MEASURING QUALITY AND PERFORMANCE FOR BETTER HEALTH FINANCING
Hello, I’m Naïké Nembetwa

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

- 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
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
<table>
<thead>
<tr>
<th></th>
<th>Digital</th>
<th>Paper-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud storage</td>
<td></td>
<td>Limited storage space</td>
</tr>
<tr>
<td>Automated search</td>
<td></td>
<td>Manual search</td>
</tr>
<tr>
<td>Easy to analyze</td>
<td></td>
<td>Difficult to analyze data</td>
</tr>
<tr>
<td>Safe, available on-demand</td>
<td></td>
<td>Easily damaged or lost</td>
</tr>
</tbody>
</table>
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
WANT BIG IMPACT?
Use big image
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.
Proportion d'enfants complètement vacciné (0-11 mois) < 80% (score 0) - entre 80 et 90% (score 1) - >90% (score 5)(VERIFIE) 
Valeur Vérifiée
**CHOOSING AN ANDROID DEVICE**

**BUDGET**
Budgets may influence which devices projects can purchase.

**FEATURES**
Each devices 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**

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.

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

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Number</th>
<th>Last Updated</th>
<th>Last Checked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hôpital National du Centre de Sané</td>
<td>5</td>
<td>Nov 07, 2016</td>
<td>last 2 days ago</td>
</tr>
<tr>
<td>Hôpital National du Centre de Sané</td>
<td>0</td>
<td>Nov 07, 2016</td>
<td>last 15 days ago</td>
</tr>
<tr>
<td>Hôpital National du Centre de Sané</td>
<td>0</td>
<td>Nov 07, 2016</td>
<td>(no records)</td>
</tr>
<tr>
<td>Services PMI Kiwango</td>
<td>9</td>
<td>Nov 05, 2016</td>
<td>last 2 days ago</td>
</tr>
<tr>
<td>Services PMI Mai-Ndombe</td>
<td>4</td>
<td>Nov 05, 2016</td>
<td>last 2 days ago</td>
</tr>
<tr>
<td>Services PMI Kiwango</td>
<td>0</td>
<td>Nov 05, 2016</td>
<td>(no records)</td>
</tr>
<tr>
<td>Services PMI Mai-Ndombe</td>
<td>3</td>
<td>Nov 05, 2016</td>
<td>last 7 days ago</td>
</tr>
<tr>
<td>Services PMI Kiwango</td>
<td>3</td>
<td>Nov 05, 2016</td>
<td>last 5 days ago</td>
</tr>
<tr>
<td>Informations de base sur le formation</td>
<td>31</td>
<td>Nov 03, 2016</td>
<td>last 7 hours ago</td>
</tr>
<tr>
<td>Services PMI Kiwango</td>
<td>30</td>
<td>Oct 25, 2016</td>
<td>last 5 days ago</td>
</tr>
</tbody>
</table>
STEP SEVEN: DATA ARE PUSHED TO MDC

MDC is the bridge between XLSForms, ona.io, DHIS 2 and the front-end.
STEP EIGHT: DATA ARE PUSHED TO DHIS 2

- Health Facility Surveys
- Structural Quality Checklist
- Patient Feedback

National Data Warehouse

RBF
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)
COMMUNITY VERIFICATION AND SATISFACTION
Patient satisfaction is a commonly used indicator for measuring the quality in healthcare.
Patient interviews are used to measure patient satisfaction and pay providers a quality bonus.
PATIENT SATISFACTION

Most RBF programmes include patient interviews that are linked to payments.
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
PATIENT SATISFACTION

- 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
PATIENT SATISFACTION

- 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
CLINICAL VIGNETTES
Vignettes are short scenarios that measure what doctors and nurses know.
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.
- Measure performance to pay quality bonuses
- Educate doctors and nurses on recommended clinical protocols
- Track individual and facility performance overtime
## QUALITY CHECKLISTS

### GRILLE DE VERIFICATION DE LA QUALITE DANS LES CAL/HCR

#### SYNTHESE D'EVALUATION

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

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THANKS!

Any questions?

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