

MEASURING QUALITY AND PERFORMANCE FOR BETTER HEALTH FINANCING

HELLO!

Hello, I'm Naïké Nembetwa

Project Manager, BlueSquare





WHAT WE DO

**BlueSquare technologies
promote smarter allocation of
resources in emerging
economies - so they get to where
it matters most.**

**BLUE
SQUARE
.ORG**

- Introduction
- Data management with OpenRBF
- Mobile data collection: how it works
- Dimensions of quality measurement
- Discussion



The IT revolution has transformed our ability to capture vast quantities of data on the inputs and activities of the health system and (in principle) offers a major resource for performance measurement and improvement. -WHO

RBF

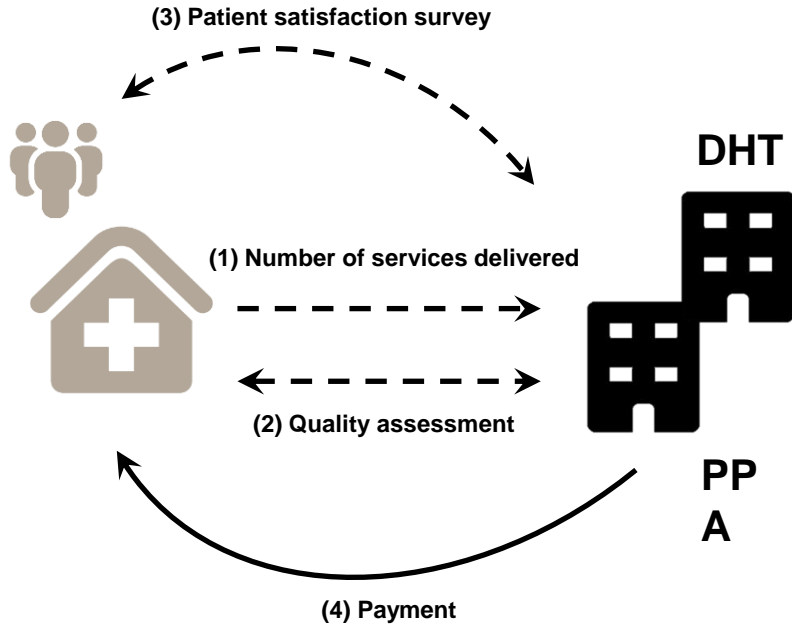
RESULTS-BASED FINANCING

What it's all about...



Results-based financing encompasses the entire range of incentive approaches on both the demand and supply sides. - PBF Toolkit

Seeks to lower demand-side barriers by subsidizing services (buy packages of activities) so that providers can apply user fee exemptions to the most vulnerable populations.



1. Monthly verification of quantity of services delivered
2. Quarterly quality assessment
3. Quarterly patient satisfaction survey
4. Quarterly payment



The fundamental role of performance measurement is to help hold the various agents to account by enabling stakeholders to make informed decisions. - WHO



DATA MANAGEMENT

RBF programmes generate a lot of data

DIGITAL vs. PAPER-BASED

Digital	Paper-Based
Cloud storage	Limited storage space
Automated search	Manual search
Easy to analyze	Difficult to analyze data
Safe, available on-demand	Easily damaged or lost



Let's look at QIII 2016...



