Fingo Powerbank Outsourced Experimentations

Digitization of health clinic's records and Implementing an SMS notification system

By African Care

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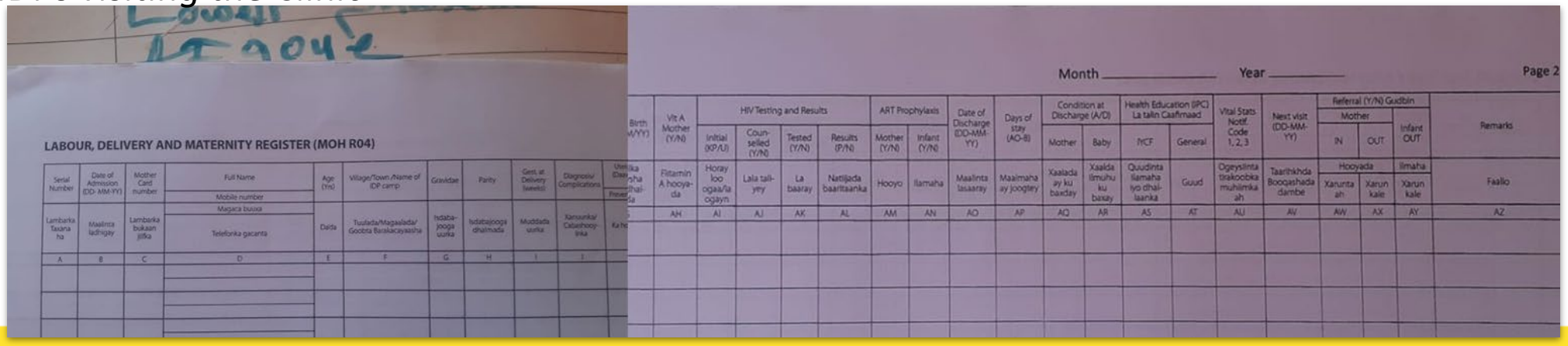
Introduction

- *African Care's Clinic has been using a handwritten registry books (4) to record the patients visiting the Clinic and to gather the statistical data of the project activities & monthly reporting data.*

- ***The aim of the experiment** was to build a new Health Information System (HIS)*
- *Requirements for the new Health Information System for the Clinic were set during summer 2019:*
- *- Easy to use and low-cost hospital management platform*
- *- Apps+browser based back-end management site*
- *- Works in offline mode*
- *African Care collaborated with Fingo PowerBank, Afgoye Clinic staff and Meisour Global Solutions*
- ***Numbers beneficiaries:** Staff (13), 1200 pregnant women and around 20 000 Out Patients including IDPs visiting the Clinic*



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What is new in this experimentation

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1. Digitization of existing registries which consists of.

a. Antenatal Care (ANC) register

b. Prenatal Care (PNC) register.

c. Labour Delivery register.

d. Immunization.

2. Development of Electronic medical record (EMR) system

The EMR system replaces paper records and manual workflows with digital files and electronic transmissions.

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Challenges

1. *Poor internet connection.*
2. *The EMR uses SMS gateway for patient notifications, the SMS gateway requires stable connection to send SMS at the required time.*

Modifications/changes to address the challenges

1. *To solve the connection problems, we decided to install the EMR locally (Offline) in their local area network.*

1. *As for the SMS challenge, we decided to get a separate SMS platform provided by a local telecommunication company, this gives them the ability to send SMS offline without requiring any internet connection.*

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Results and successes

Results/achievements

Core modules of the of implemented EMR consists of the following:

- *Patient Registration*
- *Patient Records Management*
- *In-patient Management : includes patients transfer, discharge and admission events, Ward management, beds monitoring.*
- *Patients Lab management including Sample Tracking*
- *Embedded Laboratory Management centred to track and report patient samples.*
- *Queue management Stock Management*
- *PNC, ANC, Labour Delivery and Immunization registry management.*
- *Reporting System which has the exporting set ready for exporting to Excel and other spreadsheet applications.*

