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Jadwa Investment

November 2021

Healthcare and Vision 2030

Summary

- The Kingdom's approach to dealing with the Covid-19 pandemic can be held up as an effective model to the world. This relates not only to the initial swift lockdown of the country when news of the pandemic became known, but also around disease analysis, virus tracking and in the roll-out of the vaccination programme.
- Whilst Saudi Arabia's healthcare sector has been at the center of an (ongoing) battle against the pandemic, life is on the path to returning to normal, with a staggered lifting of measures and restrictions coinciding with higher rates of administered vaccinations.
- This return to normalcy will also be somewhat mirrored by the healthcare sector, with an increasing focus on more typical health concerns of the local population, rather than emergency pandemic-related healthcare provision.
- More specifically, the demographic profile of the Kingdom presents some pressing challenges for the healthcare sector. On the one hand, it means addressing the needs of a sizable youth population, which exhibits comparatively higher levels of chronic health conditions, and, on the other hand, the challenge of providing suitable healthcare provisions for a larger elderly population in the future.
- With these challenges in mind, the Vision 2030 has unveiled a roadmap aimed at developing the sector in order to address current and upcoming challenges. At the heart of the plans lies the desire to foster a partnership between the private and public sector, especially so through channeling hitherto limited private sector investment into the local healthcare system.

Figure 1: Some of Vision 2030's healthcare targets

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Released: November-22-2021, 17:00 UTC+3

Overview

The Kingdom's approach in dealing with the Covid-19 pandemic can be held up as an effective model to the world.

The Kingdom's approach in dealing with the Covid-19 pandemic can be held up as an effective model to the world. This relates not only to the initial swift lockdown of the country when news of the pandemic became known, but also around disease analysis, virus tracking and in the roll-out of the vaccination programme.

During the height of the pandemic back in mid-2020, the Kingdom allocated an extra SR47 billion to the healthcare sector (in addition to the budgeted SR167 billion). These sums helped expand the provision of additional beds for critical Covid-19 cases, including the designation of 80 thousand beds across 25 hospitals which included 8 thousand Intensive Care Units (ICUs), and 2200 isolation beds. Separately, the funds helped facilitate the roll-out of a free country wide mass rapid testing program. Furthermore, a number of mobile applications were also developed allowing users to apply for Covid-19 testing, enrol for vaccines, and receive alerts of nearby infections.

The return to normalcy will be somewhat mirrored by the healthcare sector, with an increasing focus on more typical health concerns.

Whilst Saudi Arabia's healthcare sector has been at the centre of an (ongoing) battle against the pandemic, life is on the path to returning to normal, with a staggered lifting of measures and restrictions coinciding with higher rates of administered vaccinations. This return to normalcy will also be somewhat mirrored by the healthcare sector, with an increasing focus on more typical health concerns of the local population, rather than emergency pandemic healthcare provision.

In this report, we take a step back from the developments around Covid-19, and aim to focus on the healthcare sector as a whole.

Healthcare has always been a priority sector in the Kingdom, with the foundations of the current healthcare system being rooted in the formation of a public health department (via a royal decree) in Makkah, in 1925. Later in 1950, the Ministry of Health (MoH) was formally established and, since then, the sector has grown to rival developed nations in some aspects (Figure 2). Despite these achievements, a number of challenges remain. Thus, in this report, we take a step back from the frantic developments around Covid-19, and aim to shine a light around the healthcare sector as a whole.

Current trends

The Kingdom of Saudi Arabia is the largest economy in the Middle East and North Africa region (MENA), and has a relatively large population of around 35 million, which is growing at a fast pace (Figure 3).

Figure 2: Number of beds in comparison to selected OECD countries

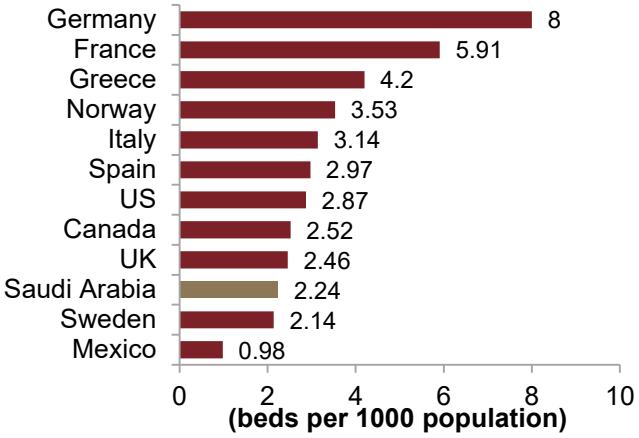
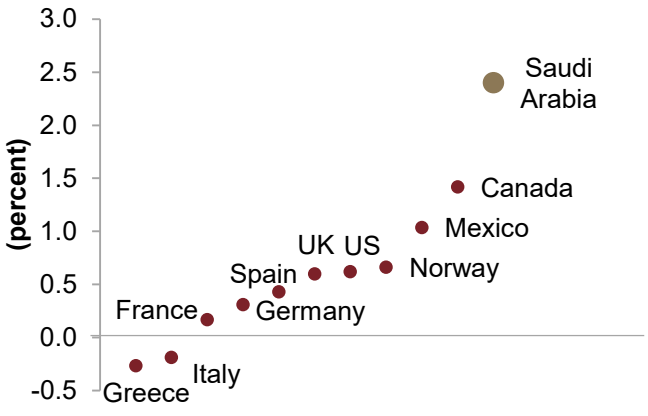


Figure 3: Population growth in comparison to selected OECD countries



Vision 2030 aims to develop the healthcare sector in order to address current and upcoming challenges.

