The Malawi ITN Delivery Model

Delivering heavily subsidised Insecticide Treated Nets (ITNs) direct to pregnant women and children under five through antenatal clinics in Malawi has resulted in a dramatic increase in the coverage of malaria risk groups and will ensure that Malawi achieves the Abuja ITN coverage targets.

Working in Partnership to Achieve the Abuja Targets

The "Malawi model" has delivered over 2 million nets in the past two years, at an average consumer price of USD 0.5 per net.

Using data from two, independent, nation wide surveys coupled with sales data from the last five years it is possible to estimate that net coverage of under fives has increased from 8% in 2000 to 55% by December 2005. At the time of the 2004 survey, 70% of all nets had been reportedly treated with insecticide during the previous six months.

The success of ITN delivery in Malawi is based on coordinated partnership. National guidelines were developed which clearly define policies regarding target groups, distribution mechanisms and pricing. Commercially priced nets targeting urban/peri-urban communities are delivered through private sector channels whilst heavily subsidised ITNs targeting malaria risk groups are delivered through public sector antenatal clinics. The Ministry of Health provides leadership and overseas policy formulation and implementation. UNICEF, WHO, USAID, CDC and DFID provide policy input, technical support and/or funding and PSI provides distribution, promotion, accountability and training capacity on the ground and works through existing government infrastructure.

Effect of ITN sales on Malaria Risk Group Coverage

INDICATOR	HOUSEHOLDS WITH AT LEAST 1 NET	CHILDREN UNDER 5 PROTECTED BY A NET	PREGNANT WOMEN PROTECTED BY A NET
COVERAGE (2000)	13%	8%	8%
NETS SOLD (2000 - 2004)	1.6 Million		
COVERAGE (Feb 2004)	43%	38%	34%
NETS SOLD (Mar - Dec 2004)	1 Million		
ESTIMATED COVERAGE Dec 2004	60%	55%	50%

Process of Scaling Up

The details of the antenatal model evolved over a period of two years (2000-2001) during a pilot in three districts. It took 6 months (June-December 2002) to expand the model from three districts to a nationwide programme covering all 28 districts of Malawi. In that time 60 separate one-day training courses were held during which over 200 District Health Management Team (DHMT) staff and 1800 nurses were trained. All trained health staff received one free net.

Why Deliver ITNs Through Antenatal Clinics?

ACCESS:
Antenatal clinics provide efficient and direct access to the principal malaria risk groups (pregnant women and children under five).

ATTENDANCE:
Antenatal clinic attendance, at least once during pregnancy, is above 90% in Malawi and above 70% in most of Africa.

DISTRIBUTION:
Public health facilities are distributed throughout rural areas and are capable of securely storing large quantities of nets, which increases distribution efficiency.

PROMOTION:
The one-to-one professional consultation between nurse and mother offers an unparalleled opportunity for promoting purchase and appropriate use of ITNs.

TARGETING SUBSIDIES:
Pregnant women and children under five carry health passports which make it easy to ensure subsidy is targeted to vulnerable groups.

ACCOUNTABILITY:
Ensuring accountability is straightforward since reconciliation between stock and revenue can be done at any time at the health facility. Leakage of heavily subsidised nets to non-target groups is minimised.

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The Malawi ITN Delivery Model *(continued)*

Clinic staff sell ITNs direct to malaria risk groups.

Steps Taken to Introduce the Antenatal Model in a New District in Malawi:

1. Planning meeting between national and district level malaria partners.
2. Formation of district ITN committee (3 DHMT members, 1 district level partner (where relevant), 1 PSI representative.
3. DHMT training facilitated by PSI.
4. Training of all district nurses by DHMT.
5. Installation of a safe for secure storage of cash in each health facility.
6. Supply of 100-500 nets (depending on local demand) on credit to each health facility by PSI.
7. Establishment of routine monthly supervisory visits by at least two representatives of ITN committee to reconcile stock with cash, resupply nets, check records and adherence to procedures, provide materials and guidance for promoting purchase and appropriate use amongst malaria risk groups and answer any queries.

Regulations Governing the Antenatal Model

- Only pregnant women and children under five (carrying a valid health passport/ antenatal card) are eligible for the subsidised price.
- Only one net sold for each eligible health passport.
- Receipt issued for each sale and health passport stamped with date of purchase.
- A lack of reconciliation between stock and cash at the health facility leads to immediate cessation of ITN delivery. (This was implemented in less than 20 out of 400 health facilities delivering ITNs in a two year period).

Logistics for the Antenatal Model

The model required the following logistical support:

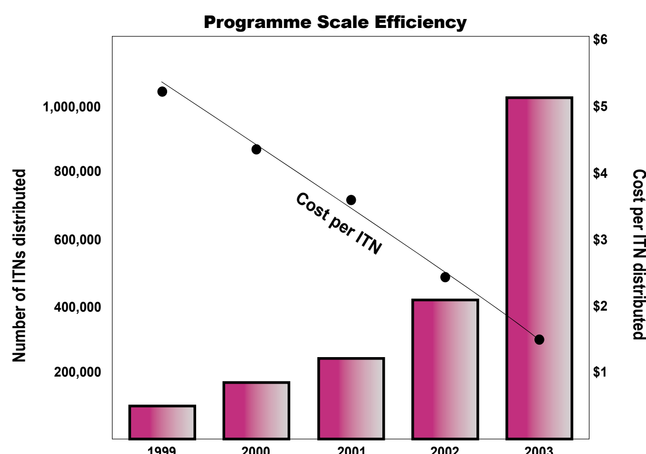
- 4 regional warehouses (shared with other health programmes)
- 2 dedicated 5 ton trucks
- 6 dedicated 4x4 vans
- 16 dedicated staff

Delivering ITNs Through the Private Sector Channel

Whilst green rectangular nets (preferred by rural residents sleeping predominantly on mats) are being delivered at heavily subsidised prices through the antenatal channel, blue conical nets (preferred by urban residents sleeping predominantly on beds) are delivered through the private sector channel. The private sector nets are sold at full cost recovery through appropriate wholesalers and retailers throughout Malawi. In this way, those who can afford it, can easily access their preferred net. This ensures that the subsidy is not wasted on those who can afford to pay, and harnesses the distribution efficiency associated with the private sector delivery channel.

Cost Effectiveness

The "Malawi model" is highly cost-effective. As the scale of the programme increased, the economic cost per ITN delivered dropped below $2 including commodity cost. (*Stevens et al. (Submitted)*).



Note: *Cost effectiveness ratios are calculated using economic costs, with all capital costs annualised and discounted at 3%*

Lessons Learned

- It is essential for sustainability that nurses view the programme as an integral DHMT activity
- A small fraction of revenue generated from sales is used for motivation. As a result nurses actively promote the benefits of nets to pregnant women during consultations which drives demand and leads to rapid coverage of risk groups.
- Instant cessation of ITN supply combined with reporting to District Health Officer, proved quite adequate disincentive for theft at health facilities.
- Delivery through private and public sector channels greatly improves overall programme efficiency and ensures effective targeting of public subsidy.

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