



Making Targeted Subsidies Fast and Flexible

The TNVS eVoucher

TANZANIA

MALARIA

The Tanzania National Voucher Scheme piloted an electronic voucher mechanism (eVoucher) in late 2011 to complement the paper voucher operating since 2004. This case study looks at the benefits and challenges experienced, observations, and key lessons learned

This case study describes the eVoucher's first year of operations, including:

- Background on the pilot's context
- The rationale for its introduction
- How the eVoucher works in practice
- The eVoucher systems architecture and development cost in brief
- Stakeholder perspectives
- Comparison to other keep-up strategies--achieving savings of 7.5% or more against traditional paper vouchers
- Replicating an eVoucher pilot

BACKGROUND

Different opinions exist among policy makers, practitioners, and health workers regarding optimal approaches to maintain ("keep-up") universal coverage of Long Lasting Insecticidal Treated Mosquito Nets (LLINs) throughout malaria-endemic regions of the world. This case study contributes to this dialogue by describing an innovative mechanism called "the eVoucher," recently introduced in Tanzania.

Since 2004, vouchers have been provided to target beneficiaries at Tanzanian health clinics. The TNVS, known to the public as *Hati Punguzo* ("discount voucher" in Swahili) was initiated in 2004 by the Ministry of Health and Social Welfare (MoHSW) under the National Malaria Control Program (NMCP). The voucher is redeemed for an LLIN at commercial shops close by. The current voucher covers the cost of a Long Lasting Insecticidal Net (LLIN) at a fixed cost of TSh 500 (approximately \$0.30) to the consumer, when presented at an approved retail shop.

This has helped to ensure widespread distribution of LLINs to pregnant women and infant children. Increasingly, though, SMS technology and mobile phones, rather than paper "notes," are being used to issue and redeem these vouchers.



By the end of 2011, evidence suggested that Tanzania had achieved bednet coverage rates exceeding 80% nation-wide.¹ This accomplishment was achieved following two mass LLIN distribution campaigns (Universal Campaign – 18.2 million LLINs distributed; Under 5 Campaign – 8.75 million LLINs distributed = total of approximately 27 million LLINs distributed) and more than 8 million LLINs distributed to pregnant women and infants through the Tanzania National Voucher Scheme (TNVS). The TNVS is now challenged to sustain that high coverage rate, although demographic analysis confirms that targeting only pregnant women and infant children is not enough.

Changes designed to improve the current system are underway. EVouchers have been introduced to respond to demand for this service on mobile devices. In addition, after December 2012 two suppliers, rather than a single supplier, will offer LLINs in a competitive environment. Both suppliers will be encouraged to introduce multiple nets with different features, allowing commercial choices to those using a voucher as well as to other consumers paying full price.

RATIONALE FOR EVOUCHERS

There are several reasons why "eVouchers" have been introduced in Tanzania:

- **Validity period:** eVouchers allow program managers to limit the validity period of the voucher, thereby encouraging net use when it is most effective for the client - ideally as early as possible during the pregnancy and during an infant's first year. By limiting the validity period of the voucher, anecdotal evidence suggests that there is greater likelihood that the voucher will be used for its intended purpose

¹ Although no nationwide data exists, smaller surveys consistently peg ownership of at least one bednet at more than 80%. A NATNETS (ITN steering committee) presentation in December of 2011 indicated that the Southern Zone had achieved coverage rates of 95%.

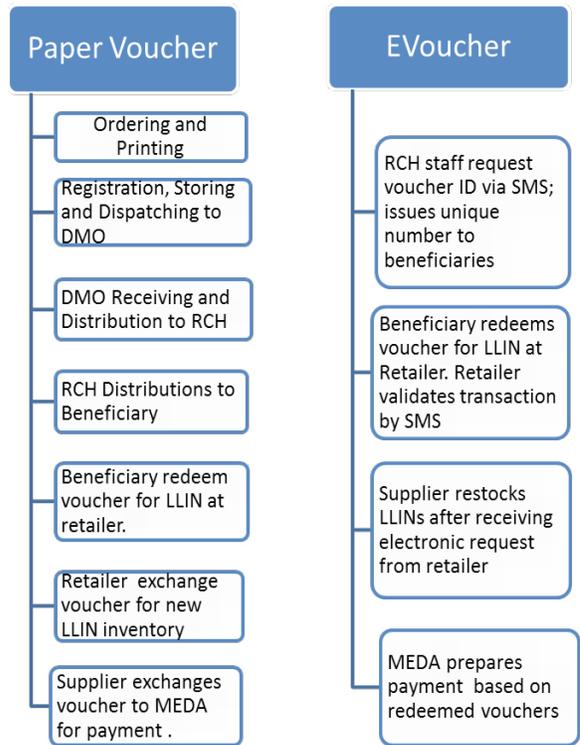


within the desired timeframe. The current policy allows 60 days before the voucher expires, giving consumers time to raise the 500 shilling co-payment amount.