The demographic profile of the Kingdom, in turn, presents some pressing challenges for the healthcare sector. On the one hand, it means addressing the needs of a sizable youth population, which exhibits comparatively higher levels of chronic health conditions, and, on the other hand, the challenge of providing suitable healthcare provisions for a larger elderly population in the future.

With these challenges in mind, the Vision 2030 (Vision) has unveiled a roadmap aimed at developing the sector in order to address current and upcoming challenges. At the heart of the plans lies the desire to foster a partnership between the private and public sector, especially so through channeling hitherto limited private sector investment into the local healthcare system.

Growing youth and chronic diseases

Those below the age of 40 account for almost 70 percent of the total population…

The population pyramid within Saudi Arabia is heavily skewed towards the younger age groups. More specifically, those below the age of 40 account for almost 70 percent of the total population, with this age group rising by 40 percent over the last 20 years (from 17 million in 2000 to 24 million in 2020). This will obviously mean that the Kingdom will see a growth in the older age group over time. To put this into context, there were 891 thousand 60+ year olds back in 2000, but this age group totaled 1.9 million in 2020 (equivalent to a 115 percent rise). Looking ahead, the 60+ age group is expected to reach 10.3 million by 2050 (Figure 4) and, with it, the demand for elderly healthcare services are also likely to grow significantly.

...which means that the Kingdom will see a growth in the older age group over time.

According to the WHO, rapid change in diets and lifestyles is having a significant impact on the health of younger age groups.

According to the World Health Organization (WHO), rapid changes in diets and lifestyles have been observed in the last 30 years around the world. This is primarily the result of rapid industrialization, urbanization, and economic development. The WHO goes onto highlight that this is having a particularly significant impact on the health and nutritional status of younger age groups (often referred to as lifestyle diseases, Box 1). This globally observed trend is also more acutely applicable to Saudi Arabia. For example, data shows that the prevalence of diabetes in Saudi Arabia (as a percentage of population aged between 20-79) was as high as 15.8 percent in 2019, compared with the OECD's average of 8.3 percent (Figure 5). In addition, according to the World Bank, the fatality rate from cancer, cardiovascular diseases, diabetes or chronic respiratory diseases, whilst improving, is still comparatively high in Saudi Arabia. More specifically, the fatality rate for ages between 30-70 dropped from 26 to 21 percent in Saudi Arabia during the last decade, but was still relatively higher than the OECD average, which declined from 16 to 12 percent over the same period.

Figure 4: Population growth in the Kingdom between 2000 and 2020

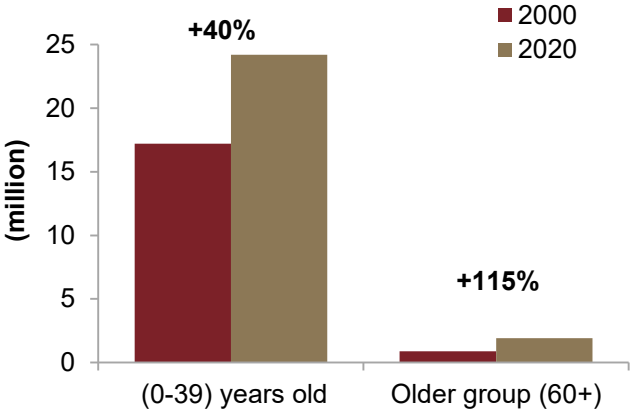
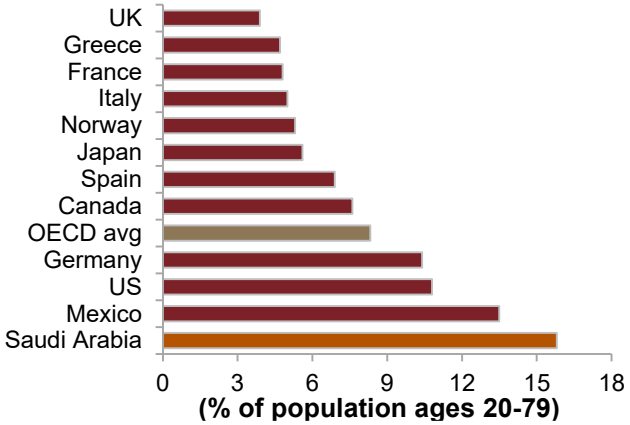


Figure 5: Prevalence of diabetes mellitus in Saudi Arabia and OECD countries



Box 1: Lifestyle diseases

The term 'lifestyle diseases' indicates diseases associated with the way a person or group of people live. Lifestyle diseases include heart diseases, stroke, obesity, and type 2 diabetes, and are associated with a lack of physical activity, unhealthy eating, substance abuse and smoking tobacco.

According to the WHO, more than two-thirds of preventable adult deaths are associated with behaviour that started in adolescence.

