Appl Health Econ Health Policy
DOI 10.1007/s40258-017-0353-7

ORIGINAL RESEARCH ARTICLE

Healthcare Finance in the Kingdom of Saudi Arabia: A Qualitative Study of Householders' Attitudes

Mohammed Khaled Al-Hanawi[1,3] · Omar Alsharqi[1] · Saja Almazrou[2] · Kirit Vaidya[3]

Abstract

Background The public sector healthcare system in Saudi Arabia, essentially financed by oil revenues and 'free at the point of delivery', is coming under increasing strain due to escalating expenditure and an increasingly volatile oil market and is likely to be unsustainable in the medium to long term.

Objectives This study examines how satisfied the Saudi people are with their public sector healthcare services and assesses their willingness to contribute to financing the system through a national health insurance scheme. The study also examines public preferences and expectations of a future national health insurance system.

Methods A total of 36 heads of households participated in face-to-face audio-recorded semi-structured interviews. The participants were purposefully selected based on different socio-economic and socio-demographic factors from urban and rural areas to represent the geographical diversity that would presumably influence individual views, expectations, preferences and healthcare experiences.

Results The evidence showed some dissatisfaction with the provision and quality of current public sector healthcare services, including the availability of appointments, waiting times and the availability of drugs. The households indicated a willingness to contribute to a national insurance scheme, conditional upon improvements in the quality of public sector healthcare services. The results also revealed a variety of preferences and expectations regarding the proposed national health insurance scheme.

Conclusions Quality improvement is a key factor that could motivate the Saudi people to contribute to financing the healthcare system. A new authority, consisting of a partnership between the public and private sectors under government supervision, could represent an acceptable option for addressing the variation in public preferences.

Key Points for Decision Makers

Saudi people seek the best possible quality healthcare and display strong feelings about certain improvements.

Introducing a national health insurance system seems to be a viable option to finance the Saudi healthcare system.

Quality improvement is a key factor that could motivate the Saudi people to contribute to financing the healthcare system.

Electronic supplementary material The online version of this article (doi:10.1007/s40258-017-0353-7) contains supplementary material, which is available to authorized users.

✉ Mohammed Khaled Al-Hanawi
mkalhanawi@kau.edu.sa

[1] Health Services and Hospitals Administration Department, Faculty of Economics and Administration, King Abdulaziz University, Jeddah, Saudi Arabia

[2] Clinical Pharmacy Department, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia

[3] Economics, Finance and Entrepreneurship Group, Aston Business School, Aston University, Birmingham, UK

Published online: 20 September 2017

1 Introduction

The Kingdom of Saudi Arabia (KSA) is a high-income developing country with a landmass of 2,149,690 km^2 and a population of 31,742,308 [1]. It has experienced rapid urbanization (in 2015, 83% of the total population was urban). The vastness of the country impacts the accessibility, quality and equity of healthcare service delivery. Since the discovery of oil in the 1930s, the KSA's nomadic Bedouin tradition has been replaced by a modern lifestyle similar to that of other highly developed countries. Oil-derived wealth has funded free public sector services, including healthcare, for all citizens, without collecting taxes or contributions. Oil now accounts for over 90% of the country's exports and approximately 75% of government revenues [2]; therefore, price fluctuations affect many sectors, including healthcare. As an illustration, a decline in oil prices caused a fall in gross domestic product (GDP) per capita in Saudi Arabia from $US14,000 in 1980 to $US7830 in 2002 [3].

Healthcare services are provided through the public sector [including the Ministry of Health (MOH) and other government agencies] and the private sector. The bulk of healthcare service provision in the KSA is undertaken by the public healthcare sector through the MOH. The MOH, which is funded annually from the total government budget, is the main provider of public healthcare services, operating approximately 60% of hospitals and primary healthcare centres. Recent years have witnessed an effort to improve healthcare services, with a significant increase in the allocated budget, ranging from 5.9% of the government's total budget in 2006 to 7.0% in 2014. Baranowski [4] argued that the apparent success of the KSA healthcare system can be attributed to this higher level of financing.

Despite the substantial resources that the government is currently able to allocate to the healthcare system, the system is increasingly under strain as a result of the most pertinent challenges faced by publicly funded healthcare systems, leading to rapid increases in expenditure and demand while resources remain finite. These challenges include rapid demographic changes, an ageing population, an increase in sedentary lifestyles, rising costs, increasing user expectations, and changing disease patterns [5]. The present situation appears unsustainable in the medium to long term, particularly in the face of uncertainties regarding oil prices. The future viability and sustainability of the current healthcare financing system has therefore been questioned by both academics and international health organizations [6–11].