4,713

Health facilities in 21 countries



5,754,708

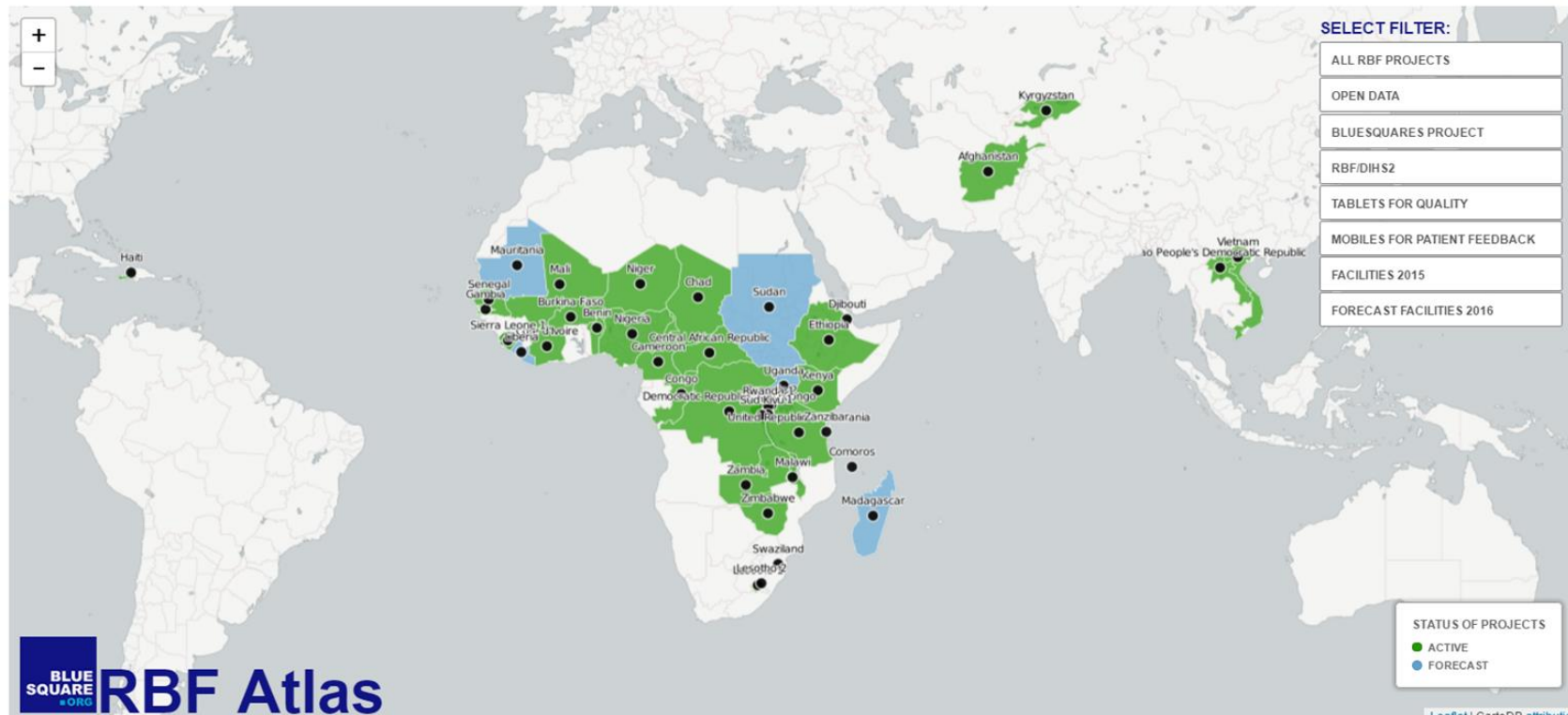
Services provided

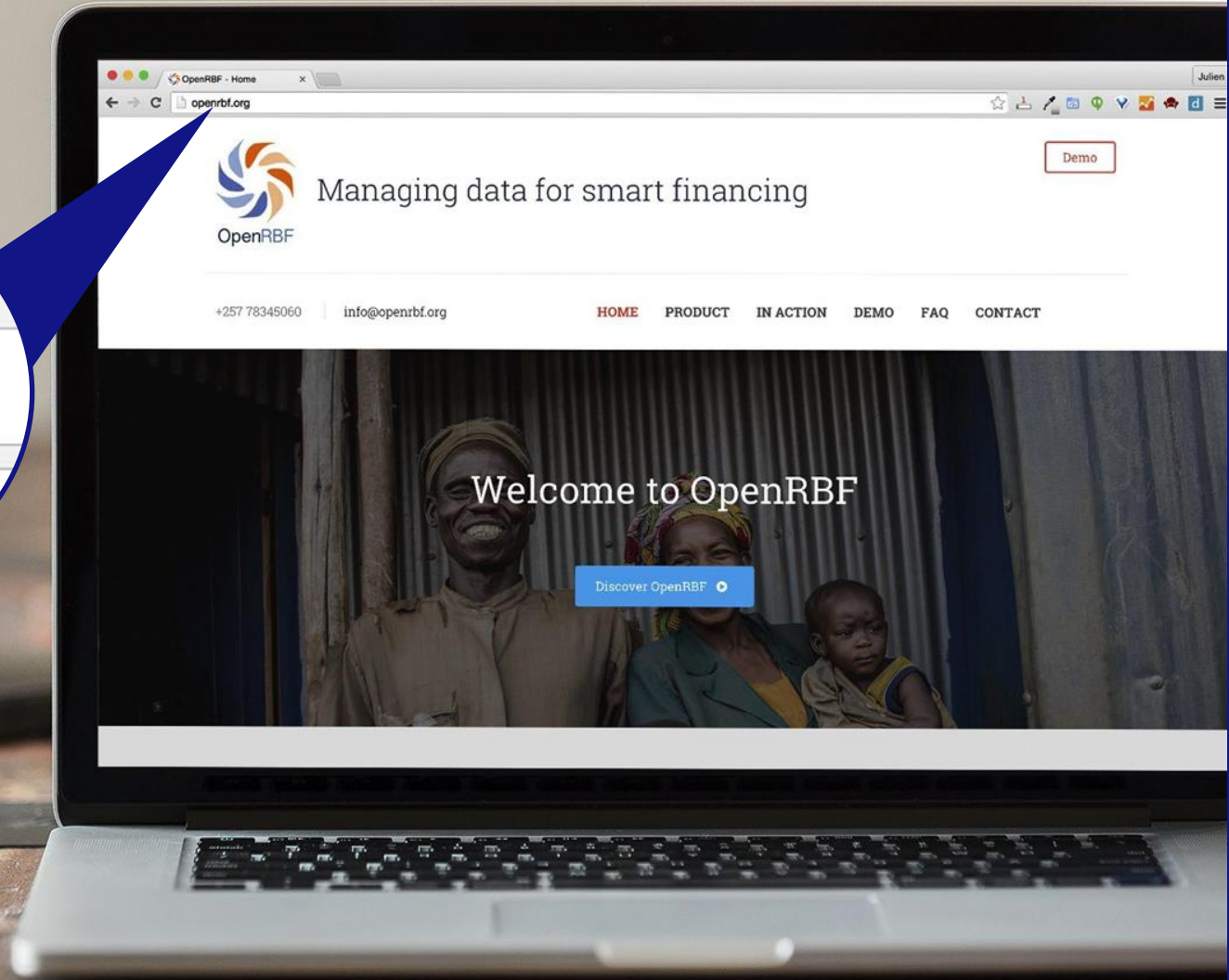


\$20,184,805

Payments received (until the end of QIII 2016)

CONNECT STAKEHOLDERS AROUND THE WORLD





OpenRBF is a web application that enables users to create:

- ▣ *Purchasing systems*
- ▣ *Health pyramids*
- ▣ *Health facilities and administrative entities*
- ▣ *User groups*
- ▣ *Forms*
- ▣ *Invoices and reports*

OpenRBF improves:

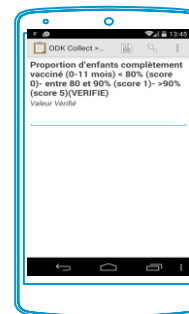
- ▣ *Completeness*
- ▣ *Timeliness*
- ▣ *Accuracy*
- ▣ *Transparency*
- ▣ *Accessibility*



MOBILE DATA COLLECT

Can be used anywhere, both online and offline.

TABLETS & PHONES



CHOOSING AN ANDROID DEVICE

BUDGET

Budgets may influence which devices projects can purchase.

FEATURES

Each device has different features such as screen quality, durability, battery capacity, camera, memory, sensors, connectivity options, weight, etc.

FORMS

Data collection forms can be simple or complex based on the type of questions and the length of the form.

USERS

Understanding users and context is primordial. It's best to choose easy-to-use devices with no or little onboarding.

POWER

In rural areas with limited electricity, users need devices with a long battery life and solar chargers.

NETWORK AVAILABILITY

Dual SIM devices are appropriate in areas where network providers have incomplete coverage.

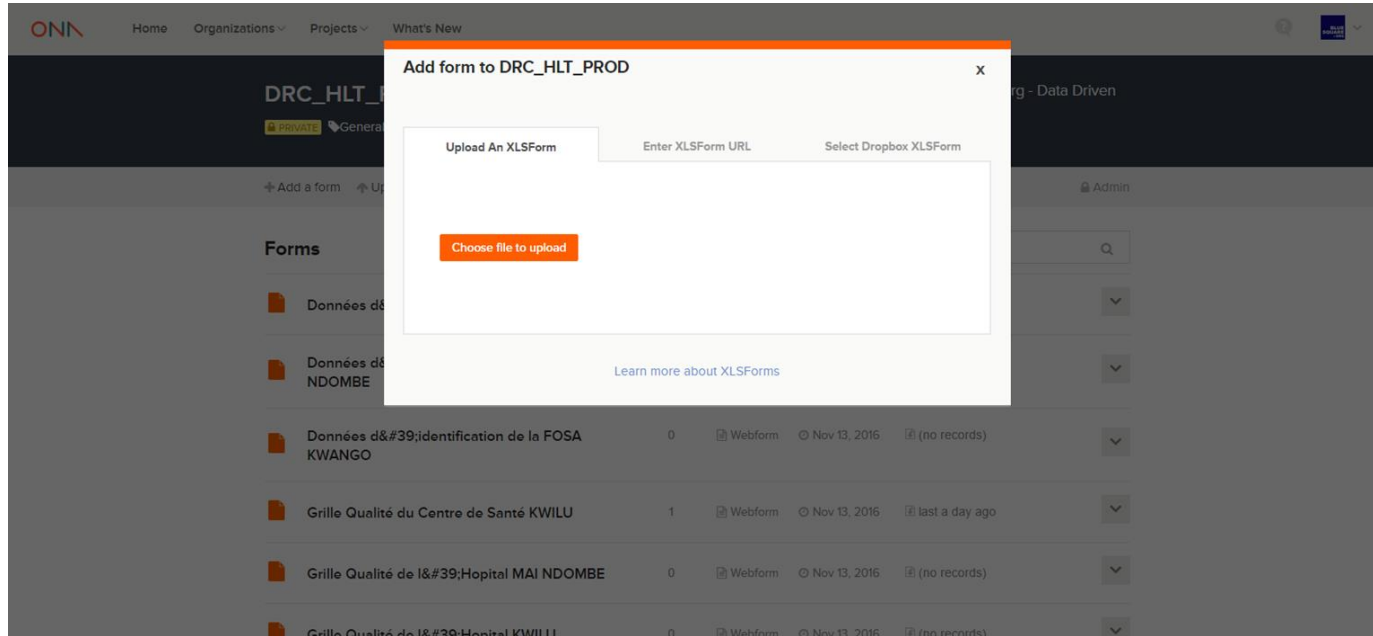
Let's look at how it works...

