

# SUSTAINABILITY IN HEALTH AND HEALTHCARE PROVISION: A GLOBAL PERSPECTIVE

## Abstract

It is the vision of every country to have sustainable healthcare and to ensure that healthcare provision is not interrupted, irrespective of the calamities the country is facing. Sustainable healthcare and continuous provision of healthcare enable citizens to participate in the businesses of the day, contribute to the development of economy, and live longer. The United Nations and World Health Organisation are guiding the governments across the globe on how their health systems should be to ensure sustainable health and provision of healthcare. This guidance is through the sustainable development goals as discussed in this chapter. The funding of healthcare and future considerations for sustainable health and healthcare provision are also discussed in this chapter.

**Keywords:** Health, Healthcare, Climate Change, Artificial Intelligence.

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## I. INTRODUCTION

Every country is envisioning a quality healthcare for all its citizens, as it ensures that all people live longer. The quality healthcare enables individuals to continue with their businesses of each day thus contribute to the economy of their respective countries. It is therefore imperative for the governments to lead the healthcare systems that are effective to ensure sustainability in health and healthcare provision. This chapter presents discussions on sustainable healthcare, healthcare systems to ensure healthcare provision as well as future considerations for sustainable health and healthcare provision.

## II. SUSTAINABLE HEALTHCARE

A sustainable healthcare is a healthcare that is able to carry the disease burden of its own people through provision of diseases prevention and management measures, and promotion of health from primary level of care to tertiary level. According to World Health Organisation (2023) sustainable healthcare means the government is able to ensure that its people have access to the full range of quality healthcare services they need, when and where they need them without barring any financial hardship. A sustainable healthcare should cover all essential health services from promotion of health to prevention, treatment, rehabilitation as well as palliative care across the course of life. Prowle and Harradine (2015) posit that a sustainable healthcare must meet the following criteria; quality, equity, efficiency, and acceptability. To ensure that these criteria are met by all the healthcare systems across the globe, the United Nations (2019) developed the Sustainable Development Goals for health, and these goals are discussed next.

**1. Sustainable Development Goals For Health:** The United Nations, an intergovernmental organisation that aims to develop friendly relations among nations to collectively achieve international goals has developed two sustainable development goals for health namely, good health and wellbeing and industry, innovation and infrastructure (United Nations, 2019). The healthcare leaders of all the countries across the globe are expected to report on the achievement of these goals annually until 2030 (World Health Organisation, 2023). Kruk, Gage, Arsenault, Jordan, Leslie, Roder-DeWan, Adeyi, Barker, Daelmans, Doubova and English (2018) reported that there has been an improvement on healthcare outcomes in the developing countries in the past several decades, however the health needs have changed as the public are becoming more informed when it comes to their healthcare expectations. These authors added that the newly ascendant diseases including complex and chronic diseases demand more than a single visit or standardised pill pack or regime but they require healthcare professionals who are well skilled and a longitudinal, integrated care. In the past decades, people were dying in large numbers from the diseases that are manageable such as HIV/AIDS, tuberculosis, Measles, pneumonia etc. This was mostly due to lack of healthcare resources and information, but today even in the developing countries more people are getting connected to the internet which affords them with information and abilities to act swiftly when they are not feeling well. Another reason is that more healthcare clinics and hospitals are being built, making the healthcare more accessible. More efforts need to be put by the governments to ensure that sustainable development goals for health are achieved within the time frame of 2030 (Kruk et al., 2018) and from this more people will be able to count on receiving high quality healthcare that will improve their lives and earn their trust. This can be achieved by

reimagining our healthcare approaches and make them effective and relevant for the current health determinants.

