

## eLMIS Bangladesh

IMPLEMENTATION DATE: 2014

### *Mobile alerts to increase reporting rates and reduce potential stock outs of family planning commodities*

The Government of Bangladesh has made noteworthy progress over the past decade in increasing access to family planning (FP) methods. From 2001 to 2011, the total fertility rate decreased by 23 percent (from 3.0 to 2.3 births per woman), the maternal mortality ratio decreased by 40 percent (from 322 to 194 maternal deaths per 100,000 live births), and the percentage of married women with an unmet need for FP decreased from 17 percent to 14 percent.

As part of the FP 2020 global partnership, Bangladesh has further committed to reduce the total fertility rate to 2.0 by 2016 and 1.7 by 2021 by increasing adolescent-friendly sexual reproductive health and FP services to one-third of maternal, newborn, and child health centers. However, ensuring uninterrupted availability of FP commodities is crucial to meet these targets. Though recording and reporting on stock levels is a critical component of the supply chain management cycle, the linkages between facility-level information and national-level program policies and plans have traditionally been weak. Thus, accurate forecasting of essential FP commodities remains a challenge.

### About eLMIS Bangladesh

Ensuring access to life-saving FP methods requires strengthening the national supply chain system so that quality products are available when and where needed. Since 2011, the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program, implemented by Management Sciences for Health, has been using a systems approach to increase availability of reliable and timely data for decision making in Bangladesh. Available

and accurate data is critical for making informed decisions on FP commodities, monitoring performance of the supply chain, and improving availability and use of products.

SIAPS developed an electronic Logistics Management Information System (eLMIS) that collects data on consumption and availability of FP commodities from all districts and sub-districts. Data from service delivery points

(SDPs) is consolidated and entered into the Supply Chain Information Portal (SCIP) that has an interactive dashboard presenting easy-to-understand charts, maps, and tables on stock levels throughout the country. By and large, it was assumed that increasing data accessibility would naturally lead end-users to review and act upon the available data. However, the program observed that even a visually-engaging dashboard with actionable data does not sufficiently guarantee effective data use at the local level.

To address this, SIAPS incorporated scheduled Short Message Services (SMS) features and email alerts in SCIP to ‘push’ data to users, producers, and their supervisors. This system generates SMS alerts, sent in the name of the Ministry of Health and Family Welfare (MOHFW)/ Procurement and Logistics Management Cell (PLMC), which are received by users who might not be using such systems or might be more attuned to a reactive model of addressing supply chain management failures rather than proactively preventing them. The alerts are sent in the following instances: (1) Action reminder - time to report; (2) Tracking report submission against timeline; and (3) Alerts for potential stock imbalance/stock out of FP commodities.

## Evaluation and Results

Increased facility level reporting rates contributed to informed decision making. Direct uploading of logistics data from the Upazila Inventory Management System (UIMS) to the web-based eLMIS has improved significantly: from 49 percent in February 2013 to 98 percent in March 2015. This on-time reporting has positively affected prompt decision making by managers at all levels.

Improved logistics information systems have also contributed to a more responsive supply chain. A pre-post analysis showed

a significant reduction in contraceptive stock out rates at sub-district levels (n=488) from 5.9 percent in August 2009 to 0.7 percent in December 2014. At the facility level, a reduction of stock-out rates for implanon was also observed, from 69 percent in August 2009 to 1.0 percent in December 2014. Finally, among SDPs, stock out rates for contraceptives reduced from 1.63 percent in February 2014 to 0.28 percent in January 2015 for selected sub-districts.

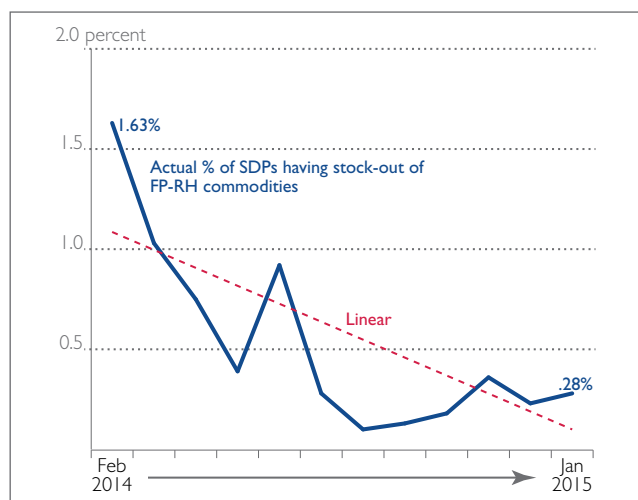
## Lessons Learned

- Policy makers are **proactively reviewing** the SCIP/eLMIS and tracking data in order to make evidence-based decisions that have a positive impact on the entire FP supply planning process.
- This push notification system has been **facilitating the transition process** for local managers from having a “data producing role” to employing a “data use culture”, thus improving decentralized decision making.
- This level of performance visibility also has **profound motivating effects** in terms of recognition of excellence and transparency.

## Conclusion

A systematic and functional national supply chain ensures availability of affordable, safe, and effective FP commodities, including contraceptives, at the point of need. This begins with sustainable, effective LMISs that make data accessible to managers, ensuring evidence-based supply planning of essential commodities. It is also crucial to analyze and share available information across systems and stakeholders for improved decision making. This mechanism ensures good governance and accountability and creates stronger partnerships among stakeholders. Improving coordination, governance, and LMISs leads to cost-savings, streamlined procurement systems, a responsive supply chain, and, ultimately, increased availability of FP commodities, saving the lives of women and children. ■

Figure 1. Percent of SDPs having stock-outs of FP-RH commodities between Feb 2014 and Jan 2015



**Geographic Coverage:** Bangladesh

**Implementation Partners:** Management Sciences for Health (MSH), through the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) project

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