

Using an Electronic-Based Service Provision Assessment Survey to Measure Capacities of Health Facilities in Rural Tanzania



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INTRODUCTION

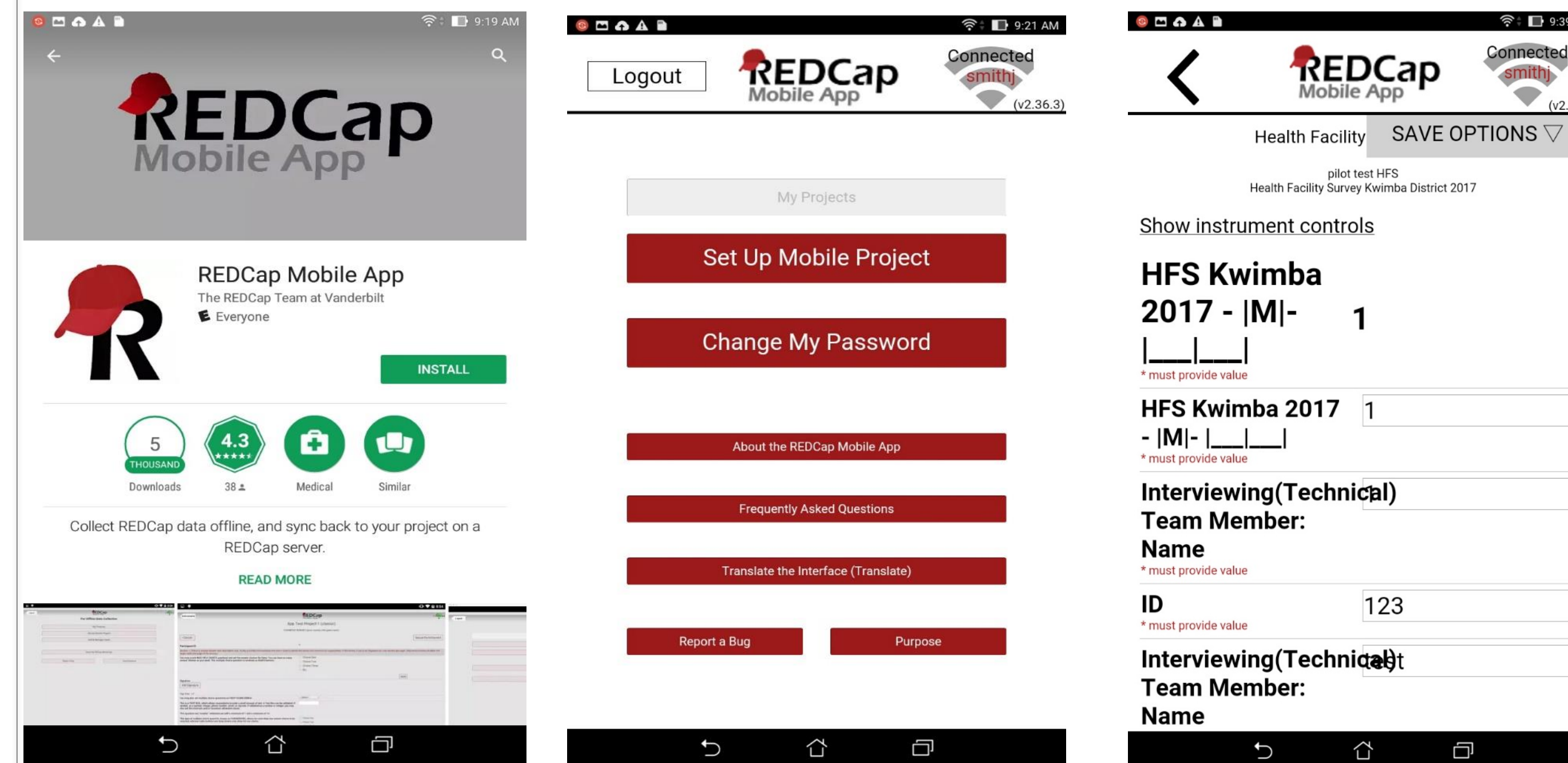
- The Mama na Mtoto initiative aims to reduce maternal and child mortality in Tanzania through the implementation of a district wide maternal and newborn child health (MNCH) package.
- Implementation evaluation requires pre/post assessment of the capacities of health facilities in target districts to provide maternal and child health services.
- This study involved development and implementation of a mobile survey tool to transition from paper-based to tablet-based data collection for health facility surveys.
- Study objectives of this project were:
 - Develop the Health Facility Survey Tool for tablet-based interviewing.
 - Pilot test the Health Facility Survey tablet tool in the field, collect feedback, and revise prior to data collection.
 - Analyze collected data and report results.

