Rapidly mapping Primary Healthcare Facilities in challenging settings: Lessons from Somalia

February 2023

In 2021 Acasus supported the Government of Somalia and World Bank to map primary health facilities in five regions









The aim of the project was to identify, locate, and assess services in health facilities in 5 regions of Somalia in advance of contracting-out

Challenges	Description
Limited and incomplete information on the location, functionality and status of health system infrastructure	No single recent or complete source of information on the number, location, and management of health facilities across Somalia, or usable maps visualizing their location
Minimal visibility on last-mile primary health performance	Limited recent or regular information on the range, consistency or quality of primary and secondary health services delivered at health facilities for use by Government, partners or to manage or improve health system performance
No visibility on the provision of critical primary health inputs	No recent or regular information on the provision of key inputs (e.g. staff, medicines, equipment, infrastructure, guidelines and EHS criteria, etc.) available at primary and secondary health facilities
Urgent need to provide planning inputs to potential implementing NGOs for the Damaal Caafimaad project	To enable local service providers and NGOs to submit evidence-based bids as part of the approach to contract out health services through the Damaal Caafimaad program, there was an urgent need to be collect data on the location, management, and performance of health facilities
Challenging context to manage a field force to complete monitoring activities	Somalia is an highly challenging environment to operate in, with political instability, sporadic conflict, limited human resource capacity, and extreme weather impacting the ability to remotely plan, staff, implement and oversee health system mapping

Source: Acasus

To enable this, Acasus sourced, hired and trained 50 independent monitors from communities in the 5 project regions, in a 30 day period

Direct engagement with government stakeholders to provide support in key areas

- Aligned on the high-level approach and framework with **Ministry of Health (MoH)** at the beginning of the project
- Engaged **Regional Governments** prior to starting data collection, and invite them to **participate in trainings**, workshops and planning stages
- Held several informal 'coffee meetings' to **align on key details of the approach with MoH colleagues** during the design phase
- Validated data sources to **identify facilities** and develop a **'long list' for the targeted regions**
- Reviewed and **built the survey with MoH**, and integrated suggested changes where possible
- Integrated **MoH and Regional Government feedback** for draft database and summary presentation

Acasus and Regional Coordinators leading hands-on, in-person trainings for monitors**





*Including female monitors, who were actively sought for in the hiring process.

**Project Coordinators typically had medical, public health, or comparable degrees and experience in management, whereas monitors were required to have completed secondary education and ideally have experience in data-related activities.

A focused survey was developed to monitor primary and secondary health performance, based on best-practices and global and local expertise

Survey areas	Description	15:15 = 4e ³ 4e
Key facility information	Location Management and ownership Opening hours	What maternal h health facility?
Facility condition	Functionality of key infrastructure and furniture Presence and source of utilities General levels of hygiene	 ANC Delivery
Staffing	Hiring of staff Presence of staff during monitoring visits, and reasons for absence Completion of training for key areas (e.g. EPI, midwifery, etc.) Responses to standardized capacity questions to assess knowledge	PNC None
Service	Overview of services delivered (focus on MCH - general medicine; EPI; maternal health (BEmONC and CEmONC); nutrition; TB) Number of services delivered in the most recent calendar month Overview of diagnostic and lab services	Which of the foll currently able to
Medicines and equipments	Availability and functionality of key equipment (focus on MCH) Number of medicines and antigens in stock during monitoring visit Date and 'completeness' of last medicine delivery Overview of cold chain availability and functionality	Folic acid su Intermittent
EHS and Guidelines	Availability of key manuals and guidelines Compliance to existing protocols Availability of key 'safeguarding' materials, and compliance to them	Next
Patient feedback	Exit interviews on the patient experience on the day of the monitoring visit, e.g. journey time, wait time, staff comms, overall satisfaction, etc.	<









A digital tool was leveraged to collect this information from health facilities

Features of the data collection tool

- Data collection based on **fully customized** questionnaires (including scanning barcodes, photos)
- **Offline** usage functional without active internet connection (connection is required for downloading the latest questionnaires and uploading the filled surveys)
- **GPS** data is collected and linked to questionnaires
- Supports a wide variety of **Android** and Android Go devices