- **Co-pay:** A voucher approach is used in Tanzania (in part) because policy makers generally maintain that people should make some contribution towards the cost of an LLIN. They believe that this “co-pay” principle reduces dependency and allows a greater sense of ownership and empowerment. Further, eVouchers allow greater flexibility in altering the amount of co-payment required, since it is not necessary to re-print millions of vouchers in order to change the amount of subsidy provided. It also allows flexibility in targeting – greater or lower subsidy can be given to different target groups or in different geographic areas.
- **Shorter life cycle, reduced liability:** A voucher is like a promissory note in that it represents cash value once it is issued for an LLIN and until it is returned by the retailer or distributor. Therefore money needs to be set aside to honor the cash value of most of the paper vouchers in circulation. MEDA records show that, on average, it takes 257 days from the time a paper voucher leaves the MEDA office in Dar es Salaam, until it returns there again for reconciliation and payment.² This “liability” is greatly reduced with an eVoucher since its life cycle is much shorter - its “value” is only created at issue and this liability ends when it is redeemed, or when it expires 60 days later.
- **Enhanced records:** The simple act of issuing an electronic voucher and redeeming it creates a very rich database with potential to inform policy makers, program managers and donors. EVouchers tell us (in real time) which clinics are issuing, which vouchers are redeemed, where things are working well, where follow-up is needed and even where retail supply of LLIN is lacking.

who receive vouchers are omitted in the schematic, since the program does not assume beneficiaries have cellphones. Instead, all SMS signals originate on handsets belonging to clinic workers, retailers, or supplier representatives. A unique eVoucher number is written by the clinic worker on the beneficiary’s health card, and the beneficiary provides that number to an authorized retailer for electronic redemption.

Figure 1 – Process Flow Comparison

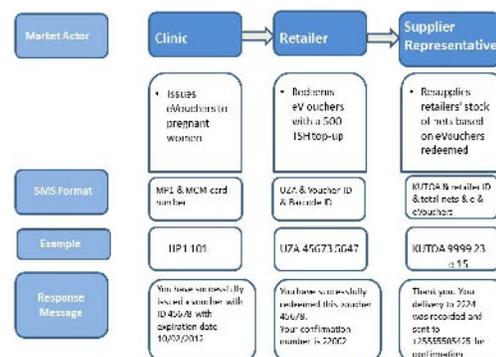


HOW IT WORKS

The eVoucher was designed to mimic, yet streamline, the processes of the current TNVS paper voucher. A comparison of the two systems appears in Figure 1.

The transition to eVoucher eliminates about half of the steps required for the paper voucher. The eVoucher workflow process is further illustrated in Figure 2. Beneficiaries (pregnant women and caregivers of infants)

Figure 2 – eVoucher Process Workflow



² This “circulation time” includes the time in transit from MEDA to the District Medical Officer (DMO), storage time at the DMO, transit from the DMO to the clinic, storage period at the clinic, the time “in-hand” of the beneficiary, time “in-hand” at the retailer until redeemed with the distributor and the time in is at the distributor, until it is returned to MEDA.



STEPS IN THE PROCESS

1. **When a clinic worker** wants to issue a voucher to a pregnant woman (or caregiver of an infant), the number is generated randomly by a central server when an SMS request is sent through their handset. All SMSs sent to the server are at no cost to the clinic worker and reverse-charged to MEDA, similar to dialing a toll-free number.