According to the WHO, more than two-thirds of preventable adult deaths are associated with behaviour that started in adolescence. The risk of suffering from cancer, diabetes, and other chronic diseases is associated with the use of tobacco, unhealthy diets, and physical inactivity. Globally, over 150 million young people use tobacco, 84 and 78 percent of adolescent girls and boys are physically inactive, and 41 million children under 5 years old are overweight or obese. In the Kingdom, as per a recent survey conducted by the Saudi Food and Drug Authority (SFDA), 21.4 percent of the 18+ population confirmed they were regular smokers, higher than the UK (at 16.6 percent) and the US (at 10.3 percent), and despite the implementation of excise tax on tobacco (amongst other things) in recent years (Box 2-Figure 6).

Box 2: Excise Tax on Tobacco

The Kingdom introduced an excise tax on cigarettes, tobacco, soft & energy drinks, electronic cigarettes, and sweetened beverages.

Back in 2016, the Gulf Cooperation Council (GCC) agreed to reduce the relatively large consumption of harmful products in the region through the introduction of taxes. Accordingly, the Saudi Zakat, Tax and Custom Authority (ZATCA) introduced an excise tax on cigarettes and tobacco products in 2017. Moreover, a tax was also applied to soft & energy drinks at 50 percent and 100 percent, respectively. In 2019, the tax was extended to electronic cigarettes and related products (at 100 percent), and to sweetened beverages (at 50 percent).

In-line with previously published literature (relating to different countries), increasing cigarette prices has proved to be an effective intervention in reducing smoking. More specifically, according to a recent empirical study published by the WHO, the sharp increase in cigarette prices in Saudi Arabia (as a result of taxation) led to a significant reduction in smoking in 11.2 percent of their study sample. That said, the study also noted that a large share (30 percent) also switched to lower priced brands.

Figure 6: Price of cigarettes and smoking prevalence in OECD countries

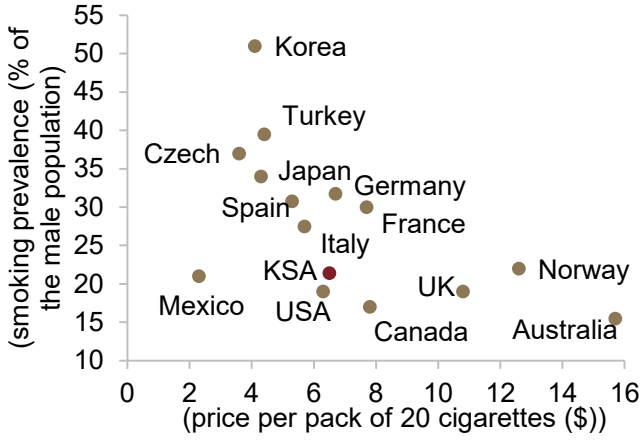
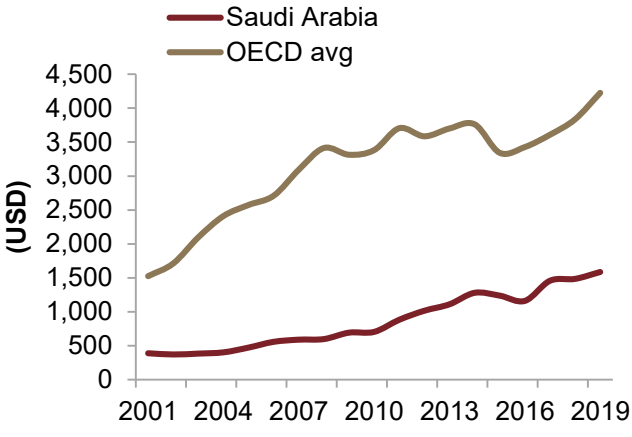


Figure 7: Healthcare expenditure per capita



Global spending on healthcare saw a rapid increase, driven mainly as a result of rising demand for various health services.

Healthcare expenditure:

Prior to the outbreak of the Covid-19 pandemic, there was a rapid increase in the rate of global spend on healthcare, driven mainly as a result of rising demand for various health services. According to the WHO, global spending on health increased by an average annual rate of 4 percent between 2000 and 2018 (to $8.3 trillion, or 10 percent of global GDP), faster than the pace of global economic growth, which averaged 2.9 percent per annum over the same period. Moreover, health spending was found to be more concentrated in richer countries, with around 80 percent of global health expenditure being spent on only 20 percent of the world's population. Furthermore, global government per capita health spend continued to grow between 2000 -2018, even with rises in population levels.

The Kingdom's healthcare indicators are improving:

In-line with global trends, healthcare expenditure in the Kingdom has outpaced population growth levels as well...

In-line with global trends, healthcare expenditure in the Kingdom has outpaced population growth levels as well. For example health expenditure on a per capita basis rose from SR1448 ($386) in 2000 to SR5944 ($1585) in 2019, or 4.1 times higher, versus the OECD average of 2.9 times (Figure 7). The rise in expenditure has helped improve a number of healthcare indicators over the years. For example, according to the World Bank, infant mortality dropped from 68.3 per 1000 live births in 1980, to 5.7 per 1000 live births in 2019, whilst life expectancy increased by 12 years to 75 during the same period. Higher healthcare expenditure has also helped raise the availability of healthcare resources. The Kingdom currently has 504 hospitals (a third of which are private) providing almost 80 thousand beds (a quarter of which are private), approximating to around 2.2 bed per 1000 people, which is comparably lower than OECD's average of 5 beds/1000 and the global average of 2.9 bed/1000 (Table 1). In fact, assuming the population grows at the current rate (of 2.5 percent per annum), we estimate that the Kingdom will need a minimum of 16 thousand additional beds by 2030, just to maintain the 2.2 beds/1000 ratio. Alternatively, if the Kingdom wants to attain the OECD's current average, we calculate that an additional 130 thousand beds will be needed.

