

Research Article

Strengthening the Healthcare System in Saudi Arabia

SALEM MOHAMMED ALSHAHRANI*

Email: Salem-202005@hotmail.com

*Corresponding Author

Received: 11.04.23, Revised: 29.05.23, Accepted: 07.06.23

ABSTRACT

The aim of this paper is to review the relevant literature on the recent trends in web application vulnerabilities in the healthcare system of Saudi Arabia. An academic database was searched to find relevant literature so as to analyse the trends peculiar to healthcare in Saudi Arabia, with an emphasis on strengthening the healthcare system. Approximately four hundred scholarly works were initially selected and then reduced to a smaller number which was then explored in detail. The review found that Saudi Arabia faces significant challenges to its healthcare system in the coming years. There is a need for the healthcare system to adapt to the evolving healthcare needs of the people. This will only be possible through improvements in healthcare infrastructure, sufficient training of staff as well improving accessibility to healthcare services outside of urban centres. There is also a need to spread awareness through public health campaigns which may ease the burden on the country's healthcare system.

Key Words: Healthcare, e-health, healthcare system, Saudi health, health management

INTRODUCTION

With an increasingly ageing population in the country, healthcare in Saudi Arabia has undergone significant changes in the past few decades. In 2010, those aged above 60 years comprised 5.2 per cent of the total population. However, the population of the country has been projected to rise to 39.8 million by 2025 and 54.7 million by 2050 (Yusuf, 2014). This means that there will be a corresponding rise in the number of elderly in the country. In order to address the changing demographic patterns in the country and address the changing needs of its population, the government has undertaken measures to reform and invest in Saudi Arabia's healthcare system. This has especially been the case since 2002 when a royal decree was passed establishing the 'Council of Health Services, headed by the Minister of Health' (Almalki, Fitzgerald & Clark, 2011: 786). The

Council was set up so as to bring about greater coordination among health services in the country and allow for uniformity (Almalki, Fitzgerald & Clark, 2011). It is estimated that there are currently a total of '244 hospitals (33 277 beds) and 2037 primary health care (PHC) centres' in the country that fall under the public sector (Almalki, Fitzgerald & Clark, 2011:785). Medical treatment in such public hospitals is free. The private sector also contributes to healthcare in the country with '125 hospitals (11 833 beds) and 2218 dispensaries and clinics' (Almalki, Fitzgerald & Clark, 2011:786). The table below provides an overview of the health indicators in Saudi Arabia, as found by Rahman (2020). It allows for a comparative analysis in order to assess the progress that the healthcare system has made with regard to various indicators over nearly two decades.

Table 1: Health Indicators in Saudi Arabia (Rahman, 2020:5)

| INDICATORS/YEAR | 2000 | 2006 | 2010 | 2014 | 2018 |
|--|--------|--------|---------|---------|--------------------|
| Total hospitals | 318 | 384 | 415 | 453 | 494 |
| Private hospitals | 91 | 127 | 127 | 141 | 163 |
| Total beds | 45,919 | 53,464 | 58,126 | 69,997 | 75,225 |
| Bed per 10000 population | 23 | 23.1 | 21.4 | 22.1 | 22.5 |
| Physicians | 31,983 | 45,589 | 65,619 | 81,532 | 104,775 |
| Nurses | 67,421 | 83,868 | 129,792 | 165,324 | 184,565 |
| Health care spending as a percentage of GDP ^a | 4.21 | 3.62 | 3.66 | 5.23 | 5.84 ^b |
| Per capita spending ^a in US\$ | 384 | 554 | 703 | 1,285 | 1,147 ^b |

In recent years, there has been an increase in investment by the government in order to improve the infrastructure as well as teaching facilities for medical staff. However, the country faces an ageing population along with an increase in the number of those suffering from non-communicable diseases, also sometimes referred to as lifestyle illnesses. This means that there is a need for Saudi Arabia to adapt and strengthen its healthcare system in order to respond to the needs of its people in a robust manner. Some of the challenges faced by the healthcare system in the country will be discussed in this paper, along with possible ways to address them, thereby strengthening the healthcare system of the country.

METHODOLOGY

In order to find the relevant research studies, specific terms were used in Google Scholar. These were – healthcare + Saudi Arabia, healthcare system, Saudi Arabia + e-health, evolution of healthcare + Saudi Arabia. For each individual search term, one hundred results were considered, for a total of four hundred results. For these, an initial examination was conducted using research studies that spanned several decades. The review found that Saudi Arabia, which is among the richest and fastest growing countries in the Middle East, faces significant challenges to its healthcare system in the coming years. The country’s population increase and rise in the number of over 60 will result in a need for the healthcare system to adapt to the evolving

healthcare needs of the people. This will only be possible through improvements in healthcare infrastructure, sufficient training of staff as well improving accessibility to healthcare services outside of urban centres. The following sections will discuss these findings in detail.