Figure 3 – Issuing the “eVoucher”

2. **If the incoming SMS** comes from a phone registered with the TNVS programme on the MEDA-managed eVoucher platform, and the request is deemed valid (meaning that it has a registered cellphone number; authentic voucher category; and patient’s clinic card number), the system sends a unique voucher ID to the clinic worker in response to the request.
3. **The voucher number** is then written on the individual’s clinic card and is taken by the individual to a retailer and presented together with a small top-up cash payment.
4. **The retailer** redeems the voucher by sending the unique number via SMS to the system and obtaining verification in reply. SMSs move at no cost to clinic worker or retailer. The retailer profit margin consists of the top-up cash payment from the beneficiary plus any additional margin negotiated in advance with the respective net supplier.

EVOUCHER ARCHITECTURE

Like all projects, voucher programs require planning and thoughtful consideration of the issues and conditions that impact success. Some of the following issues apply equally to both eVouchers and paper vouchers; some are unique to just eVouchers.

Market Transaction Factors - The supply chain is the set of all market transactions that begin with production and end with the final consumer.



Figure 4 – redeeming the “eVoucher” at the retailer

Since a voucher is only useful if it is provided to a beneficiary and exchanged for an LLIN, context-specific consideration must be given to the relationship between the market actors in the LLIN supply chain. These include public health facilities, suppliers / manufacturers, retailers, and the end users / consumers. If a reliable commercial sector does not exist, it must be incentivized to participate. Sustainable relationships enable retailers and suppliers to make a profit, while public sector partners participate through their normal terms of employment.

Design Components – a successful voucher initiative (whether small or larger scale) considers the local context in some detail. This includes, but is not limited to, the following:

- **Align national policy/strategy** to be conducive to this type of continuous distribution model. If a voucher program is integrated with other keep-up strategies, clearly defined roles and precise targets should be set. At the early stages, establish strategies to ensure equitable access .
- **Establish or enhance the existing private sector networks** (potentially including appropriate commercial incentives) to ensure widespread and reliable supply.
- **For SMS vouchers, confirm existing GSM Gateways** (mobile phone network), as well as a reliable aggregator to consolidate messages from various networks. There must be sufficient coverage across the target implementation areas. This is essential to ensure seamless and effective interaction amongst respective market actors.
- **Ensure compatibility of software developer and server host** with country requirements and specifications, with the flexibility to make changes as



required. The system should allow external database management by authorized administrators and ideally provide the option for local oversight.

- **Recognize that coverage, use, and demand of LLINs in the specific local context** will impact targets and will require implementation of behavior change communications (BCC) activities designed to address the level of the target population's understanding and designed for the size of the program.
- **Mid to long-term exit strategies should be considered** from the outset, considering that one of the reasons for vouchers is the potential for cost-share and unsubsidized commercial sales. Planning should allow for reduced dependency on public funds over a suitable period of time (e.g. 10 years) as consumers gradually assume financial responsibility.

COST DRIVERS

- **Set-up costs** include platform development and initial IT support services costs. They are based on actuals paid to external providers; they do not include MEDA staff time and expenses dedicated to design, contracting, recruitment, travel, or training of technical personnel and clinic staff. In this regard, the training of technical and clinic staff cannot be underemphasized, as it is fundamental to adoption and successful operation of the eVoucher. In this instance, the eVoucher platform developed by MEDA in partnership with its software design firm, PeaceWorks, cost USD \$62,119 in initial external technical support. Early efforts involved trials using "long code" (dialing a full 10 digit phone number before entering access codes and data, which proved cumbersome to clinic staff and retailers), before arriving at the more convenient "short code" system now in place. As the platform has now been developed and is being fine-tuned during roll-out, the costs to start up a similar initiative elsewhere would likely be less.
- **Recurrent or running costs** (after set up) are dependent on a number of factors and may include, but are not limited to the following:
 - Ongoing technical support services
 - Server hosting and maintenance costs
 - Contracts with providers for bulk SMS services and short code operations.

Again, MEDA staff time and expenses are not included, but they remain significant due to the constant need for training.

An estimated 980 clinics and 645 retailers adopted the eVoucher and were executing transactions in October 2012, with rollout continuing during the following year. Clinic staff (including personnel that rotate in subsequent to the eVoucher launch) are trained on eVoucher operations according to a sequenced rollout plan, scaling up in high volume regions with good GSM networks. Retailers are trained by the supplier representatives, complemented by MEDA's trainers.

Additionally, ongoing project costs align with the costs expected from other continuous distribution models including:

- Salaries and associated costs
- HQ support
- International and local travel
- Equipment
- Utilities
- ...Etc.

