Supply Chain Alternatives for the Last Mile Equity (SCALE)

FINALIST

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Introduction

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George Okello is a Senior Supply Chain Analyst with inSupply Health. He has a background in pharmacy and and health systems strengthening supporting the MoH to build, test and refine innovations in their tools and Data management approaches to guide Public health supply chain systems improvement in in Kenya

Joyce Owola is a Supply Chain Analyst with inSupply Health.She has a background in Pharmacy practise with over 10 years experience in both private and public healthcare sectors engagement..

Overview of presentation

- inSupply Health: Who we are

- Overview of SCALE Project

- Approaches used in SCALE implementation

- Measuring impact

- Changes made during implementation

- Challenges experienced during implementation of SCALE

- Achievements

- Longer term sustainability of the project

inSupply Health Limited

Our mission

Transforming lives by co-creating innovations and

sustainable solutions for health

Our Vision

Our vision is for communities to set health prioritie…

collaboratively design solutions for health challenges,
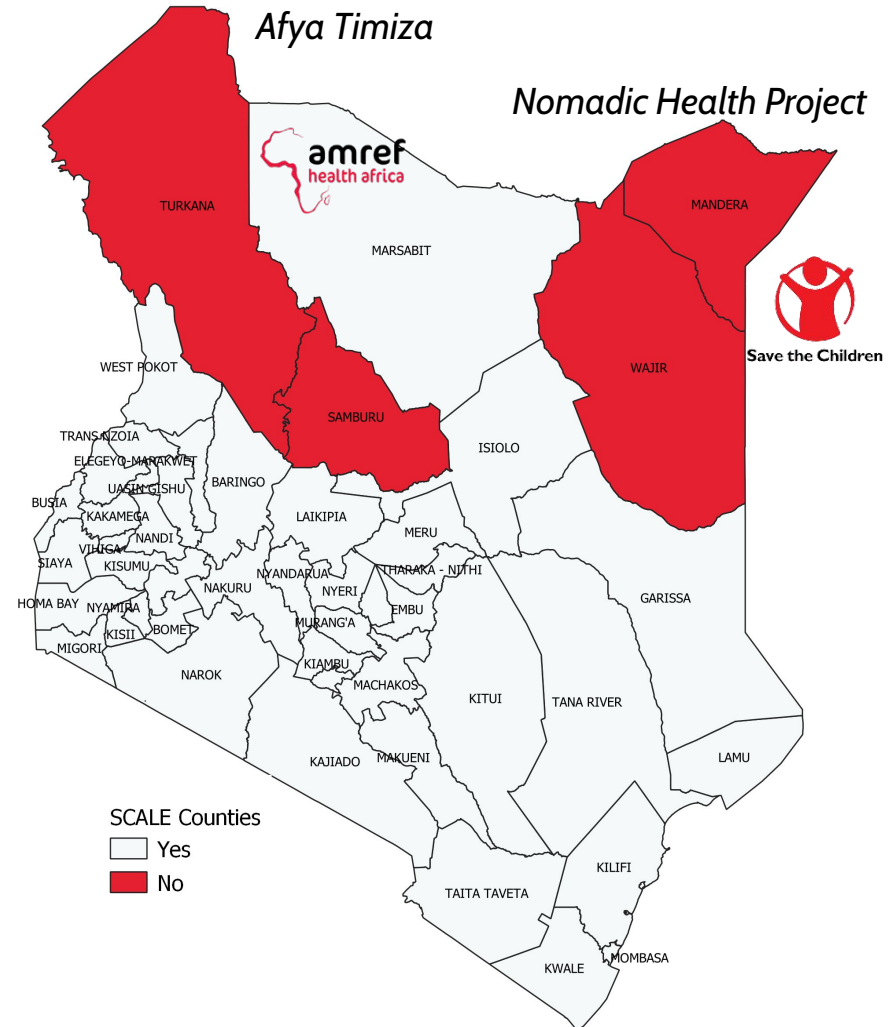
shaping their own healthy futures

Our Value add

- Global perspective, localized

- Empathy at the core

- The process is innovation

Overview of SCALE Project

inSupply implemented SCALE in four ASAL counties to address inequity in access to health commodities in 4 ASAL counties.

