

# Critical success factors for health transformation in the Kingdom of Saudi Arabia (KSA)

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**Abstract.** Healthcare transformation programs generally aim at enhancing quality of care, promoting patient safety, equitability, accessibility, and feasibility of healthcare services. Although the transformation process is gradual, and may often fail to achieve the desired outcomes, nations such as KSA have made substantial public health developments over the last two decades. Particularly, KSA has made tremendous progress in healthcare transformation by emphasizing on healthcare transformation as part of its efforts to achieve its Vision 2030 goals. This paper aims at investigating the critical success factors of healthcare transformation in KSA to find out how focusing on the goals outlined in its Vision 2030 may help KSA restructure and reimagine its healthcare systems and practice to improve overall health quality, accessibility, affordability, and universality.

**Keywords:** Kingdom of Saudi Arabia (KSA), global healthcare, GDP, care delivery.

## 1 INTRODUCTION

Healthcare transformation programs are often designed to enhance quality of care as well as promote patient safety, equitability, accessibility, and feasibility of healthcare services. According to Al-Hanawi et al. (2019), healthcare transformation programs are intended to provide comprehensive direction and recommendations for systematic planning and step-by-step execution of extensive healthcare system changes across various jurisdictions. Over the past few years, these healthcare transformation programs have become more prominent worldwide, largely due to technological advancement. Additionally, healthcare systems have undergone significant changes in the past few years due to factors such as digitalization, population growth, heightened financial impediments, and the emergence of diseases like COVID-19 and MERS-CoV. Nonetheless, these system changes occur at a gradual rate, and in numerous cases, they fail to achieve the desired outcomes, delaying the healthcare transformation process and inhibiting the achievement of positive outcomes. As such, nations such as the kingdom of Saudi Arabia (KSA) have made substantial public health developments over the last two decades. For instance, in 2015, the average life expectancy rate in the country increased to 75 years in comparison with the 65 years recorded in 1965, and it is predicted to reach 80 years by 2030. Additionally, access to emergency services within four hours after an incident has occurred rose from 35% in 2016 to 87% in 2021.

However, despite these favorable health indicators in KSA, several challenges persist, necessitating additional attention. These challenges include and are not limited to population growth, elevated rate of preventable injuries, disparities in the quality of healthcare provided, insufficient primary healthcare services, limited human resource capacity, and rising prevalence of non-communicable diseases. In response to these issues, the Ministry of Health (MOH) has formulated a transformational strategy to improve the healthcare sector and promote the well-being of KSA citizens by improving the standard and uniformity of services as well as optimizing cost-effectiveness and health outcomes. The transformational strategy outlines a roadmap encompassing the delivery of healthcare services based on value, while still considering the

economic and institutional requirements and managing healthcare expenditures. This approach is in line with the objectives outlined in Saudi's vision 2030. The key success factors highlighted in the transformation strategy include increasing the participation of the private sector, integration of e-health, healthcare financing, and workforce training and development.

## **2 INCREASED PARTICIPATIONS OF THE PRIVATE SECTOR**

Public Private Partnerships (PPPs) business models are frequently considered a viable strategy for alleviating the financial burden facing the healthcare public sector's infrastructure development. These partnerships aim to attract private capital by promoting investment in the economy, which is considered one of the key drivers for national privatization efforts (Al-Hanawi & Qattan, 2019). Furthermore, PPP involves the partnership between the private and public sectors to mutually provide public healthcare services, efficiently allocate resources, and share risks. According to Narwani (2023), PPP play a significant role in developing and establishing healthcare infrastructure including clinics, hospitals, and specialized treatment centers. Ideally, the private sector contributes to efficient healthcare provision by bringing in funding, construction expertise, design capabilities, and operational knowledge, allowing the government to develop and expand the healthcare sector with minimal financial burden (Narwani, 2023). In light with this, the KSA vision 2030 healthcare transformation strategy places more emphasis on privatization, with key strategic objectives involving the implementation of a public-private partnership (PPP) scheme to privatize one of the medical cities and augment the private sector's contribution to healthcare expenditure through service providers and alternative financing methods. The PPP scheme delineates nine healthcare privatization proposals that have already been approved, and 23 similar initiatives under review (Al-Hanawi & Qattan, 2019). The primary objectives of the healthcare privatization plan include enhancing and expanding primary care services across the country, providing rehabilitation and long-term care facilities, strategically developing and establishing supplementary medical cities, and updating and expanding radiography and laboratory services in conjunction with the private sector. Moreover, the proposed privatization initiatives encompass developing dialysis facilities for individuals suffering from chronic heart failure. This is intended to be accomplished by contracting prominent companies specializing in this domain, thus; enhancing the availability of such centers across multiple cities and towns.

