
The Future of Healthcare in Africa

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EXECUTIVE SUMMARY

The continent of Africa has the second largest population in the world, but unfortunately, its potential for economic prosperity seems to be significantly hindered by its inadequate funding for healthcare. Factors such as climate, technology and demographics have led to a rise in both communicable infectious diseases such as malaria and tuberculosis and non-communicable diseases such as diabetes, and hypertension. Insufficient funding and doctor shortages are limiting the continent's growth and stifling the wellness of the African population. Initiatives aimed towards educating the public, expanding treatment options and most importantly retaining physicians could potentially improve health in Africa.

Keywords: Africa, Healthcare, African Economy, Public Healthcare, Private Healthcare, Doctor Shortages, Medical Funding

INTRODUCTION

Africa is the second largest continent in the world and also has the second largest population. There is a lot of potential associated with this continent in terms of economic growth and its rapidly growing population. The real GDP growth of Sub-Saharan Africa has fluctuated during the last decade: 3.84% in 2009, 7.11% in 2010, 1.35% in 2016, and then recently to a projected growth of 3.71% in 2019 (IMF, 2019). According to the World Health Organization (WHO), this economic growth has led to a new view of Africa (WHO, 2014). Despite this increasing prosperity, Sub-Saharan Africa has been experiencing numerous challenges related to the health status of its people and the healthcare system. Unfortunately, Africa carries twenty-three percent of the global disease burden, yet accounts for only one percent of the world healthcare expenditures (Ogbuoji et al., 2019). This statistic illustrates the challenge of African healthcare. Many countries experience the double burden of communicable diseases such as HIV, malaria, and tuberculosis, in addition to non-communicable diseases like cancer, hypertension, and diabetes. Changes need to be made to deliver better healthcare to African countries. In the same vein, enabling healthy well-being for citizens must become both a political and investment priority. When people are healthy and employed, they can create more economic gains, because they are contributing to society. Well and fit individuals are more productive. Similarly, healthy educated children can become knowledgeable, productive adults who would pass on their vital habits to future generations.

Sub-Saharan Africa (also called the African Region), is one of the six regions of the world identified by the World Health Organization. There has been some progress and success with regards to improvements in health outcomes over the past decade. There have been decreases in adult mortality rates and life expectancy has been increasing (although it is still far behind the rest of the world) as a result of reductions in extreme poverty and hunger. In addition, there has been an overall downward trend in infectious diseases (Agyepong et al., 2017). According to the 2014 WHO African Regional Health Report, increasing investments in the health sector would translate into billions of dollars in increases in income which could ultimately improve the social infrastructure and living conditions in many African countries. The report states that “for every 10% increase in life expectancy at birth there is a corresponding rise in economic growth of 0.4% per year” (WHO, 2014). However, Africa still experiences an abundance of challenges, because the rate of such improvements is not yet sufficient.

FACTORS THAT PLAY A ROLE IN AFRICAN HEALTHCARE

Agyepong et al. (2017) suggests that several factors contribute to the healthcare of the African population, some positively, and others negatively.

Economic Growth

Economic growth is very important for Africa, especially to increase government spending in the health sector. This will help strengthen national health systems and ultimately has the potential to save millions of lives since more treatments can be effected, along with faster diagnoses, and better education to prevent diseases.

Demographics and Urbanization

Demographics is another factor which has the capability to positively impact the continent. The co-author of the Lancet Commission Report, Alex Ezech, states that “Africa's young people will be key to bringing about the changes needed to accelerate efforts to improve health across Sub-Saharan Africa”. The African Region has the largest cohort of young people who could contribute to the labor force, thus increasing the demographic dividend which then could support more health investments. However, the rapid upsurge of urbanization in the African Region, most of which has been unplanned, has resulted in worsening air pollution, poor sanitation, inadequate water supply, and increases in slum dwellers. For example, hepatitis is a viral disease that can spread by food, water, or blood component contamination. If people reside in crowded unsanitary areas, the prevalence of this disease could grow exponentially. Similarly, air pollution can contribute to respiratory disorders by irritating the lungs such as evident in asthma, COPD, or emphysema (CDC, 2019) These issues raise the risk of illness and poor health, which is why solutions are needed to unite city policies with health initiatives.