Afya Timiza

Nomadic Health Project

SCALE Counties
- Yes
- No

Challenges in the ASAL Counties

- Unreliable and absence of supply chain procedures and processes for resupply of commodities to CHVs
- Nomadic nature of the communities:
  - No structured way for resupply during migration seasons
  - Likely to experience stock outs if they are not near their linked health facilities
- Other ASAL community challenges
  - Poor health seeking behavior
  - Low literacy levels
  - Vast distances between health facilities
  - Inadequate human resources to serve the communities

SCALE adopted Human Centered Design (HCD) redesign cStock and ITs for nomadic contexts and communities

What it involved

Undertook a 6 month HCD process that involved:

- Conducting research,
- Generating insights and personas,
- Ideating and prototyping with stakeholders from all levels of the system
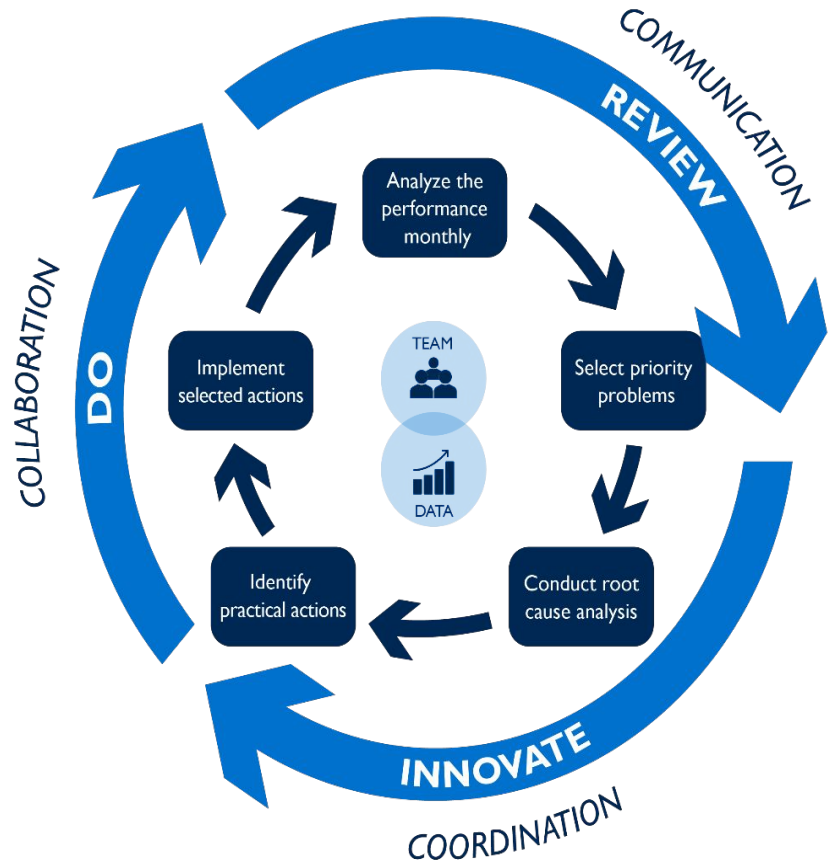
Achievements

- Designed supply chain model/s that consider the cultural and geographical barriers in the SCALE counties
- Adapted and redesigned the cStock approach to build a robust supply chain for CHVs
- Built collaboration, coordination and data use for continuous improvement

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, and 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

COMMUNICATION

REVIEW

COLLABORATION

DO

Analyze the performance monthly

TEAM

Implement selected actions

Select priority problems

DATA

Identify practical actions

Conduct root cause analysis

INNOVATE

COORDINATION

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We developed materials and built the capacity of healthcare workers to implement SC models anchored on adaptive learning and 4 key elements

People

The skills, capacity, and motivation for data analytics and visualization.

