cStock: A Sustainable Approach to Using mHealth to Support the Community Health Supply Chain

SC4CCM Project

SC4CCM is a learning project that identifies proven, simple, affordable solutions that address unique supply chain challenges faced by CHWs.

Unique Challenges faced by CHWs:

- Remote, rural locations, difficult geography:
  —transit to resupply points can be long and difficult
- Limited transportation options, often non-motorized:
  —such as bikes, foot, donkeys, public transport
- Low literacy among CHWs:
  —challenges in reporting, recording and submitting data
- Lack of infrastructure:
  —often no dedicated facility to work from
  —Limited storage space
- At the end of the supply chain
  —when there are shortages of essential medicines in the system CHWs often miss out on supplies

Malawi Overview

Country Context

- Heath Surveillance Assistants (HSAs) introduced in 1970s for health promotion and sanitation activities
- HSAs are paid cadre of MOH
- Community Case Management (CCM) was initiated in Malawi in 2008, HSAs in hard to reach areas provide CCM
- Currently over 3000 village clinics
- HSAs can manage up to 19 products for CCM, FP and HIV testing

Baseline Findings - 2010

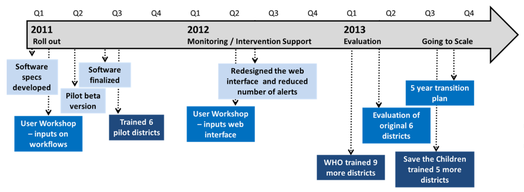
- Only 27% of HSAs had all CCM products* needed in stock DOV
- 43% of HSAs reported they submit a report containing logistics data to Health Centers (HCs)
- Only 13% of HCs reported HSA data separately from their own data to districts
- 94% of HSAs surveyed had a mobile phone, 85% had network coverage at least sometimes

*cotrimoxazole, LA1x6 and/or LA2x6, ORS

Part of Solution:

SMS-based system to manage reporting and resupply process: cStock

Pilot Timeline



cStock Development – 6 months
cStock Test Period– 15 to 18 months

Results

Product Availability

- 62% of HSAs had 4 tracer drugs* in stock DOV
- HSAs in districts using cStock and DPATs had 14% fewer stock outs or low stocks than other districts on DOV

Data Visibility

- More than 80% of HSAs report logistics data to cStock every month

Use of Data

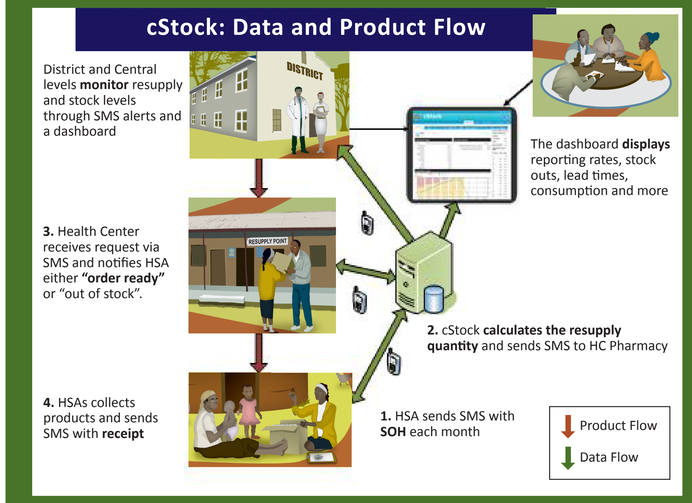
- 91% of Drug Store in Charges use cStock to inform resupply quantities
- 56% of HSA supervisors use cStock data for performance monitoring

Teamwork

- 100% of District & HSA Supervisors reported finding product availability teams useful
- 92% of HSA Supervisors know their recognition plan

*cotrimoxazole, LA1x6 and/or LA2x6, ORS

cStock: Data and Product Flow



District Product Availability Teams

In addition to cStock, SC4CCM introduced DISTRICT PRODUCT AVAILABILITY TEAMS (DPATs) that use the increased DATA VISIBILITY to improve performance

cStock Data Enhanced Management (EM)