Climate Change

Climate change is also an important factor to take into consideration and monitor since it has both direct and indirect effects. Direct effects include issues with food preservation methods, health complications, and even death due to high temperatures. Indirect effects include food and water insecurity due to extreme weather especially in fragile nations (i.e. dehydrated soil insufficient for crop growth).

Technology

Finally, information and communication technology can encourage a more positive and healthy lifestyle. An increase in mobile phone subscriptions and internet connections allow the people of Africa to use their digital devices to make healthy behavior choices and possibly combat the threat of non-communicable diseases. For example, individuals can have access to the internet to self-educate on the spread of illness, and recognize early disease symptoms. In addition, the rise of telehealth around the world is a pivotal online healthcare invention that would bring many benefits for people of the African Region (Vockley, 2015). Overall, Sub-Saharan Africa has a lot of opportunities and challenges that, if taken into serious consideration, could provide the continent with a new healthy reality

COMMUNICABLE AND NON-COMMUNICABLE DISEASES

Africa faces many challenges from the threat of communicable diseases. According to the World Health Organization, communicable diseases are “caused by microorganisms such as bacteria, viruses, parasites and fungi that can be spread, directly or indirectly, from one person to another” (WHO, 2017). Communicable ailments account for two-thirds of the total disease burden in Africa, while the remaining one-third is explained by non-communicable ailments (WHO, 2014). Between 2000 and 2015, AIDS-related deaths have decreased by thirty-six percent and the number of new HIV infections decreased by forty-three percent. HIV still continues to be an epidemic, especially in Africa’s urban areas and is more prevalent in women. (Agyepong et al, 2017). In order to achieve the United Nations’ goal to end AIDS by 2030, African nations have to concentrate on educating

the public, finding treatments, instilling prevention techniques, and possibly even creating a vaccine. Tuberculosis along with malaria, are associated with socioeconomic factors like poverty, and also HIV (WHO, 2014). Medical treatment and education are vital for African citizens to enable these infection rates to continue to wane.

Non-communicable diseases have become a growing affliction in Sub-Saharan Africa. According to Agyepong et al. (2017), “ischemic heart disease, stroke, diabetes, major depressive disorders, and chronic obstructive pulmonary disease have become the top twenty causes of health loss in 2015.” Non-communicable diseases are chronic and “tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavior factors” (WHO, 2017). Changes in lifestyle due to rapid urbanization, varying food habits, an expanding middle class, and more sedentary behavior have increased the risks of chronic conditions in Africa. There is a significant percentage of the population that is now consuming more fast food, which is high in sodium, putting them at risk for hypertension and heart disease. Similarly, more individuals are engaging in less physical activity, leading to increased obesity rates and associated health complications. Other poor lifestyle habits include smoking and alcohol consumption during leisure time (Clausen, 2015). Although smoking rates in Africa are the lowest in the world, they have been significantly increasing since 2000 (Agyepong et al. 2017). An approach should be made to focus on educating the African people to make better decisions concerning their healthcare. According to African Union (AU) Commission Chair, Moussa Faki Mahamat, the African Region must “reorient its health spending and health systems to target diseases that have the greatest impact on mortality and human capital development” (Ifijeh, 2019). Health spending should be focused on prevention, health promotion and education. Correspondingly, it is imperative to provide healthcare access to individuals with different types of health issues.

PUBLIC VS. PRIVATE HEALTHCARE

Currently, there is a stark divide in public and private healthcare delivery. This is evident in the particularly low percentage of doctors available in the public sector, and the poor infrastructure of primary care facilities due to funds being concentrated in hospitals and second-level care (Mlambo, 2019). The current focus of health care delivery has been primarily on a small percentage of Africa’s growing wealthy class and has been lacking for those who cannot afford private, expensive care. In addition, most attention has been directed towards visible, communicable diseases like malaria and HIV and not to non-communicable diseases like diabetes, which is becoming prominent among the expanding middle class.

