



**GLOBAL  
HEALTH**  
SUPPLY CHAIN SUMMIT



# cStock Kenya: Designing strong supply chains for community health programs

**Gertrude Muchibi**  
**John Snow Inc/inSupply Health.**  
**Junior Supply Chain Analyst**



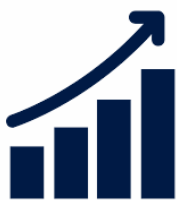


# About inSupply

**inSupply Health**, an affiliate of JSI Research & Training Institute, Inc., is an independent supply chain advisory firm based in East Africa that provides our clients with customized guidance on supply chain management and design.



## We specialize in



Developing supply chain **maturity strategies**



**Building organizational capacity** for supply chains



Designing and implementing **data-driven, optimized** supply chain systems



**Forecasting** health commodity needs



**GLOBAL  
HEALTH**  
SUPPLY CHAIN SUMMIT

# Background



- Community health workers or volunteers (CHV) play a critical role in reaching remote communities with preventive, promotive and curative services
- Harnessing their potential is key in achieving universal health coverage
- Inconsistent supply and shortages of health commodities continue to hamper the success of these programs
- In Kenya, JSI, in collaboration with Ministry of Health and Siaya County, has been implementing the cStock approach since April 2017 with the ultimate goal of reducing stock-out of integrated community case management (iCCM) commodities

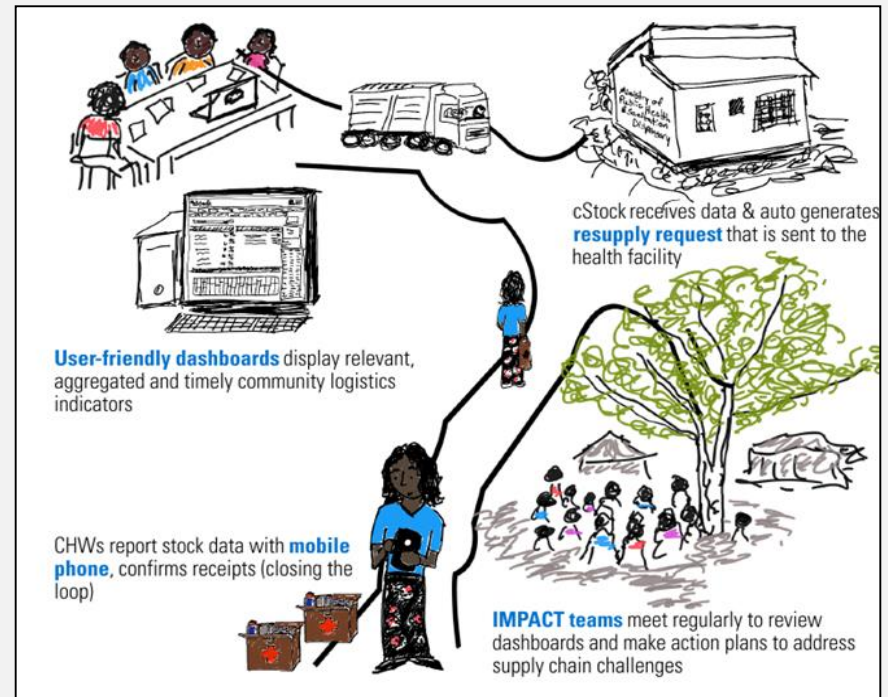
# cStock Vision and Approach



A simple tool that is feasible and acceptable to CHVs

*and*

Provides real-time, actionable CHV supply chain data for supervisors, store managers, and stakeholders to resupply, coordinate, plan, and identify solutions to ensure life saving commodities are available to CHVs at all times