To reduce the financial burden, the government has implemented Compulsory Employment-Based Health Insurance (CEBHI), which covers all private sector employees and is paid by their employers. Some researchers have suggested expanding this to cover all citizens [12], whereas others have suggested introducing user fees [13]. The government is also considering shifting towards a national or social insurance-based system, which could provide a potential solution to some of the country's current healthcare financing challenges.

Public involvement is believed to be vital to the success of healthcare reforms and must be considered when designing any healthcare financing system [14], but little is known about public preferences and support for healthcare reform in the KSA. According to Mooney [15], "what is needed most fundamentally if healthcare systems are to change and become more socially efficient and equitable is to listen to the informed community voice and to act accordingly". Considering the core issues is essential to the design of a health finance or health insurance system, and decisions about the level of public coverage and the design of financing mechanisms must be made. This study therefore uses the framework developed by Kutzin [16] to analyse the healthcare financing arrangement, as it assists in understanding financing mechanisms and systems (Fig. 1).

This study aims to explore the views of Saudi households with regard to their public sector healthcare system. More specifically, the study aims to (1) explore household views and satisfaction with public healthcare services, (2) assess Saudis' willingness to contribute to financing public healthcare services through a national health insurance scheme and (3) explore public preferences and expectations regarding the stewardship, dimensions of the coverage, and the healthcare financing functions of the national health insurance scheme (revenue collection, pooling of contributions, and the purchasing and provision of services).

2 Methods

Qualitative semi-structured interviews were carried out to collect information on the views of Saudi households. The idea behind qualitative research is to purposefully select participants that will best help the researcher understand the problem and the research question [17]. There is a lack of reliable population data at the household level in Saudi Arabia. This lack precludes a fully representative sample. Thus, to achieve as representative a sample as possible, a varied sample of the participants was purposively selected according to different social-economic class based on the researcher's knowledge of Saudi society, and chosen from both urban and suburban areas, to represent the type of geographical diversity that would influence opinions,

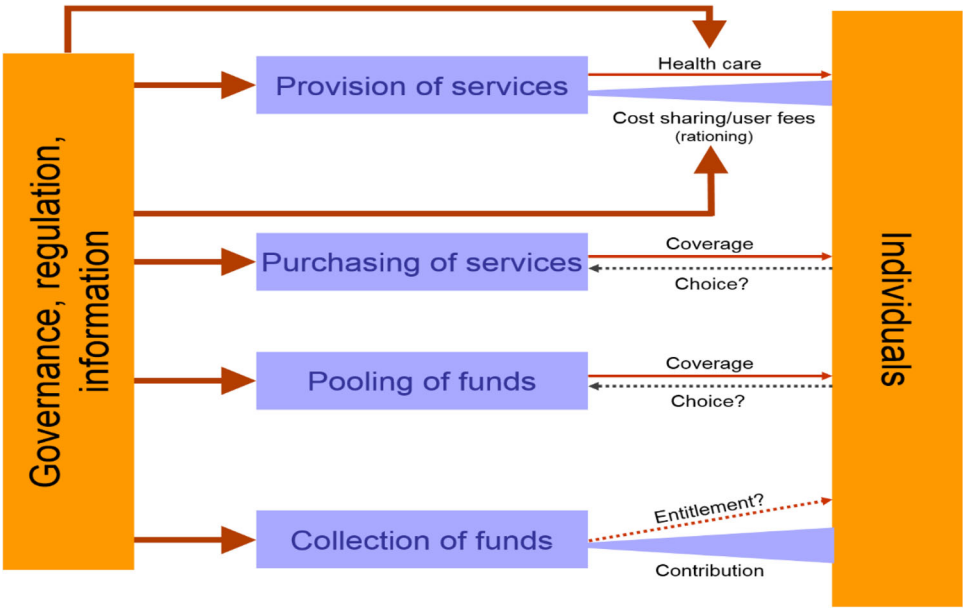

Fig. 1 Framework for the analysis of healthcare financing arrangements, developed by Kutzin [16]

preferences, and experiences, revealing the broad spectrum of participants' personal views.

A sample of 36 heads of household was interviewed in Jeddah, the country's second-largest city, and its surrounding areas, in the Jeddah province of the Mecca region. The participants were selected from the outpatients department of three public hospitals, two major urban hospitals, and one suburban hospital: King Fahad Hospital, King Abdulaziz Hospital, and Adham General Hospital. The use of outpatients was important to identify the views of those who were undergoing treatment and thus in a good position to comment on problems experienced with public healthcare provision. The sample was not intended to be representative of the population as a whole but was selected to develop a qualitative understanding of a varied group of people. The sample size of 36 participants was reached by the saturation of themes; that is, no new insights were identified in the data [18]. These diverse characteristics are illustrated in Table 1.