IMPROVING ACCESS TO HEALTHCARE

Improving access to healthcare for all people in Africa has been an important task for much of the entire continent for several years. While healthcare does vary from country to country, the underlying reality is that the public health sector is under-resourced, fragmented, and inadequate. In 2001, African Union leaders met in Abuja, Nigeria to discuss ways how the continent could increase social and economic conditions and bring more focus to the health sector. The Abuja Declaration proposed that countries raise their health budget to at least fifteen percent of total public expenditures. However, progress in achieving this goal has been sluggish and there has not been much advancement in health-related commitments. (WHO, 2011). As of 2014, half of the Sub-Saharan countries spent less than ten percent of their public expenditure on healthcare, and only five countries (Botswana, Madagascar, Rwanda, Togo, and Zambia) actually achieved the fifteen percent target (WHO, 2014). It is important to note that following the declaration, there were health improvements such as the increase in life expectancy and significant decreases in deaths due to infectious diseases like malaria (Ifijeh, 2019).

VARYING SOURCES OF HEALTHCARE IN AFRICAN COUNTRIES

Healthcare, both public and private, varies from country to country. More often than not, prosperous citizens and foreign nationals hope to receive private care or be medically evacuated instead of getting public care.

Nigeria

Nigeria is one of the few countries that has a national health insurance scheme. It provides healthcare benefits to government workers, the police, armed forces, prison inmates, children under the age of five, and disabled persons (Eke, 2018). Unfortunately, less than five percent of Nigerians have health insurance (Tafirenyika, 2017). In addition, the country has a low ratio of doctors to people (one doctor per two thousand potential patients), which is common in Africa because most doctors often complain about low pay and try to find work abroad. Nigeria spends 3.7% of its GDP on healthcare (Aetna, 2019).

South Africa

A large gap exists between the quality of care in the private and public sectors. More funding is typically provided to private services, while most public health facilities lack proper infrastructure and are overcrowded. South Africa's doctor to people ratio is one to one thousand, and 9% of its GDP is spent on healthcare (Aetna, 2019).

Tanzania

Tanzania has chronic staff shortages and is underfunded; Tanzania's spending on healthcare is just 5.6% of GDP. Although the government does offer a universal health program, it lacks quality and public facilities are scarce (Aetna, 2019).

Uganda

The quality of private care is considered much better when compared to other countries. However, public care is similar to other countries in Africa. Most hospitals in rural areas are understocked and lacking in trained professionals. The doctor to inhabitant ratio is one to one thousand, and 7.2% of its GDP is spent on keeping its citizens healthy (Aetna, 2019).

Overall, from this sample of facts about healthcare in Africa, it is imperative that Africa builds a strong, functioning health system that is properly funded in order to manage any challenges or threats to the health of the population.

CONCERNS WITH AFRICAN HEALTHCARE: FUNDING, INFATED COSTS, DOCTOR SHORTAGES

One of Africa's major issues with delivering quality healthcare to the people is that the governments do not provide enough funding. Most countries spend less than ten percent of their GDP on healthcare (Clausen, 2015). According to Osondu Ogbuoji et al. (2019), "in per capita terms, the rest of the world spends ten times more on healthcare than Africa" (2019). Countries should do more when it comes to investing in healthcare and identify new funding sources in an effort to move towards a greater prioritization of wellness and social prosperity. The region has experienced a stagnation of financing through donor funds since the global financial crisis, and researchers say that any additional funds are "unlikely significant enough to be a game changer" (Ogbuoji et al., 2019). Taxation is a method suggested by several researchers as a way to generate funds domestically. More than thirty-seven percent of health expenditures is attributed to out-of-pocket payments. Around eleven percent of people experience an exorbitant amount of costs for healthcare, while thirty-eight percent actually forgo care because of such high expenditures (Ogbuoji et al., 2019). The poorer people are the ones most exposed to impoverishing costs. Overall, African countries should increase their investment in health, and by doing so they will lessen the financial burden that poor people frequently experience when they seek out medical attention.