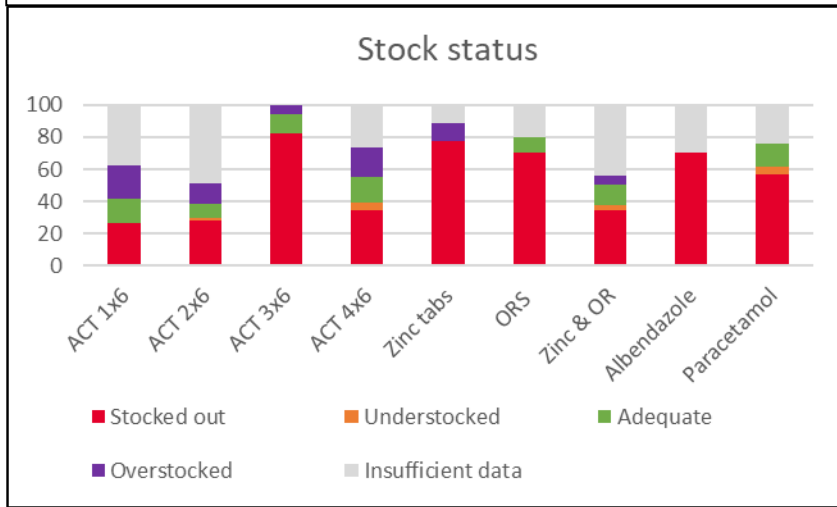
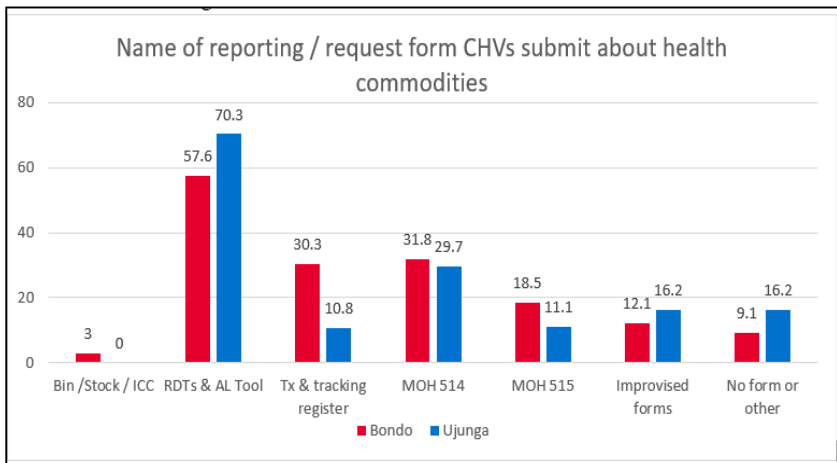


A supply chain strengthening approach for community health programs that combines simple resupply procedures **using mobile technology** with **user-centered dashboards**, and **IMPACT teams**



**GLOBAL HEALTH**  
SUPPLY CHAIN SUMMIT

# Key Baseline Assessment Findings



## Lack of standard logistics records and reports –

- ≈ No standard way to track CHV stock balances or for CHV supervisors to calculate CHV needs and order appropriately
- ≈ Only 52% of CHVs had consumption data available on the day of visit

## Supply imbalances for all commodities–

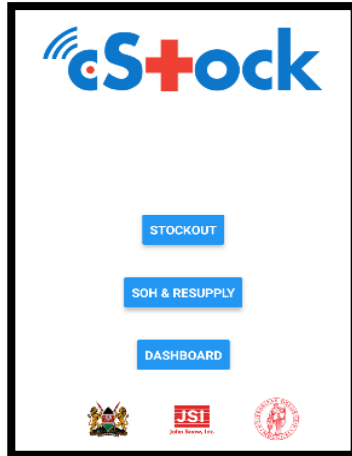
- ≈ Only 65% of CHVs had three critical child health products on the survey day and 82% had experienced a stock-out in last 30 days
- ≈ Some CHVs stocked out, while others are overstocked
- ≈ Only 13% of CHVs had all four antimalarial presentations. As a result, adults sometimes were treated with pediatric doses and vice versa