RESULTS

In 2010, Saudi Arabia had a population of over 27 million people, with an estimated annual population growth rate of 3.2 per cent (Yusuf, 2014). The country's healthcare system, it has been argued, has undergone significant changes in the past few decades. This is attributed to the rising price of oil, which has contributed to the country's wealth. This wealth has been redistributed and invested in public services, one of them being the country's healthcare system. In 2010, those aged above 60 years comprised 5.2 per cent of the total population. However, the total population of the country has been projected to rise to 39.8 million by 2025 and 54.7 million by 2050 (Yusuf, 2014). With an increasingly ageing population, Saudi Arabia's government and healthcare system need to adapt to the changing healthcare needs. This involves higher rates of lifestyle and non-communicable diseases such as diabetes. In order to fully understand the challenges that the healthcare system faces in Saudi Arabia and the ways to address them, it is imperative to first understand the healthcare system in the country.

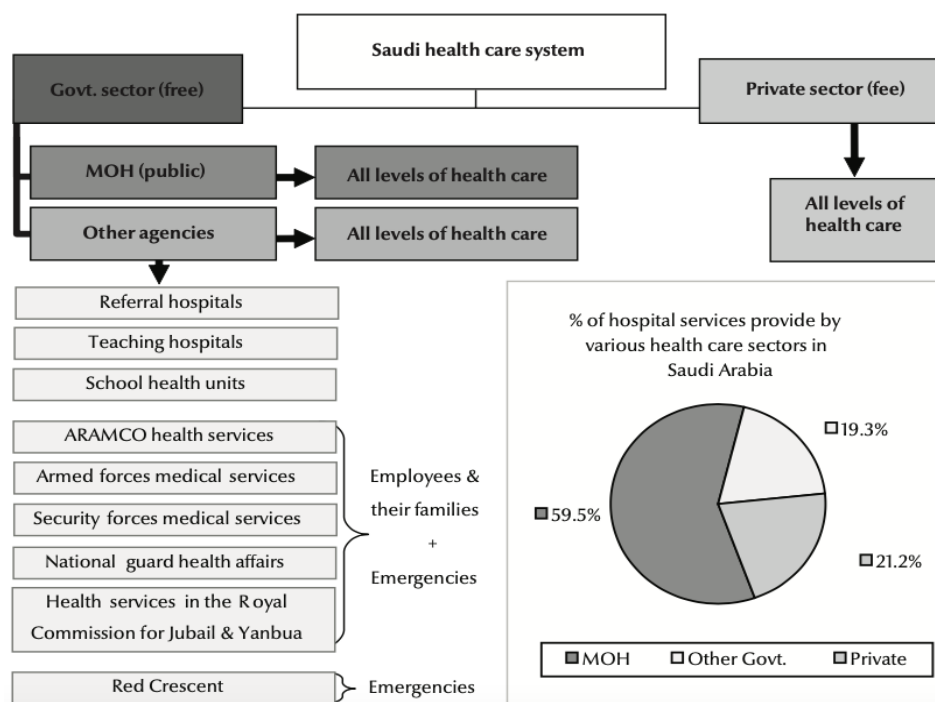


Figure 1: Structure of Healthcare System in Saudi Arabia (Almalki, Fitzgerald & Clark, 2011:786)

The figure above highlights the multiple agencies involved in the healthcare sector in Saudi Arabia. In the hopes of facilitating increased cooperation, the Council of Health Services was established in the country. Sebai, Milaat and Al-Zulaibani (2017) find in their study that there has been a steady increase in funding of health services in Saudi Arabia. This, they contend, has resulted in a continuous improvement in healthcare services in the country. Their study also finds that in addition to improving the quality of healthcare available to its people, Saudi Arabia has also made strides in enhancing the medical education available to its medical staff (Sebai, Milaat & Al-Zulaibani, 2017). While these are trends in the right direction, they argue that Saudi Arabia has a long way to go in strengthening and improving its healthcare system. Some of the measures suggested by Sebai, Milaat and Al-Zulaibani (2017) include an emphasis on the training and development of the manpower and healthcare professionals in the country. In addition to this, they also highlight the need for preventive and not just curative health services. These issues will be addressed in detail in the following review.