...which has helped improve a number of healthcare indicators over the years.

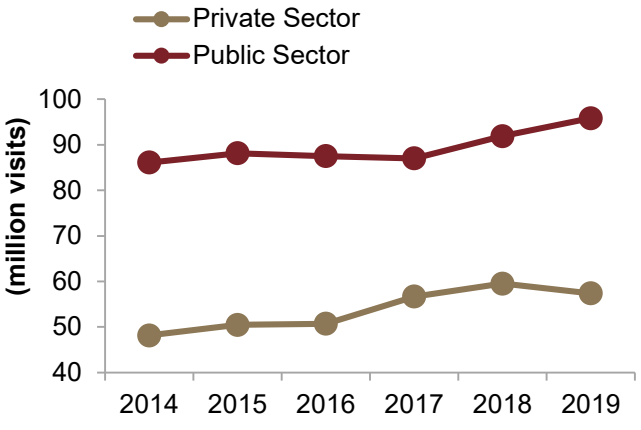
However, a great deal of investment is required in the healthcare sector in the coming decade.

Evidently, therefore, a great deal of investment is required in the healthcare sector in the coming decade and beyond. However, unlike in the past, where government was the dominant source of healthcare expenditure and services (Figure 8), we expect future investment to have an increasingly larger input from the private sector.

Table 1: Healthcare indicators in the Kingdom (latest)

Health Indicators	Saudi Arabia	OECD Average
Number of beds (per 1000 people)	2.2	5
Life expectancy at birth (years)	75	80
Infant mortality rate (per 1000 live birth)	6	6
Low-birthweight babies (percent of births)	8.5	8
Immunization, measles (percent of population)	96	91

Figure 8: Outpatient visits to Saudi hospitals by sector



Healthcare and Vision 2030

The 'Health Sector Transformation Program' outlines a roadmap aimed at developing the healthcare sector.

Whilst there was initially no specific Vision Realization Program (VRP) related to the healthcare sector, this changed recently with the unveiling of the 'Health Sector Transformation Program' (HSTP). Overall, the VRP outlines a roadmap aimed at developing the healthcare sector in order to address current and upcoming challenges for the Kingdom. At the heart of the plans lies the desire to foster a partnership between the private and public sector, especially so through channeling hitherto limited private sector investment into the local healthcare system (Box 3, Table 2).

Box 3: The Health Sector Transformation Program

The HSTP was announced in April 2021. The VRP aims to restructure the health sector in the Kingdom to be more comprehensive, effective, and integrated to serve citizens, residents and visitors. The program aims to ensure transparency and financial sustainability by promoting public health and preventing diseases, ensuring easy access to healthcare services, and improving the quality of health services.

The HSTP outlined a number of commitments to be met by 2025…

More generally, the VRP outlined a number of commitments which should be met by 2025, including having 88 percent of the population (including those in rural areas) covered by healthcare services. It also emphasized that 100 percent of the population should be included in the unified digital medical records platform (through the Sehaty application), in order to facilitate the unifying of medical records thus helping to improve the quality of healthcare services.

...and lists a number of challenges.

One of the main challenges outlined by the HSTP is that the MoH is currently acting as the regulator, funder, and service provider all at the same time. As a government entity, the MoH is aiming to transition towards being mostly a regulator, whilst concurrently encouraging the private sector to be a larger service provider. To this effect, the MoH has targeted around 35 percent of healthcare services to be provided by the private sector by 2030, up from 25 percent currently.

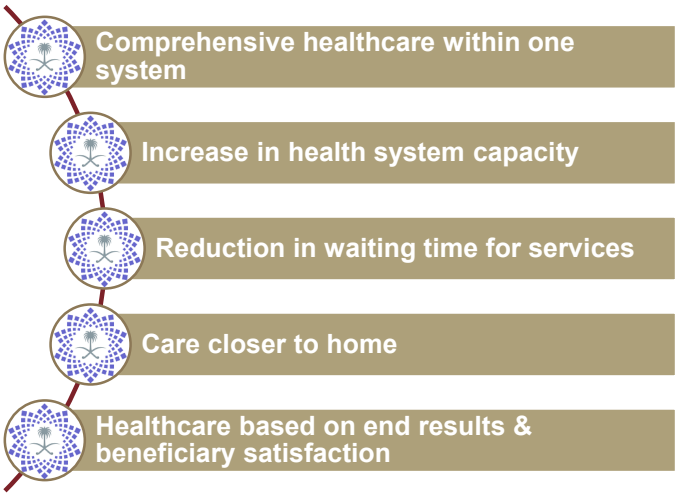
"Health clusters" is a key initiative introduced by the HSTP, which aims to raise efficiency of healthcare services.