The interviews were conducted in Arabic over a period of 1 month (September of 2014). The interviews were conducted by the first author (MA). The semi-structured interview guide (Online Appendix A) was developed on the basis of a review of relevant literature on healthcare financing in general and on the Saudi healthcare system in particular. The review drew upon information from various sources, including databases, reports from specialist organizations, books, workshop reports, and government documents. For the purposes of the study, and to ensure the main topics were covered systematically, the interviews were structured into five main sections.

The first section of the interview collected general information about each participant's household. The questions were related to demographic and socio-economic characteristics of the respondent and the household. The second section was designed to find out the participants' opinions of current public healthcare services in Saudi Arabia. This section included questions on the advantages and disadvantages of the system, participants' level of satisfaction, a comparison between healthcare services in the public and private sectors, and the characteristics and quality of public sector healthcare services.

The third section investigated participants' opinions on financing the public healthcare system. It included questions on their opinions on financial responsibility and who should shoulder the healthcare financial burden and in what circumstances. In the fourth section, data were collected on participants' experiences with private health insurance. This section included questions on the advantages and disadvantages of the current private health insurance schemes, the level of satisfaction with these schemes, and suggestions for improvements.

The final section was concerned with the feasibility and acceptability of contributing to financing the public healthcare system through a national health insurance scheme to generate additional funds. This section included questions on who should contribute financially if such a scheme were put in place. It also included questions about participants' preferences and expectations with regard to the stewardship of the national health insurance scheme, the dimensions of the coverage and its financing functions.

The interviews were initiated by informing the participants of the study aim and objectives. Most participants were familiar with the concept of health insurance, as it has been a matter of debate in Saudi Arabia for some time. However, clear explanations of different types of health

Table 1 Main characteristics of study participants

Characteristics	*N*	%
Location (urban)	29	80.56
Sex (male)	31	86.11
Marital status		
Single	3	8.33
Married	29	80.56
Divorced	3	8.33
Widowed	1	2.78
Age, years		
18–24	3	8.33
25–34	10	27.78
35–44	12	33.33
45–54	6	16.67
55–64	3	8.33
> 64	2	5.56
Education level		
Illiterate	3	8.33
Elementary school	4	11.11
Intermediate school	3	8.33
Secondary school	6	16.76
Two-years college (diploma)	4	11.11
University degree	13	36.11
Postgraduate	3	8.33
Employment status		
Public sector employee	21	58.33
Private sector employee	5	13.89
Self-employed	5	13.89
Student	1	2.78
Retired	2	5.56
Unemployed	2	5.56
Household average monthly income, SR[a]		
< 6000	4	11.11
6000 to < 12,000	14	38.89
12,000 to < 18,000	12	33.33
≥ 18,000	6	16.67

SR Saudi Riyal

[a]1 Saudi Riyal = $US0.27

insurance were provided to participants (Online Appendix B). The interviews took place in the waiting rooms of each public hospital. The participants were informed that they were free to withdraw at any time, without giving a reason, and that all information and opinions provided would be anonymous and confidential. Additional informed consent was obtained from all individuals whose identifying information is included in this article. The semi-structured interviews lasted 30–60 min and were audio-recorded. Most people invited to take part in the study accepted (80%); none refused to allow the interview to be audio-recorded.

The framework method for analysing qualitative data in multi-disciplinary health research was used. This method has been used since the 1980s; it originated in social policy research and is now widely used in medical and health research, including health economics and health policy [19]. This method helps to identify commonalities and differences in qualitative data for studies that aim to gather specific information within a limited timeframe. It consists of seven steps: transcription, familiarisation with the interviews, coding, the development of a working analytical framework, the application of the analytical framework, the charting of data onto a framework matrix, and the interpretation of the data [20].

3 Results

3.1 Views on the Current Healthcare System and Expressed Satisfaction

Overall, the main advantages and areas of satisfaction with the current public healthcare system are the inclusiveness of the healthcare service at all levels—primary, secondary and tertiary—and the free provision to all Saudi citizens. Many participants expressed this sense of certainty, characterised by one participant who stated: "I know the system is there for me whenever I need it. I know that there are no conditions or payments attached to it, so I feel really good and secure for myself and my family". An additional advantage noted by a number of participants was a sense of national, cultural and religious pride because the country provides free healthcare services to all Muslims visiting the country annually to perform *Umrah* and *Hajj*. This was a view held by many of the participants and can be summarised by one participant's statement: "we are the guardians of the Sacred Places and we show how seriously we take this responsibility in the ways that we look after Muslim believers".

The participants acknowledged the positive role of the public healthcare system and its facilities, including general hospitals, specialist hospitals and the 'medical cities' situated in the country's major cities, which provide healthcare services and treatments for a wide range of conditions. Of the participants, 14 (39%) stated that public hospitals have highly qualified physicians and medical personnel, as well as modern medical equipment; 10 (28%) mentioned the ability of public hospitals to provide a high standard of care and showed satisfaction with treatment outcomes.