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¢	← Service Delivery: maternal health	← Details of the report
Welcome	What maternal health services are provided at this health facility?	Somalia Mapping Survey Jonny 27/10/2021 -Mr2hecixe9XNSW41191
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Somalia Mapping Survey 27/10/2021	Which of the following ANC services is this facility currently able to provide?	Google Hadada Waaberi London Rd
Somalia Mapping Survey 27/10/2021	Iron supplements	Long: 45.321 Lat: 2.029
Somalia Mapping Survey	Folic acid supplements	What is the name of this health facility? Kulmis
20/10/2021	Intermittent Preventive Treatment for malaria (IPT	During your visit, how many functional blood-pressure monitors does the facility have? 8
	Tetanus vaccination	How many adverse events following immunization (AEFI) has this facility reported in the past 12 months? 8
	Next	I hereby confirm that to the best of my knowledge, the data I'm submitting is honest and accurate. Yes
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Automated dashboards were developed to monitor and manage the quality and quantity of data, and develop real-time views of facilities

Automated dashboards to help review the quantity and quality of data

Example dashboard and mapping outputs





"Most low-duration visits are due to rare instances of the App crashing and restarting towards the end of survey. Where this happens, the App calculates report duration from this 'res tart' point, which's typically is for around 10-20 mins. However, in instances where it was decided that reports were completed too quickly at the facility. revisits were scheduled, typically with Project Coordinator involvement in revisits .



New GIS and geospatial tools were developed to identify underserved communities, estimate catchment areas, and assess future service delivery needs for communities



This approach enabled 50 independent monitors to monitor 350+ HFs in 5 regions over a 10 day period...



Facilities visited by region and facility type (operational =227; total visited = 357)



...with initial deliverables available for review and use a few weeks later

(Left) Online mapping dashboard and performance dashboard; (Right) Detailed database of performance per facility for Implementing NGOs to use to inform their approach for the Damaal Caafimaad project



Region	T District	F HF 🔻	HF type 📼	Infant weighing scales present and working	Salter scales present and working	MUAC tapes present and working	Height measuring equipment (tape, board, etc.) present and working
BAKOOL	EI-Barde	Abesale	PHU		2	2 10+	
BAKOOL	EI-Barde	Ato health cent	Health Centre		2	3 10+	1
BAKOOL	El-Barde	Ceelmagad	PHU		2	2 10	
BAKOOL	EI-Barde	Elbarde district	District hospita		3	3 10+	
BAKOOL	El-Barde	Figta	PHU		2	2 10	
BAKOOL	EI-Barde	Habarey	PHU	-		10	
BAKOOL	El-Barde	Oondheerre	PHU		2	2 10+	
BAKOOL	EI-Barde	Qurac joome n	Health Centre	1	3	2 10+	
BAKOOL	El-Barde	Salkudhooble	PHU	-		1 10	10-
BAKOOL	EI-Barde	Stabilization ce	Health Centre		2	1 10+	
BAKOOL	EI-Barde	Xamargob	PHU			10	
BAKOOL	Hudur	ACF MCH	Health Centre		2	2 10+	
BAKOOL	Hudur	Cisbitaalka deg	District hospita		5	3 10+	
BAKOOL	Hudur	GREDO MCH	Health Centre	1		5	
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BAKOOL	Hudur	Mardo MCH	Health Centre		2	2 6	
BAKOOL	Hudur	Moragabey M.C	PHU		1	10+	
BAKOOL	Hudur	SRCs M.C.H	PHU	1	3	2 10+	
BAKOOL	Hudur	Shiidle	Health Centre		2	2 3	
BAKOOL	Hudur	Yeed Health Ce	Health Centre	1		1 10+	
BAKOOL	Rabdhure	Yeed Health fac	Health Centre	-	1	10+	
BAKOOL	Tiyeglow	GRRN OTP	Health Centre		5	t 10+	
BAKOOL	Tiyeglow	Tiyeglow TB ce	Health Centre			10+	
BAKOOL	Wajid	ACF MCH	Health Centre		2	2 10+	
BAKOOL	Wajid	ARD MCH	Health Centre		5	3 10+	
BAKOOL	Wajid	Hawlwadag MC	Health Centre	1		1 4	
BAKOOL	Wajid	IRRDO	Health Centre			0 0	
BAKOOL	Wajid	WAJID HEALTH	PHU	4	10	+ 10+	
BAKOOL	Wajid	Waberi MCH	Health Centre		2	10	
BAKOOL	Wajid	WadajirMCH/Wa	PHU		2	1 10+	
BAKOOL	Wajid	Wajid TB Cente	Health Centre			0 0	
BAKOOL	Wajid	Wajid stabilizat	Health Centre		2	2 6	
BAY	Baidoa	ALDA gofgadu	Health Centre		2	2 0	

