated on the circumstances that led to such decision and action:

“Due to lack of clear understanding on the part of the main stakeholders, we were informed that we would go the Mwanarumango to collect nets, you get there but you find no nets, I decided to stop” (retailer, Kisarawe)

“It is now between two and three years since I stopped receiving vouchers, I did that because of the mass distribution of free nets, I had purchased 15 nets, I managed to sell only 5 since then I was not receiving any customer, I decided to give out some of those nets for free and others are still here”, I decided to discuss with my agent about the possibility of retuning the nets to him but he informed me that he also decided to break the contract with the supplier, MOTEX”. I also remained with vouchers, I was advised to keep them while MEDA sorted out, but nothing has happened (retailer, Rombo)”

“Very few women were coming to my shop for nets”(retailer, Sumbawanga Rural)

"I stopped after a neighbouring mission dispensary started issuing nets. Women did not come to my shop for nets anymore and I felt like it was a competition for customers between me and the service providers at that dispensary (retailer, Moshi rural)

What motivates the retailers to accept vouchers?

Several things keep the retailers in business among those accepting vouchers;

feel valued, satisfaction derived from serving the community, boosting sells of other commodities.

"I feel very happy the way we are valued in delivering this service to the extent that we have been given for free T-shirts with "hati Punguzo" logo" (retailer, Muheza).

"When women come I serve them shortly, I feel very good to serve the community that surrounds me, there is no problem I have very good relationship with my customers" (Rorya)

"When I have many voucher customers it also increases sales of other commodities such as insect repellants and others, when they see them they get enticed to buy them" (retailer, Rorya).

Exchange of the voucher for nets

Each of the retailers who were accepting paper vouchers was asked to state the frequency of exchange of vouchers for nets. 43% of those were exchanging vouchers for nets monthly. Of those, 28% would prefer to exchange the vouchers more frequently, every two weeks. Retailers were also asked to state the time it takes for A to Z to deliver nets after placing order for a new supply. Up to 53% of those using paper vouchers reported that they received supplies within a week. Retailers who were already operating eVoucher stated that supply of nets has been very fast since the suppliers use the network to recognize when the retailer run out of nets.

"With this new system they know when you finish your stock through the network and thus supply without delays. In the past we had to inform them" (retailer, Shyinyanga Urban)

"Selling nets by using phones is a system that makes it very simple. Receiving nets from suppliers has been very fast, within two to three days. Unlike in the past where with them you would have to count the vouchers and they would check records but now all the records reach them immediately and they act promptly (retailer, Namtumbo).

Sales

An indication of volumes of LLINs sold was established by asking at each outlet about the number of nets they had sold within the previous month. Summaries of the reported monthly sells by voucher acceptance status are shown in Figure 3. Generally, outlets that were accepting vouchers sold more LLINs compared to other outlets. However, up to 9% of the outlets that were accepting vouchers did not sell a single LLIN in the previous month. A larger proportion of outlets sold between 11 and 50 LLINs in the previous month (an average of about one a day).

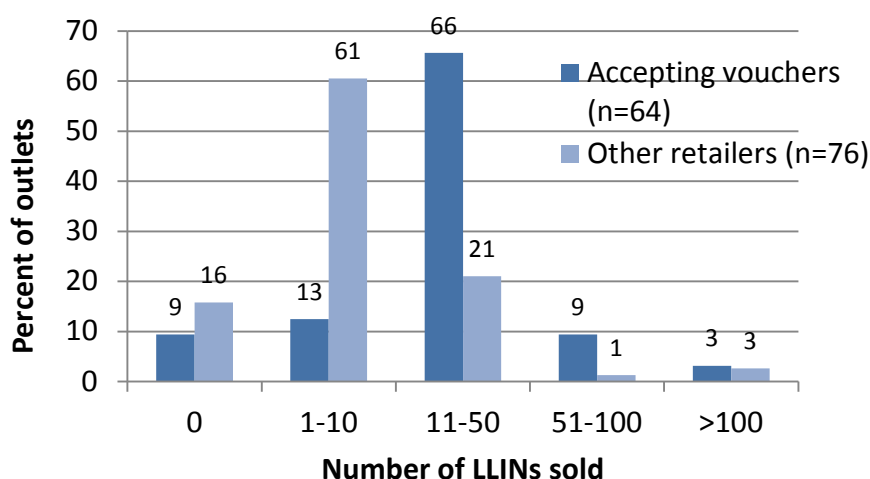


Figure 3: LLIN monthly sale volumes

Perceived impact of the free distribution by the retailers

Mass distribution of LLINs for universal coverage had a potential for negative impact on commercial sales. Retailers that were accepting vouchers were asked to rate their current sale volumes compared to the period before implementation of the mass distribution (UCC). The retailers were categorized into two groups, those operating with eVoucher and those using paper vouchers. Of the 66 retailers that were accepting vouchers among those included in the current retail audit, 58 responded to that question. As shown in Table 7, most of the retailers regardless of the type of voucher, reported that either the sale volumes remained the same or decreased. While decrease was mentioned by 37% and 49% of the eVoucher and the paper-based respectively, in the 2010/11 round, 77% of retailers in the districts where UCC had been implemented mentioned decrease.