The target demographics and therefore the total number of nets expected to be distributed through this mechanism will also affect the total budget as will the subsidy on the nets. Scale affords additional savings on a per net basis. The Tanzanian experience indicates that eVouchers require fewer staff to supervise after the initial training is done, and when market actors are comfortable in its usage. Resources can be focused on providing support and follow up on case-by-case performance. Recommendations for other countries will depend on other variables; e.g. knowledge of the market actors in mobile phone usage; willingness; and number of facilities to be covered. Running an initial pilot will assist in understanding the context-specific variables.

RESULTS

From its launch in October 2011 to October 2012 453,486 eVouchers were issued and 257,148³ of those were redeemed for an LLIN. As eVoucher systems were evolving during the October 2011 to January 2012 period, for costing purposes the analysis focused on actuals beginning in February 2012, when short code SMS became the norm. Analysis of the February-September period revealed a recurring IT cost of USD

³ The early redemption rate of 58% is likely to reach 62% on average for Year One. Though it is lower than the historical redemption rate for paper vouchers (about 70%), MEDA believes that targeted remedial actions made possible by the eVoucher real-time data will address this imbalance. These include: 1) sharing supply/demand data with suppliers to address stock outs; 2) follow-up with low performing clinics and retailers using real time data; 3) early detection of possible fraudulent activity; 4) active system monitoring to address network outages rapidly; and 5) proactive communication with market actors through system generated SMS on notification and resolution of issues



\$0.283 per voucher redeemed (exclusive of personnel, training, travel, LLIN cost, and NICRA) for these months; as redemption volumes climb, this is estimated to be USD \$0.27 per eVoucher redeemed for Year One. See table at right.

Redemptions of eVouchers are influenced by LLIN availability in the field, as up to 90% of redemptions occur in the first 24 hours after the eVoucher is issued. Retailer stock-out events in the field diminished as the pilot unfolded, contributing to the growth in redemption rates. From November 2012 through November 2013 a total of 860,000⁴ LLINs are projected to be distributed through eVouchers. As redemption rates rise and fixed costs are spread over a larger number of redemptions, error messages diminish, and volumes surpass 800,000 redemptions, it is expected that the cost per LLIN will fall to US\$ 0.20 per LLIN. A renegotiation of service provider contracts could lead to further savings.

Historically, it has cost US\$ 0.08 to source custom-printed fraud-resistant paper TNVS vouchers. The cost to distribute paper vouchers demands time from busy public health officials. MEDA's paper voucher redemption demands considerable investment in technology and staff time for verification and tabulation. MEDA budget projections demonstrate that savings of up to 7.5% on operational costs (relative to the operating costs of paper vouchers) may be realized once the eVoucher becomes established. These savings are attributed to: a) more targeted monitoring and field supervision; and b) savings on the processing costs of paper vouchers.

No savings or extra costs were reported by the retailers or the supplier / distributor of LLINs. However, MEDA is working on enhanced reporting capabilities (made possible by the eVoucher) that will provide early warning of decreasing stock levels at retail shops. Such information should lead to efficiencies in the supply chain.

Description	Annualized Estimate Year 1
Vouchers Issued	635,130
Vouchers Redeemed	393,781
Percentage redeemed	62% average in pilot year, trending up ward (72% in Dec. 2012)
Configuration / Startup Costs	
Software Design/ Support	\$43,880
Short code startup fee	\$2,000
Technical Consultancies	\$16,239
Total external IT startup costs	\$62,119
Recurring operating costs (annualized)	
SW server hosting	\$6,850
SW maintenance/ support	\$17,340
TCRA subscription (for short code)	\$ 3,000
SMS Gateway Management Cost	\$ 4,200
Voucher issuance	
No. Incoming SMSs @ TZS90/cy	cycle \$69,451 (TZS 90/SMS @ TZS 1600/\$)
Bulk SMSs sent (information broadcasting)	
No. Outgoing SMSs @ TZS40/cycle	\$ 5,418 (TZS 40/SMS @ TZS 1600/\$)
Total external IT recurring costs-Year 1	\$106,260
IT Cost per Net issued using EVoucher	\$0.270

Stakeholder Perspectives: Advantages and Disadvantages

Advantages and disadvantages presented by the eVoucher over a paper voucher are best understood from the perspective of key stakeholders.