Another critical issue facing the healthcare sector in Africa is the shortage of trained health professionals. Letitia Adu-Ampoma, of the pharmaceutical company *Novartis*, claims that the "number, quality, and capability of healthcare workers across countries as a ratio to the population is low" (Clausen, 2015). The availability of human resources such as doctors, nurses, midwives, and technicians is essential for people to receive suitable care in the health system. However, Sub-Saharan Africa is lacking in trained professionals, as many of them are leaving the region to look for work abroad. Many primary care providers feel discouraged and unsupported by the system, thus they look for job placements overseas. For some, moving to a different country is not an option, so those professionals relocate to major centers and towns where hospital conditions and pay may be better. This creates a problem for individuals that reside in rural areas or villages who need healthcare. With a majority

of trained workers concentrated in cities, there are less doctors and other medical professionals available to provide good quality healthcare services for people who live further away (Mash et al., 2018). The nurses working in countryside areas tend to face very difficult and unsafe working conditions, large workloads and insufficient salaries, so it comes to no surprise that there have been strikes in several African countries (Mlambo, 2019).

FUTURE AFRICAN HEALTHCARE

Martins Ifijeh (2019) states that African Heads of State, alongside Africa's Ministers of Healthy and Finance have launched a new initiative directed towards increasing commitments to the health sector, raising proper funding. AU Commission Chair, Moussa Faki Mahamat has announced that the continent has set "ambitious health targets for 2030." African governments must increase domestic spending if they want to contribute to the economic and social well-being of their people. Mahamat says that in order to achieve health targets intended for 2030, there must be "substantial increases in domestic investment, and a radical change in the way health is harmonized to domestic and continental priorities" (Ifijeh, 2019). Not only do leaders have to provide more money for healthcare systems, but they also have to improve gaps between the system and communities. Minimizing the gap will allow individuals to play a more active role in looking after their own health and providing important feedback back to the health system.

ALTERNATIVE SOLUTIONS

If African politicians and health care providers choose not to disrupt the stagnant trend of health care initiatives, the country will suffer on an exponential scale. Therefore, there needs to be a lot more effort put into Africa's healthcare system aside from the general notion of funding. Strategies should be employed to focus African spending on cost-effective medical products and services. In addition, an emphasis must be on preventing complicated diseases through screening processes. Lastly, by empowering African students and current physicians, Africa can significantly retain more of its population within the continent and halt other countries from poaching them away (Chipman, 2012).

INVESTING IN EXISTING HUMAN RESOURCES

According to reporter Andrea Chipman, African healthcare systems would benefit if they refocused "on the education and training of community outreach workers and health extension staff, to gain the most service delivery from existing human and material resources." In other words, Chipman believes that investing in the current population could result in a variety of medical professionals (nurses, physical therapists, physician assistants) that would "thus free up [doctors] with more specialist skills to treat patients with the most serious or complex conditions." In addition, these other workers, who will work intimately with patients, would grow close to their local community, making it "less likely [for them] to leave, and better able to respond to local health priorities." Chipman states that by providing these type of community workers with basic tools like blood pressure machines and prenatal vitamins, doctor availability will increase.

In the same vein, investing in current African students could drastically change African healthcare. By offering local student scholarships, or even free medical school tuition like New York University has done, could draw in many future generations into the healthcare field. The idea of a future without loans and community-wide support may attract thousands. Africa could potentially cultivate its own physicians, and thus benefit from these students as they complete their training in local African hospitals, making them professionals in pathologies that exist in their environment (Chipman, 2012).