STEP ONE: SETUP A PROJECT IN MDC

13	EPI and Pre-School Consultation [max 20 points]	YES	NO
13.1	Personnel calculates correctly target for fully vaccinated children	1	0
13.1.1	Target = population * 4.8% / 12 : asked from any medical personnel dealing with care for clients		
13.1.2	The target population concerns the ward population (or the defined catchment pop in case ward has more PBF primary contract holders)		
13.2	EPI fridge	4	0
13.2.1	Presence of a fridge - temp form available, filled twice a day including the day of the visit		
13.2.2	Temperature remains between 2 and 8C in register sheet		
13.2.4	Supervisor verifies functionality of thermometer		
13.2.5	Temperature between 2 and 8C also according to the thermometer		
13.3	Chemical Temperature Indicator	1	0
13.3.1	Presence of a chemical temperature indicator (this is a specific piece of paper different from the thermometer) which shows temperature acc to the norms		
13.4	Appropriate storage of vaccines	1	0
13.4.1	Freezing compartment: Measles		
13.4.2	Non-freezing compartment: BCG, Penta + HepB, TT, thinners		
13.4.3	Absence of vaccines which are expired		
13.4.4	Readable labels on all vaccines		
13.5	Appropriate stock of vaccines	1	0
13.5.1	BCG, Penta, Polio, Yellow Fever, HBV, Measles, Tetanus		

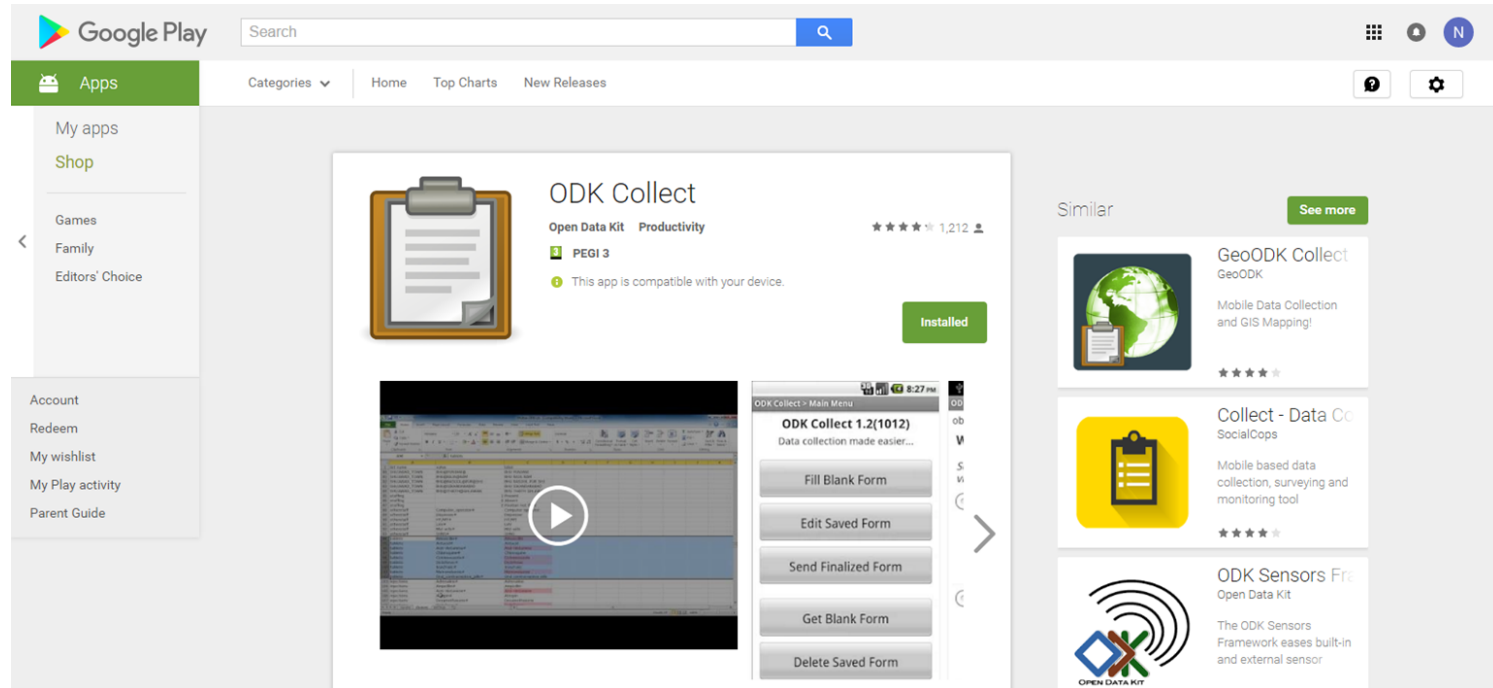
We use XLSForm a form standard created to simplify the authoring of forms in Excel. MDC is an application that allows us to generate simple XLSForms for entities and datasets in DHIS 2.

STEP TWO: UPLOAD THE FORM ON AN ONLINE SERVER



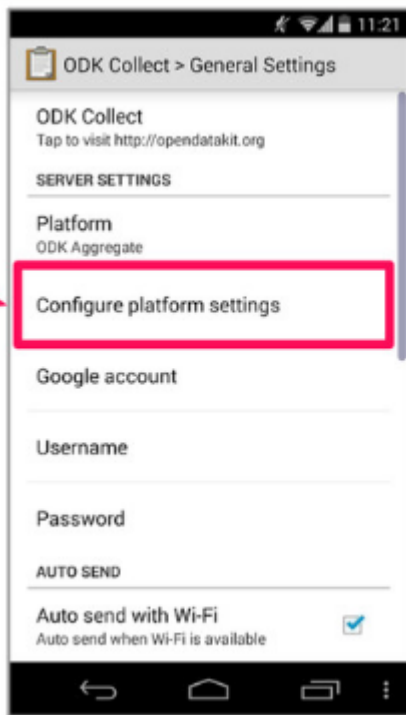
We upload the finished form to Ona. The form is then available to be downloaded on project devices.