- 2. Healthcare Challenges and Dynamics:** Healthcare challenges and dynamics vary from one country to another, this also based on where the country is situated, the economic status of the country, population and political stance. In underdeveloped countries, malnutrition diseases are common, and in countries that experience very high temperatures such as countries in middle east diseases like heat stroke are common. In the developing countries patients experience the following challenges and dynamics; inadequate resources, increasing diseases burden, poor infrastructure, limited awareness programmes, patients that lack of information, ignorant and irresponsible patients, low healthcare funding, irrelevant policies, leadership crisis and many more (Prowle & Harradine, 2015). The developed countries on the other hand are challenged by health equity, globalization, public health ethics, high incidence of diseases like obesity, drug addition, diabetes, mental conditions and suicide cases (World Health Organisation, 2023).
- 3. Climate Change and Healthcare:** These days it is impossible to address healthcare issues or challenges without taking into consideration the climate change has in healthcare. Climate change is environmentally and socially influencing the health determinants such as safe drinking water, clean air, secure shelter and sufficient food, and it is expected to cause about 250 000 additional deaths per year between 2030 and 2050 (World Health Organisation, 2021). These deaths will be from diarrhoea, malnutrition, malaria and heat stroke. It is clear from this that the climate change is a threat for sustainable healthcare and provision of healthcare across the globe. Governments will have to rebuild the healthcare infrastructure that gets destroyed by earthquakes, strong storms and seismic attacks. World Health Organisation (2021) confirm this by annotating in myriad ways the sustainability in health and healthcare provision are already impacted by climate change as it leads to death and illness from incremental extreme weather events such as floods, storms, heat waves, food systems disruption increases in water, food and vector-borne diseases. It also results to mental conditions such stress, anxiety disorder, depression, and post traumatic syndrome disorder (Kruk et al., 2018). Climate change impact in healthcare can be mitigated though health protection and promotion; use of selected electronic healthcare applications to improve healthcare outcomes, and access to care, reduce population and expenses, travel and mobility management systems for staff and promotion of low-meat diets to reduce the burden of cardiovascular and other communicable diseases (World Health Organisation, 2017).
- 4. Sustainable Healthcare Systems:** Healthcare provision is driven by the systems that the governments of different countries subscribe to. What is common or related is that in most countries irrespective of the socio-economic status of the country, there is a private and public healthcare system. Kruk et al. (2018) posit that sustainable healthcare systems must be efficient and aim to avoid waste and attain maximum possible improvement in health outcomes. These authors propose a health system conceptual framework of three key domains; the foundations, the processes of care, and the quality impacts. The foundations include the population that the healthcare system is servicing, the government as the administrator of the healthcare system, platforms workforce and tools used within the healthcare system. Processes of care are the competent care and systems, and the

positive user experience. While quality impacts in this framework refers to better health for all, confidence in the system, and economic benefit. Aslam, Trail, Cassell, Khan and Payne (2022) annotated that many developing countries like South Africa, Mozambique and India lack well-structured primary healthcare systems, and where they exist, they lack human resources, infrastructure, equipment, services and well trained nurses.

A healthcare system must be environmentally sustainable. World Health Organisation (2017) solicit that an environmentally sustainable healthcare system maintains, restore and improves health while mitigating the negative impacts on the environment and leveraging the opportunities that restore and improve it to benefit the health and wellbeing of health users and future users of the healthcare system. The plan for environmentally sustainable healthcare system should include the following (World Health Organisation, 2017):

- Amendment of national environmental sustainability policy for healthcare systems.
- Effective management of waste and hazardous chemicals.
- Promotion of an efficient management of resources.
- Promotion of a sustainable procurement system.
- Reduction of health systems' emissions of greenhouse gases and air pollutants.
- Prioritizing prevention of diseases, promotion of health and public health services.
- Involving of health workforce as an agent of sustainability.
- Increase of community resilience and local assets promotion.
- Creation of incentives for change.
- Promotion of innovative models of care.

On that note Prowle and Harradine (2015) concluded that there is a need for a better consensus between the healthcare policy and political parties as this would add value of substituting short term planning with long term planning and yield greater stability to those that are managing the healthcare services. The politicians have to stop using the healthcare system as the football ground between ruling party and the opposition parties, but all these parties should collectively work together to improve the healthcare system.

**5. The 4<sup>th</sup> Industrial Revolution, Technology and Artificial Intelligence for Sustainable Healthcare:** It is impossible to reach sustainable healthcare without technology and artificial intelligence as we are now living in a digital age, others are calling this age 'the 4<sup>th</sup> industrial revolution. It encourages health services that are unmanned, automated and connected to internet of things. This is building up to the previous revolutions of digital revolution; the third industrial revelation, use of oil and electricity for mass production and the combination of steam, coal and iron. The 4<sup>th</sup> industrial revolution is characterised by artificial intelligence whereby technologies mimic the intelligence of a healthcare professional (Kruk et al. 2018). These authors argue that AI has to be embedded in the healthcare systems globally, as it will save costs, improve the quality healthcare rendered and ensure longevity for all citizens. In support of this statement, Prowle and Harradine (2015) attest that now accustomed technology and artificial intelligence through the use of medical treatments and devices such as artificial joint replacements, organ transplants, radiological imaging and computer-assisted prosthesis.

### III. HEALTHCARE PROVISION AND FUNDING

Once healthcare systems are in place, they then allow the provision of healthcare. However, it is also essential to note that healthcare systems and the provision of healthcare are funded different entities whether private or state. The approach of provision of healthcare and that of funding are different in the developing countries and in your first class or developed countries.