Table 7: Sale volumes of ITNs with reference to distribution of free LLINs

Sale volumes	Electronic voucher (eVoucher) N=19	Paper-based voucher N=39
	n (%)	n (%)
Increased	2 (10.5)	8 (20.5)
The same	10 (52.6)	12 (30.8)
Decreased	7 (36.8)	19 (48.7)

Narratives by the retailers as documented in the open-ended questions were consistent with the quantitative findings. While some retailers continued to operate almost as before, some stopped selling nets altogether. Some of those who continued to sell nets but at a declined volume felt that the government needs to do something to sustain their net selling business.

“When mass distribution of free nets was implemented, sells were very low but now have gone up”
(retailer, Simanjiro)

“Although nets are given for free in the community it does not stop sells completely but we continue even with few” (retailer, Nachingwea)

“TZS 500 is very small considering the slow moving of the item (net) particularly due to the free nets to school children and nets from George Bush (former US president) that slow down the net business with a very small profit. We request the government if it is possible to increase the amount before we give up on selling nets” (retailer, Nachingwea)

“The nets have been sold out we are yet to bring another consignment but the net business is no longer good due to the free distribution” (retailer, Simanjiro)

Interestingly, one customer perceived that his net business was not affected by the free distribution of nets due to the perceived quality of the issued nets.

“My business has not been affected, we progress well because the free nets were of poor quality” (retailer, Bariadi)

The eVoucher: Retailer experience and concerns

Of the 66 retailers that were accepting vouchers during the 2013 audit round, 22 were operating with eVoucher. Those were given an opportunity to share their experiences with the eVoucher and concerns that need to be addressed.

Generally, the retailers on eVoucher were very happy with the system, most of them acknowledged the high efficiency of the system. They stated specific areas where it made a positive difference as compared to the paper-based vouchers: fast, requires less/no record keeping, suppliers can track your sales on the system and recognize when you need a new supply, minimize fraud, no risk of losing a voucher.

“We do not have to keep any records now so it serves us time, I complete everything in the network”
(retailer, Mbeya)

“ It is good and simple, you send sms and get a reply right there, it is also more secured, not easy to temper with” (retailer, Shinyanga Urban)

“It is not easy to manipulate”(retailer, Shinyanga Urban).

“It is easy to serve the customers with this new system and there is no loss of records. We request that we get seminars when a new system such as this is introduced” (retailer, Shinyanga Urban)

“This system is very simple in that the ANC card which the customer brings to the retailer serve as an identity. Once you enter the card number into the system you immediately get informed that you can now give that woman a net. There is no stealing or losing a voucher as it was with the paper-based voucher. You know, a woman cannot throw away the ANC card, so it is easy for her to get a net and fraud is not possible” (retailer, Namtumbo)

“This system minimizes possibilities of forgery by the health providers” (retailer, Shinyanga Urban)

“This is a very simple system to the retailer, it serves time and I manage my other activities in the shop without problems” (retailer, Rorya)

Despite the experienced positive aspects of the eVoucher, few retailers had a negative attitude.

“They have not given us training about use of the sms services, as a result I failed to serve ten women who had their voucher numbers and expiry date was just few days away” (retailer, Rorya)

“You know this system has a lot of inconveniences particularly when the network is not working properly. You can run out of nets and try to communicate with the supplier but the network becomes a hurdle” (retailer, Shinyanga Urban).

“At times the eVoucher makes you uncertain about whether you can serve your customers who come for nets, this is due to the network problem. At times the customer comes you just to check, once she gets here you hear her asking “is the network there?, I have come to collect a net”. I just started using this system recently but I have already sent back several women. For those within my neighbourhood, I ask them to leave their cards with me and once the network functions, I start working on each. For those who come from far, they have to wait” (retailer, Namtumbo).

Recommendations from retailers on further improvement of the eVoucher

- Expiry of the eVouchers was expressed as one of the major concerns by the retailers. In their view, care providers at the ANC clinics should urge the women to use their vouchers early.
- Poor network was mentioned several times as a threat to proper functioning of the eVoucher. Finding ways to improve on that was considered necessary as well as putting up an alternative system to be used when the network is not functioning properly.
- Thorough training of the retailers was mentioned as a need by some retailers

