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Using quality improvement approaches and teams to improve supply chain performance and availability of medicines among community health workers: Experiences from Malawi and Rwanda

Alexis Heaton

SALUD SECRETARÍA DE SALUD

Reproductive Health SUPPLIES COALITION 10 YEARS

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SC4CCM

Investing in proven strategies to improve community health supply chains is critical for achieving better health outcomes.

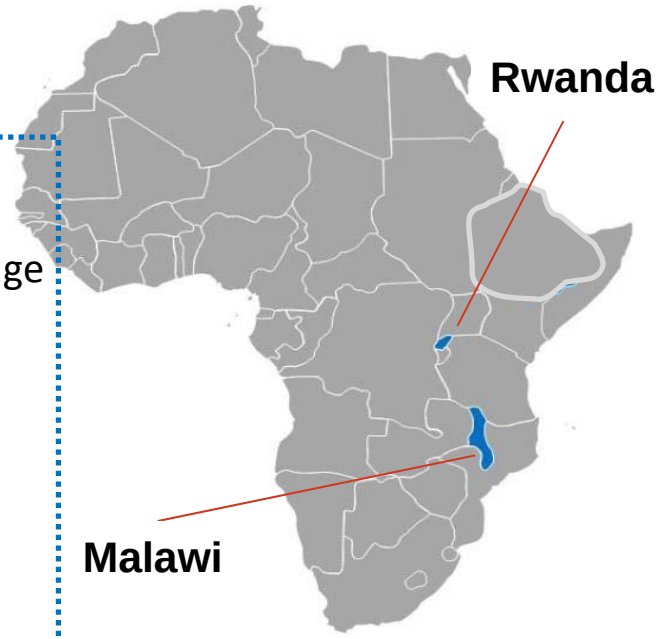
Community health workers (CHWs) are trained to treat people in their communities—where there is the greatest potential to save lives—but **supply chains cannot consistently deliver** the necessary medicines and products **to the community level**

Unique Challenges Faced by CHWs

- Remote, rural locations, difficult geography
- Limited transportation options, often non-motorized: such as bikes, foot, donkeys
- Low literacy among CHWs: challenges in reporting, recording and submitting data
- Lack of infrastructure: often no dedicated facility to work from
- At the end of the supply chain: when shortages of essential medicines exist, CHWs often miss out on supplies

SC4CCM identified **major supply chain bottlenecks** using baseline assessments and a Theory of Change, and **designed and tested** supply chain **innovations** over 12-24 months to improve **product availability.**

Baseline Results…



Baseline Results

- **27%** of HSAs who manage health products had 4 CCM tracer drugs* in stock on day of visit
- Poor HSA logistics data visibility with only **43%** HSAs reporting logistics data to HC

* cotrimoxazole, ACT 1x6, ACT 2x6, ORS

Baseline Results

- **49%** of CHWs who manage health products had 5 CCM tracer drugs** in stock on day of visit
- No standard procedures or formulas for calculating resupply quantities for CHWs
- Information flow **not aligned** with product flow; CHWs report to multiple places, but often not to their resupply point.

** amoxicillin, ACT 1x6, ACT 2x6, ORS, zinc

In both countries, results pointed to a **lack of CHW logistics data visibility** and **weak coordination** between CHWs, health centers (HCs) and districts as **barriers** to community level availability of medicines.

SC4CCM designed interventions in Malawi and Rwanda to empower HCs and CHWs to take positive steps to **improve resupply procedures** between levels and **supply chain practices.**

Though the interventions were different, there were five common elements:

1. **Common goal** to improve resupply procedures (RSPs) and community level product availability
2. **Teams** that consist of CHWs, HC and district staff
3. **Data used** for joint identification of problems, performance monitoring, and development of plans, with targets for improvement
4. **Structured approaches & tools** introduced for problem solving and developing solutions
5. **Recognition** and peer-to-peer learning for **motivation**

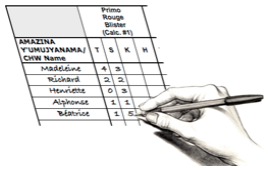
The interventions in both countries aimed to **streamline RSPs** and establish **data-driven, performance-oriented teams** with the **common supply chain purpose** of prioritizing **product availability**

In Rwanda, **Quality Improvement Teams (QITs)** were established at each HC, comprising HC staff and cell coordinators (senior CHWs), to use **CHW data to track and improve supply chain performance.**

District Coaching

QIT Monthly Meeting at HC:
CCs and HC staff to **reinforce use of RSPS**

CCs use **integrated supervision checklist** to collect data from CHWs



QIT develops action plan, implements, and reviews monthly progress

Monthly Resupply Process:
CC aggregates CHW data, gives to HC Pharmacist, and picks up orders for cell

Each QIT focused on **improving the use of RSPs**:

- Using data collected by cell coordinators to identify performance gaps
- Working to close gaps by testing activities, tracking performance over time, and maintaining effective practices
- Each QIT was supported by **district coaches** who helped problem-solve around supply issues and complex challenges
- Every **quarter,** all QITs in the district (~15) came together in **Learning Sessions** for peer-to-peer sharing and learning

