The Division of Malaria Control (DoMC) and PSI/Kenya run a programme that distributes long-lasting insecticidal nets (LLINs) through health facilities with almost no stock-outs. This is a rare and major achievement. The model used to achieve this combines a carefully designed supply chain with intense supervision and data collection. Integrating supply and supervision maximizes the productivity of the extensive dedicated field staff, increasing their cost-effectiveness.

**REASONS FOR SUCCESS**

- The DoMC adheres to a clear forecasting, procurement, and supply management process with reporting to the Vector Control Technical Working Group (VCTWG)
- A strong partnership among the government (DoMC, MoH, and other bodies), donors, commercial service providers, and a main NGO partner (PSI/Kenya), with all partners playing important roles in the procurement and supply management (PSM) cycle (see graphic at right)
- Forecasting that takes locally reported need into account and includes generous buffer stocks
- Good data management and data collection through dedicated channels in addition to the HMIS channels
- A dedicated fleet of delivery vehicles on the road throughout the year
- A dedicated supervisory team complementing MoH supervisors
- Demonstrated results that lead to continued donor funding

**The PSM system and partners involved**

The graphic above shows the process followed in Kenya from forecasting of numbers through distribution to clients and evaluation. At each stage the different partners involved are shown. The Kenya DoMC’s NGO partner is PSI/Kenya, which works closely with commercial transport companies and District Health Management Teams (DHMT). Donor support currently comes from PMI and DfID along with Government of Kenya (GoK) funding contributed through MoH involvement at a number of stages in the cycle.
THE MODEL

Making it work: the details

Forecasting
Forecasting is done annually in two stages. Population numbers, rather than predicted ANC/CHW clinic attendance, are used thus lowering the risk of stock-outs. Forecasts then are reviewed by each DHMT to allow them to adjust figures based on their local knowledge of need—for example, to allow for higher need where health facility catchment areas extend into neighbouring, non-programme districts. A new consignment of LLINs will be delivered only if the delivery and stock records are adequate.

Buffer stocks
Procurement figures include a 10% buffer stock. Some of this is retained in the national warehouse for redeployment when and where necessary. Regional warehouses store buffer stock equivalent to 2–3 months’ need.

Training
Training of staff involved in the LLIN distributions focuses on forecasting, data recording, re-order levels (some pull is allowed alongside the push system), and requirements for resupply.

Integrated delivery and supervision
Kenya’s approach of drawing on a range of partners’ strengths is exemplified in the delivery model. The MoH is happy to outsource this task. Plans to build up the capacity of the central medical stores (CMS) are on-going, but the unique bulk of LLINs means that integrating them into CMS would require a specifically designed component. The MoH has no plans to do this, being happy with the current, well-functioning system. PSI/Kenya oversees the distribution, from the central warehouse down to the health facility level. They work closely with a commercial transport company contracted to deliver from central to regional levels, and then hire commercial vehicles on an annual contract to move LLINs from the regional level to the health facilities. A PSI/Kenya staff member visits each health facility once a quarter as the nets are delivered. The staff member performs the following tasks:
- Delivers the new consignment of LLINs
- Collects data from the dedicated register on the previous quarter’s distributions to beneficiaries
- Performs QA on the data by cross-checking the ‘net register’ against the ANC and CHW registers and checking stock records against known deliveries and reported consumption
- Provides supportive supervision to distribution staff and on-the-job reminders when needed.

Looking forward
- Examining how the supply chain might include more of a pull component
- Improving quality assurance of the last step in the supply chain to ensure that all eligible clients are offered LLINs
- Considering sustainability and examining how and when the system may be linked to GoK channels. A pilot project to bring CMS into the supply chain has been conducted, and the lessons are being considered.