



A young pregnant woman sits under her new net / Photo: William Daniels

Briefing Note

Sustainable coverage of LLINs in Uganda

Everyone who needs a mosquito net should be able to get one. This requires access to reliable and sustainable delivery channels for long-lasting insecticide-treated nets.

In recent years, the Government of Uganda, with support from its development partners, has made great strides in increasing net coverage through mass distribution campaigns. Mass distributions are the most effective way of rapidly increasing universal and equitable access to long lasting insecticide treated nets (LLINs), reaching the poorest and most remote households.

Malaria Consortium supported the Ministry of Health through our Pioneer project to distribute LLINs in four districts of Mid-Western Uganda in 2009-2010. This was the first ever district-wide universal coverage (ownership of one net per two people) campaign conducted in the country and it succeeded in increasing the percentage of households owning a mosquito net in this area from 37 percent in 2009 to 92 percent six months after the campaign¹.

However, mass distributions alone are not enough to sustain high coverage. If additional nets are not made continually available following the distributions, net coverage begins to drop at a rate of 5-13 percent a year². It is important to ensure sustained high coverage of LLINs (and other control measures) to sustain the malaria control effect and achieve pre-elimination goals. In the case of the Pioneer distribution, after providing LLINs to 92 percent of households in the four districts, the ownership of nets had dropped to 78 percent 16 months later³.

The deterioration or loss of nets can vary between households, which makes it difficult to quantify the need for top up nets and to determine the timing of mass distribution campaigns to sustain high coverage levels. Although the cost per net distributed is one of the lowest through mass distribution campaigns⁴, the relative reduction in donor funding raises the urgent need for more sustainable and less donor-dependent approaches in the deployment of health interventions.

Making nets continuously available

For the high coverage achieved by mass distribution campaigns to be maintained, it is essential that continuous distribution channels are established. With the use of the NetCALC tool⁵, the NetWorks programme (of which Malaria Consortium is a partner) has explored the outcome of a combination of continuous distribution channels and strategies in improving and sustaining net coverage. The NetCALC tool helps to simulate and inform which combination of distribution channels can work best for specific settings.

Expected benefits of continuous supply of LLINs through various distribution channels:

- Multiple sources of LLINs
- Multiple opportunities for behaviour change communications
- Sustained high coverage
- Increased use of LLINs
- Decreased malaria incidence and prevalence and reduced malaria transmission
- Potential for increased net use culture

For instance, in Uganda, given the high attendance rates for the first ante-natal care (ANC) services as well as for primary school due to the Universal Primary Education policy, it is estimated that using **ANC (routinely) and primary schools (annually)** as channels for net distribution in combination with other routine services like immunisation programmes, would be sufficient to maintain high coverage over time after mass distributions. Another complimentary approach that could be explored is distributions through **existing community-based channels**. For example,

community leaders or Village Health Teams (VHTs) could identify people who need replacement nets and provide them with vouchers to obtain free nets at the nearest health facility.

Market support strategies can also be an additional effective way of creating demand for replacement nets through the private sector, while ensuring that nets are continuously accessible and affordable. While social marketing has proven to open doors for commercial market, it is not sufficient for developing a strong and sustainable market. Other market support strategies, which focus on strengthening existing distributors and manufacturers, need to be developed⁶. Research and market analysis are required to assess better how to engage the private sector effectively and develop sustainable approaches that encompass all sectors of the market and all stages of the supply chain, from the manufacturer to the consumer.

The expected benefits of various distribution channels can only be achieved if nets are **continuously purchased and supplied** to these channels. This implies developing sustainable ways of financing replacement nets, both in the public and in the private sector. Several areas should be explored to increase and sustain funding for LLINs. For instance, in the public sector, cost-savings in the distribution process can be channelled towards buying more replacement nets. In the private sector, greater involvement from prolific businesses in the country need to be encouraged both for short-term funding of free-of-charge or subsidised nets as well as for long-term investment in the LLINs market.

The need for a strong public sector

Leadership from the public sector is necessary to coordinate market-based distribution channels with public distribution channels, and hence ensure:

- equity of the various distribution channels
- better quantification of the nets distributed in the public sector (so as to avoid excess nets distributed for free)
- the establishment of mechanisms to create demand for nets in the market (followed by proper and consistent use of them) and facilitate the development of market-based distribution while free nets are still made available.

Key to maximising success of this continuous distribution approach is a **well-organised public sector** with effective supervision systems, good infrastructure to routinely maintain the supply, and funds for the storage and management of those supplies. Stakeholders need to engage in discussions, long-term investments and **logistics planning**. It is crucial that this planning includes the creation of common standards for the transport, storage and security conditions relating to net distribution and the establishment of an agreed **monitoring system**. An effective malaria control response requires strong stewardship by the Ministry of Health, effective cooperation between all programmes of the Ministry as well as government commitment and funding.