In Malawi, **District Product Availability Teams (DPATs)** and **Performance Plan** initiatives **encouraged teamwork and motivation** aimed at improving **product availability.**

Enhanced Management (EM)

DPAT/HPAT Meetings

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

Performance Plan

- Supply chain performance indicators and targets
- cStock data and resupply worksheets used to track performance
- Formal recognition system to drive SC performance
- Management diaries used to track issues and actions taken
- Districts access cStock dashboard to track performance, give feedback

Tools Introduced

- ✓ Resupply Worksheet
- ✓ Management Diary

cStock Data

While improvements in supply chain process indicators were seen in ALL intervention groups, **only the two team-based interventions** showed **significant improvements in product availability.**

Midline Evaluation Results, Rwanda

Product Availability

- ✓ The QIT group had a significant increase in product availability at midline **- 63% of CHWs had all 5 CCM products in stock** on DOV, compared to 38% in comparison districts
  - While PA increased in the incentives group, it was not significant; **45% of CHWs had all 5 products in stock** on DOV at midline

Midline Evaluation Results, Malawi

Product Availability/Supply Reliability

- ✓ **62%** of CHWs had the 4 tracer drugs* in stock DOV (compared to 27% BL)
- ✓ DPAT district CHWs had **significantly lower mean percent stockout rates of 6 iCCM products** (5-7%) than CHWs in cStock only districts (10-21%)

*cotrimoxazole, ACT 1x6 and/or ACT2x6, ORS

Based on these results, and an analysis of qualitative data from both countries, we validated that the five key elements of both team approaches were instrumental in improving product availability

Operationalizing effective teams

1. **Common goal** to improve RSPs and community level product availability

2. **Teams** that consist of CHWs, HC, and district staff

Establish **teams** and promote a **team mindset;** teams should:

- Develop a common goal and mission
- Have membership across SC levels and programs – linking program and supply chain staff at CHW, HC and district levels
- Recognize clear roles and responsibilities for all members
- Understand how to set goals and track performance

3. **Structured approaches & tools** introduced for problem solving and developing solutions

Clear **guidelines** on how to conduct effective meetings; teams should be able to:

- Set agenda and document meeting
- Incorporate use of data, performance monitoring, action planning, tracking progress into meeting agenda

Operationalizing effective teams

4. **Data used** for joint identification of problems, performance monitoring, and development of plans, with targets for improvement

Teams should use an **evidence-based** approach to performance improvement supported by:

- A clear source of data and simple tools
- Structured approach to using data to identify challenges, solving problems and tracking actions for supply chain improvements
- mHealth systems can help provide data easily and rapidly

5. **Recognition** and peer-to-peer learning for **motivation**

Teams need consistent **reinforcement** from **district** level

- Participation in meetings and responsiveness from district staff to help solve problems that CHWs or HCs cannot address alone, especially around product availability
- Feedback on performance and opportunities to share experiences with peers

Example of the Team Approach in Malawi

In **Malawi,** CHW Supervisors capture data reported via cStock on resupply worksheets (RSWs). During the HPAT meetings every month, without any additional analysis, RSWs can be easily used to track reporting rates, lead times and emergency orders so that the CHW-HC team can discuss where gaps in performance exist and how to improve them. HCs maintain a management diary, where follow up actions are noted and referred to at the following meeting.

What have been the benefits of cStock and DPAT?
"There has been a major achievement with product availability for HSAs, I would stand up and clap about this. cStock has motivated me. Before the HSA Supervisor and In-Charge would just call to ask about drugs. Now, cStock gives us a clear view of what is happening and addresses the challenges that we have. It helps us know what to supervise and the targets we should meet because of the DPAT meetings that we have. Due to this, our performance has increased." ~ CHW Supervisor, data gathered during endline evaluation in Malawi (2014)

Why Invest in Teams?

- Teams can be very **motivating** especially for CHWs who often feel isolated and disconnected from the overall health system
  - Recognition was important in helping them realize the important role they played in ensuring products were available to clients
- Teams can help create a **culture** focused on **continuous improvement**, thereby pushing **performance** to the next level
- Teams are needed for **significant improvement** in SC indicators like PA which are affected by a variety of factors and rely on alignment of product and information flow between multiple levels

Teams, with common objectives, can improve **relationships, trust and collaboration** and **open communication** channels across and between levels, which has spillover benefits across programs and interventions

Conclusion

CHWs are at the last mile of the health care delivery system and supply chain, are often not highly skilled, so establishing teams with these **five elements** offers a **people-centered approach** for significantly improving supply chain practices and outcomes.

However, **quality improvement teams** are resource intensive and hard to sustain and therefore not worth investing in unless policy makers and decision makers can commit to **sustaining support** throughout the whole team establishment and evolution process.

Thank You

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Supply Chains 4 Community Case Management

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