STEP THREE: DOWNLOAD ODK ON GOOGLE PLAY



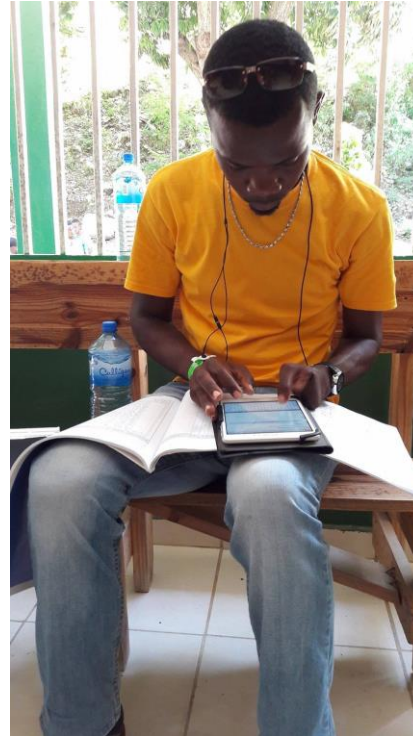
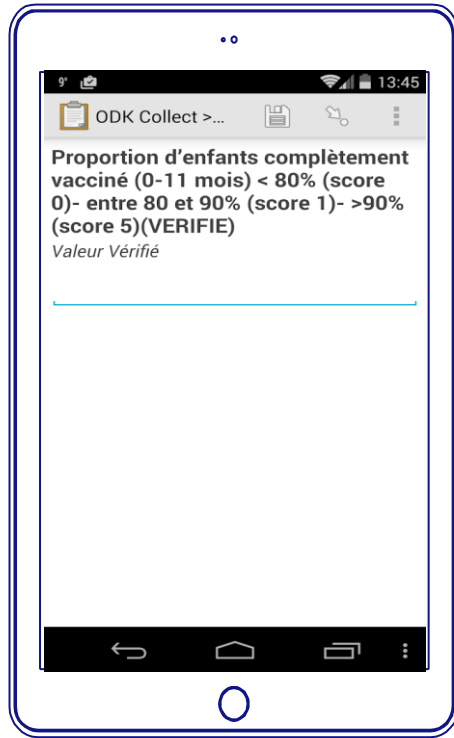
Verifiers and surveyors download ODK Collect from Google Play on their devices. ODK is a free open source application that allows you to collect data offline

STEP FOUR: CONFIGURE THE PLATFORM SETTING ON DEVICES



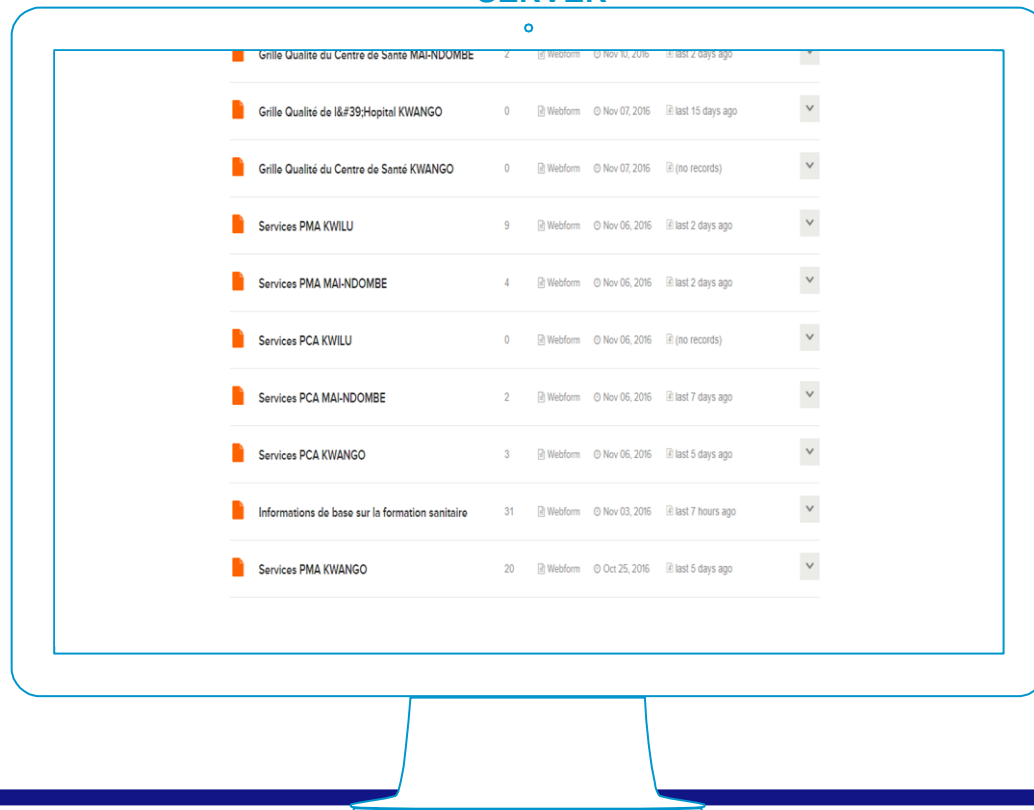
Verifiers and surveyors configure platform settings on their tablets and phones.

STEP FIVE: COLLECT DATA



They can start collecting data online or offline.

STEP SIX: SEND THE DATA TO THE ONLINE SERVER



Grille Qualité du Centre de Santé MAI-NDOMBE	2	Webform	Nov 11, 2016	last 2 days ago	
Grille Qualité de I&F39/Hopital KWANGO	0	Webform	Nov 07, 2016	last 15 days ago	
Grille Qualité du Centre de Santé KWANGO	0	Webform	Nov 07, 2016	(no records)	
Services PMA KWILU	9	Webform	Nov 06, 2016	last 2 days ago	
Services PMA MAI-NDOMBE	4	Webform	Nov 06, 2016	last 2 days ago	
Services PCA KWILU	0	Webform	Nov 06, 2016	(no records)	
Services PCA MAI-NDOMBE	2	Webform	Nov 06, 2016	last 7 days ago	
Services PCA KWANGO	3	Webform	Nov 06, 2016	last 5 days ago	
Informations de base sur la formation sanitaire	31	Webform	Nov 03, 2016	last 7 hours ago	
Services PMA KWANGO	20	Webform	Oct 25, 2016	last 5 days ago	

