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Top 5 Trends in
Digital Health
in Africa

By Odette Kibu, Health Policy Analyst

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Odette Kibu, Author
** *Dr Denis Foretia, Co-Author*

Technology has affected a wide range of sectors in our society, including agriculture, economic, education and socio-political sectors, positively. Digital technologies have transformed the way people work, shop, and socialize. The advantages of digital technology are used by healthcare providers and they have begun deploying digital tools to better understand and serve their patients.

Digital health is defined as the merging of digital and genomic technologies with health, healthcare, living, and society to enhance the efficiency of healthcare delivery and make medicines more personalized and precise[1]. The convergence of science and technology in our dynamic digital era has resulted in the development of innovative digital health devices that allow easy and accurate specification of health and disease processes. It spans a vast array of technologies and applications, including patient monitoring, virtual reality rehabilitation, machine learning to model medical outcomes, clinical decision support, personal metabolomics services, wearable medical devices and many more.

These technologies include both hardware and software solutions and services, including telemedicine, web-based analysis, email, mobile phones and applications, text messages, and clinic or remote monitoring sensors[2]. The use of modern technologies and digital services

does not apply only to how people communicate. Additionally, they offer more innovative ways for monitoring health, by removing the burden of healthcare from the walls of a medical institution and by providing greater access to the personal data needed for self-management.

Digital health helps to

- reduce inefficiencies in healthcare delivery
- improve access to healthcare
- reduce healthcare costs
- increase quality of care
- make our health services more person-centred, and
- personalise medicine for each patient's unique needs

The healthcare sector is slowly but steadily incorporating digital health in its effort to improve healthcare efficiency. A wind of revolution is blowing digital health across different parts of the world, including Africa. Some of the trends in Africa that have promoted the incorporation of digital technology into the healthcare system include:

1. Increased recognition of the importance of digital technology and government leadership

Africa has discovered the importance of digital technology in the economy. This has led to an increase in awareness of the value of transitioning to digital systems and of the opportunities made possible through mobile technology innovations. For example, during the Ebola Virus outbreak, there was the urgent need to share information across towns, cities, countries and the world concerning cause, prevention and management of the outbreak. There was also the need to be able to track, analyse, and share data quickly and effectively. The fastest and most efficient way of sharing information was with digital technology. Africa saw the importance of preventing and controlling disease outbreaks through the use of digital technology. Ministries of Health are involved and leading the process to coordinate digital health solutions in their countries, with support and capacity-building from a number of agents, including the World

Health Organization (WHO). More countries have established or are in the process of creating or updating national eHealth policies and strategies. A handful of countries have led the way with achievements in digital and mobile integration, providing inspiration for others.

2. Increased use of mobile technology to confront the epidemic of Non-Communicable Diseases (NCDs)

Africa, in past years, had high morbidity and mortality rates from communicable diseases such as malaria. NCDs lead to 38 million deaths worldwide annually with 80% occurring in low & middle income countries.

Today's health systems are geared towards episodic care; follow-up is usually inconsistent. Due to the growing epidemic of NCDs such diabetes, hypertension, heart disease, kidney failure, cancer, the integrated health system requires healthcare providers to focus on the patient and not simply the disease. Management of these diseases involve consistency in records, treatment and control of these diseases. Digital health can and has been shown to support this continuum of care in several ways. It can help to coordinate care across different levels of the system ensuring that important questions about preventive care and management of NCDs are incorporated into the care health workers are prompted to give to the patient. To deliver proper care to these patients, Africa is slowly integrating mobile technology to improve services built around patient needs.

3. Easy Accessibility to Information and Communication Tools

The greater availability and accessibility to mobile devices, including: (1) the growing access to, and use of smartphones, (2) decreasing costs of hardware and

devices, and (3) better network connectivity has expanded opportunities for the inclusion of digital technology programming in locations with sufficient access. The rapid spread of digital devices over the past few years has created a network of access for people outside of current health services arenas. About 95% of the world lives in an area covered by a mobile network; there are over 7 billion mobile subscriptions – one for almost every person on the planet. The number of local innovation hubs, which provide varying types of support and collaboration opportunities for innovators, and digital entrepreneurs responsive to local needs have grown tremendously in some countries. Improvements in design tools as well as distribution platforms (such as Google Play) have made it possible to get ideas developed and available much faster.

4. Increased Demand for personalized care

Patients want to be treated as a person, not as a constellation of symptoms. Patients demand clinical protocols that are complete in their assessment, leading to better care. This is not always possible due to reasons such as shortages of skilled workers and the imbalance of past investments between acute care settings and primary care or homecare. Healthcare services face limitations particularly when it comes to population-based prevention and precision medicine. Due to the increase in demand for personalised care, healthcare services cannot provide these services by itself. This is where individual empowerment through access to information and patient demand

outside the traditional healthcare sphere are transforming healthcare services into digital health. Despite the increased demand for personalized care, it is worth noting that the vast majority of the African population is still unable to access the very basic of care.

5. Focus on interoperability

Governments, donors, and implementing organizations are recognizing the importance of integration and interoperability that allows digital programs to transfer and retrieve information across systems. Conversation around the importance of standards and how to learn from implementation lessons in an effort to build a system to allow multiple solutions to work together are now occurring, with wide-scale adoption of these principals still in progress. There is a move toward supporting

and encouraging broader system and platform-level support with a focus on scale, and increased awareness of the need for more harmonious approaches.

With Africa currently undergoing a digital revolution, the World Health Organization Regional Office for Africa and the International Telecommunication Union (ITU) recently signed a Cooperation Agreement in Geneva on the 26 October, 2017; the focus of which was on how best to use digital services to save lives and improve people's health. The partnership will focus on building platforms to scale digital health at national level, build a capable workforce to effectively use ICT as well as address the need of multi-stakeholder partnerships for sustainable adoption of digital health.

Conclusion

Africa is undergoing a digital revolution. Without a doubt, the

adoption and implementation of digital health services will enhance the strengthening and transformation of healthcare services in Africa.

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Odette Kibu
Health Policy Analyst
Nkafu Policy Institute
Denis & Lenora Foretia
Foundation

Co-Author

Dr Denis Foretia is a surgeon and the Co-Chair of the Denis & Lenora Foretia Foundation, Senior Fellow at the Nkafu Policy Institute

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