Another key initiative introduced in the HSTP is the "health clusters" model, which aims to raise efficiency of healthcare services provided to beneficiaries (Table 3). The idea is to serve one million persons within a designated geographical area (cluster) through an integrated model of primary, secondary, and specialized care. As such, each cluster will include primary care centers, general hospitals, and

Table 2: The Health Sector Transformation Program

Objectives
• Facilitating access to healthcare services • Improving the quality and efficiency of health services • Promoting prevention of health risks • Enhancing traffic safety
Commitments by 2025
• 88% of the population, including those in rural areas, will be covered by inclusive health services • 100% of the population will be covered by the unified digital medical records system

Table 3: The HSTP indicates that healthcare clusters would impact the beneficiary through the following:



specialized services, so the patient will benefit from all the required services through the administrative system of the cluster, rather than the current centralized MoH system.

The health clusters are expected to be complemented by a new entity called the center for national health insurance (CNHI), which will be the financing mechanism in charge of providing free health insurance for all citizens within a specific cluster.

Healthcare and the National Industrial Development and Logistics Program

Two of the nine industries in the NIDLP are related to the healthcare sector: pharmaceutical manufacturing, and medical supplies.

A separate VRP, known as the National Industrial Development and Logistics Program (NIDLP), introduces a whole host of development initiatives related to the manufacturing sector. More specifically, it focuses on nine main industries which are deemed to have a comparative advantage and high growth potential in the Kingdom by 2030 (Figure 9). Two of the nine industries are related to the healthcare sector: pharmaceutical manufacturing, and medical supplies. Indeed, the NIDLP identifies the healthcare sector as being one of the major growth sectors for the Kingdom, not least because circa 65 percent of all products in the sector are imported. That said, the NIDLP aims to localize 40 percent of the local market value in pharmaceutical manufacturing to cover the local and the MENA market as well. In addition, the NIDLP also aims to raise the localization rate in the medical supplies industry to 15 percent, ranging between low and high complexity devices.

Healthcare and the Privatization Program

Within healthcare, the Privatization VRP focuses on PPPs as the main process of privatizing the sector.

The Privatization VRP was initially introduced back in 2016 (*please see our Privatization report for more details*) (Figure 10), and outlined a broad strategy of privatizing assets across various government sectors, such as healthcare, transportation, education and municipality services. The VRP was recently updated with specific targets till 2025, with total investments across all sectors targeted at SR62 billion from Public- Private-Partnerships (PPPs). In tandem with this, the Kingdom recently approved the 'Privatization Law' to provide an overarching framework for governing PPPs, which had previously fallen under government tenders and procurement law. The new law also aims to facilitate investment and develop private sector participation in a whole variety of government projects, including public services and infrastructure.

Within healthcare, the Privatization VRP focuses on PPPs as the main process of privatizing the sector (in line with recent

Figure 9: The NIDLP's target sectors in manufacturing

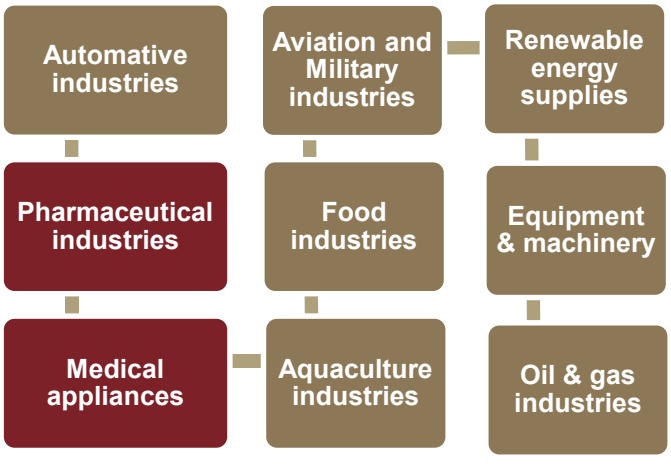


Figure 10: Vision 2030 has recently updated the 11 VRPs with specific targets till 2025

privatization projects, Box 4), with nine authorized initiatives and a further 23 currently under study. The plan includes, but is not limited to, developing primary healthcare, extended care (rehabilitation and long-term care), and initiatives to develop radiology and laboratory equipment.

Between 2018 and 2020, the NCPP and MoH announced a number of privatization projects, ranging between PPP and asset sales.

Box 4: Recent Healthcare Privatizations

Between 2018 and 2020, the NCPP and MoH announced a number of privatization projects, ranging between PPP and asset sales, such as:

1. Dialysis program initiative: a partnership between MoH and a number international companies, aiming to add a total of 63 dialysis centres across the Kingdom, up from the current total of 278 centres (public and private), which could provide additional 1285 dialysis machines at the minimum (Figure 11).
2. Radiology and medical imaging services, which aimed to further develop such services in the Riyadh region through new specialised hiring and investments in medical equipment (Figure 12).

The NTP's initiatives are aimed at improving efficiency and raising the level of healthcare access through wider use of eHealth channels.