- 1. Developing Countries:** Healthcare provision is one of the pillars of building sustainable healthcare systems mentioned by the World Health Organisation (2023). In developing countries in Africa healthcare systems are negatively influenced by neglect and underfunding and these results to severe challenges across all the pillars prescribed by the World Health Organisation (Oleribe, Momoh, Uzochukwu, Mbofana, Adebisi, Barbera, Williams & Taylor-Robinson, 2019). There are two methods of providing healthcare in developing countries; private and public healthcare. A small friction of population is able to afford the private healthcare services, meaning the public sector is providing majority of the population with healthcare services. The private healthcare is very expensive and this forces those with medical aids to use the public healthcare services once their medical funds are exhausted. Oleribe et al. (2019) postulate most of African countries find it difficult to meet the basic requirement for good healthcare services due to inadequate resources and infrastructure, poor leadership, and ineffective integration of services. These authors recommend that the policy makers of the developing countries have to adopt the national guidelines for healthcare system development based on the framework by World Health Organisation with a buy in from the governments of these countries and the healthcare professionals.
- 2. Developed Countries:** The developed countries also have a private and public healthcare method, with the majority of the population being able to afford the private healthcare services. For an example, In Europe, poor households especially those living in the rural areas have limited access to quality healthcare (Oleribe et al., 2019). This results to these developed countries experiencing similar challenges that the developing countries are experiencing such as lack of resources and infrastructure. These developed countries healthcare systems get allocated higher Gross health expenditure per capita, as a result majority of their population are able to receive quality healthcare. Aslam et al. (2022) reveal that the developed countries use their health expenditure to attract high skilled healthcare professionals from the developing countries, offering them improved wages, working environments, and professional career progression.
- 3. Healthcare Funding:** It is not possible to achieve universal healthcare coverage for all without appropriate funding of healthcare. Healthcare requires multi-disciplinary stakeholders hence it is not cheap to sustain. The healthcare policy developers, politicians, and the governments must ensure that in their yearly budgets healthcare is allocated a budget that will cover the demands of their healthcare systems. Aslam et al. (2022) reveal that whilst there are some improvements in healthcare spending especially in the developing countries where there is high burden of diseases, there is still a significant gap with achieving the healthcare outcomes in these countries and this is specifically because of funding challenges. Prowle and Harradine (2015) affirm that public demands for more healthcare resources usually incompatible, and the existing

healthcare funding models were developed long time back and no longer able to address the contemporary healthcare dynamics of this modern world. Aslam et al. (2022) postulate that Africa is using the most regressive way of funding healthcare, which is more than 40% of total expenditure made up of out of pocket payments. This author further stated that these poor healthcare funding indices continue in Africa despite the several declarations signed by the African heads of states. This resulted in Sub-Saharan Africa region failing to achieve the universal coverage goals, because public healthcare expenditures are low (African Development Group, 2017).

Private healthcare system continues to exclude the poor and low income communities through unregulated voluntary insurances which make the private healthcare services very expensive. South African government is in a process to implement the National Health Insurance which will ensure universal healthcare access to all its citizens. This National Health Insurance is envisaging to establish mechanisms for the equitable, effective and efficient utilisation of the resources of the fund to meet the health needs of users and preclude or limit undesirable, unlawful, unethical and practices in relation to the Fund (National Health Insurance Report, 2023). This initiative will also address the barriers to healthcare access for the South African citizens.

#### **IV. FUTURE CONSIDERATIONS FOR SUSTAINABLE HEALTH AND HEALTHCARE PROVISION**

The critical domain that will enable governments across the globe to afford their people with sustainable healthcare is appropriate funding model. The Africa World Bank recommends that the following nine key decisions must be taken into consideration to ensure that a sustainable healthcare system is created in Africa:

1. Pooling of funds under a public health insurer.
2. Tax based and / or employer based source of funding.
3. Extent to which public funding is allocated to healthcare.
4. Proportions paid by the employer and employee if the funding is employer based.
5. Public insurance coverage scope.
6. Funding healthcare system for the marginalised population.
7. Patient co-payment level.
8. Restrictions on private insurance.
9. Compliment and supplement of public insurance by the private insurance.

Aslam et al. (2022) concluded that local governments have to prioritize their budgets so that an adequate share of financing is apportioned to their healthcare system to build sustainable hospitals, and external donors have to be reassured so that they continue to fund a supply chain to meet institutional long term needs.

#### **V. CONCLUSION**

Sustainable healthcare and healthcare provision is already achieved by the developed countries, but also it is not farfetched for the developing countries. Appropriate funding mechanisms have to establish by the governments and private sectors that are generating

income from the people. This chapter presented the sustainable health, healthcare provision and funding, and future considerations for sustainable health and healthcare provision.

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