However, only half of the participants (50%) were generally satisfied with the overall quality of services provided by the public healthcare sector. The remaining 18 participants criticised the public healthcare service for several reasons (Table 2).

Most participants were dissatisfied with the relatively long waiting times involved in accessing public hospitals, commonly referred to as 'the unavailability of appointments'. Some participants linked this issue with the pressure on public hospitals and the existence of special privileges and favouritism, with some patients treated more favourably than others based on personal connections and social status (e.g. being a friend or relative of medical staff working in the healthcare facilities). One participant shared this feeling by stating: "someone I know is friends with a hospital administrator and got straight in, while my family and I always have to wait too long to get appointments".

Approximately one-quarter of participants reported feeling forced to incur expenditures by using private healthcare services because of long waiting times and unavailability of appointments at public hospitals. Three participants linked their use of healthcare services at private hospitals to the lack of hospital beds in the public healthcare sector. One participant stated, 'I had to wait six months in order to have a gallbladder operation, so I decided to have it done at a private hospital and paid for the surgery out of my own pocket".

Individuals using public healthcare services could also find themselves paying for treatment and incurring indirect costs, such as for travel and absences from work, even though the service itself is free to access. For instance, two participants living in a suburban area reported that their local public hospital could not treat their critical health condition and they were referred to the main city hospital for treatment. One participant explained "I have to travel every month to the main city hospital to be treated, and this is really costly for me". Eleven participants complained specifically about the lack of hospital beds and the long waiting times in public hospitals. Detailing his experience of waiting times, one participant stated "my mother is trying to get treatment in one of the government's specialist hospitals; she has an appointment in three months. This is a big problem for some complicated cases in which the patient might die before he/she gets the appointment or has access to treatment".

A number of areas were also criticised, such as the attitudes of staff members, the unavailability of drugs, irregular ward visits by doctors, and even a lack of hygiene in some healthcare facilities. Seven participants complained that staff attitudes were inappropriate or unprofessional. Additionally, six participants perceived that some public hospital doctors allowed conflicts of interest to interfere with their work, stating that these doctors had their own private clinics or also worked concurrently at private hospitals and asked patients to visit their private clinics for treatment. This view is summarised by a 70-year-old female participant: "I needed surgery on my eye; the doctor offered me an appointment four months away to do the surgery at the public hospital, or to go to his private clinic to do it the next day".

Only seven (19%) of the total sample were covered by private health insurance. Five (71%) were private sector employees who received private health insurance from their employers, which covered them and their families in accordance with Saudi labour law. One participant's private health insurance plan was provided to him by the government, whereas another was paid for via private means. Of these seven participants, five (71%) expressed satisfaction with private health insurance and private healthcare services.

However, some dissatisfaction was expressed with regard to private insurance and services provided by private healthcare facilities. More specifically, participants reported long waiting times for insurance patients compared with those who paid cash directly. Two participants (29%) stated that some private hospital doctors do not treat patients covered by insurance; instead, they only accept

Table 2 Reasons for dissatisfaction with the public healthcare services

Reason	N (%) ($n = 18$)
Waiting times in accessing public hospitals (unavailability of appointments)	17 (94)
Waiting time before seeing the doctor in public hospitals	11 (61)
Lack of hospital beds	11 (61)
Existence of special privileges and favouritism	8 (44)
Attitudes of staff members	7 (39)
Lack of hygiene	7 (39)
Conflicts of interest	6 (33)
Unavailability of drugs	4 (22)
Irregular ward visits by doctors	4 (22)
Weak supervision	4 (22)
Unavailability of specialist doctors	3 (17)
Lack of privacy	2 (11)
No sufficient facilities	2 (11)

patients who pay cash. Another participant, a single female responsible for her mother and sister, complained that her employer provided her with insurance that does not cover her family. Further negative points included a lack of choice regarding which private hospitals could be accessed (because some insurance schemes are restricted to certain hospitals) and limited coverage by private providers outside the major cities. This last point was made by a participant who remarked that even when he had the privilege of private insurance, it was "meaningless, because there are no private facilities within reach of my home".

3.2 Perceptions of Healthcare Financing Responsibility

Respondents were asked whose responsibility it is to finance the public healthcare system. A total of 25 (70%) participants stated it lies solely with the government. They also expressed a belief that healthcare services should be provided free of charge for all users, without any contributions from them. The remainder of the participants (30%) held a variety of views, predominantly that the responsibility should be shared among stakeholders, including the government, employers, employees and the users who benefit from the system.

The most important point made, by six of the participants, was that resources are currently being wasted and that the service is being misused, pointing to a direct relationship between wastefulness and the lack of a market system. One participant stated "if there are payment contributions or fees that users pay, people will not use the services unless they really need them. This will reduce the pressure on public hospitals". Another view, expressed by two other participants, was that some large institutions and companies that benefit from being embedded within the Saudi economy, such as banks and other large investment companies, should shoulder some of the healthcare financing burden and assist the government.

3.3 Willingness to Contribute to Financing Public Healthcare Services

Despite the participants' differing views and opinions on whose responsibility it is to finance public sector healthcare services, a clear majority of respondents (97%) would be willing to contribute to financing public healthcare services through a national health insurance scheme, but only under certain conditions.

In total, 25 (70%) participants stated they would be willing to contribute to financing public healthcare services if the quality of healthcare services improved. Healthcare service quality should be improved in areas where dissatisfaction was expressed, including increased access to hospitals and prompt provision of appointments when needed and reducing waiting times to see a doctor and conduct laboratory tests and examinations. Other areas where significant improvements were required included ensuring the availability of prescribed drugs, greater availability of specialist medical staff, improving staff workplace attitudes, improving access to the full range of services, and increasing privacy (e.g. guaranteeing private rooms for inpatients).

Participants also expressed a willingness to contribute financially if the government were no longer able to finance public healthcare services solely from its own resources (50% of the respondents). However, the participants expressed a common concern that all family members should be covered and that the coverage should be comprehensive and universal. Participants also emphasised the necessity of the national health insurance scheme being commensurate with Islamic principles and Sharia law.

3.4 Preferences and Expectations of the National Health Insurance Scheme

The study participants were asked about their opinions, preferences and expectations for the national health insurance scheme with respect to stewardship of the system, dimensions of the coverage, and the financing functions of the health insurance system (collection and pooling of contributions, and purchase and provision of healthcare services).

3.4.1 Stewardship of the System

The participants' opinions on the stewardship of the national insurance system varied. Twenty (57%) participants proposed that a prospective national health system should be managed by the public sector. They believed that the public sector cares more for its citizens than does the private sector, which is profit driven. Nine participants believed that if the public sector managed the system, the required contribution level would be affected. One participant stated: "the public sector is not profit-seeking; therefore, the contribution level would be smaller".

However, 10 (29%) participants believed the opposite, stating that the private sector would be more adept at governing the national health insurance system. They perceived there would be greater value and improved efficiency in a system operated and managed within the private sector. The majority in this group emphasised efficiency from private sector leadership and perceived a higher level of professionalism in the private sector.

The remaining participants (14%) considered a compromise to be the optimal solution, with the establishment of a new authority representing both public and private

sectors. They believed that such a partnership within the stewardship could maximize the desired level of interest by drawing on the benefits of each sector's experiences. Two participants suggested that "in a partnership, efficiency will be increased and improved". Another participant stated "I prefer partnership-based management to avoid public sector bureaucracy and private sector monopoly".

3.4.2 Dimension of the Coverage

The majority of participants (88%) expected that the proposed national health insurance scheme should offer comprehensive coverage and cover all family members regardless of contribution size. One participant stated "the health service is a right for us; we might contribute to financing the system to improve it or help to sustain the system, so full coverage should be offered along with any suggested system". Another two participants stated that "insurance must also cover the cost of medicines". Two other participants suggested that the system cover only necessary healthcare services, thus excluding cosmetic services.

Nevertheless, with respect to the membership type of national health insurance, about 60% of the participants suggested that membership should be voluntary. One participant stated that "contributions should be voluntary, and the quality of services provided should motivate and attract people to participate". Five participants believed that "compulsory membership would only serve to increase the financial burden on those who are already under financial pressure and who cannot afford any additional expenses". The remaining participants were in favour of compulsory contributions, with one stating: "if membership were compulsory, it would help the project to succeed. It would raise revenue for the health insurance fund and would help to achieve universal coverage".

With respect to preferences for contribution levels, most participants (64%) preferred a fixed-rate contribution, ideally as a membership contribution per person. They believed this method would be the fairest, with one participant stating: "it is not fair to pay a contribution on the basis of wages, because, at the end, the same healthcare services will be provided for all". Other participants believed the government should support healthcare services, with public contributions acting as a membership fee to complement government financing.

On the other hand, a few participants preferred a wage-based rate deducted directly from an employee's salary; they believed this would be the easiest method to implement, as the government could deduct contributions automatically. One participant stated: "It is easier to calculate the contribution on the basis of salary, and having the fees deducted directly is a fair method". Another participant stated: "If the contribution were based on income or wages, those with lower incomes would pay less than those with higher incomes. It would be a more equitable method".

All participants supported the idea of exemptions for the poor. Some participants suggested an exemption for those on limited incomes, especially poor and the retired people. Five participants suggested that the government could pay poor people's contributions from the *Zakat*, which is an obligatory payment made annually under Islamic law, whereby an individual donates a certain proportion of wealth each year to charitable causes.

3.4.3 Collection and Pooling of Contributions

Nearly three-quarters of the participants (71%) preferred the public sector to be responsible for collecting contributions. This view can be linked to the trust that the Saudi public places in the government, with one participant commenting: "The government is really trustworthy in collecting the contributions, as it maintains its citizen's funds. I have no trust in the private sector". By contrast, four (11%) participants preferred the private sector be responsible. The remaining participants preferred a new authority with the public and the private sectors collecting contributions and managing the entire system.

Regarding the pooling of contributions, all participants preferred contributions to be pooled at the national level. They preferred this for a variety of reasons, including the desire to be fair to all and the belief that healthcare should remain comprehensive and accessible anywhere in the country. Views differed as to the level at which an insurance system might initially be implemented, with 21 participants believing it should start at the national level, ten suggesting it should begin at the regional level, and the other five participants suggesting implementation at the sector level, beginning with the main government sectors.

3.4.4 Purchase and Provision of Healthcare Services

Most of the participants (64%) favoured the private sector when it came to purchasing healthcare services, seemingly based on the belief that the private sector would offer both value for money and better quality. Six participants bluntly stated that the private sector could even prevent corrupt practices. In contrast, six participants preferred the public sector, suggesting it would prioritise the welfare of Saudi people over profit, with one participant stating it would therefore "purchase the best medicine and equipment, regardless of the prices". The remaining participants favoured a public–private partnership, as they believed the public sector has the experience necessary for purchasing health services, including modern technology and

equipment, and the private sector has a good system of supervision.

With regard to service provision, nearly one-quarter of participants preferred health services under national health insurance to be delivered by the private sector. Five participants believed this sector would maintain a better quality of healthcare services. Another quarter of the participants favoured the public sector. Four participants trusted the public healthcare sector more, even though the private healthcare sector performed better in terms of waiting times, amongst other indicators. One typical participant stated "I do not trust the private healthcare sector, especially for treating complex health conditions and conducting surgeries. My choice for such cases would definitely be the public healthcare sector". The remaining participants preferred both public and private sectors in order to provide citizens with more choice so they could choose healthcare services from their favoured sector.

4 Discussion

Our findings suggest interviewees primarily felt proud of the public sector healthcare system. They acknowledged the inclusiveness of public healthcare services provided at all levels: primary, secondary and tertiary. They also acknowledged the positive role of the public healthcare system in providing healthcare services and medicines free of charge to the entire population, as well as to all Muslims who visit the country for *Umrah* and *Hajj*. However, they criticised the public healthcare system for the long waiting times to obtain appointments and access healthcare services. This criticism was particularly applicable for some surgical procedures, for which waiting times of several months was not unusual [3]. This issue has forced many Saudis to use private hospitals. Perhaps unsurprisingly, most private healthcare services, before the implementation of the CEBHI, were provided to Saudis who were eligible for free healthcare services through the public sector [3].

Dissatisfaction was also noted in existing private health insurance. Nearly one-fifth of participants who were covered by private health insurance made claims at some point, and none of this group were fully satisfied with their health insurance policy. The main causes of their dissatisfaction were (1) the long process to obtain approval from the insurance company; (2) the lack of doctor choices, as some doctors do not accept insured patients and prefer to only treat patients who pay cash; (3) lack of choice of private hospitals, as some insurance schemes are limited to a small number of hospitals; (4) access problems for private hospitals in rural areas, as most private hospitals are located in major cities [21]; and (5) the lack of comprehensive private health insurance coverage, with co-payments and additional charges for medicine being required in some insurance schemes.

The perceptions of participants appear to be key to viewing the responsibilities for financing healthcare. The success of any new system, or substantial changes made to an existing system, will require support from the society that will use the services—a higher level of support is associated with a greater likelihood of success [14]. This is likely to be particularly significant when seen in the light of Article 31 of the Constitution, which states that the government has a responsibility to provide healthcare for all citizens. Therefore, it is not surprising that the majority of participants stated that the financial responsibility lies solely with the government.

Despite the participants' varying views and opinions on financing responsibility, the study presents evidence of the Saudi people's willingness to contribute to financing the nation's public healthcare system. However, this is conditional on certain improvements being made in the identified areas. The study also finds that Saudis are willing to contribute financially if the government is unable to finance the system from its revenue alone. This view indicates the public solidarity necessary to sustain healthcare services for the use of all citizens.

As anticipated, all participants expected to receive comprehensive health coverage and that the coverage not be linked to the amount or level of the contribution. This response reflects the current situation, under which all Saudi people receive full health coverage, free at the point of delivery, without any financial contribution. Therefore, a downgrade of coverage level when introducing financial contributions would not be acceptable.