- In Tororo District, Malaria Consortium will pilot the use of multiple continuous distribution channels in Uganda. LLIN will be distributed through both ANC services and primary schools.
- A survey is being conducted in three districts will identify the scope of the current private sector for LLINs in Uganda and explore the readiness of the private sector to expand LLIN market and engage in keep up strategies with the public sector.

Findings from these projects are meant to inform national policy and the development of continuous distribution channels in Uganda to sustain the universal coverage expected to result from the current mass distribution by the Ministry of Health.

Using and replacing nets

Also critical for the success of a continuous distribution system is that all methods of distribution be accompanied by **effective behaviour change communication (BCC) activities** to increase and maintain acceptance and use of LLINs. Engaging communities to appreciate the benefits offered by LLINs to their welfare and livelihood, as well as making sure they know how to maintain and repair their nets could be achieved with appropriate BCC approaches. Multiple channels including mass media (radio, electronic and print), community mobilisation (such as drama groups) and interpersonal communication, can ensure that even the most remote communities are reached.

The success of these activities depends on the continuous involvement of political leadership at district level, District Health Teams, civil society organisations, VHTs, community development officers, local opinion leaders, District Education Officers and schools, as well as the training of health workers. Emphasis should also be put on innovative messages to create and increase demand for nets so that families who can afford to will buy them.



A woman receives her free net

"They gave us mosquito nets. But they are not enough; I looked for money from selling milk and bought two nets to add to the four I received from Malaria Consortium. My children go to boarding school with their nets. Since 2010, I have not been called to school because my daughter is sick. Therefore, my children do not miss school and the expenditure on malaria treatment has greatly reduced. I can now buy salt and soap, which I need for my daily life."

Janet Kabahinda, Caregiver, Mujjunza Village Kyankwanzi District

A mass distribution campaign, aiming for universal coverage, is currently taking place across Uganda, under the Global Fund Round 7 Phase 2. It is a critical time for all stakeholders to get involved and help ensure that continuous distribution channels are up and running in Uganda. This will ensure that all families are able to access nets whenever they need them, not only during the mass campaign.

Nets can only be made continuously available if:

- ➔ The Government of Uganda commits to financing a constant supply of LLINs to feed into continuous distribution channels through domestic funding, external funding and through the private sector.
- ➔ The Ministry of Health and partners engage in dialogue with the private sector without delay to create mechanisms that will ensure free and market-based distributions can co-exist.
- ➔ The Ministry of Health leads the coordination of NGOs and private stakeholders to develop a sustainable LLIN replacement strategy, including a constant LLIN supply, the development of multiple distribution channels (both public and private), as well as the implementation of a national social mobilisation and behaviour change communication campaign.
- ➔ The Ministry of Health and National Medical Stores collaborate to incorporate LLINs into the storage and supply chain management of all health commodities. Monitoring and evaluation systems also need to incorporate LLIN data so that the distribution can be tracked and monitored.
- ➔ Donors, implementing partners and private entities support the Ugandan Government through funding and technical assistance in the development and implementation of a long term strategy for continuous distribution.

Notes:

1. Kilian A., Odong D.S., Lumumba P., Nuwa A., Altaras R., *Achieving universal coverage with LLIN in Western Uganda, Evaluation of the mass distribution campaign in Buliisa, Hoima, Kyankwanzi and Kiboga districts*, Malaria Consortium, April 2011
2. Kilian A. et al., *Review of delivery strategies for insecticide treated mosquito nets – Are we ready for the next phase of malaria control efforts?*, TropIKA.net, 2009
3. Namara G., Ssekitooleko J., Nuwa A., Altaras R., Tibenderana J., Killian A., Counihan H., *Midterm evaluation of comprehensive malaria control and integrated community based case management with respect to child survival and health in Western Uganda*, Malaria Consortium, May 2012
4. See Kilian A. et al., 2009
5. In 2011, Albert Kilian, working for Malaria Consortium on NetWorks, created a user-friendly tool for predicting LLIN needs.
6. Kilian A., *Insecticide-treated nets: Balancing the roles of the commercial and public sectors. Case study of three countries in sub-Saharan Africa*, Malaria Consortium Learning Paper series, 2013

This brief has been developed under Malaria Consortium's Pioneer project
For more information: www.malariaconsortium.org/pioneer

Malaria Consortium is one of the world's leading non-profit organisations specialising in the comprehensive control of malaria and other infectious diseases – particularly those affecting children. Established in 2003, Malaria Consortium works in Africa and Asia with communities, government and non-government agencies, academic institutions, and local and international organisations, to ensure good evidence supports delivery of effective services for disease control.