Healthcare and the National Transformation Program

The MoH has been working on an eHealth strategy since 2011. Later, in 2016, this was incorporated and enhanced under the 'transform healthcare' pillar within the National Transformation Program (NTP). Overall, the NTP's initiatives are aimed at improving efficiency and raising the level of healthcare access through wider use of eHealth channels such as tele-medicine and distant-consultation (Box 5). Some of the benefits of eHealth from both the user and provider's perspective include:

- Easy access to patients data at any time and any place
- Verified information
- Easier access to international consultation
- Systems with built-in intelligence which can help prevent medical errors

Figure 11: Dialysis centers and patients in the Kingdom between 2000 and 2019

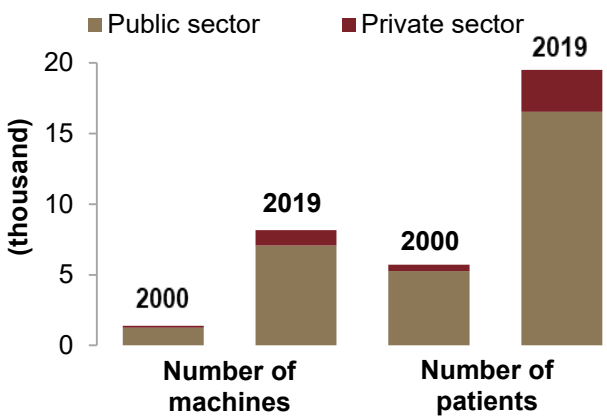
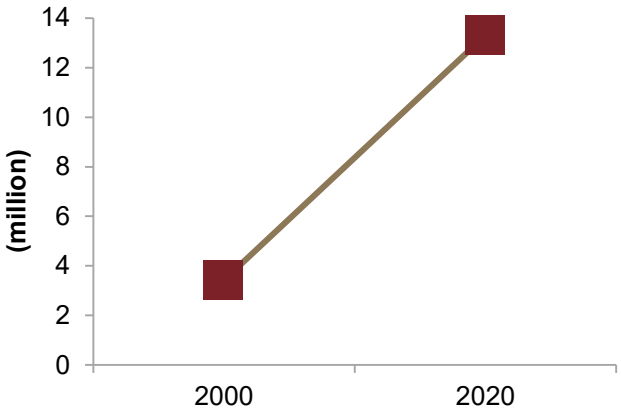


Figure 12: Number of radiology patients in the Kingdom between 2000 and 2020



- Continuous medical education, mostly available online
- Saving time: receiving results of diagnostic tests and gathering patient data that is already captured elsewhere
- Higher efficiency in dealing with appointments across different hospitals around the Kingdom.

Box 5: eHealth and mHealth

eHealth

According to the WHO, 58 percent of member states have an eHealth strategy.

The WHO identifies eHealth as the use of information and communication technologies (ICT) for health. Through a designated e-health unit, the WHO works closely with countries around the world to promote and strengthen the use of ICT in health development, from related applications to global governance. According to the WHO, whilst 58 percent of member states (112 countries) have an eHealth strategy, 63 percent (122 countries) have legislation to protect electronic patient data, and 87 percent (168 countries) report having one or more national eHealth initiatives.

mHealth

According to the WHO, mHealth (or mobile health) is defined as the use of mobile devices-such as mobile phones, patient monitoring devices, personal digital assistants and wireless devices-for medical and public health practice. mHealth applications cover a broad spectrum, from telephone helplines to text message appointment reminders (Table 4). According to a survey by the WHO, a vast majority (87 percent) of responding countries reported at least one mHealth program in their country.

According to the NTP, a total of 1.6 million medical related queries were responded through the "Sehha" mobile application between 2016-2020.

According to the NTP, during the first phase of the VRP (between 2016-2020), a total of 1.6 million medical related queries were responded through the "Sehha" mobile application (Figure 13). Moreover, a total of 67 million medical appointments were issued through another mobile application called "Mawid", which had a total of 14.3 million subscribers at end of 2020.

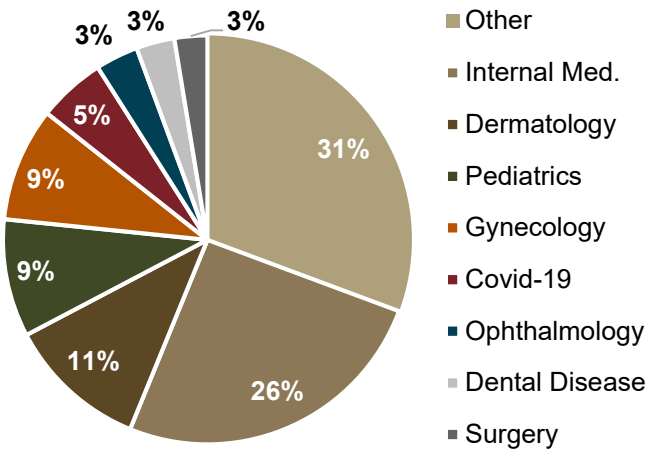
Healthcare and the Financial Sector Development Program

The Financial Sector Development Program (FSDP) charter details a number of measurable sector specific targets for a number of commitments, with one of these relating to raising the level of gross written premiums (GWPs) (the amount of premiums customers are required to pay for insurance policies).

Table 4: Ministry of Health's M-Health Programs

Toll-free emergency	Mobile telehealth
Health call centers	Emergency systems
Appointment reminders	Patient records
Community mobilization	M-learning
Information	Patient monitoring
Treatment adherence	Health surveys
Surveillance	Decision support

Figure 13: Sehha application consultations in 2020



According to SAMA, GWPs were up 1.6 percent year-on-year in 2020.