TNVS key stakeholders in the commercial sector include:

- The manufacturer (A to Z Textiles), ICT service provider (Selcom)
- Retailers

⁴ The target is for the eVoucher platform to be responsible for about half of all LLINs distributed.



Public sector stakeholders include the:

- Implementing agency serving as TNVS
- Logistics manager and provider of the eVoucher platform (MEDA)
- Donors (DFID and USAID)
- NMCP as coordinator of malaria prevention activities and provider of direction per government policy
- Health facilities
- Beneficiaries

These advantages and disadvantages of the project are outlined in Figure 5 and are as follows:

Advantages

Decreased Voucher Liability

The paper voucher created a high level of potential financial liability since large inventories needed to be readily available throughout the country. Moreover, there was no practical way to enforce expiry of these vouchers, so funds had to be reserved for all vouchers in circulation – even those that would not return for many months or some that would not return at all⁵. The eVoucher automatically voids vouchers after 60-days, greatly limiting this liability. This is seen as a significant improvement by policy makers at NMCP, the donors and the logistics manager (MEDA).

Constant Stock of Vouchers

The paper voucher distribution process requires 8-16 weeks from the time vouchers are ordered at the printer to the time they arrive in clinics. The eVoucher channel allows clinic workers to issue vouchers on demand by sending a single SMS, thereby eliminating voucher order lead-time and voucher stock outs. The NMCP, its logistics manager (MEDA), donors, HF staff, and beneficiaries describe this as a key benefit. Further, the LLIN supplier can count on a more consistent and predictable demand for LLINs.

Ease of Use and Time Saved

To issue a voucher, clinic workers send an SMS containing two parameters: the code for the voucher type (infant or pregnant woman) and the beneficiary's clinic card number. Retailers send an SMS containing three parameters: the voucher redemption keyword, the voucher ID and the barcode ID of the net to be traded. The majority of HF workers and retailers interviewed were comfortable sending SMS messages and reported

⁵ MEDA records show that approximately 70% of vouchers issued are redeemed for a net. Therefore 30% of vouchers issued to beneficiaries are not redeemed.

the eVoucher to be an easier option since it required less paperwork and saved time.

Access to real-time data

The eVoucher channel provides valuable data about the voucher workflow that is not possible with paper vouchers including: the current status of a voucher (e.g. issued, redeemed); the location where each eVoucher was issued (by clinic) and redeemed (by retailer); and the number of vouchers issued and redeemed within a specific time period and location.

Nearly real-time data also provides control for fraud and misuse. eVoucher data (processed daily) can quickly determine how clinics and retailers are performing relative to baseline indicators. Performance issues and suspected fraudulent activities can quickly be addressed. The supplier can directly access information on eVoucher issuances by clinic to help monitor localized LLIN demand. In the future, a tool may make this available in nearly real time to donors and other stakeholders; currently it is downloaded weekly by the M&E manager to generate reports for stakeholders.

Quickened Redemption – The introduction of the 60 day expiry on the eVouchers is reported to have had a positive impact on quickening redemption of vouchers, with data showing that depending on the region, up to 70% of voucher redemptions occurring within the first 24 hours after issuance.

Improved Supply Chain Processes - The eVoucher platform gathers valuable information to improve supply chain processes. For instance, the number of vouchers issued by a clinic can be used to forecast corresponding retail demand so that inventories may be adjusted accordingly. Further, where demand grows rapidly, additional retail outlets may be enrolled by the supplier and added to the database as participants. Conversely, a precipitous drop-off in sales at a retailer indicates a lack of product and the need for immediate deliveries.

Disadvantages

Delayed network response

The eVoucher depends on reliable cellular signals to send the SMS, dependable processing of the messages by the local aggregator, and a stable computer server to act as host. A majority of the clinic workers and retailers interviewed reported initially experiencing some communication delays, caused by cellphone company service outages that lasted from just a few minutes to several hours (monitoring from May through October 2012). Introduction of short-code SMS in early 2012 speeded message transfer and reduced signal delays, addressing this issue, which was highlighted as a main



concern by stakeholders. While it is true that cellular networks are among the most reliable infrastructure systems in low-income countries, outages do occur. To the extent possible, MEDA monitors system lapses and feels that they are within reason relative to the benefits realized from the program.

