Tupange SMS Commodity Tracking System

Brief Overview

Family planning (FP) commodity security is an integral part of successful FP service delivery. Timely and constant availability of the entire range of FP methods in health facilities is essential in increasing family planning uptake and, in turn, improving use of FP and decreasing unmet need. Perennial stock-outs of FP commodities at facility level have been identified as one of the key factors that hampers effective service delivery.

In order to address these challenges, in collaboration with the Ministry of Public Health and Sanitation and the Kenya Medical Supply Agency (KEMSA), the Kenya Urban Reproductive Health Initiative, locally known as Tupange, developed and rolled out the Informed Push Model (IPM) for FP commodity distribution. Tupange is funded by the Bill and Melinda Gates Foundation and implemented by a consortium of five agencies, led by Jhpiego, in partnership with Marie Stopes Kenya, Pharm Access Africa Ltd, The National Council for Population and Development, and the Johns Hopkins Center for Communication Programs.

The IPM is a distribution model that relies on timely and good quality information to make resupply decisions. The data is provided through the Tupange SMS Commodity Tracking System (TSCTS), which uses mobile technology to transmit FP commodity stock status data to a web based platform. The data is then analyzed and feeds into the IPM to inform re-supply or re-distribution to facilities. The TSCTS is implemented in three project urban sites: Mombasa, Kisumu, and Nairobi. The program was awarded in 2009 and runs up to 2014.

Geographic Coverage:
Kenya

Implementation Partners:
Jhpiego leads a team of partners which includes: Marie Stopes Kenya | Pharm Access Africa Ltd | The National Council for Population and Development | the Johns Hopkins Center for Communication Programs

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Tupange SMS Commodity Tracking System (TSCTS)

About TSCTS
To ensure a consistent supply of family planning commodities and reduce stock-outs, Tupange introduced a web-based commodity tracking system which uses short text messages (SMS) to monitor commodity levels in Tupange-supported facilities, and to ensure that stock-outs are reported in time by facilities to ensure rapid restocking. The staff at health facilities are offered pre-paid phone credit and then use their personal mobile phones to send coded text messages in a specific sequence and format to the centrally automated system to report stock-outs. They immediately get a response, which created a sense of ownership of the system.

The SMS reports are used to quickly determine stock-out situations and the interventions needed, much faster than the manual system in which reporting forms are filled on a monthly basis. Reports on the new system are filtered to a web interface where users with can easily access and download data using a password. With almost instant reception of reports, the system has enabled quick and efficient response to FP commodity stock-outs; nearly all facilities on the system report promptly and on time whenever commodities run low.

A facility manager authorization is required in order for staff to report a commodity shortage. Additional commodities are supplied based on the report received. Physical inventory checks are done, and end user support is given.

Evaluation and Results
The technology has now been scaled up in Nairobi, Mombasa and Kisumu. As of December 2011, a total of 99 facilities were using the mHealth application. Improvements have been noted in reporting accuracy, indicated by a decrease in errors and unformatted messages being received. Some of the key results include:

- Real–time reports allow faster and informed decision making;
- Increased FP uptake due to availability of range of commodities;
- The system is user friendly, so the concept was easy to understand;
- Improved reporting rates have led to improved quantification, forecasting and redistribution/distribution thereby minimizing stock-outs;
- Increased reporting rates for stock levels in all Tupange supported facilities (currently at about 80 percent); and
- Timely reports allow staff time to react to potential stock-outs or overstock situations.

Lessons Learned
- Facility staff were overwhelmed with manual paper based reporting tools. An SMS report was easily embraced as it was seen as an efficient & time saving method for reporting data using current technology.
- The health staff rotations at the records office (in health facilities) were short and this left a challenge of data ownership and data quality in handing over. This was solved by increasing rotation period of staff shifts that improved data quality and made data more useful for decision making by the health facilities.

Conclusion
Overall, TSTCS provides a very good platform for monitoring and reporting stock-out of commodities to meet health population needs.

Information was excerpted from:
Tupange Newsletter, January 2012, Volume 1 Issue 2; www.tupange.or.ke;
PowerPoint presentation at http://www.slideshare.net/lenoyuga/tupange-sms-tracking-system-quick-pictorial-on-impact/download