Processes

Mechanisms to facilitate data-informed decision-making.

Data/Technology

Functional logistics data systems and decision support tools (dashboards)

Leadership: The availability and commitment of formal and informal leaders for facilitating supply chain decision-making.

- A self-directed method of learning for health workers that is user focused, easy to use and effective, and that can fit into their busy schedules

- Targets IMPACT Team members, Data Review Teams or Supply Chain/Commodity Management Teams

- Aimed to build the capacity of teams to improve health supply chains and perform their tasks optimally through use of data for decision making, problem solving and action planning

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What is the cStock Approach?

- cStock is a supply chain strengthening approach for community health supply chain.

- CHVs are able to manage their health commodities using a combination of manual based tools and cStock, a mobile based reporting and resupply tool.

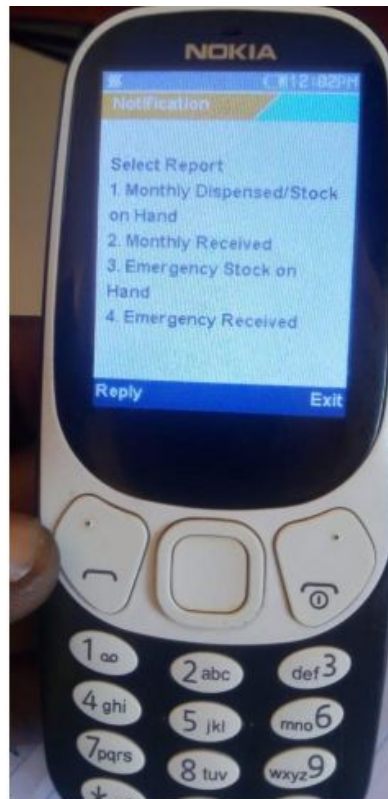- The approach was first implemented in Siaya County
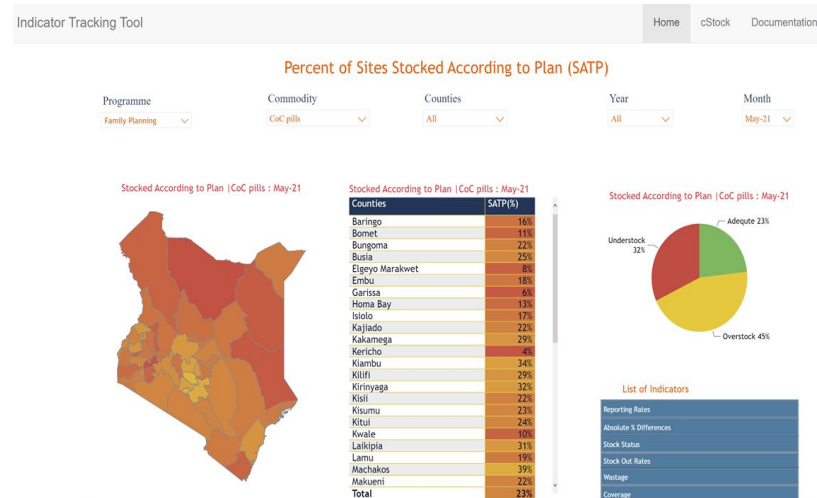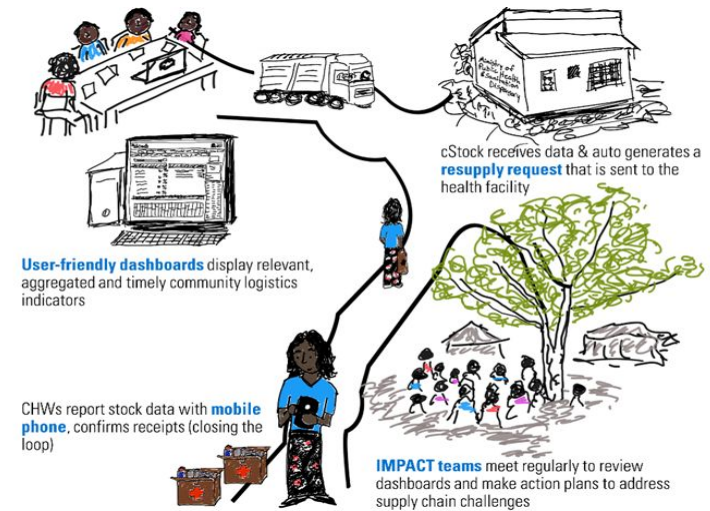
Solution that fit different contexts of the ASAL counties