RESULTS

- All 54 operational health facilities in Kwimba was surveyed in December 2017, and consisted of 2 hospitals, 5 health centers and 47 dispensaries

Objective 1: Development of Mobile App

Tablet App Developed:



Objective 2: Field Pilot

Challenges Identified during Pilot and Solutions

Challenge	Solution
Difficulty saving responses throughout the interview process due to long survey format	The survey was broken down from one long form into multiple forms by different sections.
Questions not translated in Swahili for the respondents as it is on the paper version.	The survey may be reformatted that allows the data collector to select a Swahili translation without cluttering the interface.
Secure storage of data collected during survey	Training guide update describes app security features and data security management processes
Difficulty navigating between survey forms during data collection	Edits to forms required for subsequent data collection.

Objective 3: Data Management and Analysis

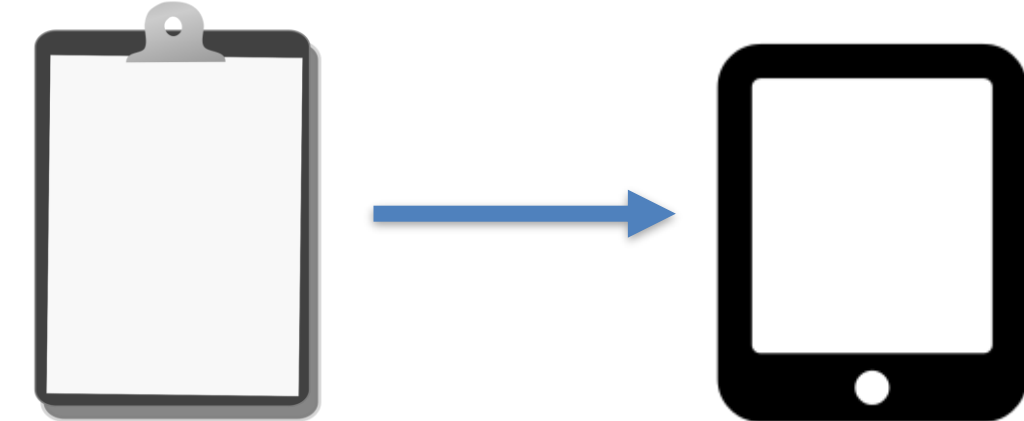
Service Readiness	%
Family Planning	60%
Antenatal Care	72%
Ill Child Management	78%
Well child assessment	89%
Essential Newborn Care	65%
Newborn Resuscitation	59%
Labour and Delivery	56%

Health Facility Main Indicators	%	
Active Governance Committee	67%	
Supportive Supervision	67%	
Active Quality Improvement Team	52%	
Community Health Worker Supervision	59%	
Maternal Perinatal Death Surveillance Reporting	Documented maternal deaths	7%
	Documented neonatal deaths	9%
Reliable power source	36%	
Functioning communication device	7%	
Functioning computer	4%	
Emergency transportation vehicle	7%	
Client toilet (latrine)	54%	
Improved water source	89%	
Safe equipment processing	Sterilization	58%
	Chemical disinfection	70%
Personal protective equipment readiness	10%	
Handwashing in delivery area	54%	
Safe final disposal of contaminated medical waste	37%	
Safe final disposal of sharps	37%	
Three bucket system for waste disposal	92%	
Staff trained in IMCI	53%	
Staff trained in essential newborn care	46%	
Staff trained in helping babies breath	50%	
Staff trained in BEmONC	48%	
Available delivery beds	46%	

