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## Medicines policy issues for Saudi Arabia: priorities and model

Ahmer Hameed Mirza<sup>a,b</sup> , Syed Shahzad Hasan<sup>a</sup> ,  
Faris El-Dahiyat<sup>c</sup>  and Zaheer-Ud-Din Babar<sup>a</sup>

<sup>a</sup>Department of Pharmacy, School of Applied Sciences, University of Huddersfield, Huddersfield, UK,  
<sup>b</sup>College of Pharmacy, Qassim University, Saudi Arabia and <sup>c</sup>College of Pharmacy, Al Ain University of  
Science and Technology, Al Ain, UAE

### Abstract

The Kingdom of Saudi Arabia (KSA) has a population of 32.6 million in 2018, with a growth rate of 2.65% per annum. In World Health Organization's ranking, WHO has ranked Saudi Arabia at 26 among 191 countries for the performance in overall health care and was commended as a model for other countries. The public sector is currently the main provider of health care and is mainly funded by the government. The government has initiated a process to include the private sector by launching the National Transformation Program (NTP) in 2016. The objectives of NTP 2020 are to expand the role of the private sector from 25 to 35% by 2020; to increase the number of internationally accredited hospitals; and to decrease the percentage of smoking and obesity by establishing a strategy focused on preventive medicine and advocate for a healthy lifestyle and wellness. The country major challenges to health care include an ageing population, sedentary lifestyles, growing demand for healthcare services and changing disease patterns. This article describes the need to build a conceptual model and the future directions for medicines policy in the country. The model is needed to narrate and document the set of challenges with regard to workforce, professional development, human and health services for the pharmaceutical and medicines sector. A conceptual model could aid to build and identify priority medicines policy issues. The model describes stakeholder involvement, including government, policymakers, industry, academics and consumers who could be involved in the policy development. Interaction between these stakeholders, as well as thematic document analysis, could lead to identifying some of the future health and medicines policy challenges in the country. There challenges could include the use of new biotechnological products, dose tailoring, funding of high-cost medicines, accessibility of services and supporting health economic and pharmacoinformatics research.

**Keywords** development; future; medicines policy; Saudi Arabia

### Introduction

The Kingdom of Saudi Arabia (KSA) has a population of 32.6 million in 2018, with a growth rate of 2.65% per annum.<sup>[1]</sup> This population is expected to increase by 77.2 million by 2050.<sup>[2]</sup>

Saudi Arabia's healthcare system has gone through huge improvements in the last 50 years.<sup>[3,4]</sup> As a result of modernization, a large network of healthcare facilities including hundreds of hospitals and thousands of primary care centres have been established in the country.<sup>[3,4]</sup> In World Health Organization's ranking, WHO has ranked Saudi Arabia at 26 among 191 countries for the performance in overall health care and was commended as a model to other countries. It is expected that life expectancy in Saudi Arabia would increase from 73.1 to 78.4 years for males and 76.1 to 81.3 years for females respectively by 2050.<sup>[2]</sup> The country's major mortality indicators are diabetes (36%), ischaemic heart diseases (25.4%), chronic kidney diseases (25.1%) and road accident injuries (32.3%).<sup>[5]</sup> Morbidity and mortality indicators share characteristics with both high-income and low-income countries.<sup>[6]</sup>

**Correspondence:** Ahmer Hameed Mirza, Department of Pharmacy, University of Huddersfield, Huddersfield, UK.  
E-mail: Ahmer.mirza@hud.ac.uk

## Provision of health care in Saudi Arabia

Health care in Saudi Arabia is provided by a three-level system (primary, secondary and tertiary health care). In 2018, the total healthcare expenditures were 37.7 billion US \$ (141.375 billion Saudi Riyal).<sup>[5]</sup> The public sector is currently the main provider of health care and is mainly funded by the government.<sup>[7]</sup> Ministry of Health (MOH) and other government sectors such as the Ministry of Defence, Ministry of the Interior, Ministry of Education and Ministry of the National Guard are the major healthcare providers that account for approximately 80% of the total services provided nationwide.<sup>[8]</sup> The MOH and other government healthcare providers deliver all curative services, including primary, secondary, and tertiary care, rehabilitation, home health care, and long-term care.<sup>[8]</sup>

There is also a Compulsory Employment-Based Health Insurance (CEBHI), in which the employer covers the cost of medical care in the private sector. The cooperative health insurance coverage includes all individual employees working in the private sector and their families.<sup>[9]</sup> The CEBHI scheme was implemented in Saudi Arabia to benefit expatriate workers in the private sector.<sup>[9,10]</sup>

Education and healthcare spending account for the largest share of the Saudi 2018 budget, accounting for more than 36% of the total budget.<sup>[5]</sup> Saudi Arabia is considering privatization of its healthcare services with the goal to improve healthcare access and efficiency.<sup>[8]</sup> In this context, the MOH is intending to change its role to form the provider of healthcare facilities to the regulator of those services.<sup>[2]</sup>

