Africa eHealth Foundation

POLICY PLAN

Version 4 of 16 April 2021, policy plan

CONTENTS

1 The state of health care 2

2. A new direction towards a solution 2

3. Why AeHF 3

4. Policy Plan – Preliminary work and Vision 5

5. Goals and approach 6

6. Organisation 8

Africa eHealth Foundation

1 THE STATE OF HEALTH CARE

Healthcare remains a problem in Africa. Many examples can be provided, but this quote is illustrative.

In this world, 1.2 billion people still live in extreme poverty. One third of them lives in sub-Saharan Africa. An indicator is child mortality. This has fallen 41 percent since 1990, but still about 10,000 children die every day. A child younger than 5 years has 16 times more risk in Africa than in developed countries.

Progress in improving the health system is slow. The number of private clinics increases to the benefit of those with purchasing power. There is a shortage of qualified doctors and drug supply is often inadequate. Generally, the organizational and institutional problems are overwhelming. Many experts who visited on site gave advice. It turned out difficult to lift the health system to a higher level. Besides problems with the quality of health care, the access to health care is also very uneven. Disadvantaged rural areas and urban poverty have as a result that the poorer communities suffer most from poor health service.

2. A NEW DIRECTION TOWARDS A SOLUTION

What is most noticeable in Africa is the extensive use of mobile phones in everyday life. This is due to the poor physical and institutional infrastructure. A mobile phone eases communication and transactions (purchases, water bills, electricity, insurance, etc.). Services and payments have become much more transparent. In addition, there are no IT 'legacy' problems and bigger steps are possible. This development accelerates. In Africa, a new generation grows up who are better educated, better informed about todays' world, and eager for change.

Healthcare without IT is unthinkable. In Europe, it's considered a major source of innovation in health care. Here IT improves health care with a few percent per year, but it can do so with tens of percentages in Africa. The use of eHealth seemed a luxury for healthcare in Africa 10 years ago. Recently, a number of pilot projects have shown that this can make a significant contribution to better and above all more accessible and affordable care.

Examples to which AeHF members have contributed are:

Doctors from several Mali hospitals agree to send X-rays electronically to a hospital where a team is formed to diagnose. A simple technical solution is devised and implemented together to convert the analogue images into digital. They practice it, agree on the mutual settlement and it works. It is already running well and without external support since 2011. 8 Hospitals in remote rural areas are connected to the radiology department of central hospital in Bamako. 86 doctors are involved and the number of cases varies from 700 to 1100 per year[1]

---

[1] *Hospital in Bamako. - 8 hospitals connected with Point G Hospital in Bamako 2005 pilot in Point G and Mopti, Sikasso, Timbuktu 2007 expansion to Ségou, Gao, Kayes, Kidal 2009 PPP with Morila Gold Mine Health Service*

.

A number of Tanzanian hospitals have introduced an electronic system for patient registration, patient records and logistic support. Nurses and doctors get an extra reward if they use the system properly. Hospital income increases by 30% and ultimately one can manage based on information and correct reports. The eHealth system is maintained locally. If managed well, the benefits exceed the costs so other investments can also be made at the hospital.

In Zimbabwe, one goes further by linking the hospital system to an eVoucher. The target group - poor future mothers - get a voucher for the pregnancy, birth and aftercare. Cash money is paid per mobile phone. The whole system is paperless including reporting to the health authorities and reporting the health statistics. It operates since end 2015 in the cities of Harare and Bulawayo.

3. WHY AEHF

There are a number of reasons to set up AeHF.

First, the focus of AeHF is to stimulate integrated health facility systems –from dispensaries to specialized hospitals - with an outreach to patients through patient portals and mobile applications. This powerful technology inspires data-driven improvements and makes drastic transformations to a higher level of performance possible. However, just like in the Netherlands, digital transformation cannot be tackled on spot. It is a change and growth path for the health facility and its people.

Secondly, there are Dutch doctors and hospitals who volunteer a few weeks a year to help patients in Africa. For example, by performing specialized operations, training and donating materials. The impact of this assistance can increase by providing digital support, organized through AeHF logistics. If a hospital has a modern HMIS system, a Dutch doctor can assist from distance based on accurate patient information and tele-medicine facilities. Management improvements are followed-up remotely, because data is digitally available. Further improvement will be achieved if these initiatives are integrated into a growth and change program -a transformation path - for the hospital.

Thirdly, it is the wish of VitalHealth Software that its Corporate Social Responsibility Donation will be well utilized and that a part of the outcome of Africa eHealth Solutions BV will flow back into AeHF in order to create a sustainable support structure for eHealth in Africa. For this reason, AeHF has acquired 25% of Africa eHealth's shares and has the task to monitor the realization of the Africa eHealth Solution's social impact mission, i.e. providing affordable quality care for all. The primary objective of AeHF is to support healthcare in Africa with knowledge, fundraising and the realization of development projects that boosts health care by using IT.

Yet, the question remains how appropriate and distinctive this initiative is. In other words, what is the added value? Below a narrative analysis is provided of the development of healthcare in Africa. Thereafter, the possibilities for IT applications to assist and the position of mission hospitals is elaborated. The last point addressed is whether the AeHF initiative is distinctive.

