Ten years ago Tanzania’s National Malaria Control Programme embarked on an ambitious endeavour to protect its population at high risk from malaria—namely, pregnant women and children under five. A multi-donor, multi-partner initiative was established to promote nationwide use of insecticide-treated nets (ITNs) and make them affordable, accessible and acceptable. The programme has massively scaled up the use of ITNs in Tanzania by increasing both demand, through mass promotion campaigns, and supply, by developing and supporting public-private partnerships for commercial distribution of ITNs. Since 2004, the Tanzania National Voucher Scheme (TNVS) has provided high-value vouchers, redeemable for ITNs, to pregnant women, and in 2007 an infant voucher was introduced. Between 2008 and 2011, two mass distribution campaigns of long-lasting insecticidal nets (LLINs) for catch up targeted at children under five years, and later for Universal Coverage, substantially boosted net coverage. Throughout this period, the TNVS has helped to maintain high coverage levels among the most vulnerable.

HOW THE TNVS WORKS

Through the TNVS, a pregnant woman receives a voucher at her first routine antenatal check-up, and a child’s mother or caregiver receives a voucher when the child is brought to a clinic for measles vaccination at nine months of age. The voucher can be used at participating retailers for a discount on the price of a long-lasting insecticidal net (LLIN). To promote equity, since 2009 the ‘top-up’ amount that the voucher holder pays is capped at TZS 500.

The TNVS began in October 2004 and was operating in all districts of the country by May 2006. Commercial ITN sales in Tanzania increased steadily from 2001 to 2007, reaching nearly 3 million units per year in 2007, when the infant voucher was introduced. Alongside this increase in sales, the proportion of nets bought with a voucher also rose, reaching 43% in 2007. As of 2011, TNVS vouchers support the purchase of 1.5 to 1.6 million nets per year in Tanzania.

The TNVS organizes the activities of many partners in a series of six steps (see Figure 1):

1. The logistics contractor, Mennonite Economic Development Associates (MEDA), procures and distributes voucher booklets to 135 District Medical Offices (DMOs).
2. Reproductive and Child Health (RCH) clinic staff receive new voucher booklets from DMOs in exchange for stubs of used booklets.

3 - 4. Beneficiaries receive vouchers from RCH clinics during health visits and exchange them for LLINs (plus top-up) at participating local retailers.

5. Retailers keep the TZS 500 top up, and redeem vouchers for more nets from the LLIN supplier.

6. The LLIN supplier returns exchanged vouchers to MEDA and are paid the value of nets by the Voucher Scheme system.

**INCREASING COVERAGE**

- The proportion of households owning at least one ITN rose from 23% to 39% from 2004 (when the TNVS began) to 2007. Use among children under five years (U5s) in mainland Tanzania increased from 16% in 2004 to 26.2% in 2007.
- In the 3-year period from 2009 through 2011, TNVS has made possible the distribution of 5.4 million LLINs.
- As of June 2011 the programme engaged 5,426 retailers and 4,428 Reproductive and Child Health (RCH) clinics nationwide.
- Voucher redemption rates have remained high even during the mass distribution campaigns. For the period January 2010 through June 2011, the Pregnant Women Voucher redemption rate was 77% and the Infant Voucher redemption rate was 81%.

**WHY TNVS?**

- The TNVS avoids the complex logistical problems of distributing bulky and valuable ITNs through an already over-burdened public health system.
- Using vouchers creates a predictable demand for ITNs in even the most remote corners of the country and attracts retailers to stock LLINs.
- The availability of the vouchers makes attending antenatal (ANC) or immunisation (EPI) services more attractive. More women come to clinics, and women come earlier in pregnancy because they desire nets.
- The system addresses problems of equity raised by a purely commercial distribution network that would charge prices too high for many potential customers.

**REASONS FOR SUCCESS**

- Development of an efficient and effective national supply chain of LLINs
- Helps to further develop and sustain the LLIN market by generating large demand for products
- Broad support for TNVS from all national and international stakeholders
- Integrated systems approach, with roles for public, private and NGO actors
- Almost 10 years of experience and expertise accumulated
- Consensus that vulnerable groups should receive a larger discount than the general population
- Separation maintained between where vouchers are distributed and where nets are redeemed
- Sense of ownership and value of the LLIN by the beneficiary is fostered
• The capped top-up rate, by promoting greater cost equity to voucher holders, helps ensure a high redemption rate, even following mass distribution campaigns (see Figure 2)
• Operates alongside behaviour change campaigns.

**CATCH UP AND KEEP UP**

Between 2009 and 2011 Tanzania implemented two mass LLIN distribution campaigns, seeking to achieve universal coverage nationwide. A total of 27 million LLINs were distributed in those campaigns. This ‘catch up’ strategy efficiently increased coverage and use of LLINs on a large scale, reaching previously uncovered parts of the population. However, the massive effort required by such campaigns makes mass distribution a tool that should be reserved for emergency situations, when levels of ownership and use fall below targets and ‘catch up’ is needed. Once target levels are reached, ‘keep-up’ distribution systems such as the TNVS are needed to maintain levels and so that households can cover new sleeping spaces and replace lost or worn-out nets.

While the TNVS has made great strides in increasing coverage among the most vulnerable, it is falling somewhat short of its full potential. The reasons for this provide good lessons to others planning voucher schemes.

Achieving the maximum potential of a voucher system requires attention to:
• Availability of vouchers at the DMO and clinic
• Willingness and ability of the intended beneficiaries to attend RCH clinics.
• Willingness of the clinic staff to issue the vouchers
• Willingness of the beneficiaries to accept and redeem the vouchers
• Willingness and ability of the beneficiaries to pay the top-up price
• Access to a participating retail outlet
• Availability of the LLIN in the retail outlet

**Figure 2. Price of nets and voucher redemption rates in the TNVS, 2005–2011**
EXPANDING BEYOND THE TNVS

Tanzania is fortunate to have a working ‘keep-up’ strategy in the form of the TNVS. Still, to maintain high levels of LLIN ownership and use, ways to distribute significantly more LLINs will be needed. These could include school-based distribution of vouchers and community-based distribution of nets.

Community Distribution of Nets or Vouchers

Another option is direct free distribution of nets (or distribution of vouchers) in the community semi-annually, quarterly or as needed to enable households to obtain nets to satisfy their ongoing needs.

School-based Distribution of Vouchers

Some 71% of all Tanzanian households (representing 84% of the total population of Tanzania) include a student, a pregnant woman or an infant. Thus, adding school-based distribution of vouchers to the current TNVS could ensure that a majority of the population would have access to vouchers at various points in time. School-based voucher distribution could consist of giving vouchers every year to students in ‘odd’ grades (i.e. 1, 3, 5 etc), and vouchers could be redeemed for LLINs at the same network of retail shops as for TNVS. This would allow nets to be shared with family members who are not of school age and would allow for replacement of the oldest net in the household as the student moves through school. This approach has a clear and simple identification strategy and wide household reach, and it could be clearly monitored. The programme could be managed locally through coordination with school health officials, school committees, and local health committees, with training and supervision provided by implementing partners, as has been done for other school-based health campaigns.