Android based application
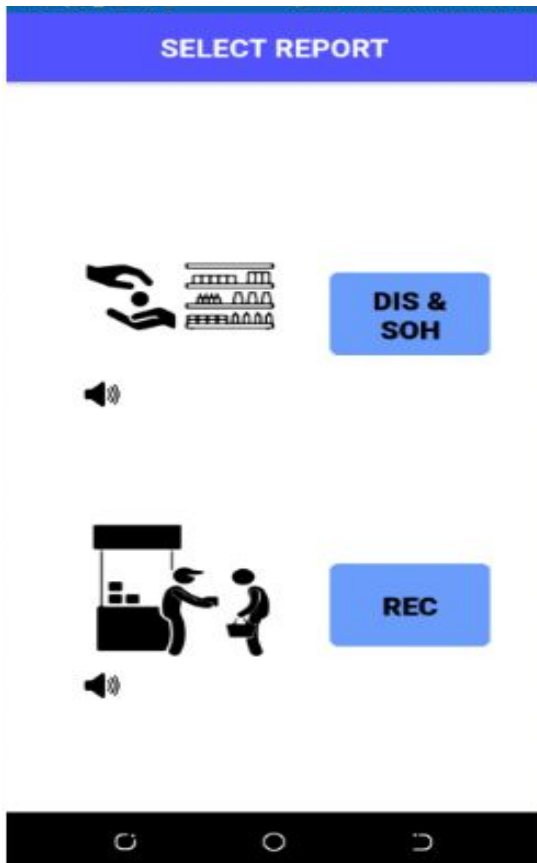
USSD option for those with feature phones

Taking picture then digitize the report

CHA portal for user and performance management as well as supporting CHVs who are unable to report on their own

The CHA Portal was designed so that CHAs could support CHVs in data entry with:

- **Validation points** for reviewing quality of reports
- **User Management** for adding and editing CHV details
- **User-friendly dashboard** for performance tracking
- **Delegation** to support CHVs who can't report
- CHAs reporting receipts