ELECTRONIC MEDICAL RECORDS

Medical Records are usually handwritten in countries that lack appropriate healthcare funding and thus introduce countless errors and tedious work for physicians. Even though Africa does have access to the internet, only several countries within sub-Saharan Africa choose to use some sort of electronic medical record database. Unfortunately, there are still major

challenges that hinder continent-wide use such as “high cost of procurement and maintenance, poor network infrastructure and lack of comfort among health workers with electronic medical records” (Akanbi 2012). A study by Akanbi et al. (2012) found that 15 countries in sub-Saharan Africa documented the use of Electronic Health Record (EHR) technology- most of which were reports from HIV centers. EHR should not be limited to only HIV centers. Due to the fact that “developing countries, including sub-Saharan Africa bear the brunt of the world’s deadliest epidemics,” electronic records are vital for both patients and doctors. EHR has the potential to enable easy and smooth transfer of health records from remote locations, improve the speed and ease of access to one’s records, as well as reduce errors and abnormalities in hand written prescriptions or results of diagnostic tests (Akanbi, 2012). Physicians will be less stressed in an environment that is set up for their success rather than their failure.

MOBILE TECHNOLOGY AND PATIENT RECOGNITION SOFTWARE

Mobile technology can provide Africa with opportunities to significantly improve healthcare services. The Global System for Mobile Communications funded research for software to provide biometric recognition which would then deliver a digital identity of a patient. A virtual hospital information system would create Universal Medical Identities that would be scannable via QR code to allow access to a patient’s medical history. Once the patient is registered in the system, their medical history would be accessible to all other hospitals with this software (Eddy, 2019). This technology would connect hospitals and would facilitate management of medical information. Bright Simons, founder of mPedigree says that, “by adopting more advanced, but appropriate, technologies rather than following slow, classic paths to address health workforce constraints and improve people’s access to quality health services, African countries can realize the potential to leapfrog opportunities for health in Africa, sometimes in world-leading ways” (London School of Hygiene and Tropical Medicine, 2017). Embracing technology will allow easier access to data for doctors and policymakers and will permit African countries to close the healthcare gap and create a more efficient system.

INITIATIVES AIMED AT PREVENTION

Educating the African public could be a major advantage in preventing the spread of diseases. Several health opportunities can be unlocked as long as higher education is supported along with improved nutrition. If Africa invests in campaigns targeted at young adults, future generations could be taught proper nutrition that may prevent non-communicable diseases. Similarly, education can be provided to stop the spread of some communicable diseases. For example, in West Africa after the Ebola outbreak, soap manufacturers partnered with the Ministries of Health to provide education about proper hand sanitation and also to ensure access to soap in health facilities. Lastly, screenings can be conducted to halt the spread of STI’s. HIV screening tests could save millions of lives as individuals reduce the transfer of it by using contraceptive devices, and the introduction of drugs like PrEP (anti-HIV drug) to stop HIV transfer if encountered.

CONCLUSION

Dr. Nduku Kilonzo, the Chief Executive Officer of the Kenyan National AIDS Control Council, says, “opportunities ahead cannot be unlocked by keeping to the same pace and using more of the same approach to health systems” (London School of Hygiene and Tropical Medicine, 2017). This statement holds true when it comes to providing African nations with efficient and quality healthcare structures. Increasing government funding, implementing new innovative technology, educating the public, and receiving assistance from the private health sector are a few ways that a positive outcome can be achieved for the future of African healthcare. Africa has a promising future if it decides to provide accessible health care opportunities for its population.

REFERENCES

Aetna International. (2018.) *Health Care Quality in Africa: Uganda, Nigeria, Tanzania, Zambia, Kenya, Zimbabwe and South Africa.*, Retrieved April 20, 2018 from www.aetnainternational.com/en/about-us/explore/living-abroad/culture-lifestyle/health-care-quality-in-africa.html.