Additionally, these collaborative efforts will prepare King Faisal Specialist hospital & Research Centre for privatization in order to attain a prominent leadership position, both at regional and national levels by focusing its commitment on tertiary care as well as fostering innovation. So far, the MOH in KSA has awarded an open tender to Altakassusi Alliance Medical, one of the first PPPs in the kingdom, to facilitate the delivery of better imaging and radiology services to more than one million recipients in at least seven healthcare facilities (Narwani, 2023). This initiative is also anticipated to offer KSA's first collaborative network to assist healthcare providers and support staff in every beneficiary medical center, promoting the quality of care provided in remote areas. In this regard, such collaborative efforts are paramount in KSA's healthcare transformation as they will lead to skills and knowledge transfer, sharing financial burden, and risk transfer, profiting the entire healthcare sector.

## **3 INTEGRATION OF E-HEALTH**

Digital revolution has greatly impacted the global healthcare system, thus; it could significantly improve the accuracy and effectiveness of diagnosis, treatment, care, health outcomes, and workflow efficiency in the healthcare sector. According to Al-Kahtani et al. (2022), the emerging specialization of digital health focusses on the integration of electronic communication and information technology, tools, services, and procedures to offer sufficient healthcare services and promote better and enhanced health. Therefore, integrating health information technology in care could significantly improve patients' care outcomes by remodeling the health service delivery

system and establishing new patient care modalities and procedures. Additionally, the World Health Organization released a global strategy aimed at enhancing healthcare through the development and adoption of digital health for proper, affordable, and accessible healthcare for all (Al-Kahtani et al., 2022). This strategy necessitates the development of the necessary infrastructure to enable nations to deliver healthcare services using digital healthcare technologies. In light of this, KSA created the National Transformation Initiative (NTP) in 2015 as part of its Vision 2030 to reshape and improve the healthcare delivery system through technology and innovation (Zaman et al., 2018). The presence of a strong foundation in digital health infrastructure will undoubtedly play a significant role in helping the kingdom achieve its goal of facilitating access to high quality, equitable, affordable, and universal healthcare for all its citizens.

However, the lack of an integrated IT system for all healthcare services, one of the greatest challenges pinpointed by the NTP, will make it difficult for KSA to devise an effective strategy for Saudi's Ministry of Health digital health transformation. In response to this challenge, the MOH has developed a number of systems and programs, which have eased the implementation of key solutions including patient care automation, electronic health records and billing, along with standardized rules and practices to promote the quality and interchange of information, as well as launching the National Health Observatory. Following these efforts, KSA has made notable progress toward digital health transformation. For instance, a study conducted by Alsulame et al. (2016) to assess KSA's healthcare readiness to transform in line with its National Healthcare Plan as per Saudi Vision 2030 found that numerous factors are likely to impact the effective implementation of KSA's healthcare transformation plan. These factors predominantly depend on the will power of healthcare institutions, the determination and efforts of their members, and the availability and accessibility of resources. Comparably, another study by Alharbi et al. (2021) evaluated KSA's level of digital health development relative to other countries. The study found that KSA has adopted several initiatives and efforts to implement digital health, and the field is continually developing. Based on these findings, KSA has been making gradual progress toward integrating IT systems into its healthcare system, but it is unclear whether the current level of implementation meets its Vision 2030 goals. This necessitates more efforts toward digital health transformation by creating a more focused and effective action plan.