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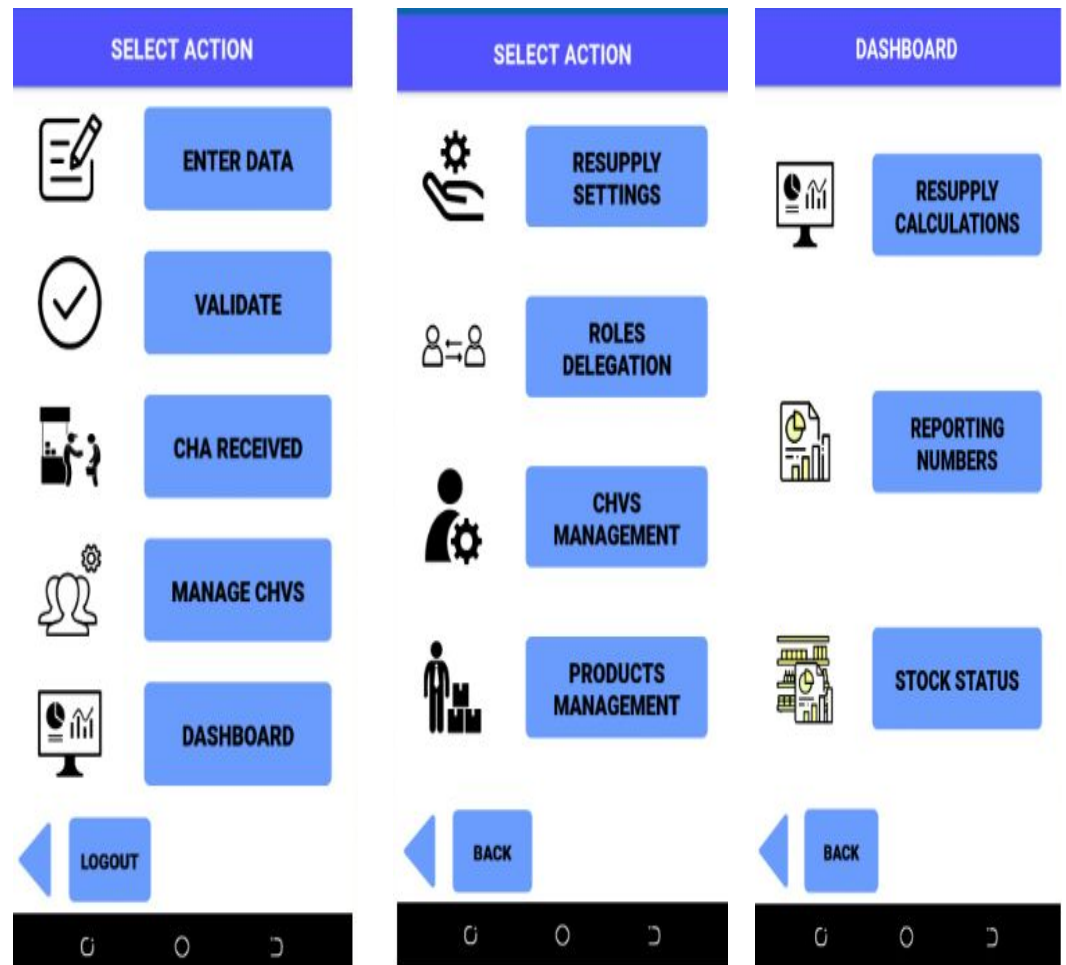
DE is a utilization focused approach that provides data in real-time as much as possible to support a rigorous adaptive learning process to facilitate innovation in complex environments, the results serve as a **springboard to take action**

Base Model(s)