# cStock Platform

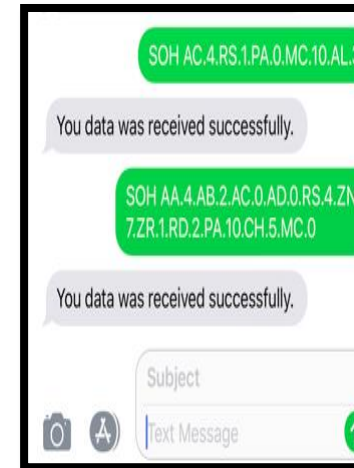
**Built in DHIS 2 to allow easier integration with other platforms and ensure scalability and sustainability.**

## APP VERSION



- Data can be captured offline and submitted when there is internet access
- The platform is free for the users. JSI gets billed at the end of the month from the traffic to the platform

## SMS VERSION



- CHVs without internet access are able to send their reports every end month
- CHVs are not charged when sending the SMS report
- Data sent via SMS integrated with data sent via App and all data available in DHIS 2



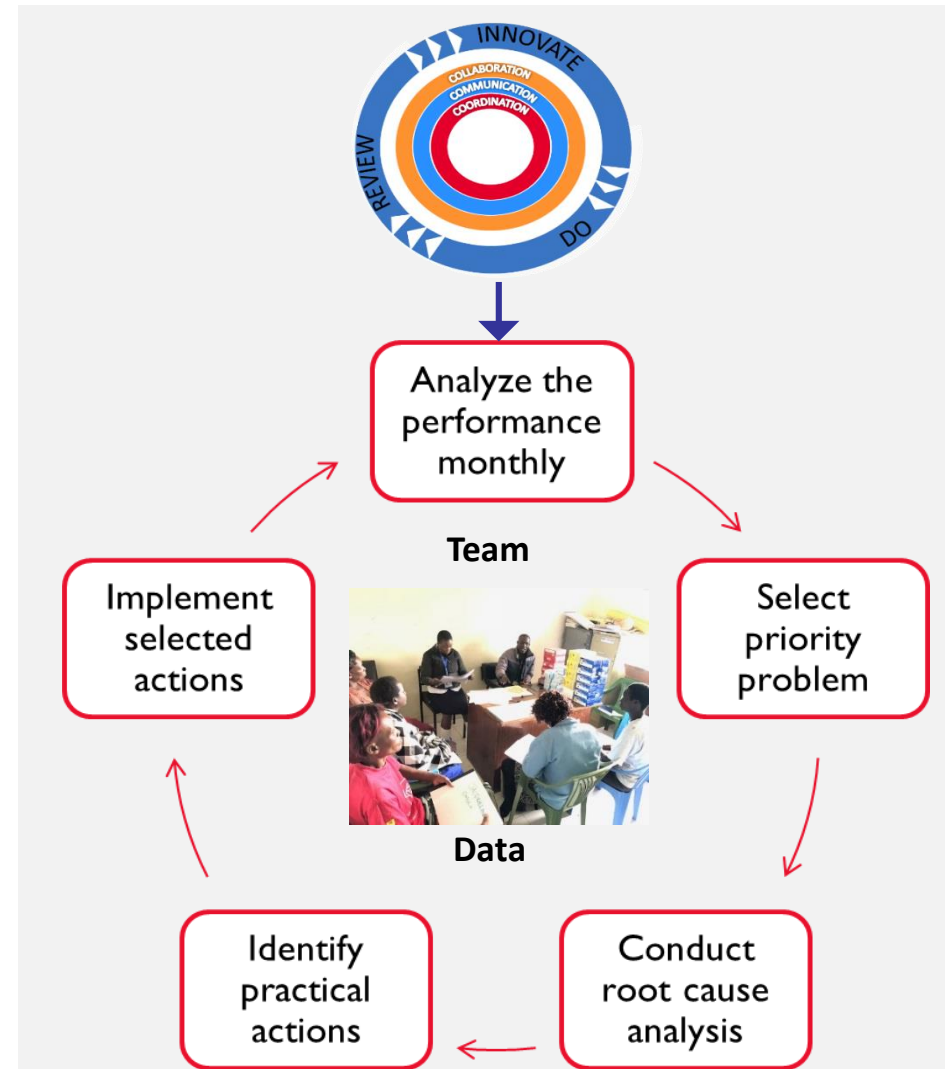




# IMPACT Team Meetings

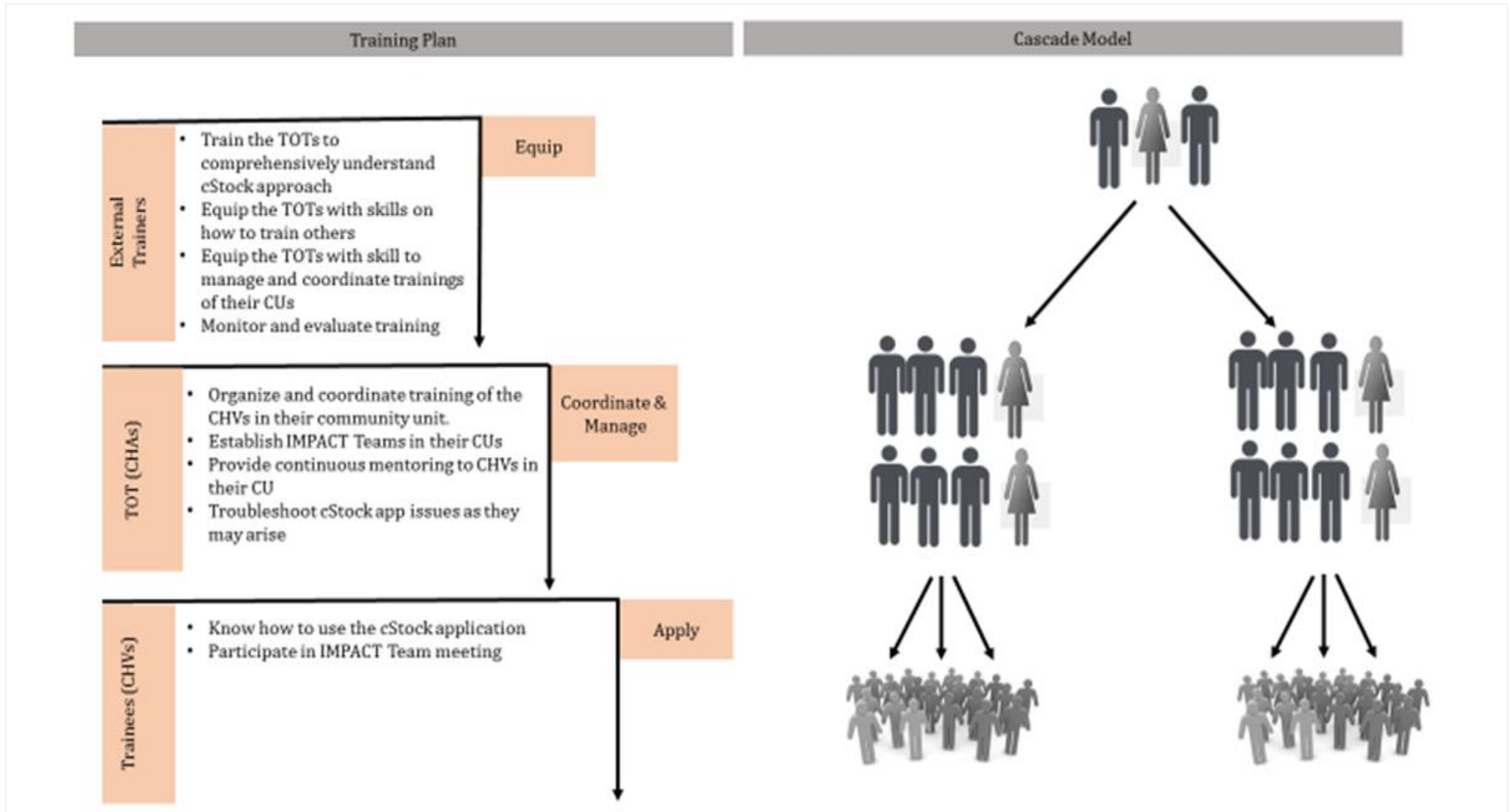
A system of interconnected teams, made up of people across functions and disciplines who meet routinely and are:

- Trained to **develop, interpret and set targets** for key supply chain indicators
- Use action-oriented dashboards
- Encouraged to follow a **structured, problem-solving** process
- Empowered to use their data for **operational and strategic decisions** with ultimate goal of improving the performance of their supply chain





# Roll-out of Intervention





**GLOBAL  
HEALTH**  
SUPPLY CHAIN SUMMIT

# Feedback from Roll-out of cStock

Trainers were **competent** (received over 80% in final test) and encouraged to be **supportive**

CHVs appreciated the **decentralized** approach as their supervisors were trained to train them



**CHV Monthly Tasks**

**Reporting: Complete your reports by 28<sup>th</sup> of the month**

1. Tally how much dispensed on the Treatment and Tracking Register
2. Conduct a physical count of your commodities
3. Complete the inventory control card
4. Send your Stock on Hand data to cStock via SMS

**Resupply: Collect your commodities by 5<sup>th</sup> of the month**

1. Receive order ready message from CHA to collect health commodities
2. Travel to meet with the CHA to collect health commodities
3. Submit a CHV Receipt to cStock during their IMPACT Team Meetings when they receive commodities
4. Record opening balance and then quantities received on the inventory card

CHV Monthly Health Commodity Reporting

10

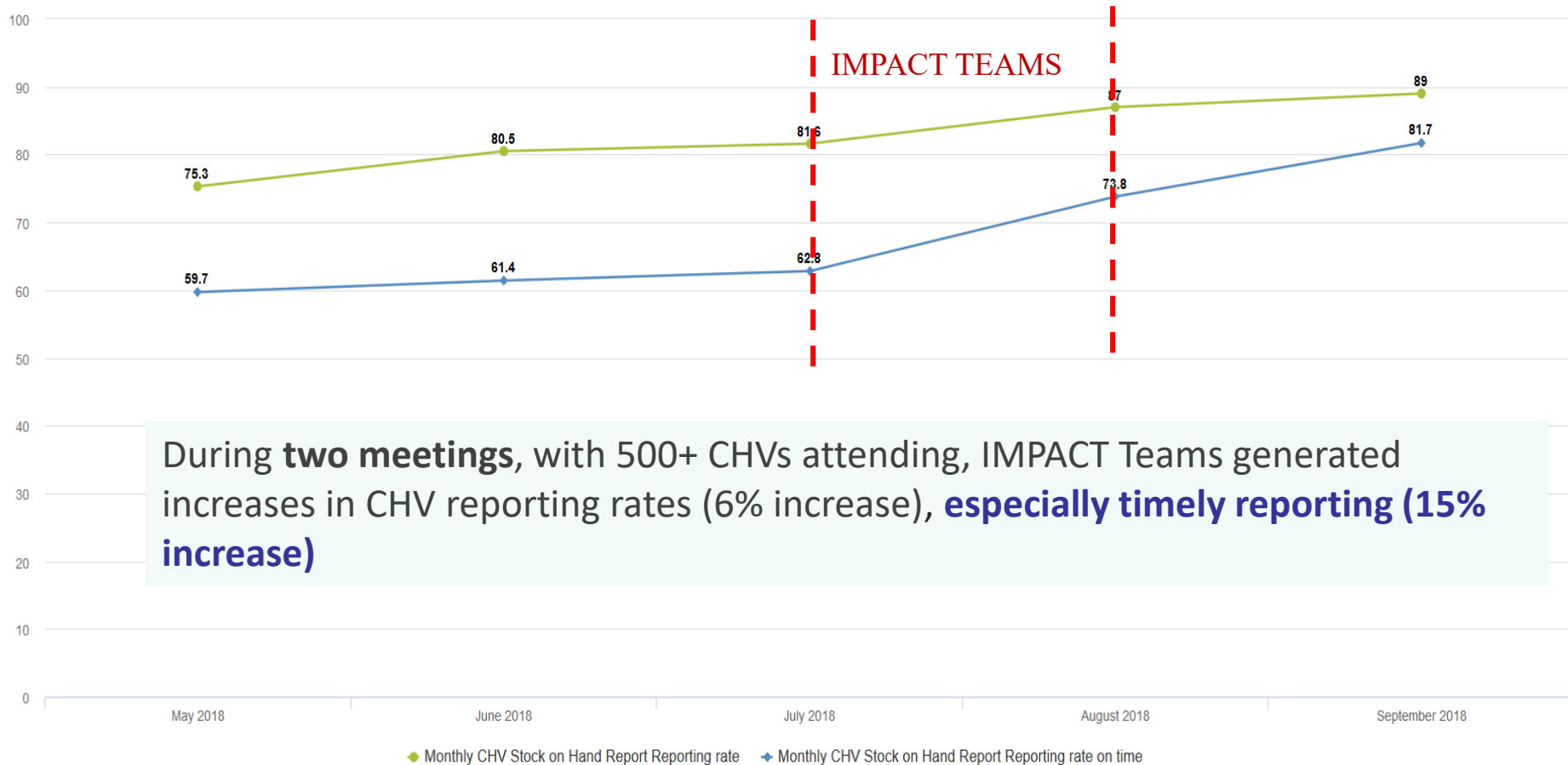
Training materials including handouts, job aids were appropriate, written in **simple** English and easy to follow steps with **pictures** for direction

Follow-up after training by the JSI team and the supervisors helped in addressing challenges with the application



# Gradual increase in reporting of logistics data

County Reporting Rates Over Time



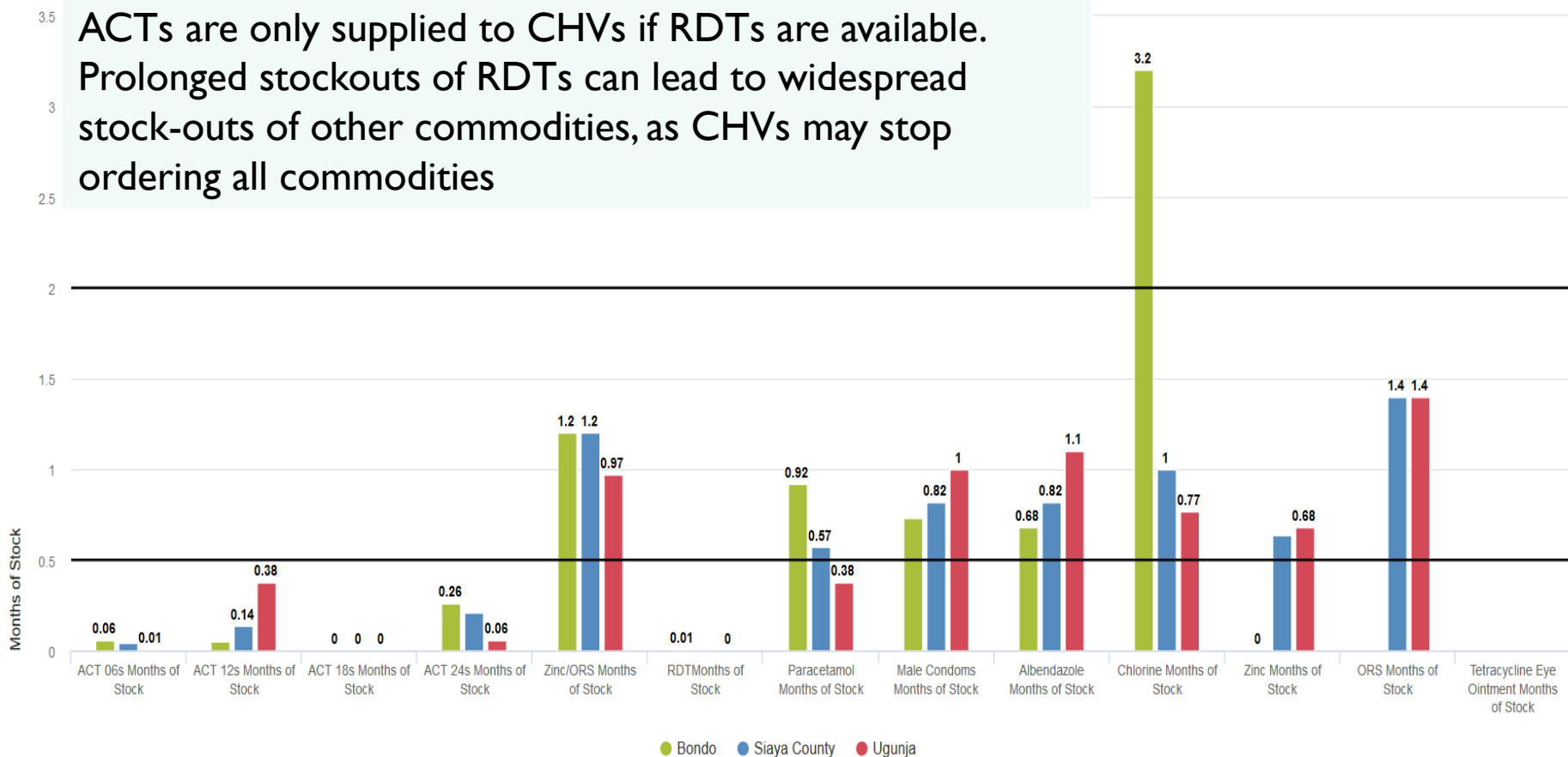
During **two meetings**, with 500+ CHVs attending, IMPACT Teams generated increases in CHV reporting rates (6% increase), **especially timely reporting (15% increase)**