According to the Saudi Central Bank's (SAMA) Financial Stability Report 2021, healthcare gross written premiums (GWPs), which make up the largest segment of total GWPs (at almost 59 percent) were up 1.6 percent year-on-year in 2020 (Figure 14). Indeed, the increase in GWPs over the last three years (by 39 percent) have been very impressive, especially in the context of falling number of expat workers, with GaStat data showing 1.3 million net departures of foreign workers since mid-2018. As we noted in our *Financial Sector Development Report*, the rise in GWP is mainly a result of the Cooperative Council for Health Insurance's (CCHI) introduction of a unified health insurance policy in 2018, which made it a legal requirement for employers to provide health insurance to all employees. The enforcement, and subsequent rise in health insurance, was also made easier through the linking of CCHI to General Organization for Social Insurance (GOSI) databases in 2018. In fact, from 2019 onwards, all employees and their family members are required to be included under the health insurance scheme. This policy along with the above mentioned changes has seen a rise of 23 percent in Saudi health insurance policies (at 3.5 million) in mid-2021 compared to the mid-2018. At the same time, the departure of foreign workers, and some expat dependents, led to a 22 percent drop in expat health insurance policies (at 6.3 million) over the same period (Figure 15).

Looking ahead, we expect the number of Saudi health insurance policies to rise.

Looking ahead, in-line with a broad non-oil economic recovery during 2022 and 2023, we expect Saudi unemployment to hit multi-year lows (as outlined in our recent *Labor* update). In tandem with this, as clinical care becomes more and more advanced in the Kingdom, and technological improvements more prevalent, the spectrum of treatment procedures (and their costs) are expected to rise as well. Thus, as more and more Saudis seek out employment in the private sector (labor force participation rose from 40 percent in Q2 2017 to 49 percent in Q2 2021), we not only expect the number of Saudi health insurance policies to rise, but also the quality and breadth of coverage of such policies to drastically improve as well. In addition, a number of government entities are in the process of developing private health insurance coverage for their employees, which is also likely to push up the number of health insurance polices and demand on private sector healthcare services.

Healthcare and the Economy

The implementation of the numerous healthcare initiatives outlined in the various VRPs will inevitably have an impact on different areas of the Saudi economy. For example, government healthcare (and

Figure 14: Health Gross Written Premiums (GWPs)

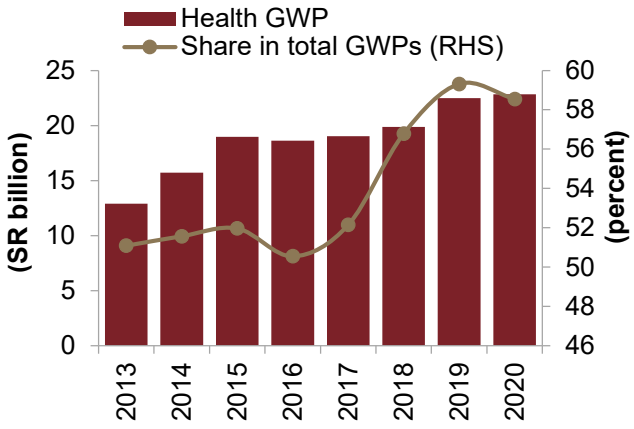
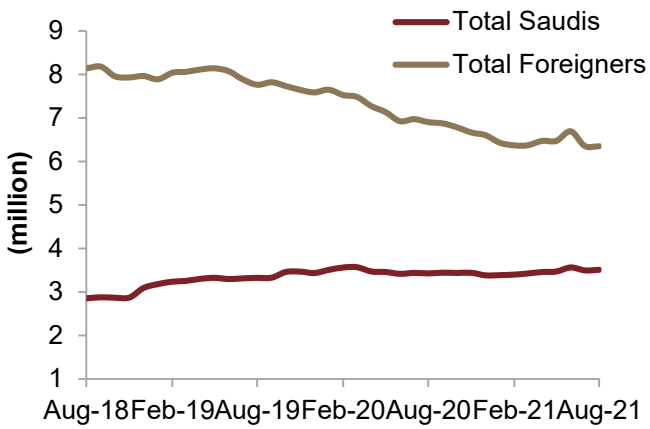


Figure 15: Number of health insurance policies in the Kingdom



Moving ahead, expenditure is not expected to be fully derived from the public sources.

social development) **expenditure** averaged around 15 percent of total expenditure during the last decade (Figure 16). Moving ahead, whilst expenditure will have to rise significantly in order to execute projects by 2030, unlike in the past, this expenditure is not expected to be fully derived from the public sources. Indeed, fostering a partnership between the private and public sector will be key to enabling higher levels of inward **investment** and **foreign direct investment** (FDI). Additionally, higher levels of investment and growth in the healthcare sector is likely to see more **employment** opportunities for citizens, although this will be contingent on the provision of suitably qualified personnel.

Employment

The last two decades saw more than a tripling in the number of workers in the healthcare sector.

According to Gastat and MoH data, the last two decades saw more than a tripling in the number of workers in the healthcare sector (to a total of 463 thousand in 2020, Figure 17). Over the same period, Saudization in the healthcare sector rose from 37 to 53 percent, comfortably higher than the national average of 24 percent (in 2020) across the labor market as a whole. More specifically, healthcare employed around 245 thousand Saudis (and 218 thousand foreigners), with the highest percentage of Saudization found in 'allied medical staff' (healthcare professionals providing a range of diagnostic, technical and support services in connection with healthcare) at 81 percent (Figure 18 - Box 6). Another notable feature of the healthcare sector in Saudi Arabia is the generally higher levels of female Saudi workers. Thus, 58 percent of all Saudi nurses were female, whilst 37 percent of all Saudi pharmacists were females. That said, when looking at the public/private sector split, only a small percentage (10 percent) of Saudis worked in the private sector (in 2020).