Final Model(s

2019 | Q2 | Q3 | Q4

2020 | Q1 | Q2 | Q3 | Q4

2021 | Q1 | Q2

Routine Data Collection

ROUTINE ACTIVITIES

Monthly Sense-making Meeting

Quarterly Sense-making Partner Deep Dives

DATA

ADJUSTED MODEL

SENSE-MAKING

ADAPTING
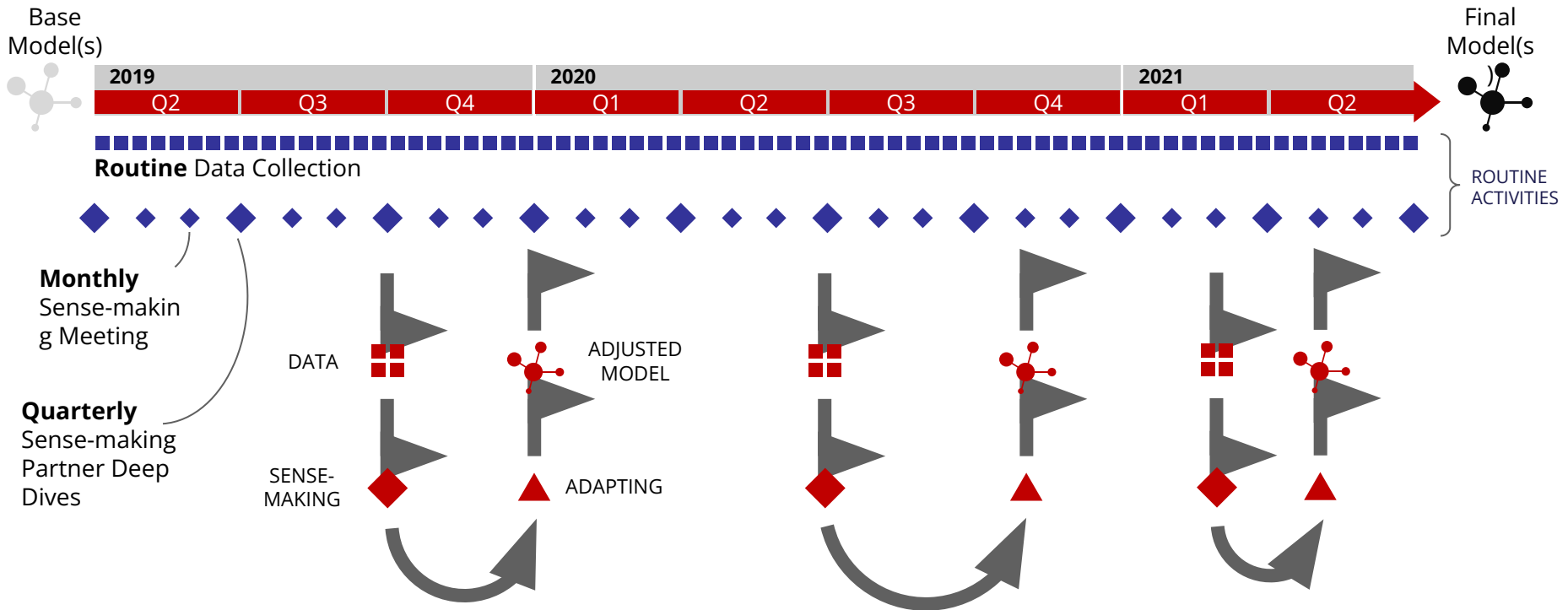
The DE approach aims to **iterate** on implementation approaches in real-time by fostering a **deeper understanding** of the vast amount of information emerging.

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Measurement of outcome and impact

- We generated evidence and learnings through DE
  - We conducted three waves of Targeted inquiry
- We identified supply chain indicators to track availability of an expanded mix of contraceptives
  - the % CHVs stocked out of tracer commodities over time
  - average stockout days by the CHVs
  - % health facilities stocked out of tracer commodities over time
- We tracked resupply of CHVs through
  - % CHV orders resupplied in full (at least 80%)- order fill rates
  - % CHVs reporting on cStock every month
  - % CHVs reporting on cStock on time every month
- We also tracked those trained and uptaking the virtual learning packages

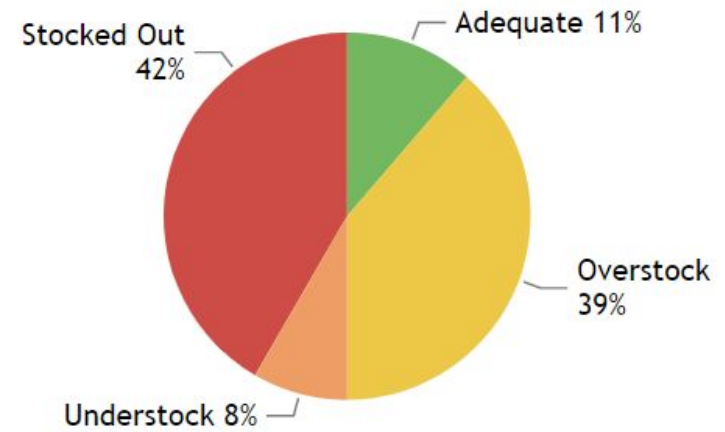**Reports show improved reporting rates as well as availability of stock as shown by the web based dashboards that we supported develop**

Global Health
Supply Chain Summit

Reporting rates for SOH/dispensed : Reporting rates for all counties have generally increased
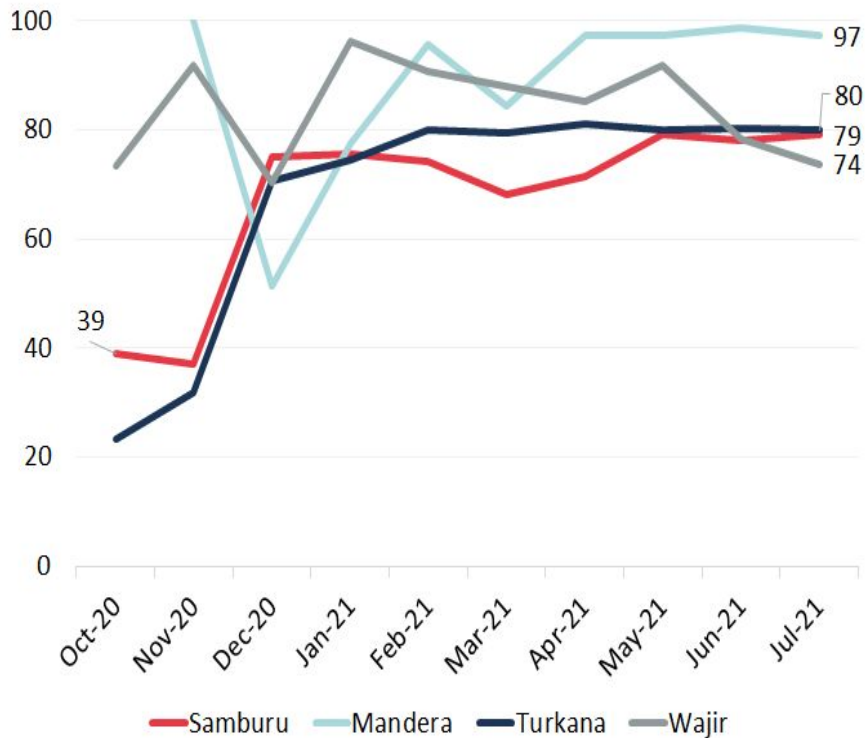
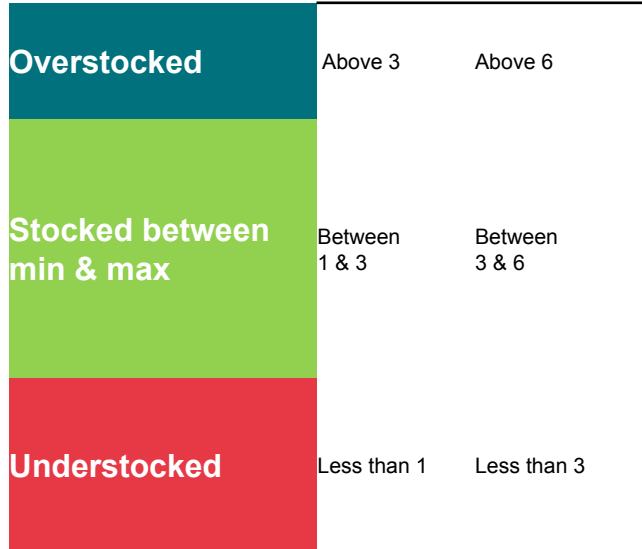Percent of Sites Stocked According to Plan |CoC pills : Aug-21

Commodities were available for majority of products, however there were still stock outs experienced

71%
Average Reporting Rates
SOH/Dispensed

	Community stock levels	Linked facility stock levels
Overstocked	Above 3	Above 6
Stocked between min & max	Between 1 & 3	Between 3 & 6
Understocked	Less than 1	Less than 3