Several success factors were critical in completing this work

- 1. Creating **opportunities to engage National and Regional Governments** to drive buy-in, alignment and ownership
- 1. Hiring monitors from within communities, and rapidly building their capacity through tested training measures
- 1. Using **analytics**, **daily routines**, **in-field monitor-managers**, **and in-person spot-checks** to manage data quantity and quality
- 1. Being flexible and persistent when floods or conflict stop you, use alternative means (i.e. phone calls) to get the data
- 1. Balance the **sophistication and simplicity of outputs** to maximize engagement and use
- 1. Combining global and local expertise and best-practices to maximize the impact and credibility of the approach

Create opportunities to engage National and Regional Governments throughout the process to maximize buy-in, alignment and ownership





Hire independent monitors and experienced 'monitor managers' from within communities, and build their capacity through practical measures

Acasus-led monitor-manager trainings





Monitor-managers leading monitor training workshops in Nugaal and Hiiraan



Use analytics, daily routines, in-field monitor-managers and in-person spot-checks to manage data quantity and quality during collection

Real-time data quantity and quality visuals to manage monitors during the data collection process

							Total	38%	63%
All)		•		Not Visited	visited Completed	Total HFs	BAKOOL	50%	50'm
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		Elberde	town HC	No	t Visited				
		Habare		Vis	ited Completed				
		IFKO/M	сн	No	t Visited				
		Quracjo	me Center	Vis	ited Completed				
		Quracjo	me HC	No	t Visited				
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Spot-check completed by Regional Gov. teams; Hiraan



Be flexible and persistent in the field - when floods or conflict stop you, use alternative means (i.e. phone calls) to get the data

Example of flooded roads affecting monitor access in Middle Shabelle (some facilities are up to 50km+ from monitor locations)





Example of a former HF damaged due to conflict



Balance the sophistication and simplicity of outputs to maximize use and engagement





Availability of basic medicines varies across regions and medicine types

Breakdown of facilities by availability of selected tracer medicines



Confidential: not for orward sharing

Mapping data was overlaid against population density data to show access challenges, and where new investments are needed



Combine best-practices, learnings from other countries, and expert insights from Gov. and partners to maximize the quality, pertinence, and credibility of survey tools

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Folic acid supplements	Kulmis
Intermittent Preventive Treatment for malaria (IPT	monitors does t
Tetanus vaccination	How many adve has this facility 8
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Answer all questions to proceed	Yes











Similar success factors have been observed completing similar assignments in Punjab (PK), Afghanistan, Ethiopia, Peru, and other locations



MEDICAL CAMP	¢ .
District:	
Tharparkar	~
Medical camp managed by:	
Health Department	~
Type of medical camp:	
Select camp type	~)
Fixed medical camp site	
Mobile medical camp site	
Name of the medical camp incharge	
Enter name	
Contact number of the medical camp incharge	
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While delivery rooms are non-functional almost everywhere in Helmand, this is more variable across Kandahar



Five further learnings were identified on how to complete such exercises with greater efficiency and impact in future

1. Identify, engage and gain the buy-in of N-1 / N-2 'influencers' early in the project

- 2. Provide **more virtual 'pre-training' sessions** to expedite monitor training activities
- 3. Conduct **monitor focus groups**, and **follow-up 'qual' visits to review root causes** behind issues identified in the data
- 4. Engagement Government stakeholders to **co-designing dashboards early-on**, to improve buy-in, ownership and use
- 5. Spend more time **sensitizing Government them to sensitive outputs early-on**, to avoid tension in final meetings

Thank you

February 2023

Demonstrate how new data, analyses, and ways of thinking can help improve planning and service delivery

Acasus

Confidential: not for onward sharing

Mapping data was overlaid against population density data to show access challenges, and where new investments are needed



Source: Monitoring activities contracted by World Bank, for the Somalia Federal Ministry of Health; LandScan

Confidential: not for onward sharing

The proximity of populations to the nearest health facility varies significantly across regions





Final deliverables from this work included a combination of **dashboards**, **facility mapping and databases**, closely aligned with the MoH's needs



Databases of collected information