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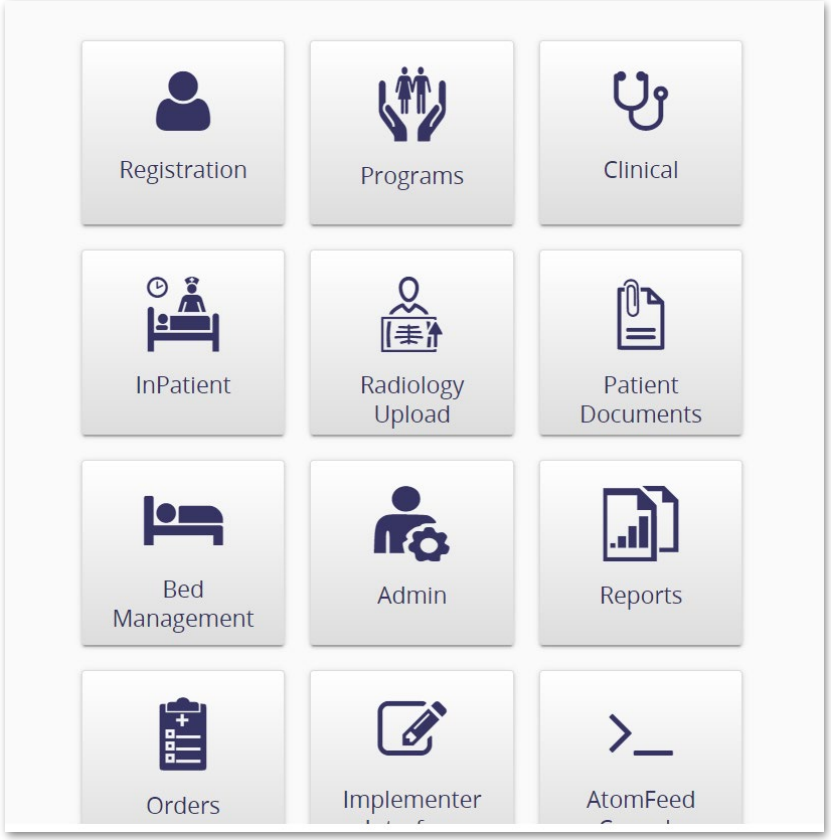
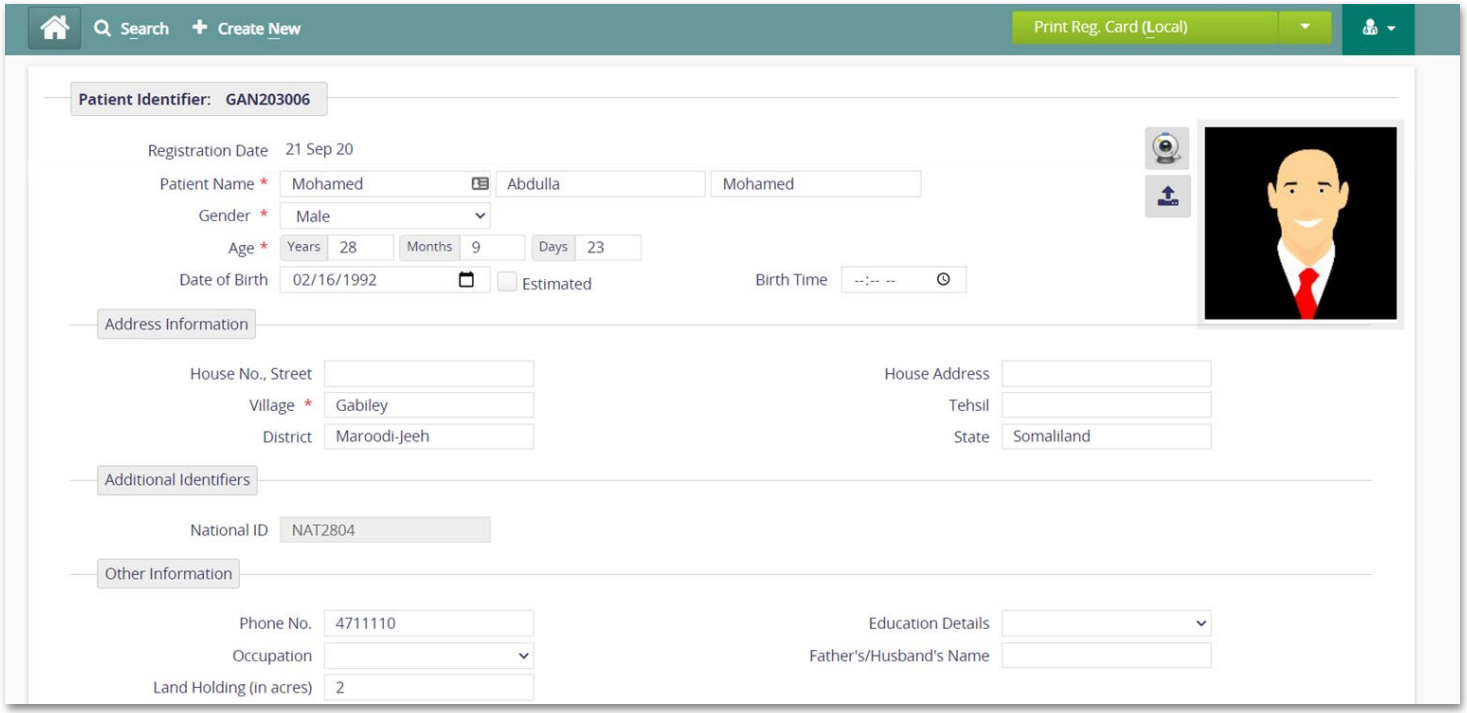
Experimented solution *is Bahmni Electronic Health Records EHR that supports registering patient records, laboratory tests and results, last visit observations, registering diagnosis and medication, managing patient disposition and taking consultation notes.*





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Overview of patient record e.g. visits, lab results, diagnosis and cosultations…