# Stock-outs and Stock Status of Commodities

County Monthly Stock Status  
October 2018

ACTs are only supplied to CHVs if RDTs are available. Prolonged stockouts of RDTs can lead to widespread stock-outs of other commodities, as CHVs may stop ordering all commodities





# Lessons Learned

- Do not just automate existing tools; redesign the system and processes to streamline and increase efficiency
- mHealth technology should be human-centered and flexible enough to utilize available technology of the end-users rather than providing new hardware
- Consider and pursue trade-offs on using open-source solutions such as DHIS2 over building custom solutions, using sustainability and scalability as important criteria from the start of the development phase
- Have simple dashboard with easy-to-interpret, actionable visuals customized to different user groups
- Technology alone does not yield the benefits; develop a culture for users to value and use data through IMPACT teams



# Key Messages

- Preliminary results suggest that the cStock approach provides a feasible, acceptable, and effective model for community health supply chain management
- cStock is an affordable and scalable supply chain tool that can be combined with simple processes and procedures that provide visibility and strengthen data use to improve availability of life-saving commodities
- The overall supply chain must be agile enough to fulfill community level orders and provide adequate commodities; cStock can help transform reporting, resupply and supply chain management, but full benefits of reducing stock-outs and saving lives requires a reliable supply



# Contact Us

## Q&A

[gertrude\\_muchibi@ke.jsi.com](mailto:gertrude_muchibi@ke.jsi.com)

## Thank you!

[insupply@jsi.com](mailto:insupply@jsi.com)

[www.insupply.jsi.com](http://www.insupply.jsi.com)

Twitter: @inSupplyJSI

Newsletter: [supplychain@jsi.com](mailto:supplychain@jsi.com)







# Our Partners



MINISTRY OF HEALTH



Aura Safira Consulting



A PARTNERSHIP OF



**USAID**  
FROM THE AMERICAN PEOPLE



Norad

BILL & MELINDA  
GATES foundation



Grand Challenges Canada®  
Grands Défis Canada



**KOICA**  
Korea International  
Cooperation Agency



# Thanks to our generous sponsors