When communications signals are delayed, it is likely that, as one nurse reported; clinic staff responds by offering a paper voucher as replacement. If this “duplicate issuing” occurs frequently enough, it is possible that data on number of vouchers issued and redeemed may be skewed.

Use of Personal Mobile Phone

The eVoucher system registers the cell phone numbers of individual health workers and retailers. Once registered, they are authorized to (respectively) issue and redeem vouchers. Some clinic workers reported challenges keeping the phone charged and suggested that a “project phone” would be preferable. However, this would limit the number of phones available at each clinic to issue vouchers and would also compromise the accountability associated with personal phones.

Human Error Issues

eVouchers depend on the accurate transcription of the voucher number to the health card by health workers and the accurate entry of that number by retailers. A few retailers reported receiving incorrect numbers and sending the beneficiary back to the clinic for a new voucher number. It is not possible (nor advisable) for retailers or clinic staff to void vouchers and therefore impossible to know how many such re-issued vouchers exist nor the impact of such duplicate vouchers on redemption rates.

60-day Voucher Expiry

The 60-day expiry feature, while positive in some respects (already described) has also resulted in expired vouchers. Some retailers reported receiving expired vouchers leaving them with no option except to send the patients back for a replacement. This not only requires the patient to queue for another interview but it also creates an additional burden for the clinic worker. Discussions with beneficiaries suggest that the main reasons for not redeeming vouchers include an inability to raise the TSh 500 when the voucher is issued, the distance from their home to the health facility and retailer, and the fact that nets can sometimes be out of stock.

Choice of nets under TNVS

While not an issue exclusive to the eVoucher, the color and size of nets offered under the Hati Punguzo program were generally considered undesirable by beneficiaries and retailers. Beneficiaries’ willingness to pay a higher top-up for a larger net in a different colour was unanimous across all interviewed. This issue will soon be addressed under the next phase of the TNVS wherein choice of nets will be re-established.

Stock-out of nets at retailers

Whether using paper vouchers or SMS technology, a voucher only has value if a LLIN is available for sale nearby. Retailer stock outs are described as a constant challenge for the program. While this issue requires relentless attention both in the case of paper and the eVoucher, with the SMS technology, real time reporting gathered from each retailer’s eVoucher SMS volume can facilitate prediction of stock outs and assist the supplier to take corrective action.

Comparison to Other Keep-up Systems

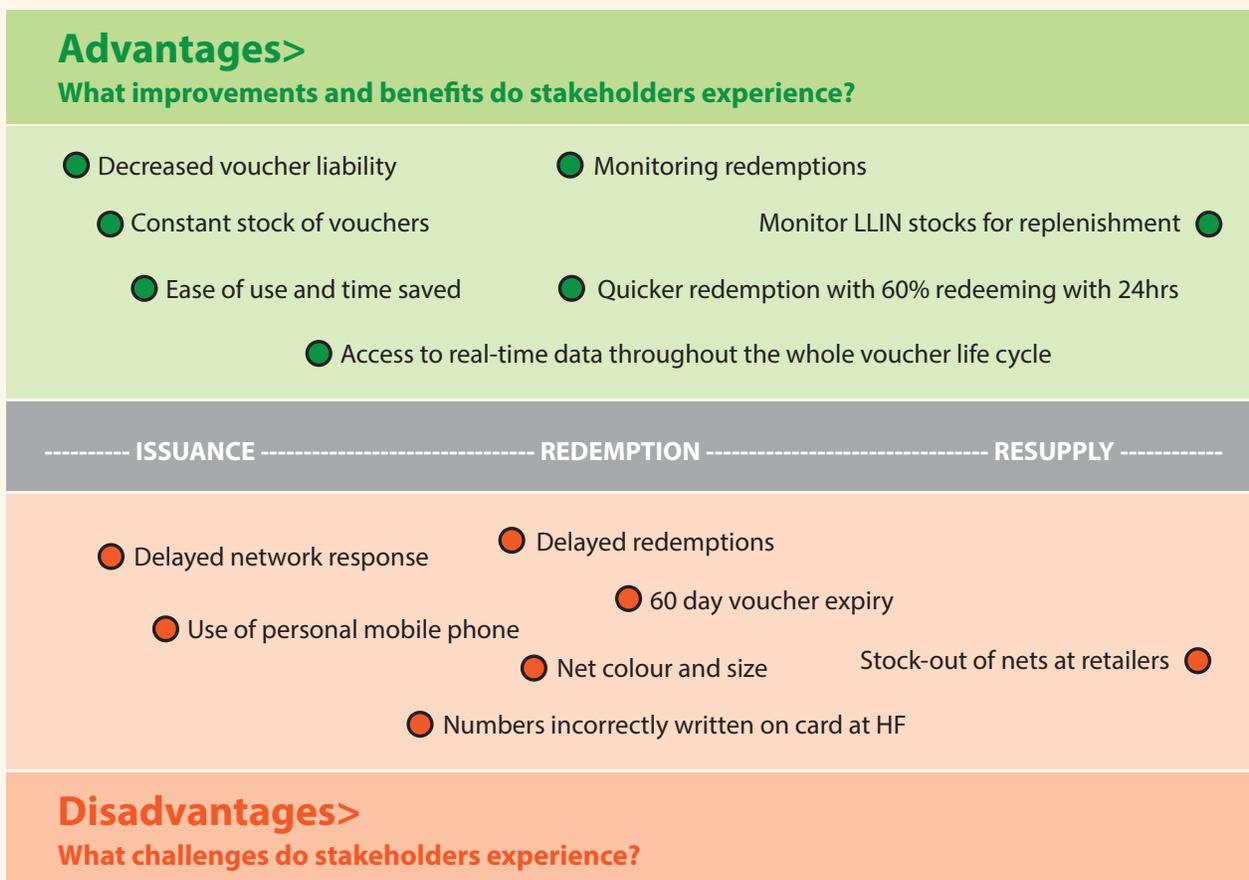
In July of 2011, the Swiss Tropical Institute commissioned a report to analyze various options that Tanzania could consider relative to maintaining the LLIN coverage it had achieved during the campaigns. This report concluded as follows:

“An ideal “Keep-Up” strategy, as defined through stakeholder meetings and in consultation with the NMCP, would maintain usage of LLINs by at least 80% of the general population of Tanzania and be equitable in terms of access to LLINs. It would additionally have minimal geographic and temporal gaps in coverage, so that spatial coverage is maintained over time throughout all communities, in order to provide a community protective effect. It would not oversupply nets to households or be excessively costly and burdensome to manage and administer. It would also put some degree of responsibility on households to acquire nets, either through effort (travel, self-registration etc) or through paying a small portion of the cost of the net as is currently done through the Tanzania National Voucher Scheme. The system would encourage fair competition among manufacturers to improve quality and reduce costs. In an ideal system a choice of nets (in terms of size, fabric and colour) would also be available to the consumer.”⁶

⁶ Tanzania Keep-Up Strategy Options: Options and recommendations for maintaining universal coverage with LLINs in Tanzania: 2012-2021 Final Report, July 31, 2011, Hannah Koenker, Josh Yukich, Alex Mkindi



Figure 5



A soon-to-be-published document of the USAID NetWorks project entitled “Developing evidence-based recommendations for private sector roles in continuous distribution systems for LLINs” describes its own list of ideal criteria for continuous distribution programs. The following chart summarizes the relative strengths and weaknesses of the eVoucher pursuant to these various criteria:

Criteria:	EVoucher strength / weakness relative to other keep-up strategies (such as direct distribution through ANC or community based distribution)
Maintaining coverage	Neutral – coverage is more influenced by the effectiveness of the implementation.
Equitability / Access	Neutral to weak
Geographic Coverage	Neutral

Reduce over supply of nets	Strong
Expense / burden to administer	Less burden for public health system; more complex (potentially more costly) than direct distribution
Beneficiary cost share / potential for sustainability	Strong
Improving access / widespread availability	Strong
Integration with public systems	Weaker
Demand creation	Strong
Multiplier effect (creation of multiple distribution channels)	Strong



Located directly across the street from Kilakala Health Centre, Ludovic is the proud owner of Nirosi Shop in Mafiga.

Prior to becoming a Hati Punguzo retailer 4 years ago, Ludovic sold about 5 to 10 SafiNets per day for about Tsh 6000 – Tsh 7000 each. Today he sells between 3–5 SafiNets and 10-15 Hati Punguzo nets per day. SafiNets sell for TSH 8,000 and his profit on each is about TSH 1,500, whereas he only makes TSH 500 on the program nets. Ludovic believes people would be willing to pay between TSH 6000 to 6,500 for the program nets if they could buy them without a voucher. When asked if he would continue to stock nets if for some reason the TNVS were to be discontinued Ludovic tells us he would but probably not the program nets since customers do not seem to like the colour, size and 'large holes'.

