Africa eHealth Foundation

AFRICA eHEALTH FOUNDATION

ANNUAL REPORT 2020

Africa eHealth Foundation

Summary of the activities of the Africa eHealth Foundation 2020

Background

The Foundation was established on 27th December 2016 under the name 'Stichting eCareAccess' and later changed to 'Africa eHealth Foundation'. The Foundation was granted an ANBI status on 5th of February 2018 with as effective date on 27th December 2016.

The actual activities of the Foundation started in the course of 2017 with the development of the operationalisation of the objectives and the activities. The point of departure is the vision of 'affordable quality care for all'. The use of digital means combined with change management and best practices is the core of the approach. The key focus areas are:

- Performance improvement for the health facility and referral chain
- Cardio vascular risk management and diabetes mellitus
- Mental health
- Community empowerment (related to the above-mentioned areas)

The target group are NGO hospitals, generally former mission hospitals in Africa. These hospitals are often focussed at the common man, the poor and the vulnerable. Their mission is to create social impact. Within the local context, these hospitals generally deliver quality care. However, they see their support base shrinking with a rapid decline of donors. Government made arrangements that oblige these hospitals to deliver services, while the public contribution significantly lacks behind. Consequently these hospitals risk to enter in a downward spiral. New ways of working are required and new strategic directions in order to assure 'affordable quality care for all', including the disadvantaged. Generally the NGO hospitals lack chronically funds and the ability to come to a mind shift to set out a new course.

The Africa eHealth Foundation provides financial support, coaching and best practices to assist these hospitals to reach a higher level of performance and to become sustainable. From the experience it is clear that to create a lasting impact three conditions are needed:

- a sound business case
- accepted social change
- embedded triggers for continuous improvement.

Information and communication technology (ICT) is the main enabler for the 'renaissance' of the NGO hospitals. Experience learns that more is needed than technology only, as new paradigms and working practices have to be developed.

Africa eHealth Foundation

Healthcare challenges in Africa

Hospitals	Patients	Family members	Doctors

Hospitals

- Fragmented care delivery due to vertical governmental based programs (HIV/AIDS, TB
- Shortage of qualified, resources and staff.
- Lack of adequate medical records keeping
- Lack of knowledge and intrinsic motivation to reinvest money made in hospital improvements

Patients

- Poor health seeking behaviour
- Poor compliance due to lack of funds
- Poor knowledge about their diseases

Family members

- Are expected to support the patients, but also lack knowledge and funds.

Doctors

- Overloaded by too many consultations / patients
- Perform mostly curative care, hardly any preventive services.
- Lack of standardization of care delivery
- Challenges:
  - Misdiagnosis
  - Late diagnoses
  - No diagnoses
  - Prevention

Activities in 2020

In 2020, a good start was made to further operationalise three fields:

(a) the digital transformation of an African hospital;

(b) the development of empowered community care and connected care as from the individual to the primary health care centres, hospitals and telemedicine services (in Ghana);

(c) performance improvement for the health facility and referral chain with software solutions and best practices with a focus on general hospital management, maternal health care and cardio vascular risk management and diabetes mellitus (in Kenya).

The progress in each field is summarized below. 2020 was a special and difficult year. Covid-19 slowed down operations- especially in Ghana. Nevertheless we were able to continue with our activities at a slower pace.

In memoriam

In Ghana, our dear partner Samuel Bediako Waterberg, passed away on 27th of March 2020 due to COVID-19.
Samuel was a very talented young man who worked intensively to improve the life of people in Ghana. Internationally, he was well known. He was a loving father with two children.
We all miss him.

The digital transformation of an African hospital

The Africa eHealth Foundation wants to achieve the ‘renaissance’ of the NGO hospitals by supporting the existing initiatives of European medical professionals and hospitals that support African NGO hospitals and by providing additional expertise on digital transformation and innovation in health care. A number of experts participated in the development of an approach to digital transformation. The starting point was often; “What is the context, the problems mentioned and what are the questions that I pose”. This hands-on approach combined with scientific insights has grown into a body of knowledge that can be used in the activities of the Foundation in the future. In 2020, a start was made to test a tool to make a quick scan of

the hospital performance according to five dimensions: patient satisfaction, quality of (clinical) care, costs of care, performance of health professionals, (financial) performance of the health facility. The Penta Aim concept provides a balanced view on health care from the perspective of the main stakeholders involved.

A second activity was the development of the concept of 'Continuous Improvement Cycles' (CIC) for a health facility, including outreach staff. It is a gradual improvement programme based on the principles of Kaizen and adapted to the relevant context.

Empowered Community Care (Ghana)

Many hospitals in Ghana closed down their clinics for some time due to Covid-19 to reduce the transmission of the virus. As in Europe better times are hopefully on the way with the start of the vaccination program in many countries. Sadly, in Africa, this seems still a long road to travel. As of today, COVID cases are on the rise again in Ghana. In this report we present the results achieved in 2020 and the outline for 2021.

The Smart Community Empowerment project in Ghana is implemented in collaboration with the Phillips Foundation. The project is implemented at two sites; Madina (on the outskirts of greater Accra) and Holy Family Hospital in the rural areas.

Madina, Pentecost Hospital is a mission hospital owned by Pentecost Church and a member of Christian Health Association of Ghana (CHAG). Located in the Madina district in the Greater Accra region. The Hospital is a 52-bed facility and is receiving referrals from clinics and health centres in the municipality and beyond.

Holy Family Hospital is a faith-based hospital of the Roman Catholic Church, also member of CHAG, located in the district of Nkawkaw which is a 3 hours' drive from Accra.

<u>Pentecost Hospital in Madina – Accra</u>
The majority of the patients attending the specialist clinic have been captured in the AfyaPro software. By using the care path solution for both diabetes and hypertensive patients we provide the doctors a protocolized workflow of treating these patient groups in the clinic. As doctors are overloaded by the number of patient cases each day it is highly necessary that processes in the clinic become more efficient. The protocolized workflow in AfyaPro offers the doctors a tool to classify patients (mild- normal – severe cases) and makes task shifting (doctor to nurse) possible. This way of working, together with the eCare centre and the app for the patients makes AfyaPro a sustainable solution for the future.

At the end of 2020, a small pilot has started on task shifting in combination with the patient app amongst some patients participating in the community groups. These patients were provided a glucometer and were taught how to use the glucometer and the patient app. Also the patients were followed up by two community nurses (every two weeks) to coach them in self managing their diabetes and to monitor their disease. The nurses closely communicate with the specialist doctor in the hospital when sugar levels are abnormal. Results are yet to be collected. However, we find that patient become more in charge of their disease and start to feel more

confident in managing it. They have to pay less visits to the doctor and save money and time on consultations and travelling.

Patients have been trained in using the glucometers which we provided for them. Using a glucometer is part of learning how to self-manage diabetes. Unfortunately, buying a glucometer is not possible for the majority of diabetes patients. The hospital donates glucometers for patients with unstable sugar levels. In agreement with the specialist doctor, we have carefully selected the participants for this pilot

This specific pilot project is a result of the empowerment sessions with church and mosque communities we have held in the year 2020. Participants in these sessions are members of the community living in the neighbourhood of the hospital and who are (potential) patients. The aim of these session facilitated by our researcher was to identify better ways of working that serve both the communities and the hospital. Bringing together the hospital and their catchment area is a different approach towards patients' satisfaction, improved health seeking behaviour and efficiency.

Holy Family Hospital – Nkawkaw

Holy Family hospital is a referral district hospital serving a population of approximately 117000 living in the Nkawkaw district and beyond. The hospital is serving between 8000-9000 outpatients a month as well as between 700-900 inpatients. Antenatal care is excluded from these numbers and serve another 1000-2000 patients a month with 100-150 new registrations of pregnancies a month. Besides these numbers the hospital is also running a diabetes/hypertension clinic on Tuesdays and Fridays to which approximately 480 patients attend a month (60 patient each day).