DPAT/HPAT Meetings

- Quarterly District Meetings with District staff and HSA supervisors
- Monthly HC Meetings with HC and HSAs
- Topics include
  —Performance plans & recognition
  —Reporting timeliness & completeness
  —Stock management, expiries, overstocks, & product availability

Performance Plan

- Supply chain performance indicators & targets
- cStock data & resupply worksheets used to track performance
- Formal recognition system to drive SC performance
- Management diaries used to track issues & actions taken

cStock Data

WWW.SC4CCM.JSI.COM

Scale Up And Institutionalization

Partnering to Scale

- Important for sustainability as builds broader/joint ownership and capacity that lasts after project ends

Current Status of Scale up

- 29 of 29 districts have committed funding: 9 WHO, 5 Save the Children, 2 IWG, 6 SSDI, and 7 SC4CCM; as of Nov 2013, 65% of training coverage achieved

Operationalizing MOH ownership of the innovation package

- Formation of a **TASKFORCE** (MOH chair) dedicated to scale up and sustainability of supply chain innovations
- Finding **CHAMPIONS** in MOH by having central level advocates and trainers in every district
- **CAPACITY BUILDING** of MOH to provide management and leadership
- Development of 5 year transition plan

5 Year Transition Plan

A commitment to appropriate institutional support, maintaining key skills and capacity, and timely payment of system hosting and maintenance costs are critical for sustainability of an mHealth system.

Purpose

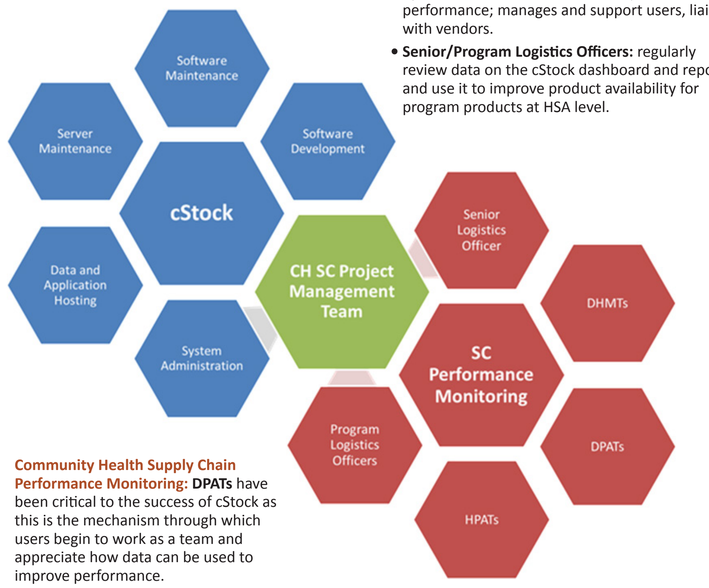
- Provide a structured and thoughtful process on what is required to **SUSTAIN cStock AND DPATS** for the next five years and set a strong foundation for this to become a core business practice for the MOH.
- Highlights **KEY CAPACITY BUILDING INVESTMENTS** required to address gaps in MOH institutional structures so that MOH is able to manage and pay for cStock at the end of the 5-year transitional period.

Current options for data hosting/software support for cStock:

- MOH does not have suitable infrastructure or staff at this stage to host or maintain cStock in house.
- Local capacity in Malawi to provide hosting services and/or software development is in emerging stages.
- There is potential opportunity in the medium term to leverage other systems within MOH for infrastructure support, e.g. DHIS2
- Current recommendation to maintain US based data hosting company and US based software development company

Project Management Team: to guide the transition, institutionalization and sustainability of cStock

- **Project Manager:** provide a strategic view and vision for the innovation.
  —Currently performed by project
  —January 2014 will hire a Secondee funded by IWG for 18 months
  —Secondee will work to provide a seamless transition for all processes to MOH designated person before the end of their term.
- **System Administrator:** monitors system performance; manages and support users, liaise with vendors.
- **Senior/Program Logistics Officers:** regularly review data on the cStock dashboard and reports and use it to improve product availability for program products at HSA level.



Community Health Supply Chain Performance Monitoring: DPATs have been critical to the success of cStock as this is the mechanism through which users begin to work as a team and appreciate how data can be used to improve performance.