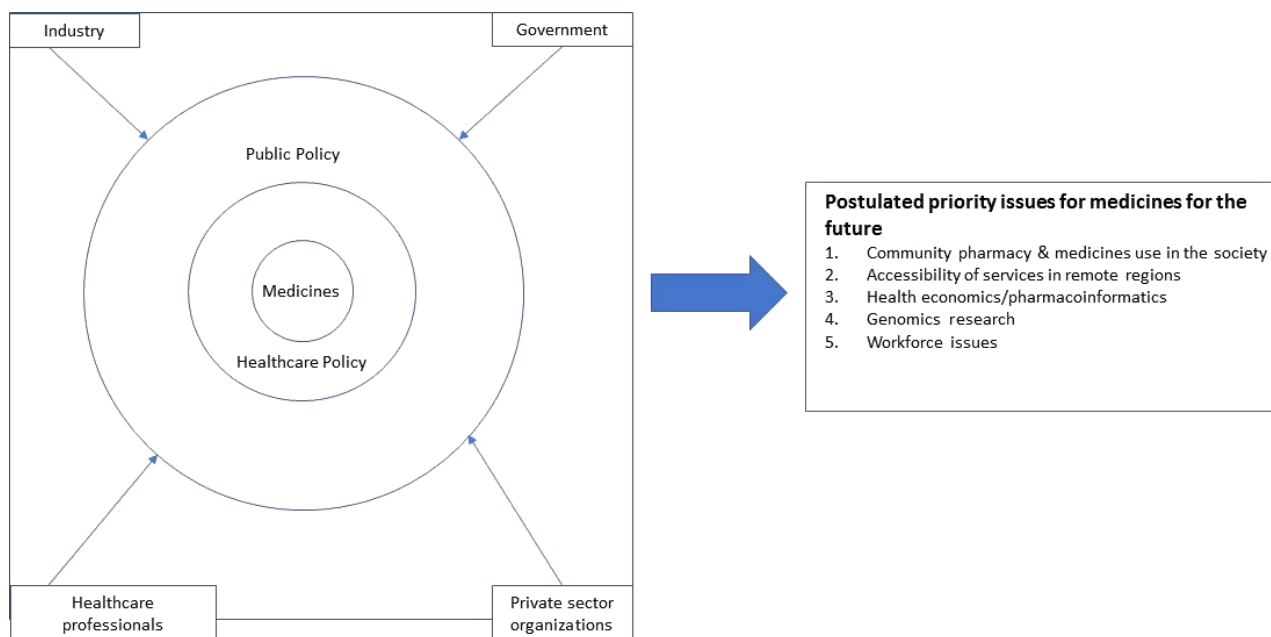
Public spending accounts for 79% of the total budget, though the government has initiated a process to include the private sector by launching the National Transformation

Program (NTP) in 2016. The objectives of NTP 2020 are to expand the role of the private sector from 25 to 35% by 2020; to increase the number of internationally accredited hospitals; and to decrease the percentage of smoking and obesity by establishing a strategy focused on preventive medicine and advocate for a healthy lifestyle and wellness.<sup>[5]</sup>

## Healthcare challenges

The country major challenges to health care include an ageing population, sedentary lifestyles, growing demand for healthcare services and changing disease patterns. There is a change in disease patterns from communicable to non-communicable diseases in Saudi Arabia.<sup>[11]</sup> Modern health issues have emerged due to an affluent society, adoption of modern diets and the lack of physical activities. Both the prevalence of cardiovascular diseases and the share of the population with diabetes have increased.<sup>[11]</sup> Some of the other challenges are poor referral systems between primary care centres and hospitals: long waiting time, underutilization of e-health and information systems and the accessibility of healthcare services in remote regions of Saudi Arabia.<sup>[7,12]</sup>

Healthcare services and medicines are provided free of charge to all citizens and expatriates working in the government sector.<sup>[13]</sup> However, for several reasons (e.g. quality of care, long waiting times), it is common for people to seek treatment and medical care at private hospitals and polyclinics.<sup>[7]</sup> In some accounts, it is Saudi Arabia success to counter many challenges and to increase the quality and quantity of life for its citizens. However, Saudi Arabia is standing at the crossroads. Saudi Arabia focuses now to change its



**Figure 1** A conceptual model deriving priority medicines issues for Saudi Arabia.

economy from wealth generated through oil to more technology base and the challenges lay ahead in terms of health, population and public policy.

## Pharmaceuticals in Saudi Arabia

In Saudi Arabia, local pharmaceutical companies produce only approximately 17% of the domestic pharmaceuticals.<sup>[14]</sup> The Kingdom of Saudi Arabia accounts for 59.4% of the purchases of pharmaceuticals products in the Gulf region. The market was estimated at USD 5.75 billion in 2017 and poised to grow at CAGR 6.7%, expected to reach USD 8.46 billion by 2023, according to a report published by Precision Business Insights.<sup>[15]</sup> The Saudi Food and Drug Authority (SFDA) is the national regulatory body responsible for the regulation, registration and approval of medicines in Saudi Arabia. Its main objectives are to ensure the effectiveness, safety and quality of medicines, and it is responsible for developing and implementing policies and procedures related to medicines.<sup>[16]</sup>

## The need for a conceptual model and the future directions for policy

A conceptual model could aid to build and identify priority medicines policy issues for Saudi Arabia. The aim is to integrate the elements of health, medicines and public policy. Figure 1 depicts the model as well as different stakeholders, including government, policy industry, academics, policymakers and consumers who could be involved in this process. Interaction between these stakeholders, as well as thematic document analysis, could lead to identifying some of the future health and medicines policy challenges in the country.

It is important to see what above means for Saudi health care. What could be a growing set of challenges with regard to workforce, professional development, human and health services for the pharmaceutical and medicines sector. With the changing environment, how the policies related to medicines use and access will shape. There are challenges associated with the new biotechnological products, genomics and dose tailoring and how those will be resolved. The discussion above could lead to aid priority issues. The other pertinent issues could be medicines use in the society, accessibility of services and supporting health economic, pharmacoinformatics and genomics research.

## Declarations

### Conflict of interest

The Author(s) declare(s) that they have no conflicts of interest to disclose.

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## Authors' contributions

AHM is the main author under supervision of Prof. Z-U-DB's guidance. Other authors help in drafting the paper.

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