Almalki, Fitzgerald and Clark (2011), in this context, also add that there is a need for increased financing of the healthcare system in Saudi Arabia. They contend that while healthcare is free in the country, the rising population and an increase in demand for healthcare services make this model unsustainable. The key challenge here, they highlight, is one for policymakers 'to introduce a comprehensive, fair, and affordable service for the whole population' (Almalki, Fitzgerald & Clark, 2011:791). This is especially keeping in mind that the country has an ageing population and faces an increase in the number of diabetics. This means, therefore, that in the coming years, Saudi Arabia's healthcare system will be stressed and requires attention and investment now so as to prepare it well for the future. Related to this is the need to make healthcare more accessible. Almalki, Fitzgerald and Clark (2011) add further that 'there is a maldistribution of health care services and health professionals across geographical areas' (Almalki, Fitzgerald & Clark, and 2011: 791). There is also a lack of medical facilities available to the elderly and the differently abled, especially in rural areas. Almalki, Fitzgerald and Clark (2011) reiterate the need for a focus on preventative healthcare. This, they state, is due to the changing nature of diseases that the people of Saudi Arabia are facing. Hence, there is a need for the healthcare system to be robust and adaptable to the changing needs of the population.

Aldy et al. (2020) assessed Saudi Arabia's healthcare system in the context of the recent

pandemic. Their study was aimed at studying the country's healthcare system to the pandemic and the pressure it put on every country's healthcare system. They indicate how the country acted swiftly by preventing the entrance of international pilgrims to perform the hajj. Additionally, due to the health infrastructure, the government was able to conduct over three million tests. The country launched preventative measures in order to curb the number of Covid cases. They conclude by stating that the country's quick response was possible due to the existing infrastructure and facilities. In the following section, the ways in which Saudi Arabia's healthcare system can be further strengthened will be examined.

DISCUSSION AND CONCLUSION

The paper thus far has provided a brief overview of some of the issues that Saudi Arabia's healthcare system faces. The government of Saudi Arabia has been successful in providing free public healthcare services to its people, owing to the revenues collected from oil export. However, with oil prices and demand declining and the healthcare needs of the people changing, Saudi Arabia's healthcare system faces many challenges (Rahman, (2020); Alaboudi et al. (2016); Almalki et al. (2011); Al Otaibi (2017); Asmri et al. (2020); Jannadi et al. (2008); Walston et al. (2008)). One solution for this was the introduction of insurance policies in Saudi Arabia to 'encourage the private sector to work closely with the government' (Yusuf, 2014:116). Additionally, the healthcare sector has been opened up to allow foreign investment. Rahman (2020) found that 'partial privatisation of (the) national health care systems was offered as a profitable venture (in order) to attract global capital investment (and) to ease access, quality of services, and to overcome long waiting times' (Rahman, 2020:2).

In addition to this, another key challenge faced by the healthcare system in Saudi Arabia is that of hiring well-trained and competent staff. The solution to this is interlinked with investments in higher quality teaching, training and development of medical staff (Yusuf, 2014). Taking this further, Irvine et al. (2015) conducted their research in order to understand the issues that healthcare workers faced in Jazan. Their study revealed that health workers themselves face grievances that require redressal. These concerns include the lack of necessary training, their work schedules, support for migrant staff as well as the need to review their remuneration (Irvine et al., 2015). In addition to this, the respondents discussed the rising numbers of foreign workers in the healthcare sector. This meant that there was a need to assimilate them as well as sensitise them towards Saudi culture.

There are other concerns as well that the healthcare system in Saudi Arabia faces. These include long wait times and a lack of medical professionals. In 2018, in order to address these concerns, the Saudi Ministry of Health launched its application which 'performs online medical consultations with personal physicians and to book primary health care appointments' (Aljohani & Chandran, 2019:181). While this is a step in the right direction, there are challenges associated with the adoption of mobile health or m-health in Saudi Arabia. These have been identified as the lack of awareness about this facility, technological challenges and infrastructural challenges (Aljohani & Chandran, 2019). Once again, issues of internet connectivity and access must be mentioned in this context. While m-health services may be accessible to those living in cities and urban centres, those in remote parts of the country would be excluded from availing of this service.

Rahman (2020) raises a crucial point in his paper and states that in order to improve and strengthen the healthcare system in Saudi Arabia, it is imperative to focus on public awareness campaigns. Since the population has undergone rapid and drastic changes, 'Saudi Arabia now has one of the highest prevalence rates for Non Communicable Diseases' (Rahman, 2020:5). This is attributed to the westernisation of Saudi society over the past few decades. Hence, this cultural change puts increased pressure on the country's healthcare system. There is a need, therefore, to spread awareness among the public about the ways to prevent and manage lifestyle illnesses so as to ease the burden on the country's healthcare system. These diseases include diabetes and hypertension, both of which are on the rise in Saudi Arabia. Rahman (2020) also found that 'Hypertension among adults had a prevalence rate of 23.3% in Saudi Arabia in 2015, which was one of the highest in the Gulf Cooperation Council (GCC) region' (Rahman, 2020:5). The need to raise awareness among the public also pertains to informing people about m-health and the option of consulting a doctor without visiting a physical hospital.