STEP SEVEN: DATA ARE PUSHED TO MDC

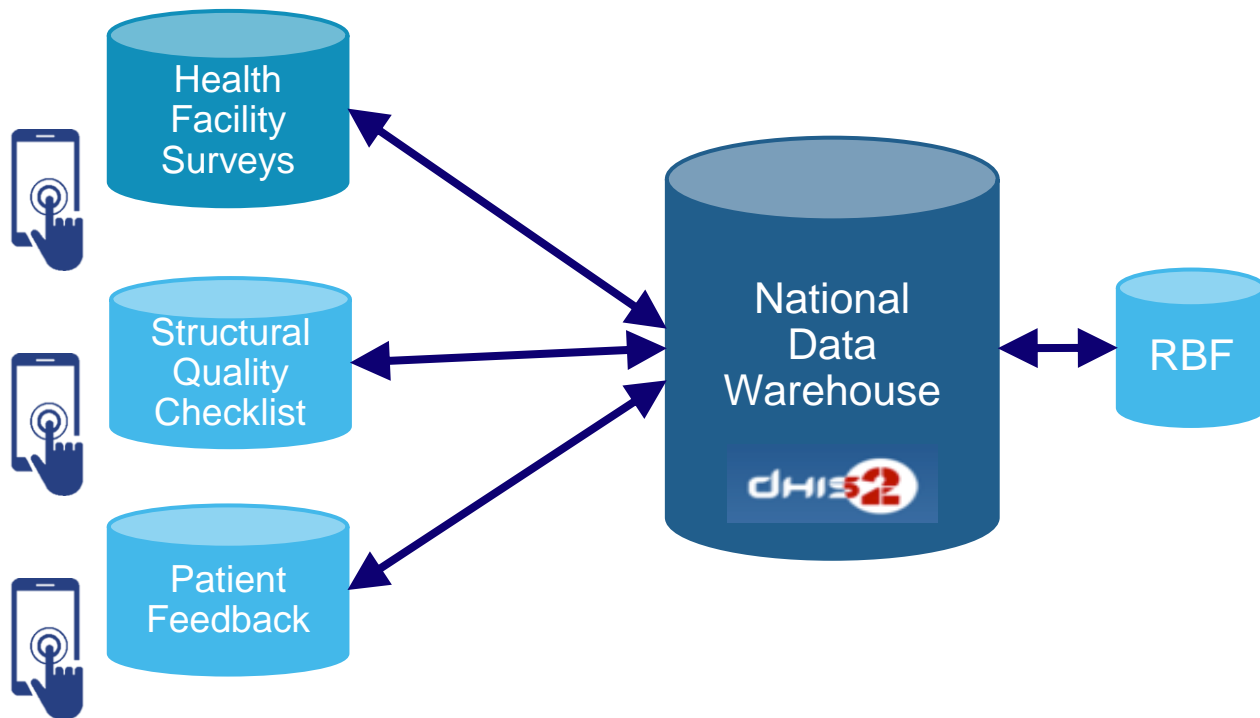
The screenshot shows the MDC Admin interface. On the left is a navigation menu with items: Answers, Available answers, Entities, Forms, Organisations (highlighted), Projects, Questions, Results, Sampling answers, Sampling available answers, Sampling forms, Sampling questions, Sampling submissions, Submissions, Users, Values, and Verifiers. The main content area is titled 'List of Organisations'. Below the title is a breadcrumb 'Dashboard / Organisations'. There are three buttons: 'List' (with a list icon), '+ Add new' (highlighted with a red box), and 'Export' (with a document icon). To the right of these buttons are links for 'Add filter' and 'Selected items'. Below the buttons is a filter input field with a 'Refresh' button and a close button. To the right of the filter is a button 'Export found Organisations'. Below this is a table with the following columns: Id, Name, Created at, Updated at, Users, and Projects. The table contains four rows of data. At the bottom of the table, it says '4 organisations'.

<input type="checkbox"/>	Id	Name	Created at	Updated at	Users	Projects	
<input type="checkbox"/>	4	DRC	October 26, 2016 12:57	October 26, 2016 12:57			x i edit
<input type="checkbox"/>	3	Bénin	October 05, 2016 10:09	October 05, 2016 10:09		Bénin: Bénin	x i edit
<input type="checkbox"/>	2	Cordaid Zimbabwe	September 05, 2016 ...	September 05, 2016 ...	Stephane Delbeke, D...	Cordaid Zimbabwe: ...	x i edit
<input type="checkbox"/>	1	Cordaid	July 12, 2016 08:16	July 12, 2016 08:16	Elena Ignatova	Cordaid: Malawi EDU	x i edit

4 organisations

MDC is the bridge between XLSForms, ona.io, DHIS 2 and the front-end.

STEP EIGHT: DATA ARE PUSHED TO DHIS 2

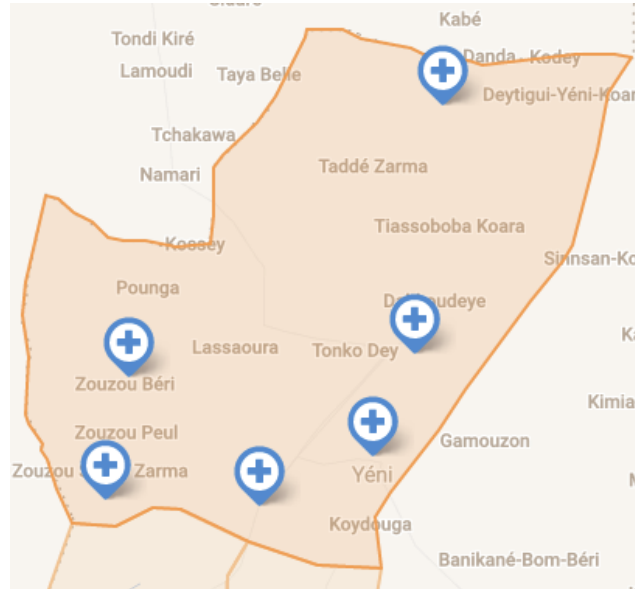




MEASURING PERFORMANCE

How can technology help measure performance?

5 DIMENSIONS OF PERFORMANCE MEASUREMENT



Inputs

Service
Delivery

Population
Coverage

Clinical
Quality

Responsiveness

We will specifically look at:

- Patient satisfaction
- Clinical quality
- Structural quality (checklists)

PATIENT
SATISFACTION

COMMUNITY VERIFICATION AND SATISFACTION



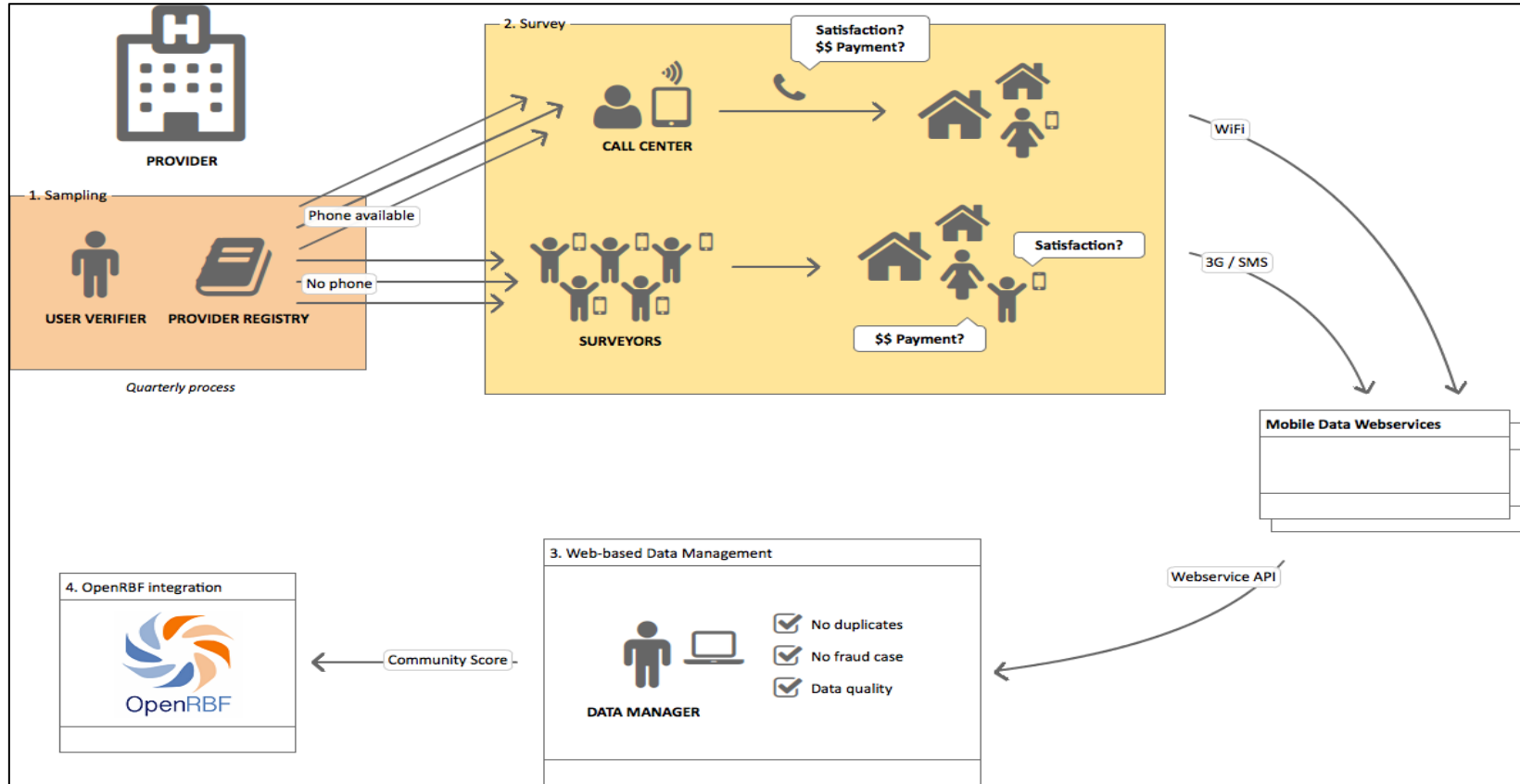
*Patient satisfaction is a commonly used
indicator for measuring the quality in healthcare*