Ludovic reports that the eVoucher 60 day expiry limit has encouraged prompt redemption compared with the paper voucher. When experiencing system delays he keeps the customer's number for later follow-up and calls the TNVS hotline for assistance. Ludovic says:

“I like the SMS voucher because it is simple, vouchers don't get lost and it simplifies my work!”



Khadija is expecting her first baby when she visits the Mvomero Health Centre for the third time.

Khadija explains that she has two nets at home thanks to the Universal Coverage Campaign; one is used by her mother and the other by her and her husband. She was issued a PW eVoucher during her second ANC visit...the first time there was not a trained/registered nurse available. The nurse explained to her that along with the voucher, she would have to pay a top-up of TSh 500 at the retail shop to get an LLIN which would protect her against malaria and bedbugs. She further explains that she is about to go and redeem her net immediately following her check-up but that she lacked the required top-up after her previous visit.

Khadija tells us that she would still buy a net from the shops if the Hati Punguzo programme were discontinued though she would have a

preference for a white, 5 x 6 net for which she would be willing to pay up to TSh 3,000.



THE CONTEXT MOVING FORWARD

How practical is replication?

Implementing a Pilot eVoucher

The pilot eVoucher can be tested in a limited area during a single year as follows:

- Focus on a limited number of clinics (e.g. 20-100), linked to nearby retailers (50-200). Strong local cellphone connectivity is essential to minimize delays in eVoucher requests or eVoucher redemptions.
- Budget a limited number of LLINs (5,000 to 20,000).

Other key issues include:

- BCC strategy, targeting beneficiaries on increasing net usage, and market actors on service provision
- Appealing LLIN design(s), preferably with unique barcodes/numbers attached to nets
- Local shops selling, or keen to sell LLINs
- A local culture of net use
- Proximity to recent universal campaigns, as large scale free net distribution in previous year(s) can impact demand for voucher nets
- Sufficient consumer cash to pay cost-sharing top-up charge, if applicable

PROPOSED EVOUCHER PILOT ACTIVITIES OVER ONE YEAR MAY INCLUDE

Activity 1: Understand the new pilot context and make initial adjustments/tests on eVoucher software (2 weeks)

Activity 2: Field test software; import data for participating clinics and retailers; tweak software as required (5 weeks)

Activity 3: Organize and coordinate training sessions (1 week)

Activity 4: Conduct training sessions (2 weeks)

Activity 5: Host the system and maintain ongoing support and training as the pilot is executed (e.g., IT infrastructure needs ongoing cleanup of database, adding new clinic/retailer phones, deregistering

numbers when handsets are lost or attrition occurs, etc.) (9.5 months)

CONCLUSION

The eVoucher is the intuitive next step for TNVS as an effective strategy of maintaining high LLIN coverage rates among pregnant women and infants in Tanzania. Using mobile phone technology, it mimics yet streamlines the processes of the current TNVS paper voucher, making it significantly more user-friendly and, more importantly, decreasing liability posed by the paper voucher which cannot be “switched off” once issued.

The eVoucher expiry is expected to encourage timely redemption, thereby enabling maximum protection, assuming the LLIN is then also used. The co-payment mechanism anticipates an eventual reduction of the public sector’s cost burden over time while increasing ownership and empowerment within communities and strengthening the commercial sector. EVoucher adoption will continue growing as GSM network reliability improves and geographic coverage expands; paper vouchers will proportionally diminish in importance.

In the context of other keep-up strategies, the eVoucher is competitive. While it is comparable to other strategies on variables such as ANC delivery, maintaining coverage, and cost per net distributed, it can be considered to be stronger in terms of reduced burden on the public health system, demand creation for a co-pay mechanism, and improved accessibility and availability of the commodity.

A similar pilot implemented elsewhere may benefit from the expertise of TNVS’s logistics manager (MEDA), supplemented by technology providers (e.g. PeaceWorks, Selcom). Cost drivers including platform design and set up will be greatly reduced, possibly beyond the 7.5% cost reduction achieved vs. traditional vouchers, due to the TNVS eVoucher platform. Design elements will need to consider closely the issues of equity and a clear exit strategy.

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