General | + | Print | General Ward | Consultation

Mohamed Mohamed (GAN203006) | Male | 28 Years 9 months 23 days | National ID: NAT2804 | Caste: 0634732245 | Class: General

Mohamed Mohamed (GAN203006) - Male, **28** Years **9** months **23** days
afgooye

Date of Birth 17 Feb 92

Home Dashboard | Patient Visit Page | Patient ADT Page | Program Management Page | Visit Attributes | Registration

Treatments

Visit On 21 Sep 20

Paracetamol Paediatric 125mg/5ml (Suspension)	2 Tablet(s), Every 3 hours, Intravenous - 5 Day(s)	22 Sep 20

Lab Results

- Accession at 23 Sep 20 6:49 pm
  - Anaemia Panel
  - CBC - General
- Accession at 22 Sep 20 1:41 pm

Pacs

No Radiology Order for this patient

Programs

Active Treatments

HIV Program	**Start Date** : 29 Sep 20

Diagnosis

Giardiasis	PRESUMED	SECONDARY	23 Sep 20
Anemia, acute blood loss	PRESUMED	SECONDARY	22 Sep 20

Visits

10 Dec 20 ★	OPD
03 Nov 20 - 05 Nov 20	OPD
13 Oct 20 - 13 Oct 20	OPD
28 Sep 20 - 28 Sep 20	OPD
23 Sep 20 - 23 Sep 20	OPD
21 Sep 20 - 23 Sep 20	OPD

Radiology

No documents for this patient.

Disposition

No dispositions available.

Lab Orders Fulfillment

CBC - General	Super Man	23 Sep 20 6:49 pm
No observations captured for this order.		
Anaemia Panel	Super Man	23 Sep 20 6:49 pm
TLC	Super Man	22 Sep 20 1:41 pm
Total Count	Super Man	22 Sep 20 1:41 pm

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Expectations after this experiment

- Providing accurate, up-to-date, and complete information about patients at the point of care
- Enabling quick access to patient records for more coordinated, efficient care
- Securely sharing electronic information with patients and other health care professionals
- Helping providers more effectively diagnose patients, reduce medical errors, and provide safer care
- Improving patient and provider interaction and communication, as well as health care convenience
- Enabling safer, more reliable prescribing
- Enhancing privacy and security of patient data
- Enabling providers to improve efficiency and help more people
- Reducing costs through decreased paperwork, improved safety and improved health.

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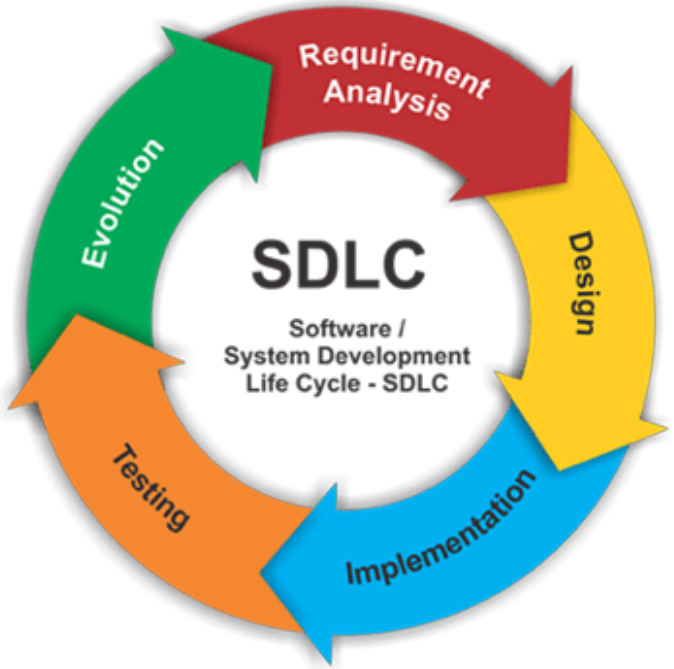
Principles for Digital Development

The principles or the process for implementing of this experimentation consisted of the following:

1. Planning and Requirement Analysis (African Care,Fingo PowerBank, Afgoye Clinic staff)
2. Defining Requirements (AC & Afgoye Clinic)
3. Designing and Co-creation (AC, Afgoye Clinic and Meisour Global Solutions)
4. Testing (with the end user) & Deployment. (AC, Afgoye Clinic and Meisour)



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Feasibility for scaling

Possibility of scaling the experimentation

- *The EMR system is a web-based system which means it could be moved to online at any time without losing the original data.*
- *Solution is flexible to modify and deploy to similar health clinics using traditional paper registers*

Future Improvements

The EMR solution consists of Clinic Services management, Laboratory Management and Odoo ERP. This all could be combined in one ERP to help providers access data from one platform instead of accessing three different platforms.

After the experimentation there is a need to upgrade the ITC infrastructure, skills & localize the system

The solution is co-created with Clinic staff in Afgoye, Somalia, African Care and a developer from Meisour Global Solutions - www.meisour.com

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THANK YOU

Fingo PowerBank staff, Afgoye Clinic staff & Meisour Global Solutions

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