PATIENT SATISFACTION



Patient interviews are used to measure patient satisfaction and pay providers a quality bonus.

PATIENT SATISFACTION

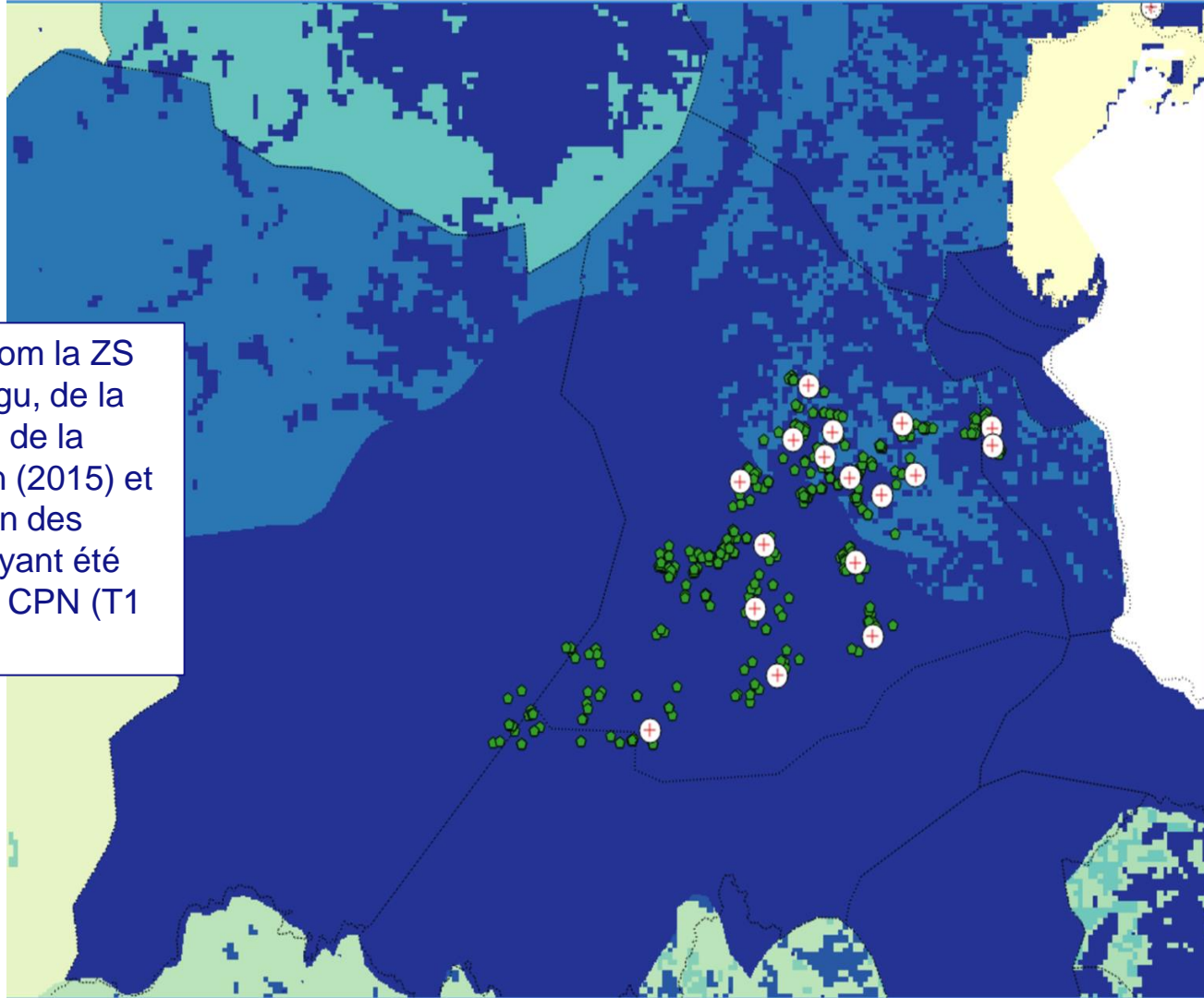


- ☐ Did they attend a consultation?
- ☐ Which consultation did they attend?
- ☐ When did they attend the consultation?
- ☐ How much did they pay?
- ☐ Do they think that the consultation was fairly priced or expensive?
- ☐ How many days did they spend in the facility?
- ☐ What did they think about the services they received?
- ☐ Were they satisfied with the services?
- ☐ Do they have any comments on how the facility can improve its services?