It is evident in the review thus far that the healthcare system in Saudi Arabia faces several opportunities and challenges. On the one hand, the country has benefited immensely from the export of oil, thereby allowing it to have access to financial resources that can benefit its citizens. This has meant that public goods such as healthcare are free. However, on the other hand, this reliance on oil and its declining price has forced the country to look for alternative funding routes for its healthcare system. In addition to this, while Saudi Arabia benefits from employing a large number of foreign workers in its healthcare

sector, there is a need to ensure that there is adequate training and sensitisation to Saudi culture. The need for training and development coupled with the demand for investment in medical education highlights the skill and knowledge gap among healthcare workers in Saudi Arabia. The review also touched upon the demographic and cultural changes in the country and their impact on the healthcare system. The increase in the number of elderly in the country and a rise in lifestyle diseases have increased the burden on the country's healthcare system. Hence, there is a need to engage with the public and spread awareness about how they can take care of themselves and prevent this lifestyle disease. The case for m-health was also discussed. Given that there is a shortage of skilled medical staff in the country, m-health is a valuable initiative that can benefit millions in the country. However, once again, there is a need to improve awareness about its benefits while also addressing infrastructure and technological challenges. Lastly, it was found in the review that there are concerns about accessibility to healthcare services in rural and remote parts of the country. While urban centres benefit from advancements made in healthcare, the same does not always percolate down to the rural regions in the country. M-health is one way to improve accessibility to healthcare services in remote areas as well as to those who may face certain disabilities. Hence, to conclude, it may be said that Saudi Arabia has taken many steps toward improving its healthcare systems in the past two decades. However, given the country's demographic changes and challenges discussed above, there are still concerns that must be addressed in order to strengthen its healthcare system.

REFERENCES

1. Alaboudi, A., Atkins, A., Sharp, B., Balkhair, A., Alzahrani, M., & Sunbul, T. (2016). Barriers and challenges in adopting Saudi telemedicine network: The perceptions of decision makers of healthcare facilities in Saudi Arabia. *Journal of infection and public health*, 9(6), 725-733.
2. Almalki, M., FitzGerald, G., & Clark, M. (2011). Health care system in Saudi Arabia: an overview. *EMHJ-Eastern Mediterranean Health Journal*, 17 (10), 784-793, 2011.
3. Al Otaibi, A. S. (2017). An overview of health care system in Saudi Arabia. *International Journal of Management and Administrative Sciences*, 4(12), 1-12.
4. Aljohani, N., & Chandran, D. (2019). Adoption of M-Health Applications: The Saudi Arabian Healthcare Perspectives. In *Australasian Conference on Information Systems*. Perth. Retrieved from

- <https://opus.lib.uts.edu.au/handle/10453/142082>
5. Almalki, M., Fitzgerald, G., & Clark, M. (2011). Health care system in Saudi Arabia: an overview. *Eastern Mediterranean health journal*, 17(10), 784–793. <https://doi.org/10.26719/2011.17.10.784>
 6. Asmri, M. A., Almalki, M. J., Fitzgerald, G., & Clark, M. (2020). The public health care system and primary care services in Saudi Arabia: a system in transition. *Eastern Mediterranean Health Journal*, 26(4), 468-476.
 7. Adly, H. M., AlJahdali, I. A., Garout, M. A., Khafagy, A. A., Saati, A. A., & Saleh, S. A. K. (2020). Correlation of COVID-19 Pandemic with Healthcare System Response and Prevention Measures in Saudi Arabia. *International Journal of Environmental Research and Public Health*, 17(18), 6666. doi:10.3390/ijerph17186666
 8. Irvine, Lindsay & AlNeami, Ibrahim & Caculitan, Elizer & Dimabayao, Cynthia. (2015). Problems affecting Work performance of Healthcare practitioners in Jazan Kingdom of Saudi Arabia. *IOSR Journal Of Nursing and Health Sciences*. 4. 10-20. 10.9790/1959-04111020.
 9. Jannadi, B., Alshammari, H., Khan, A., & Hussain, R. (2008). Current structure and future challenges for the healthcare system in Saudi Arabia. *Asia Pacific Journal of Health Management*, 3(1), 43-50.
 10. Rahman, R. (2020). The Privatisation of Health Care System in Saudi Arabia. *Health Services Insights*. <https://doi.org/10.1177/1178632920934497>
 11. Sebai, Zohair & Milaat, Waleed & Al-zalabani, Abdulmohsen. (2001). Health care services in saudi arabia: past, present and future. *Journal of family & community medicine*. 8. 19-23.
 12. Yusuf, Nadia. (2014). Private and public healthcare in Saudi Arabia: future challenges. *International Journal of Business and Economic Development*. 2. 114-118.
 13. Walston, S., Al-Harbi, Y., & Al-Omar, B. (2008). The changing face of healthcare in Saudi Arabia. *Annals of Saudi medicine*, 28(4), 243-250.