Fragmentation in health care is Africa is a problem. Healthcare is strongly controlled by projects and programs focused on just one subject, such as HIV / AIDS. The management of the whole sector is highly bureaucratic and with limited financial resources. In Africa, the hospital is often the integrator of care, but there is limited room for her voice to be heard. Mission hospitals often carry out a number of public tasks and get some government or national health insurance compensation. This contribution has decreased relatively and their possibilities to request higher contributions of patients are often limited. At the same time, there is an increasing gap between the poor and the rich. Because, the patient's "own contribution" becomes essential to get health services. Patients with purchase power tend to visit more and more private hospitals. While mission hospitals feel the obligation to care for the poor and vulnerable. These developments stresses the mission hospitals revenues and pressurizes a revision of their ways of working. But how?

The application of IT in the health sector does not go well yet. Some mobile IT applications are used. These are often simple and stand-alone solutions. Quite a number of applications are aimed at data collection and in fact more on the needs of donors / government than on the patients' needs. In addition, many development programs focus on one topic, such as malaria control, TBC control, HIV/AIDS. This leads to fragmentation of health care. A better approach to IT in healthcare is to focus on the patient, enabled by the electronic health record and to use integrated IT solutions. This automatically will generate reliable data, instead of the highly polluted data actually.

Mission hospitals are the historical core of the Afrikaans health system. They are known for their reliability, quality and accessibility for the poor people. Over time, also the public and pure private healthcare providers emerged. Public care is often qualitatively weak. The purely private care is often relatively expensive while the quality cannot be assured. The size of these categories of care providers differ from country to country. An indication is 30% mission, 40% public and 30% purely private. Amongst these care providers is cooperation, but there is also tension. International donors generally support the public sector, but support for mission hospitals is rapidly declining. A recent development is that a number of European countries push strongly a different value agenda and development funds are the carrot and stick to force their way through. This translates into pressure on Christian hospitals in Africa to adopt secular Western values.

Mission hospitals are important for the implementation of innovations and act as a benchmark for the quality of the national health care. The stronger motivation and the better organization of the mission hospitals plays a role. A handicap of these hospitals is that they are used to financial support from foreign donors and tend to have an attitude of 'dependency'. But this 'business model' has long been outdated. New perspectives are needed. But it's hard to develop new thinking if the workload and the survival of every day of every day occupy your mind. . The workload of each day, lack of exposure, knowledge and no or only a flawed IT system. An additional stimulus could help to get a change process going, for example peer learning, coaching or developing a new business model.

Dutch doctors and other care professionals are often active in mission hospitals in Africa. One or more times a year, they travel to Africa to perform surgery or to teach. Quite some Western students go for an internship to Africa and ad hoc donations are linked to this. This personal involvement and effort is very positive. The caveat is that it is fragmented and not sustainable.

AeHF wants to provide the opportunity to support the above-mentioned voluntary work through eHealth solutions and to connect the care professionals. In addition, 'smart digital solutions' need to improve management and efficiency in order to achieve affordable quality health care. The experiences with eHealth have taught that it is possible to have structured management and patient data 'at the finger tips'. As a result, management can become more data driven and evidence-based. IT also offers opportunities for feedback and

behavioural change. This is well illustrated by the experience with result-based financing in Africa[2]. Information systems enable process improvement, quality monitoring, remote support etc. These improvements turned out to be so difficult without IT in Africa – millions of dollars have been spent and wasted on it. A holistic and well tested approach to the use of IT in health facilities will be of great help. In this way, a hospital can create a transformation path to upgrade the quality of care and to get into a stronger financial position.

Does the AeHF initiative add to development work? Yes, because in the Netherlands there are no specific organizations that connects the medical profession and IT in order to structurally improve the health care provision, especially by mission hospitals. However, there are many foundations that support individual or groups of hospitals. AeHF is complementary to them and they can profit from the experience of AeHF and its local support network around Africa.

4. POLICY PLAN – PRELIMINARY WORK AND VISION

Prior to the establishment of the AeHF foundation, a number of conversations were conducted with Dutch physicians working from time to time in Africa, the branch organization Relief in NL, the branch organization of the Christian hospitals Tanzania and Ghana, foundations that support hospitals in Africa and experts in the field of tropical health. This indicated ample support for the establishment of AeHF and provided valuable input for its objectives and activities.

The foundation was founded on 27 December 2016. The articles of association set out below. In parallel to the establishment of the foundation a number of projects are initiated.

1. The Foundation aims to:

a) Supporting, developing and implementing smart digital solutions in health care and well-being in Africa and other development areas.
b) To carry out any further actions which are in the broadest sense or may be conducive to the above.