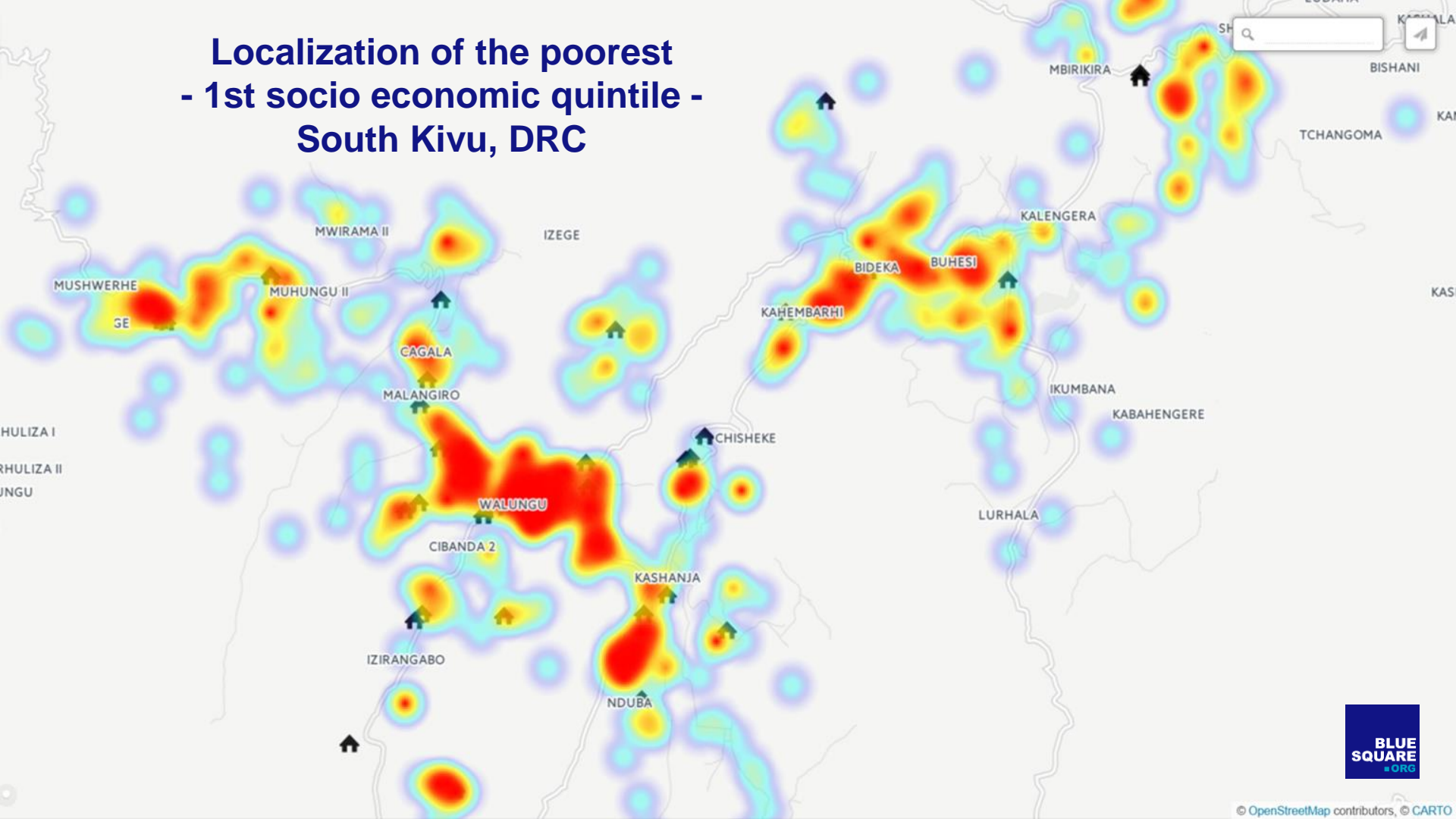
- ☐ Do you have a child in age to go to school (under 12) who doesn't go?
- ☐ What is the type of floor of your house?
- ☐ Does your household have: a radio, electricity, a fridge, a mobile phone, a non-mobile phone, a bicycle, a television, a car?
- ☐ Do you have a mobile phone? Do you agree to share your number for receiving sms message?
- ☐ Do you sleep under a mosquito net? (only for pregnant women – questionnaire ANC)
- ☐ Geo-code of the interview

- ▣ Manage cases of fraud
- ▣ Improve data quality
- ▣ Share data
- ▣ Collect metadata and additional questions
- ▣ Reduce time spent collecting data
- ▣ Give patients feedback
- ▣ Give providers feedback

RDC – zoom la ZS
de Walungu, de la
répartition de la
population (2015) et
localisation des
femmes ayant été
reçues en CPN (T1
2016)



Localization of the poorest - 1st socio economic quintile - South Kivu, DRC



- ▣ Improve provider accountability
- ▣ Manage cases of fraud
- ▣ Improve data quality
- ▣ Share data
- ▣ Collect metadata and additional questions
- ▣ Reduce time spent collecting data
- ▣ Give patients feedback
- ▣ Give providers feedback

VIGNETTES

CLINICAL VIGNETTES



Vignettes are short scenarios that measure what doctors and nurses know.

ENFANT - DIARHÉE

Module 3 : Simulations de cas

Section B: Patient 1

Le patient lit : Bonjour, docteur. Je suis la mère d'un petit garçon d'un an. Son nom est Baraka. Il a la diarrhée.

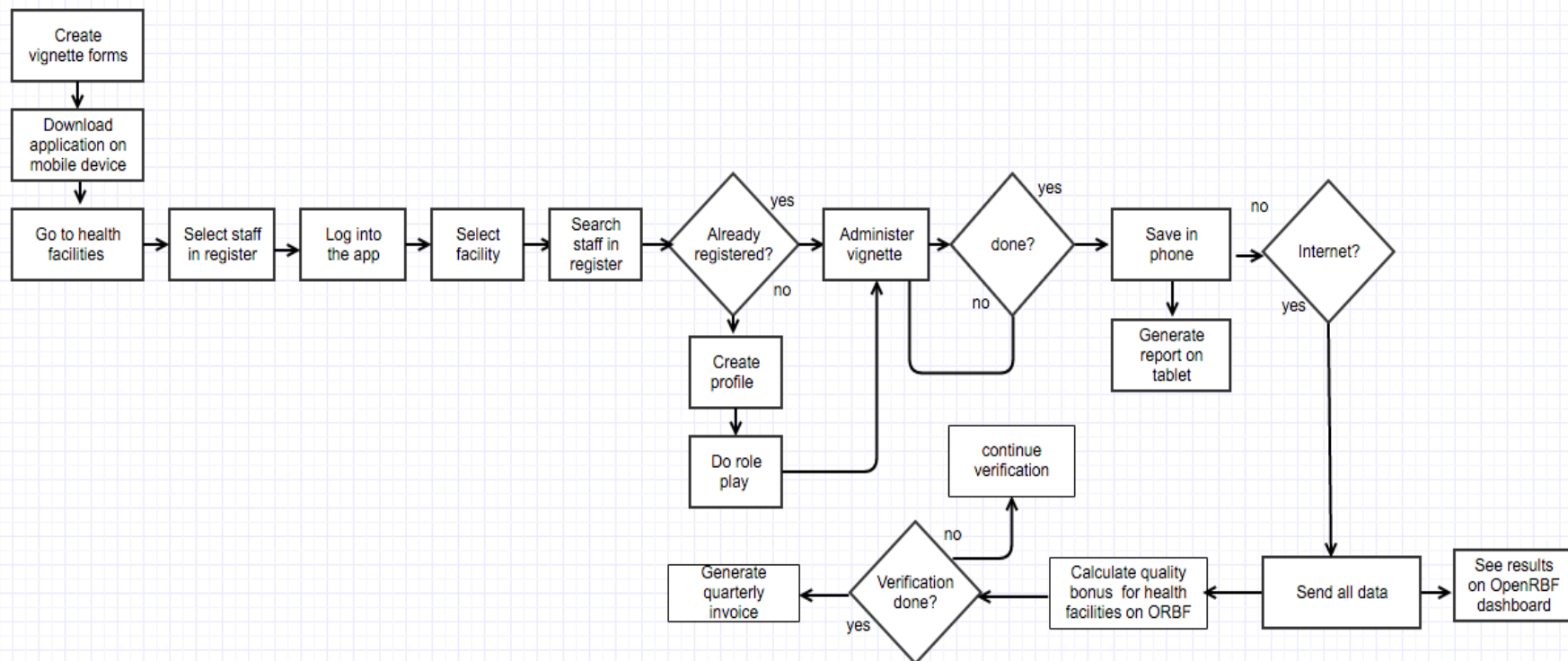
(Si le clinicien pose des questions, d'autres informations seront fournies !)