The team; Start community empowerment session at Holy Family Hospital

In the Holy Family hospital, we are starting up the project. Meaning that we have started configuring the technical implementation and we are working on the data migration. The first sessions with the community empowerment groups started already in late 2020. A baseline is conducted and data is yet to be collected and analysed.

Novo Nordisk is running a project on diabetes as well from the hospital, focussing on community screening and education. As our projects are beneficial to each other we have linked up to explore opportunities for collaboration within this project but also for the future.

Primary Health Care Kenya

This project started in Kenya in 2020. The purpose is to demonstrate the easiness of use, the cost effectiveness and the health outcomes of a comprehensive set of digital solutions and related best practices for Primary Heath Care in Kenya. The project includes the digitization of four health facilities in Kiambu County. Both the public sectors and the RC health facilities participate in the project. The desired results are:

1. Three fully digitized Primary Health Centre and one Hospital including reporting in DHIS2, which is the public health reporting system.

2. Strengthening cardio/ diabetes/hypertension care through use of a supportive mobile App. And to have an eCare possibility (i.e. supporting patients from distance through a call centre at a diabetes clinic at a convenient location to be decided in mutual consultation).

3. Strengthening maternal health care by using the Mobile Obstetrics Monitoring (MOM). This is a software solution (by Philips Innovation Centre) that allows community healthcare workers to perform antenatal risk stratification, receive diagnostic assistance, and assess a patient’s progress via a mobile device to enhance maternal care in community settings. With MOM, ObGyns and midwives jointly review and manage each case. The MOM application is integrated in AfyaPro.

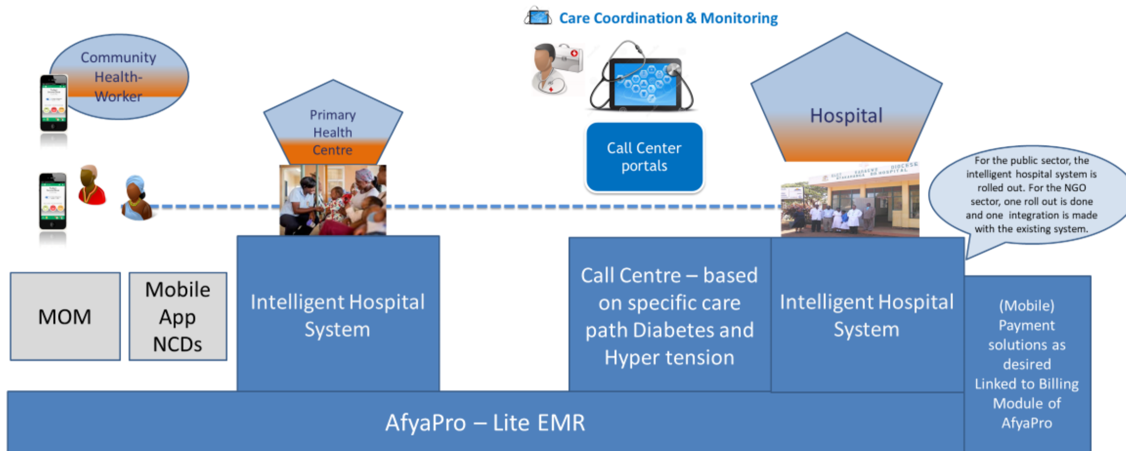
4. Assist the health facility in continuously improving their performance at the pace indicated by the health facility. This called Continuous Improvement Cycles. The CICs follow a simple Plan-Do-Check- Adjust (PDA) cycle of two months. This will be guided by the change team and coordinated by the process owner at health facility level. The analysis of the current situation and setting the targets is done in a participatory manner with at all relevant actors involved. The first CIC session will take about one and a half day, next sessions will be within a day. The core tenets of CIC are:
   (a) Standardizing a process so that it’s repeatable and organized,
   (b) Focusing on measurability and evaluating progress using data,
   (c) Comparing results against the goals set (i.e. 80% adherence to the care programme),
   (d) Innovating new and better ways to achieve similar results,
   (e) Responding to changing circumstance and (reflexive) learning to continuously improve the PDA cycles.

5. Research on results and impact for (1) patient satisfaction, (2) clinical outcomes, (3) costs of care, For this purpose a base line survey has to be made prior to start-up of the project.

6. Organise knowledge sharing around engagement/adoption, results, impact and attributes/relevant processes for scaling for both the technology as well as the related performance improvement practices.

The project was delayed due to COVID-19 and the time consuming process of obtaining all required research permits. In 2020, the integration MOM with AfyaPro was completed. The baseline survey started in February 2021 as well the implementation on the four sites. In 2021, the project implementation will be accelerated. The overall system is sketched below.

Overview - Integrated Digital Solution



Support

The PR activities and fundraising activities have been halted in 2020. A gift has been received to assist the development of another objective of the Africa eHealth Foundation i.e. the strengthening and digital support for mental health care.

Outlook

In 2021,the three key activities will be further pursued. A more active use of business information should contribute to performance improvement of the health facilities. For hypertension and diabetes, artificial intelligence and machine learning play could play an important role. The intention is to apply it in Ghana.

As of mid-2021, the field of eMental Health will be addressed. The start will be made by linking it to cardio vascular and diabetes as chronic patients often experience depression and other mental problems.

The linkage with universities and research will be further strengthened in 2021. Presently, Pearl Aovare pursues PhD research on the community empowerment approach for cardio vascular and diabetes at the Amsterdam Medical Centre. For the Kenya project, a collaboration has started with University of Nairobi and the Erasmus University Rotterdam.

Veenendaal, 12th February 2021

The Board,

(was signed by)

Dr. Ir. N.P. Moens | Dr. H. Vergunst | A. Fieret RA RB

Balance sheet as at 31 December 2020

		31-12-2020		31-12-2019
Actifs				
Tangible assets				
Shares in related companies		40		40
Current assets				
Cash at bank and at hand		109.654		130.848
Total actif		**109.694**		**130.888**
Passifs				
Capital and reserves				
Continuity reserve	5.737		6.874	
Designated funds	4.500		3.500	
		10.237		10.374
Current liabilities				
Creditors and short term payables		99.457		120.514
Total passif		**109.694**		**130.888**

Statement of income and expenditure 2020

	2020 Actual	2019 Actual
Income		
Income from fundraising	330.207	179.976
Total income	**330.207**	**179.976**
Expenditure		
Achievement of foundation goals	329.207	179.834
Fundraising	0	666
Salary costs	0	0
Management and administration	1.137	2.741
Total expenditure	**330.344**	**183.241**
Profit/loss of the year	**-137**	**-3.265**
Allocation of the annual result		
Continuity reserve	-1.137	-4.265
Designated funds	1.000	1.000
Profit/loss of the year	**-137**	**-3.265**

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Cash flow statement 2020

	2020 Actual	2019 Actual
Profit/loss of the year	-137	-3.265
Movement in short term receivables	0	0
Movement in short term payables	-21.057	119.566
Cashflow from operations	**-21.194**	**116.301**
Cash flow from investment activities	**0**	**0**
Financial cash flow	**0**	**0**
Cashflow of the year	**-21.194**	**116.301**
Cash at bank and in hand at 1 January	130.848	14.547
Cash at bank and in hand at 31 December	**109.654**	**130.848**

Significant accounting policies for the preparation of the financial statements

The financial statements have been prepared in accordance with Title 9, Book 2 of the Netherlands Civil Code and with the guidelines RJ650 for fundraising organizations.

The principal accounting policies adopted are set out below.

Accounting convention
The financial statements are prepared under the historical cost convention.

Assets and liabilities
Unless presented otherwise, the relevant principle for the specific balance sheet item, assets and liabilities are presented at cost.

Financial fixed assets
Participations are valued at historical cost. The result represents the dividend declared in the reporting year, whereby dividend not distributed in cash is valued at fair value.

Receivables
Receivables are included at face value, less any provision for doubtful accounts. These provisions are determined by individual assessment of the receivables.

Principles for the determination of the result

Income
Project income is recognized in the income statement in the year in which corresponding expenses have been made. Project losses are recognized in the year in which they are foreseen.

Expenses
Expenses are recognized in the year in which they arise.