#### **4 WORKFORCE TRAINING AND DEVELOPMENT**

The Kingdom of Saudi Arabia is presently undergoing a developmental and transformational phase in all aspects. For instance, the KSA healthcare system is under tremendous pressure to deliver better- and high-quality healthcare services to the kingdom's rapidly burgeoning population, particularly the senior population (Alasiri & Mohammed, 2022). As a result, policymakers and other concerned healthcare stakeholders need to take into account and address two critical issues that are facing the sector. These issues include the shortage of qualified healthcare professionals and disproportionate reliance on foreign labor. Re-examining healthcare Human Resource Development (HRD) programs is among the most crucial steps to take toward ensuring that there is a large pool of healthcare workers with the necessary skills and competence to transform KSA's healthcare population (Alasiri & Mohammed, 2022). According to the MGI report as highlighted by Al-Hanawi et al. (2019), KSA's healthcare sector employed 600,000 workers in Saudi Arabia, comprising of approximately 350,000 healthcare professionals, and around 250,000 managerial and support workers by the end of 2014. The report further predicted that the country's population is likely to double from about 3% to 6% over the next decade, which means that the country is expected to continue spending extensively on healthcare facilities and other infrastructure (Al-Hanawi et al., 2019). As such, an increase in life expectancy rate in the coming years may result in a 25% increase in the number of healthcare workers needed to meet the sector's needs. In reference to this report, KSA requires a substantial rise in the number of healthcare professional to be able to meet the needs of the increasing and ageing population.

Research by Alhazmi (2021) shows that presently eleven healthcare workers serve over 1000 patients in KSA, which is over half the average rate of 22 healthcare professionals serving 1000 patients in G20 countries. To this end, the study concluded that KSA needs to employ and train over 710,000 healthcare professionals by 2030 in order to reach the average benchmark experienced by other developed and developing nations. Reaching this target necessitates a 360,000 increase in the current number of healthcare professionals employed every year. Additionally, the study pinpointed the need to create more opportunities for KSA citizens to be recruited in the healthcare sector in order to achieve Saudi Vision 2030. According to Al-Asfour & Khan (2014), workforce localization, which is commonly referred to as Saudization, is an essential component of the country's Vision 2030, yet, the current proportion of healthcare workers from Saudi Arabia to international healthcare professionals stands at the ratio of 1:3. Presently, the number of Saudi Arabia's healthcare graduates may be inadequate to replenish the workforce due to retirements, resignations, and other recruitment needs. As such, increasing labor participation among KSA citizens and skill development for current KSA healthcare professionals by providing accessible and affordable education and vocational training would greatly contribute to healthcare transformation in KSA.

## 5 HEALTHCARE FINANCING

In line with Saudi Vision 2030, the National Transformation Programme (NTP) serves as an economic action plan, delineating the comprehensive economic development process across different sectors, including the healthcare sector. One of the key strategies emphasized by the NTP is the promotion of Private Partnership and Privatization of government services within the healthcare sector. The NTP aims to enhance the contribution of the private sector to the Gross Domestic Product (GDP) from 40% to 65% by the year 2030 (Zaman et al.,2018). To achieve this, the NTP outlines three key objectives for healthcare transformation. They include enhancing accessibility to healthcare services, improving the quality and efficiency of healthcare services, and fostering disease prevention by aiding better access to preventive services and care in general (Zaman et al.,2018). Partnering with the private sector is a crucial success factor for KSA to take as the private sector minimizes the financial burden on the public healthcare sector, hence, preserving resources to focus on areas that depend on them.

## 6 Conclusion & Recommendations

Healthcare transformation is a crucial part of Saudi Vision 2030, and it seeks to restructure the healthcare sector to establish a more comprehensive, accessible, affordable, efficient, and integrated healthcare system that prioritizes the wellbeing of every citizen. This system aims to offer value-based care that ensures financial sustainability, quality care, and transparency to prevent disease and improve the well-being of the public. So far, KSA has made significant steps toward achieving comprehensive healthcare transformation by 2030. However, several challenges persist due to factors such as population growth, elevated rate of preventable injuries, disparities in the quality of healthcare, insufficient primary healthcare services, limited human resource capacity, and lack of an integrated IT system in healthcare. As a result, this creates the need for a more transformational strategy to improve the healthcare sector and promote the well-being of KSA citizens by improving the standard and uniformity of services as well as optimizing cost-effectiveness and health outcomes. The key success factors identified in this paper based on this transformation strategy include increasing the participation of the private sector, integration of e-health, healthcare financing, and workforce training and development.

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