- Ageypong, Irene Akua, et al. "The Path to Longer and Healthier Lives for All Africans by 2030: the Lancet Commission on the Future of Health in Sub-Saharan Africa." *The Lancet*, vol. 390, no. 10114, 23 Dec. 2017, pp. 2803–2859., doi:10.1016/s0140-6736(17)31509-x. Clausen, Lily B. "Taking on the Challenges of Health Care in Africa." *Stanford Graduate School of Business*, 16 June 2015, www.gsb.stanford.edu/insights/taking-challenges-health-care-africa.
- Akanbi, M. O., Ocheke, A. N., Agaba, P. A., Daniyam, C. A., Agaba, E. I., Okeke, E. N., & Ukoli, C. O. (2012). Use of Electronic Health Records in sub-Saharan Africa: Progress and challenges. Retrieved August 25, 2019 from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4167769/>
- Centers for Disease Control and Prevention. (13 Mar. 2019.) *Hepatitis A Questions and Answers for the Public | Division of Viral Hepatitis | CDC*. Retrieved April 20, 2019) from www.cdc.gov/hepatitis/hav/afaq.htm.
- Chipman, Andrea. (2012). The Future of Healthcare in Africa. *Economist Intelligence Unit. The Economist*. Retrieved August 25, 2019 from https://perspectives.eiu.com/sites/default/files/EIU-Janssen_HealthcareAfrica_Report_Web.pdf
- Clausen, Lily B. (16 June 2015.) Taking on the Challenges of Health Care in Africa. *Stanford Graduate School of Business*, Retrieved April 23, 2019 from www.gsb.stanford.edu/insights/taking-challenges-health-care-africa.
- Eddy, Nathan. "Mobile Tech Offers Health Identity for Developing Countries, GSMA Research Finds." *Healthcare IT News*, 20 Feb. 2019, www.healthcareitnews.com/news/mobile-tech-offers-health-identity-developing-countries-gsma-research-finds.
- Eke, Martins. "Understanding Nigeria's Health Insurance Scheme." *Punch Newspapers*, 28 May 2018,
- Ifijeh, Martins. "African, Health Leaders Call for Increased Investment in Healthcare." *THISDAYLIVE*, 14 Feb. 2019, www.thisdaylive.com/index.php/2019/02/14/african-health-leaders-call-for-increased-investment-in-healthcare.
- International Monetary Fund. *IMF DataMapper*.
https://www.imf.org/external/datamapper/NGDP_R_PCH@AFRREO/SSA/OEXP/OIMP
- London School of Hygiene & Tropical Medicine. "Closing the Health Gap for Africa within a Generation Is Achievable If Bold Policy Actions Are Taken Now." *LSHTM*, London School of Hygiene & Tropical Medicine
<https://lshtm.ac.uk/Themes/Custom/Lshtm/Images/Lshtm-Logo-Black.png>, 14 Sept. 2017,
www.lshtm.ac.uk/newsevents/news/2018/closing-health-gap-africa-within-generation-achievable-if-bold-policy-actions.
- Mlambo, Nontobeko. "Africa: What We Need to Get Healthcare for All Africans." *AllAfrica.com*, 28 Mar. 2019, allafrica.com/stories/201903260132.html.
- Ogbuoji, Osondu, et al. "Closing Africa's Health Financing Gap." *Brookings*, Brookings, 1 Mar. 2019, www.brookings.edu/blog/future-development/2019/03/01/closing-africas-health-financing-gap/.
- Tafirenyika, Masimba. "It's Time to Rethink Medical Insurance | Africa Renewal." *United Nations*, United Nations, www.un.org/africarenewal/magazine/december-2016-march-2017/it%E2%80%99s-time-rethink-medical-insurance.
- Vockley, Martha. "The Rise of Telehealth: 'Triple Aim,' Innovative Technology, and Popular Demand Are Spearheading New Models of Health and Wellness Care." *Biomedical Instrumentation & Technology*, U.S. National Library of Medicine, 2015, www.ncbi.nlm.nih.gov/pubmed/26443907.
- World Health Organization (Aug. 2011.) *The Abuja Declaration: Ten Years On*. Retrieved April 20, 2019) from www.who.int/healthsystems/publications/abuja_report_aug_2011.pdf?ua=1.
- World Health Organization Regional Office for Africa (2014.) The health of the people: what works – the African Regional Health Report 2014. Retrieved April 18, 2019 from www.who.int/bulletin/africanhealth/en/
- World Health Organization. (2018.) *Non Communicable Diseases*. Retrieved April 19, 2019 from www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases.