

Saudi Arabia Healthcare Sector

Small private involvement points at greater growth opportunity

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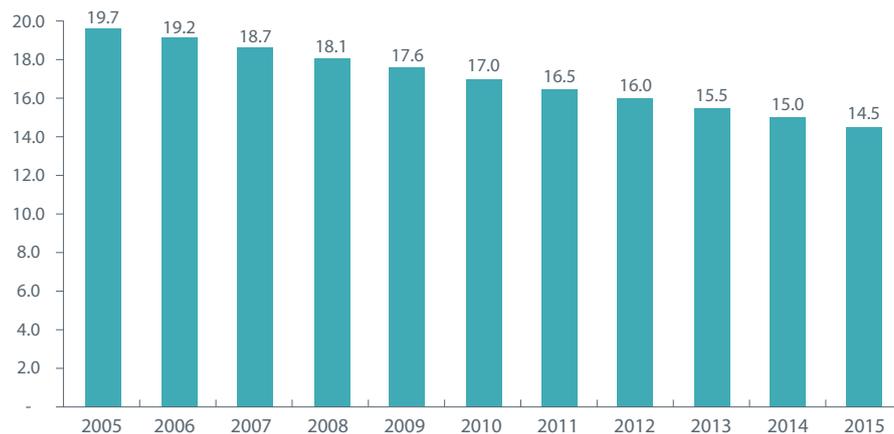
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High population growth to supplement the healthcare demand in KSA

Population growth is a key factor for any country's healthcare services. KSA's population expanded at a CAGR of 2.3% over the past five years to 2015. Going forward, population is projected to rise at a CAGR of 1.9% from 2015 to 2020. As we will see through figures provided later, KSA's healthcare system is inadequate to meet the requirements of the current population of 31.5 million. Hence even if the population continues to grow at a steady pace even then going forward the current healthcare infrastructure would fail to meet the growing demand which paves the way for a lot of investment opportunities in the Kingdom's healthcare sector.

Moreover infant mortality which was 19.7 per 1000 live births under 5 in 2005 has reduced to 14.5 per 1000 live births under 5. Low infant mortality and high expected life expectancy have collectively also been instrumental in leading to high population growth, which essentially means that since more children are surviving birth and people are living longer, the addition to the population is faster and the reduction from the population is slower. The average life expectancy at birth in KSA in 2014 was about 73 years for males and 76 years for females, far higher than the global life expectancy of 71.4 years (73.8 years for females and 69.1 years for males). Moreover, it is a noteworthy improvement from just 46 years estimated in 1960. In KSA, 30.6% of the total population falls in the age group

Mortality Rate, under - 5 (Per 1000 live births)

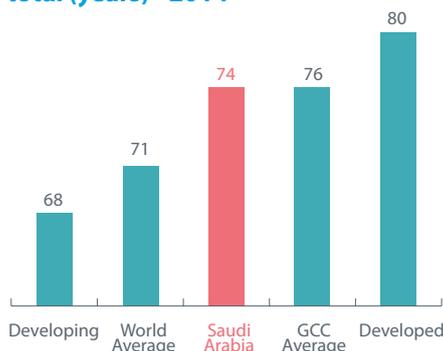


Source: World Bank

of 40 and above. Hence, the resultant increase in this category, which usually spends more on medical care, is likely to transform into higher spending related to healthcare services. We believe that

while the average age of the population has been shifted upwards to around 75 years, those crossing the mid – 60 age are more likely to extensively and frequently utilize the healthcare system.

Life expectancy at birth, total (years) - 2014



Source: World Bank

Healthcare spending is still low as compared to income and as % of GDP

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KSA's per capita income stands above the world average. However, among the countries in GCC, KSA has the 2nd lowest GDP per capita (2015) whereas it spends the highest % of its GDP on healthcare among the GCC countries. But KSA's spending (4.7% of GDP) is still less when compared to the developed economies which spend on an average more than 9% of their GDP on healthcare which means highlights a potential deficiency and therefore a growth opportunity. KSA's healthcare sector depends primarily on government funding, as it accounts for about 75% of the total healthcare spending. Saudi Arabia's government relatively spends less on healthcare as compared to the GCC average of 79% but still more when compared to that of developed economies. Also, with the private participation accelerating in the region, government's share would decline further.

Non Communicable Diseases (NCDs) - a chronic issue

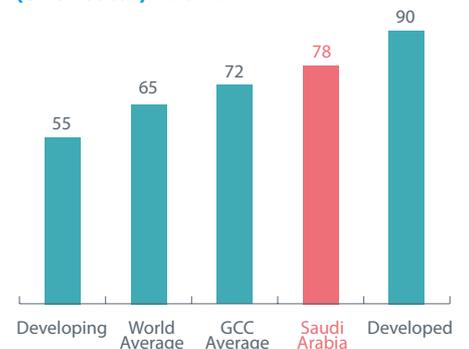
Economic growth in the Kingdom has been supplemented by the population adopting a sedentary lifestyle among various unhealthy habits. This has contributed to a rising occurrence of non-communicable diseases (NCDs), such as cardiovascular illnesses, cancer, and respiratory diseases. NCDs have become a leading cause of death in the GCC. In addition to this, the nature of NCDs means patients typically require frequent contact with the healthcare system. This means larger consumption of healthcare services, which imposes a vertical rise in the struggling government budgets and hampers economic productivity. Chronic diseases such as cardiovascular, diabetes, cancer and respiratory conditions are rising dramatically in KSA and in the GCC region driven primarily by lesser physical activity and dietary habits further complemented (and perhaps complicated) by high income generation. NCD's were estimated to account for 78% of the total deaths in KSA in 2014, according to a report by the World Health Organization. NCDs are incident primarily on the working age population, which is a serious issue given that this segment forms the largest portion of the age distribution of KSA in particular and the GCC in general. As per the WHO, communicable diseases have ceased to be the leading cause of mortality in the country; in fact the rates of malaria and tuberculosis are negligible according to the World Health Report 2012. The malaria cases reported

are primarily due to the country's southern border with Yemen, where the disease is still prevalent. It is therefore understood what the focus of the healthcare system is going to be.

The cost of NCDs forms a major chunk of the total government spending in KSA and the overall GCC region. According to global strategy consulting team of PWC, NCDs account for 9 – 30% of the total public healthcare spending. Among GCC, Qatar tops the list with highest spending per capita on NCD's, where NCDs comprising 22% of the total healthcare spending. Bahrain, Kuwait, KSA, and the UAE have NCDs accounting for 7–11% of the healthcare spending which is close to the region average. The lowest per capita healthcare spending is

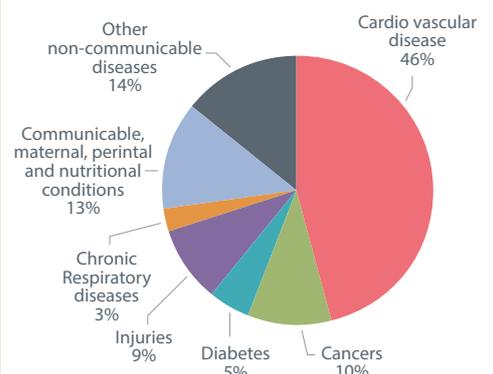
in Oman which spends merely 6% of the total healthcare expenditure on NCDs and it could be attributed to its relatively traditional lifestyle when compared with its GCC peers. The total numbers of deaths reported to MOH was 47,201 for 2014 out of which the top causes of deaths were injury, poisoning and certain other consequences of external causes followed by diseases of the circulatory system.

Cause of mortality, by non-communicable diseases (% of total) - 2012



Source: WHO, World Bank

Proportional mortality (% of total deaths, all ages, both sexes)



Source: WHO, World Bank

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Moderate healthcare expenditure despite high income generation

Saudi Arabia's per capita income stands higher than the world average however, spending on healthcare as a percentage of the GDP remains relatively modest. Saudi Arabia's healthcare spending is 4.7% of its GDP whereas the advanced economies of the world spend more than 9% of GDP on healthcare. This shows Saudi Arabia's inadequacy in terms of healthcare spending or in other words, healthcare



KSA spent USD35.4bn on health in 2014, an 11.5% increase compared to the previous year. Health expenditure per capita in KSA witnessed a five-fold rise in the last twenty years to USD1,147 in 2014 from just USD221 in 1995

expenditure in the GCC as a whole and KSA in particular is low by international standards. However, it is to be noted that Saudi Arabia's healthcare spending is still above the GCC average of 3.7%. KSA spent USD35.4bn on health in 2014, an 11.5% increase compared to the previous year. Also, health expenditure per capita in KSA witnessed a five-fold rise in the last twenty years to USD1,147 in 2014 from just USD221 in 1995. This figure is however significantly lower than the average USD3,531 per capita spent by OECD countries with US standing out as the leader with a per capita expenditure

of USD9,532. The same conclusion is derived when comparing KSA's health expenditure to the total yearly expenditure of the country. KSA's figures stand at 8.2% a tad above the region average of 7.6% in front of towering figures like 15.2% for the developed world and 11.7% for the world as a whole.

Small private involvement points at greater growth opportunity

KSA's government spending as a % of total healthcare expenditure accounts for the majority of the total healthcare expenditure and stands at 74.5% as compared to the region average at 78.6%. Considering these factors, in the recent past, the government began implementing a number of reforms, which are aimed at expanding the country's healthcare infrastructure and placing importance on controlling lifestyle-related diseases. Resultantly, the share of private sector expenditure on healthcare as a proportion of total healthcare expenditure decreased from 28% in 2005 to 25% in 2014. In terms of private health expenditure as a percentage of the total, KSA is well above its peers (ranking 3rd) with Bahrain's private sector spending the most (36.7%) on healthcare as compared to its peers in the GCC followed by UAE (27.7%).

Even though KSA's government funds 74.5% of its total healthcare expenditure, total healthcare expenditure is still far behind when it comes to the world

economies. We believe that while the government struggles with its expenditures given the prevalent oil prices, it will be quite open to welcome private contribution to healthcare. We see a reversal in this trend going forward as the government mulls foreign and local investments into this sector especially

through its PPP initiatives. At the current (2014) level of expenditure, every 10% increase in proportion of private sector expenditure amounts to an amount in the vicinity of USD3.5bn. Come 2017 and an increase in the pie of the healthcare market would take this figure even higher.

Medical tourism industry gains traction as austerity measures hurt Kingdom's growth

The kingdom has developed a five-year plan to encourage medical tourists to seek treatment in its government and private hospitals. Saudi Arabia's nearly USD100bn fiscal deficit and its current state of the economy are letting the government take steps to implement a severe austerity program and find ways to grow its non-oil revenue. The health sector is part of that revenue plan and has been tested with the idea of developing a medical tourism programme. According to the Medical Tourism Index (TMI) the Kingdom of Saudi Arabia ranks 37th among the most desired countries to receive medical care. Canada ranks first in global ranking followed in order by the United Kingdom, Singapore and India.

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Health Insurance penetration in Saudi Arabia at 0.77% of GDP

Insurance penetration of total Gross Domestic Product (GDP) is defined as Gross Written Premiums divided by the total GDP. Health Insurance Penetration has also been on a rise in Saudi Arabia. Over the past 4 years to 2015, Saudi

Arabia health insurance penetration as a % of total GDP has risen to 0.77% in 2015 from 0.45% in 2011 as per Saudi Arabia Monetary Agency. Over the past 1 year, the share has risen by 21bps which shows the growing demand for healthcare market in the Kingdom. Health insurance Gross Written Premiums, which represents 52% of the insurance market in Saudi Arabia, increased by 20.3% to SR18.9bn in 2015 compared to SR15.7bn in 2014. The top three insurers in Saudi Arabia namely Bupa Arabia, Tawuniya and MEDGULF comprised approximately 80% of the market share in 2015.

The Council of Cooperative Health Insurance (CCHI) was established in 1999 to oversee the Kingdom's SAR25bn (USD6.7bn) private health insurance market, which currently comprises 28 operators. Health insurance was

initially rolled out for expatriates, with a requirement that foreign employees must have medical insurance coverage phased in since 2001. This obligation was subsequently extended to their dependents. Since 2006 all private sector employers have been required to provide insurance coverage for their employees, both Saudi and foreign. However, foreigners still form the bulk of those insured; the MoH announced in July 2014 that of the total of 9.7m people with coverage, 7m were expatriates, while only 2.7m were nationals. These figures suggest a 71% penetration rate for foreigners and 13% penetration for nationals, translating into overall penetration of 32%. This suggests there is significant room for growth, with the government currently exploring ways to shift the burden of care towards the private sector.



Treatment abroad, a drain on the national kitty

As per a news report on Arab news, the Kingdom spent more than SAR1bn to treat 4,723 Saudi patients abroad during 2013 as per an announcement by the Ministry of Health. The patients received treatment in countries such as the United States, the United Kingdom, Germany, Singapore and China. The United States remains the top destination for medical treatments followed by Germany and the United Kingdom. KSA is also planning to promote medical tourism in its own country by developing superlative healthcare and hospitality facilities. These massive developments within KSA's healthcare sector will have a coupling effect for public finances of the KSA government; firstly focusing on medical tourism would possibly attract patients from across the globe and secondly reduce the foreign visits of locals for specialized treatment.



Exploiting the Gaps in the Infrastructure

The total man power in health care in the Kingdom of Saudi Arabia grew at a pace of 9.2% CAGR for 2009 – 13, reaching 174,881 in 2013. In 2013, the country recorded 83,862 nurses, increasing from 63,297 in 2009, while the number of the pharmacists also grew at CAGR of 9.5% in between the same period, reaching the total number of 2,381 in 2013. As per latest comparable data available on World Bank for 2012, the hospital beds in KSA stand low at 2.1 beds per 1000 population as compared to the world average of 3 beds per 1000 people and

developed markets average of 5 beds per 1000 people. This deficit highlights supply side issues and paves the way for growth opportunities available in terms of KSA's healthcare infrastructure requirements. As per the comparable data available on World Bank's website for 2012, the physician density in KSA stands at 2.5 per 1000 people as compared to the developed markets average of 3.4 physicians per 1000 people. Similarly, as per comparable data available on World Bank for 2010, the nurses and midwives density in KSA stands at 4.7 per 1000 people as

compared to the developed markets average of 8.9 per 1000 people as well as GCC average of 5.7 per 1000 people. As per the latest available data from Ministry of Health, 60% of the total beds are in the Ministry of Health hospitals (public hospitals) whereas 59% hospitals are in the public sector. In terms of remaining beds, private sector hospitals comprise of 24% and 16% is contributed from the other governmental sectors. Moreover, 31% of the hospitals are from the private sector and 9% of them belong to other governmental sectors.

Beds per 10,000 people



Physicians per 10,000 people



Supply Demand Gap for Nurses & Beds - backlog piling up

Kingdom of Saudi Arabia will require a significant addition of healthcare workforce and infrastructure to cater to its growing healthcare demand. A supply-demand gap analysis has been worked out wherein requirements for numbers of beds, nurses have been estimated based

on the last 3 year average growth rate and it has been then compared with the OECD average rate for 2014 to estimate the surplus/deficit which might arise in the years to come. As per our crude calculations, if KSA were to adopt standards maintained by OECD countries, it would have

an average backlog of ~30,000 beds and ~54,000 nurses over the next 5 years despite the number of beds and nurses it has been adding each year over the past few years based on the yearly average growth figure.

Beds Demand – Supply Gap



Year	2014	2015	2016	2017	2018	2019	2020	2021
Population (mn)	30.8	31.4	32.0	32.7	33.3	34.0	34.7	35.3
Beds	67,997	69,394	72,437	75,224	77,803	80,828	83,836	86,920
Growth %	5.1%	2.1%	4.4%	3.8%	3.4%	3.9%	3.7%	3.7%
Beds per 1000 - Saudi Arabia	2.21	2.21	2.26	2.30	2.34	2.38	2.42	2.46
Beds per 1000 - OECD Average 2014		3.25	3.25	3.25	3.25	3.25	3.25	3.25
Required Beds as per OECD Average		102,109	104,149	106,234	108,359	110,525	112,735	114,989
Surplus/Deficit		(32,715)	(31,712)	(31,010)	(30,555)	(29,698)	(28,899)	(28,069)

If KSA were to maintain its 2.2 per thousand bed average, it would have a shortage of ~7,000 beds by 2020 and if KSA were to maintain a standard (acceptable level to meet Sustainable Development Goals) average of 2.5 beds per thousand then there would be a shortage of 17,000 beds by 2020. There are currently 6 large scale mega healthcare projects in KSA. The total value of these projects is approximately USD11.3bn which will add almost 7,900 beds; the completion time of most of these projects is however not known at this moment in time. If KSA were to maintain its current average of 5.5 nurses per thousand, it would have a shortage of ~18,000 nurses by 2020 which translates roughly into a shortage of ~3,600 nurses per year.