METHODS

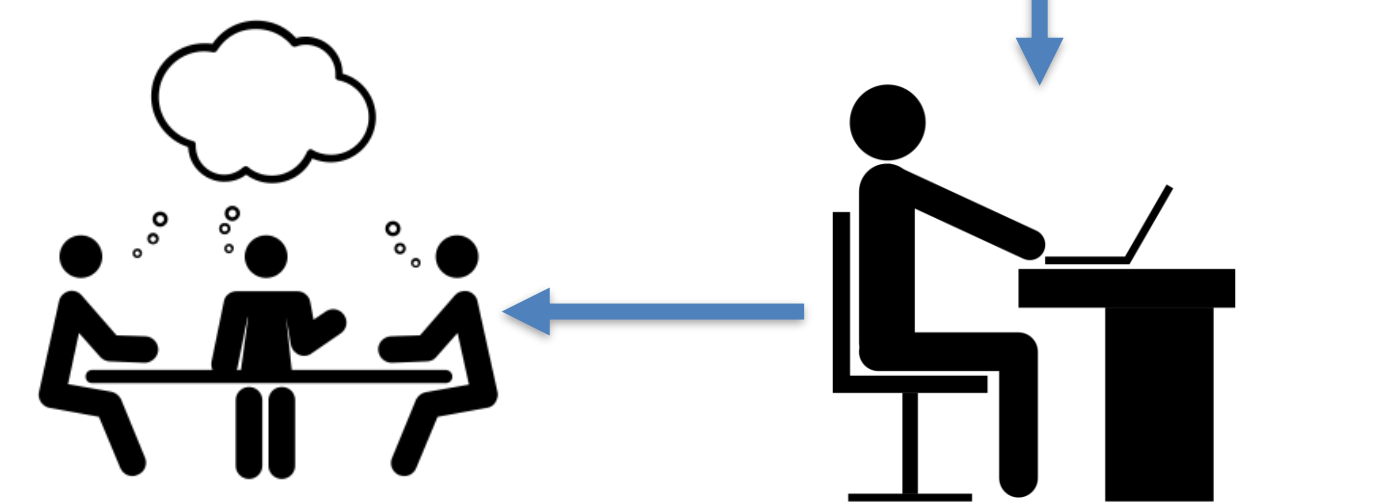
Objective 1:

Convert questions on paper based survey into fields on REDCap, a survey software.



Objective 2:

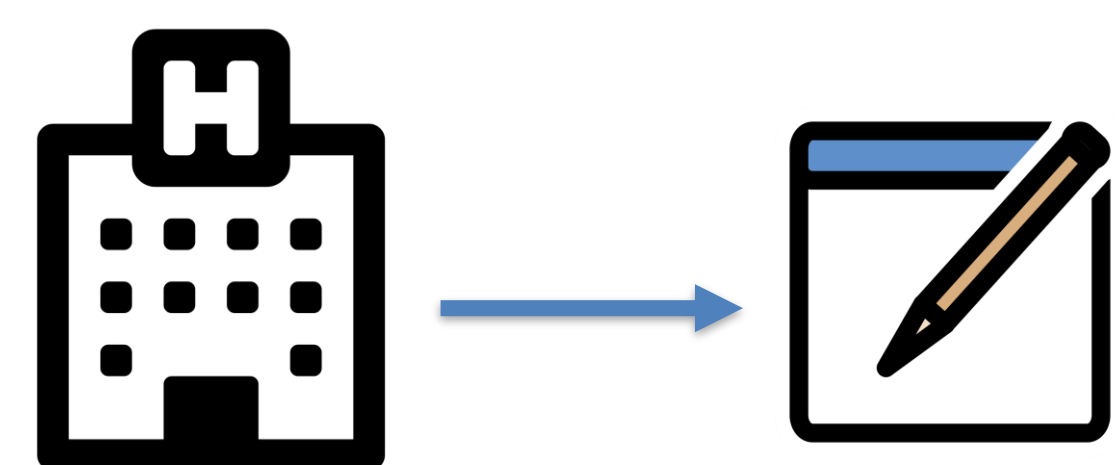
Gather input from field team in Tanzania on the tool and make revisions.



Develop office-based tests for the tool and make revisions.

Objective 3:

Commence data collection using the mobile survey in Kwimba district.



Manage and analyze data; prepare summary report.

CONCLUSION

Objective 1: Development of Mobile App

Tablet-based surveys are feasible for measuring health facility capacities in rural Tanzania.

Objective 2: Field Pilot

Testing the survey tool in the field is an important step for it helps identify issues with the tool related to its performance in the rural setting.

Objective 3: Data Management and Analysis

Overall achievement in Kwimba for standard health facility indicators and readiness scores demonstrated room for capacity improvement.

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