CSTOCK: Commodity	Stock on Hand	Average Monthly Consumption	Months of Stock
ACT (1x6)	477	455	1.0
ACT (2x6)	188	262	0.7
ACTs (3x6)	59	35	1.7
ACTs (4x6)	8	33	0.2
Albendazole/Dewormers	12,063	5,056	2.4
Amoxil DT	153	204	0.8
Bandage	462	87	5.3
DMPA-SC	1	11	0.1
Iodine	65	37	1.7
Male Condoms	543	1,408	0.4
ORS	23,518	2,902	8.1
Paracetamol	206,906	44,302	4.7
Paracetamol Junior	214,009	31,394	6.8
Pregnancy Determination Kit	0	11	0.0
RDTs (Malaria Test Kit)	1,462	711	2.1
RUSF	80	945	0.1
RUTF	0	220	0.0
Strapping	28	17	1.6
Surgical Gloves	2,427	752	3.2
Tetracycline Eye Ointment	2,949	929	3.2
Vitamin A (100,000 UI)	67	395	0.2
Vitamin A (200,000 UI)	627	971	0.6
Water Treatment	1,450	7,041	0.2
Zinc	3,472	2,704	1.3
Zinc Junior	948	264	3.6

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- Moved from an Excel based Indicator Tracking tool to a web based dashboard that automatically pulls data from KHIS (DHIS2)
    - Expanded the ITT from having Immunization and Family planning commodities to include Malaria, Nutrition and cStock commodities
- We integrated cStock with KHIS
- Made changes to the initial version of cStock to respond to the needs of the ASAL communities
    - CHA portal that decentralized management of the users
    - added simple dashboards used for management of performance on phones
    - introduced voice along with pictorial icons of commodities to support the low literate population in commodity management
    - introduced USSD for reporting to support CHVs that had feature phones as opposed to smartphones
    - We supplemented the power issues by supporting the CHAs with solar chargers
    - Introduced paper to digital option for taking pictures

- Samburu County, which initially did not provide the CHVs with commodities, adopted cStock and started providing their CHVs with commodities

- NHP project formed the nomadic CHUs and provided the CHVs with commodities

- DE results were used by the National MoH to inform review of the Community Health Strategy to factor in the realities of implementation of the strategy in these settings

- Introduction of the learning packages based on adaptive learning and role profile assessments

Challenges

- Inconsistency in scheduling and facilitating regular IT meetings.

- Disparities between Community Health Strategy (CHS) and actual practice

- Data analysis and visualization capability was limited to the Health Records Information Officers

- Poor network connectivity was a barrier to adoption of m-health technology

- Initially variations in literacy levels affected usage of cStock making it difficult for CHVs to understand use of the cStock app

- Limited knowledge in SC terminology

- Lack of support throughout the system

Outcome Harvesting approach was used to identify key Achievements

- Increased visibility of SC data upto community level

- Improved data quality for SC

- Built a culture of data use among the teams for improved SC performance

- Timely solving of SC challenges faced by various teams

- Improved motivation of HCWs

- Integration of cStock with KHIS and recommendation of cStock as SC module for the eCHIS

- cStock's ability to track commodities and increase transparency and accountability has resulted in health system actors in the four SCALE counties being more comfortable allowing CHVs to manage commodities, expanding the reach of community-base distribution (CBD).

- Integrated sustainability at project design
    - HCD supported co-creation with the counties to enhance end user engagement for inclusive and sustainable programming
- The project design recognized the power of partnership for scale up and partnered with the MoH, Afya Timiza and NHP
- DE enabled the project to monitor institutionalization, scale up and sustainability during the program design and implementation
- Training of county and subcounty TOTs on IT and cStock approaches ensured the MoH has a pool of trainers to continue with the work
- Resources developed by the project e.g ITT, cStock and the virtual learning packages remain available for use by the counties
- The project developed SOPs for the CHAs and CHVs
    - Served as a resource for the team and remain available to onboard new team members
- Developed joint sustainability plan by the county governments and the implementing partners
- Developed mentorship toolkit that forms a resource for onboarding partners ready to continue implementing the SCALE approaches

Lessons learnt

- Training is critical to ensure that CHVs can effectively engage with the cStock technology
  - It helps reduce literacy and numeracy barriers
- Establishing storage structures at the link facilities is key whereby CHVs can safely store and access commodities
- CHV motivation remains an ongoing challenge which requires multifaceted interventions

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