The majority of participants expressed a preference for a national health insurance scheme under the stewardship of the public sector, as they judged the public sector to be more qualified to manage it, as well as having more authority, being more trustworthy, and caring more about its citizens, than the profit-driven private sector. However, some participants who preferred the private sector expressed concerns about the bureaucratic and corrupt practices in the public sector.

The majority of participants preferred a fixed-rate contribution (membership fees). This is surprising in a country that has a formal, structured economy where many people have a stable income. However, the participants appeared to show a sense of altruism and solidarity by supporting the idea of lower contributions for lower-income groups and exemptions for the poorest households, with some suggesting the government should take responsibility for the poorer citizens' contribution to the insurance fund.

Study participants largely supported voluntary membership, driven by the fear of imposing an additional

financial burden. However, in contrast to the views expressed by the participants, a compulsory membership would, on a practical level, be much more effective in maintaining universal coverage and compelling all people to contribute to the health insurance system [22–25]. This is supported by evidence from the implementation of compulsory car insurance in the country, which led to nearly universal car insurance coverage in Saudi Arabia.

Participants expressed a strong preference for a national level of risk pooling. This preference is linked to an ability to collect more revenue, ensuring universal coverage and increasing the efficiency of the system. Scientific evidence supports this preference, as a central pool could be more efficient in reducing geographical inequities [26]. Participants had varied opinions regarding the level of the initial implementation of the system. More than one-third of participants (41%) did not support the establishment of the system at a national level; rather, they supported either regional- or sector-level implementation to begin with. The rationale for this preference was to pilot the new system, thus allowing mistakes in the system to be rectified before nationwide roll-out.

In terms of responsibility for collecting contributions, the majority of participants preferred the public sector for trust reasons. As a purchaser of healthcare services, the majority favoured the private sector, viewing it as more efficient in the purchasing of high-quality equipment and in controlling costs. As a provider of healthcare services, half of the participants preferred both sectors to provide services simultaneously. This preference largely stemmed from the participants' desire to be able to make choices when treatment is needed. This finding is consistent with the assertion that the public healthcare sector is preferred for treating specialist or complex medical conditions, whereas the private sector is more attractive both for minor health matters and for luxury services.

5 Study Strengths and Limitations

This study used a purposive sample that was small but suitable for exploratory qualitative purposes. The study is therefore limited by sample size, and any future study aiming to corroborate these results should employ a larger sample. Moreover, because of the lack of reliable population data at household level in Saudi Arabia, which precluded a fully representative sample, a varied sample of the participants was purposively selected according to social-economic class. This might raise the question of a potential for selection bias. For example, the study sample is relatively skewed towards the male sex. However, this study was conducted at a household level, and for cultural and religious reasons, the heads of household in Saudi Arabia tend to be male and responsible for household members. Nevertheless, the voices of women were represented in this study. When better household-level population data in Saudi Arabia becomes available in the future, representativeness of samples can be improved.

6 Conclusion

This study indicates that the Saudi people seek the best possible quality healthcare and display strong feelings about certain improvements. In the context of current debates in the country regarding healthcare financing options and the introduction of a health insurance system to reduce the government burden and enhance sustainability, this study tackles issues that should be of interest to policy makers in the KSA.

Introducing a national health insurance system may be a viable option to finance the Saudi healthcare system, and further work is needed to confirm this on a broader scale. The Saudi people show a willingness to contribute to public healthcare financing on the condition that there is a clear improvement in the quality of healthcare services. There is also a willingness to contribute financially if the government is no longer able to fund healthcare services alone. However, this study does not estimate the Saudi people's willingness to pay, either for an improved quality of public healthcare service or to ensure sustainability of the current system. Hence, further investigation of this issue is warranted.

The study also explores public preferences regarding the financing function of the insurance system, providing a better understanding of the societal preferences of the public regarding healthcare provision and financing. To address the clear variation in some preferences and expectations, a new entity or independent body, built upon a partnership between public and private sectors, under government supervision, could serve as an acceptable option to the Saudi people. Finally, the results of this study may be transferable to other countries (especially in the Arabian Gulf region) that share similar cultural, economic and religious contexts and face similar challenges, especially with healthcare financing. As such, in terms of an original qualitative investigation, this study seeks to not only guide policy makers on the viable implementation of a national health insurance scheme but also prepare the ground for further research and public debate.

Acknowledgements The authors are grateful to all respondents who participated in this study, and we appreciate the unconditional support of Professor Muhammed Tanwer Abdullah for his constructive feedback and comments on the manuscript. Thanks are also due to the anonymous referees for their comments and suggestions that helped to shape the paper in its current format.