2. The foundation seeks to achieve its goal, among other things, by:

a) Promoting health and well-being through professional collegial support and digital solutions in health care in line with the values of mission hospitals;
b) Promoting local innovation for smart digital care solutions and the associated software development by working in tandem between African, European, American and other relevant international parties;
c) Attracting funding and strengthening the sustainability of smart digital care solutions for health facilities in Africa (and Asia);

The vison of AeHF is 'Affordable Quality Care for All', especially for those who are poor, deprived and excluded. Yet access to care is part of an overall system. Only if the whole system works the deprived can be assisted in a

[2] http://siteresources.worldbank.org/INTAFRICA/Resources/AHF-results-based-financing.pdf

structural and sustainable manner. How to realise this ambitious goal is a journey and best represented by a future state of Ubi-Care.

This project is a dream that has evolved in concept. It involves connecting patients, community health workers, dispensaries and hospitals. A complete ecosystem that works together. The core is a well-running Electronic health record system (EHR) and a hospital information system(HMIS). Reference to other health facilities is electronic because they also use such systems. Through a patient portal and mobile applications, a connection with the patients and their families is established. Knowledge can be "pushed" to patients. Due to the availability of data for each patient, the quality of care greatly increases. In addition, decision support systems can be used and knowledge systems. This is practical in an environment with a scarcity of medical professionals.

There is a significant difference in the availability of data, the feedback systems and increased patient empowerment. Data will be like 'blood' flowing through the health system. Innovative is also the addition of machine learning-artificial intelligence that shows the outcomes of care. This applies for all key medical conditions that AeHF has prioritised: (1) non communicable diseases, especially cardio vascular risk management and diabetes, (2) mental health, (3) maternal health care. Continuous improvement of the performance of the health facility and community empowerment are goals, AeHF pursues, because this is a do-able action at local level.

5. GOALS AND APPROACH

Mission: support, develop, implement and coach smart digital solutions for health care and well-being in Africa (with possible expansion in Asia) in a holistic way.

Five objectives:

1. Development and implementation of smart digital solutions in a holistic way to assure sustainability and performance improvement in health care, especially in NGO hospitals. Linking medical doctors in the Netherlands to these hospitals and support them with remote care and telemedicine facilities is a part of this objective
2. Supporting the improvement in preventive and curative health for cardio vascular risk management and diabetes, mental health, maternal health care. This includes research on the configuration of digital means, best practices and contextual conditions.
3. Develop community empowerment as a tool to improve population health and to strengthen the fore-mentioned objectives.
4. Development of a (digital) transformative path for health facilities and coaching of the health professionals. (A data-driven and holistic transformation path for African Health Facilities)
5. Stimulate the use of artificial intelligence and machine based learning to achieve for-mentioned objective and to generate a strong social impact.

AeHF achieves her goals by carrying out practical projects that enhance the possibilities of to increase NGO health facilities (mission) in Africa to be affordable and high-quality provide care to everyone. This implies a reduction in costs and others obstacles for the poor and disadvantaged populations to access healthcare. To improve the capacities of the health facilities, AeHF stimulates the digital transformation of the health facility by assisting them in acquiring and deploying software and hardware to operate the health facility digitize. With Open Source tools such as DHIS2, the healthcare institution becomes empowered set to better manage based on data. Support is provided to generate and disseminate best practices. The goal is to be continuous initiate improvement cycles; many small steps that lead to a jump in the performance. Community empowerment is stimulated. Two important clinical ones areas AeHF focusses on are cardio vascular risk management and diabetes management, mental health and maternal health care.

Each of the above objectives must grow predefined activities. These activities will be undertaken with respect of a number of principles in order to strengthen the initiative and ownership of African and Asian hospitals. These principles are derived from the lessons learnt in the past.

Principles

- Activities are based on the needs expressed by the receivers (ownership). (Development is ‘owned’ by those concerned);
- Activities are part of a transformation process of the health facilities and the contributions of external care providers are always included in this perspective;
- A health facility and its affiliation area is considered as a system and interventions in a care path are measured based on the health outcome for the patient.
- Activities respect the values of the mission hospitals often defined in Africa as ‘ in line with the compassion and spirit of Jesus Christ’;
- Managerial and political aspects are dealt with locally by those primarily concerned;
- Innovative solutions are encouraged and welcomed as long as they are sustainable.
- Activities are open for open source applications and multiple vendors/suppliers.
- Collaboration within the eco-system.
- Ethical behaviour, non-discrimination and anti-corruption.

The policy is translated in practical projects in the field and research activities. See annual reports for more details.

6. ORGANISATION

The board consists of 3 members. In the composition of the board, the board strives to have as many competencies as possible in the field of medical, administrative, financial and legal and in the field of operational management. To acquire competences in the field of fundraising is a point of attention.

Within the board there are the functions of chairman, secretary, treasurer.

The board does not receive any compensation for the work performed. (Travel) costs incurred for administrative work may be declared.

Expenditure of resources is aimed at the primary objectives of the foundation. During the policy period, the organization looks for a responsible relationship between the gifts and subsidies received and the costs of the objective. The basic principle is that the donations and subsidies received will be fully spent voluntarily on the objectives, with the exception of the formation of a continuity reserve of limited size and the costs of fundraising and management and administration. The structural standard of the organization for the costs of its own fundraising is a maximum of 5% of the income from its own fundraising.