Nurses Demand – Supply Gap



Year	2014	2015	2016	2017	2018	2019	2020	2021
Population (mn)	30.8	31.4	32.0	32.7	33.3	34.0	34.7	35.3
Nurses	165,334	172,483	185,092	196,568	208,253	221,758	235,529	250,163
Growth %	7.0%	4.3%	7.3%	6.2%	5.9%	6.5%	6.2%	6.2%
Nurses per 1000 - Saudi Arabia	5.37	5.50	5.78	6.02	6.25	6.53	6.80	7.08
Nurses per 1000 - OECD Average 2014		7.92	7.92	7.92	7.92	7.92	7.92	7.92
Required Nurses as per OECD Average		248,478	253,442	258,517	263,687	268,959	274,335	279,821
Surplus/Deficit		(75,995)	(68,350)	(61,949)	(55,434)	(47,201)	(38,806)	(29,658)

Healthcare market to expand at a CAGR of 12.3% till 2020e

As per IMF, Saudi Arabia's population is projected to grow at a CAGR of 1.9% to reach 34.7mn in 2020 from 31.5mn in 2015 whereas the average inflation rate in the region is expected to be at an average of 2.1% during the forecast period of 2016 – 2020. KSA healthcare expenditure was approximately USD35.4bn in 2014 and it is expected to grow at a CAGR of 4.1% up to 2020 to USD45bn considering the population growth and the average inflation growth rate forecast by IMF for the forecast period.

As per AON Hewitt's Global Medical Trend Rates 2016 Survey report, KSA Average Net Medical Trend Rate (Net Medical Trend is the combination of the change in cost (generally an increase) of a medical service or product times the rate of utilization or consumption of the service or product less country inflation) is estimated to have risen by 9.5% in 2016 while the same was 13.8% for 2015. Considering the 2016 growth rates for the entire forecast period, we estimate the healthcare industry in Saudi to grow at a CAGR of 12.3% till 2020 to reach USD71.2 bn.

Multiple projects and moves toward privatization are emerging as the latest trends

Realizing the need for facilities that cater to life-threatening diseases which earlier required Saudi Arabians to fly out of the country for treatment and to cater to the burgeoning demand, several construction projects are being taken up in the country. Saudi Arabia has a whopping 389 upcoming healthcare projects, accounting for approx. 55% of the total upcoming projects in the GCC region. While in terms of project value (USD26.5bn), KSA accounts for nearly 40% of the total value of upcoming projects.

- a. **King Abdullah Bin Abdulaziz, Security Forces Medical Complexes:** KSA's largest medical project, and also the largest medical project in the GCC, is estimated to be built at a cost of USD6.7bn. Two separate medical cities for security forces that are being developed in Riyadh and Jeddah on behalf of the Kingdom's Interior Ministry.
- b. **King Abdullah Medical City, Makkah:** The design phase project will cover an area of 350 hectares and cost an estimated USD1.2bn. The capacity of the primary five-story hospital building will be 1,500 beds, of which 500 beds have been allotted for specialist referrals. The King Abdullah Medical City in Mecca: This will comprise a total of three hospitals and 10 medical centers.
- c. **Clemenceau Medical Center, Riyadh:** A 16-storey state-of-the-art medical center located on King Fahd Road in Riyadh, Saudi Arabia. The medical center will include 180 beds and 62 consultation units. The center will provide acute care treatment, intermediate care in a five-star setting, home care and follow-up, and will offer a wide-spectrum of medical and surgical specialties in addition to advanced screening and diagnostic services. Also a noteworthy point to mention here is that this medical center has affiliation attached to Johns Hopkins International.
- d. **Medical Park - Prince Sultan Cultural Centre – Obhur:** The Medical Park at Prince Sultan Cultural Centre is a 3mn sq. ft. healthcare campus that anchors the north end of the mixed-use development project in the western coastal city of Jeddah, Saudi Arabia. It will be built with a total capacity of 900 hospital beds.
- e. **The King Khalid Medical City in Dammam:** This USD1.2bn project will serve as an academic medical center with 1,500 single-patient rooms, a 500-bed private community hospital, and medical schools and hotels.
- f. **The King Faisal Medical City:** This USD1.2bn project to serve the Southern Province will have a 1,350-bed capacity.
- g. **The Prince Mohammed bin Abdulaziz Medical City:** This project to serve the northern region will have a 1,000-bed capacity.
- h. **The MoH plans** to build a 550-bed medical city at Al-Jouf and expand the existing King Fahad Medical City in Riyadh.

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