Authors' Contributions MA conceived the idea, designed the study and analysed and interpreted the data under supervision from KV at Aston University as part of MA's PhD thesis. MA drafted the first draft of the paper. OA and SA reviewed and suggested the structure of the manuscript. All authors contributed to revisions of the manuscript and approved the final version of the manuscript prior to its submission. MA is the overall guarantor for this work.

Compliance with Ethical Standards

Funding This work was supported by King Abdulaziz University, Jeddah, Saudi Arabia, in terms of a PhD scholarship for MA.

Informed consent Consent was secured from all respondents who participated in the study.

Conflict of interest Mohammed Al-Hanawi, Omar Alsharqi, Saja Almazrou, and Kirit Vaidya have no conflicts of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This research study has been reviewed and given a favourable opinion by Aston University Research Ethics Committee. The study was designed and conducted in accordance with the ethical principles established by Aston University. In addition to ethical approval from Aston University, the study also received ethical approval from the MOH in Saudi Arabia.

References

1. Kingdom of Saudi Arabia. General Authority for Statistics. 2017. https://www.stats.gov.sa/en. Accessed 23 May 2017.
2. Forest J, Sousa M. Oil and terrorism in the New Gulf: framing US Energy and security policies for the Gulf of Guinea. Lanham: Lexington Books; 2006.
3. Walston S, Al-Harbi Y, Al-Omar B. The changing face of healthcare in Saudi Arabia. Ann Saudi Med. 2008;28:243–50.
4. Baranowski J. Health systems of the world: Saudi Arabia. Glob Health. 2009;2:1–8.
5. Walshe K, Smith J. Introduction: the current and future challenges of healthcare management. In: Walshe K, Smith J, editors. Healthcare management. Buckingham: The Open University Press; 2011. p. 1–10.
6. Mufti MH. Healthcare development strategies in the Kingdom of Saudi Arabia. New York: Springer Science & Business Media; 2000.
7. World Health Organization. Country cooperation strategy for WHO and Saudi Arabia, 2006–2011. New York: World Health Organization; 2006.
8. Jannadi B, Alshammari H, Khan A, Hussain R. Current structure and future challenges for the healthcare system in Saudi Arabia. Asia Pac J Health Manag. 2008;3:43–50.
9. Alsharqi OZ, Abdullah MT. "Diagnosing" Saudi health reforms: is NHIS the right "prescription"? Int J Health Plan Manag. 2012;28:308–19.
10. Al Salloum NA, Cooper M, Glew S. The development of primary care in Saudi Arabia. InnovaiT: Education and Inspiration for. Gen Pract. 2015;8:316–8.
11. Elachola H, Memish ZA. Oil prices, climate change-health challenges in Saudi Arabia. Lancet. 2016;387:827–9.
12. Almalki M, FitzGerald G, Clark M. Health care system in Saudi Arabia: an overview. East Mediterr Health J. 2011;17(10):784–93.
13. Mufti MH. A case for user charges in public hospitals. Saudi Med J. 2000;21(1):5–7.
14. Balabanova D, McKee M. Reforming health care financing in Bulgaria: the population perspective. Soc Sci Med. 2004;58(4):753–65.
15. Mooney GH. Economics, medicine and health care. London: Financial Times Prentice Hall; 2003.
16. Kutzin J. A descriptive framework for country-level analysis of health care financing arrangements. Health Policy. 2001;56:171–204.
17. Creswell JW. Research design: qualitative, quantitative, and mixed methods approaches. London: Sage Publications; 2013.
18. Barbour RS. Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? BMJ. 2001;322(7294):1115–7.
19. Ritchie J, Lewis J, Nicholls CM, Ormston R. Qualitative research practice: a guide for social science students and researchers. London: Sage; 2013.
20. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Med Res Methodol. 2013;13:117–24.
21. MOH Statistics Book 2013. http://www.moh.gov.sa/en/Ministry/Statistics/book/Pages/default.aspx. Accessed 25 May 2017.
22. Abel-Smith B. Health insurance in developing countries: lessons from experience. Health Policy Plan. 1992;7:215–26.
23. Saltman RB. Social health insurance in perspective: the challenge of sustaining stability. In: Saltman RB, Busse R, Figueras J, editors. Social health insurance systems in Western Europe. Berkshire: Open University Press; 2004. p. 3–20.
24. Gottret PE, Schieber G. Health financing revisited: a practitioner's guide. Washington: World Bank Publications; 2006.
25. Zweifel P, Lyttkens CH, Soderstrom L. Regulation of health: case studies of Sweden and Switzerland. New York: Springer Science & Business Media; 2012.
26. World Health Organization. The world health report: health systems financing: the path to universal coverage. Geneva: WHO; 2010.