	Question posée	Réponse de l'enquêteur	Oui=1 Non=2 Après=3	Remarques/autres questions
Durée de la simulation				
Q1.	Heure de début de la simulation		_ _ h _ _	
Antécédents médicaux [25 points]				
Q2.	Autres symptômes	Quel genre de symptôme ?	_	
Q3.	Durée de la diarrhée	Deux jours [2 points]	_	
Q4.	Sang dans les selles	Non [2 points]	_	
Q5.	Consistance des selles	Elles sont liquides et mucoïdes. [0.5 points]	_	
Q6.	Fréquence de la diarrhée	Il a la diarrhée juste après avoir mangé. Plus de 3 fois par jour [1.5 points]	_	
Q7.	Vomissements	Oui, il vomit à chaque repas. Donc plus de trois fois par jour. [2		

Each vignette measures how doctors and nurses take patient history, conduct physical exams, order laboratory and image tests, diagnose patients, choose a treatment course and advise them

CLINICAL VIGNETTES

VIGNETTES HIGH LEVEL FLOW CHART



- ▣ Measure performance to pay quality bonuses
- ▣ Educate doctors and nurses on recommended clinical protocols
- ▣ Track individual and facility performance overtime

QUALITY
CHECKLISTS

QUALITY CHECKLISTS

GRILLE DE VERIFICATION DE LA QUALITE DANS LES CAL/HCR

SYNTHESE D'EVALUATION

ENSEMBLE DES COMPOSANTES	QUELLE IS	POINTS disponibles	POINTS gagnés	%
1. Indicateurs généraux	TOUS	10		
2. Plan de business	TOUS	10		
3. Recettes, dépenses de fonctionnement, prime de performance – indice	TOUS	10		
4. Hygiène & stérilisation	TOUS	20		
5. Consultation Externe / Urgence	TOUS	25		
6. Planification Familiale	TOUS	25		
7. Laboratoire	TOUS	10		
8. Gestion de médicaments	TOUS	10		
9. Médicaments traceurs	TOUS	15		
10. Salle d'hébergement	TOUS	10		
11. Maternité	Sauf pour certains CAL	25		
12. Tuberculose	Sauf pour certains CAL	10		
13. Vaccination	TOUS	15		
14. Consultation prénatale	TOUS	10		
TOTAL	////////////////	205		



South Kivu: Stock-outs in Health Centers

The map displays information on the stock-outs on essential drugs, basic equipment, and vaccines in the South Kivu region, Democratic Republic of the Congo. The data presented is for **February 2016**.

Click on each dot to see entity related information.

More information on the covered health facilities, can be seen on the RBF portal: health.pbfsudkivu.org

Developed by:



[@BlueSquare_org](https://twitter.com/BlueSquare_org)

fb.me/BlueSquare.org

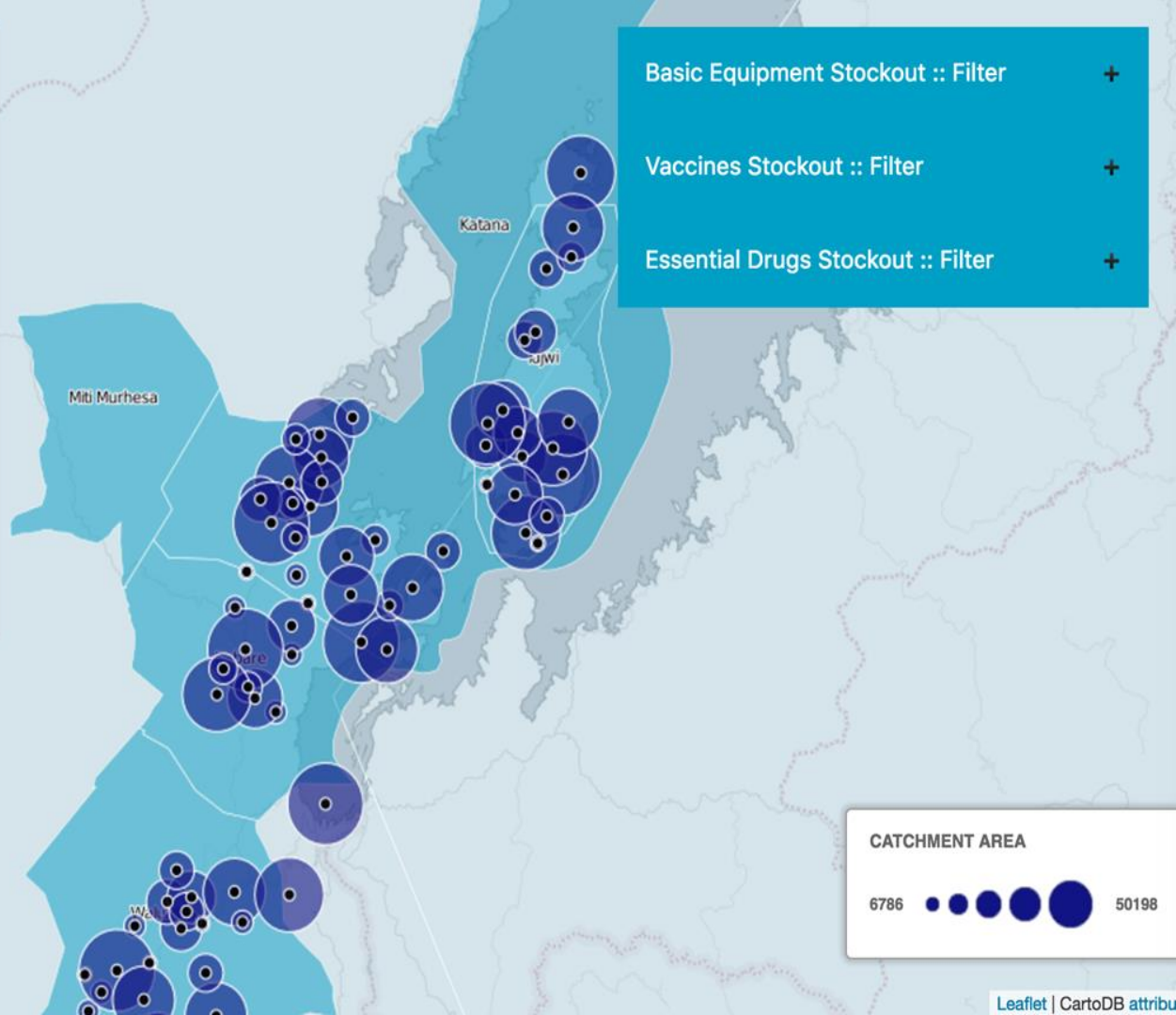
Basic Equipment Stockout :: Filter



Vaccines Stockout :: Filter



Essential Drugs Stockout :: Filter



CATCHMENT AREA

6786



50198



Walungu

THANKS!

Any questions?

You can e-mail me at
nnembetwa@bluesquare.org