The healthcare sector clearly has the capacity to provide further employment opportunities for citizens.

Based on current number of workers in the healthcare sector, the Kingdom has an average of 2.7 physicians and 5.6 nurses per 1000 people. Whilst the ratio of physicians is only slightly lower than the OECD average of 2.9, the ratio of nurses is much lower than the OECD's average of 9.6 per 1000 people. As a result, we estimate that for Saudi Arabia to hit current OECD averages by 2030, another 283 thousand healthcare professionals (including 26 thousand physicians and 103 thousand nurses) would need to be employed within the healthcare sector. Considering the steep rise in Saudization levels in the last decade and the relatively sizable number of workers needed in this sector in the decade ahead, the healthcare sector clearly has the capacity to provide further employment opportunities for citizens.

Figure 16: Five-year average budget allocation by sector in the Kingdom (2016-2020)

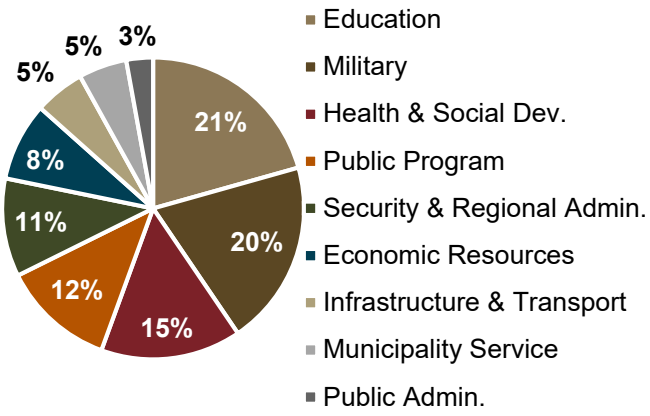
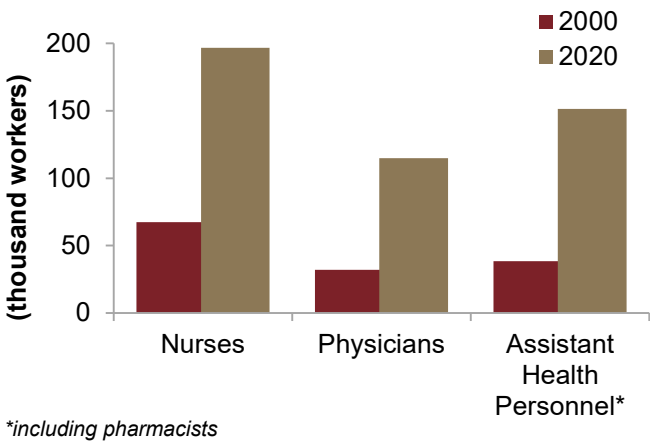


Figure 17: The number of workers in the healthcare sector



**including pharmacists*

Box 6: Saudization in the Healthcare Sector

The Saudization program was initially launched in the Kingdom back in 2011, and focused on increasing the share of Saudis working in the private sector as a whole. Since then, there has been a steady rise in Saudization levels in the private sector, from 10 percent in 2011 to 24 percent in 2020.

A notable jump was seen in the percentage of Saudi physicians and nurses over the previous decade…

Whilst Saudization in healthcare was already high at the beginning of previous decade (at 37 percent) it still kept rising to reach 53 percent by 2020. Within this, a notable jump was seen in the percentage of Saudi physicians (which rose from 21 percent to 45 percent in the decade to 2020), and amongst Saudi nurses, which rose from 19 to 43 percent over the same period. We suspect this large rise in the Saudization (as total employment in the sector grew as well) is likely due to the availability of more qualified medical personnel as a result of the large scholarship program provided by the Ministry of Education since 2005.

...with Saudization in the healthcare still targeted to continue through a number of initiatives announced by the HRDF.

Saudization in the healthcare is targeted to continue, with the Human Resource Development Fund (HRDF) recently announcing two specific initiatives in the healthcare sector:

1. Nationalization of medical coding professionals (August 2020): a program announced by the HRDF targeting Saudi graduates from different specialization to get training which would help them land jobs with private sector healthcare providers.
2. Localizing jobs in medical laboratories, radiology, physiotherapy, and therapeutic nutrition departments in all medical facilities in the Kingdom, with a minimum salary ranging between SR5000 and SR7000, targeting to raise Saudization to 60 percent in certain sectors (October 2021).

Healthcare expenditure and investment

Despite the large number of hospital beds in the Kingdom, the private sector's share is still relatively low.

The public sector dominates healthcare services in the Kingdom. For example, despite the large number of hospital beds in the Kingdom (at around 80 thousand, equivalent to 2.2 beds per 1000 people), the private sector's share is still relatively low, at 25 percent of the total. Also, whilst both private and public hospitals provide similar services, the former still receives a lower number (circa 45 percent) of all inpatients (Figure 19).

Figure 18: Saudization in healthcare

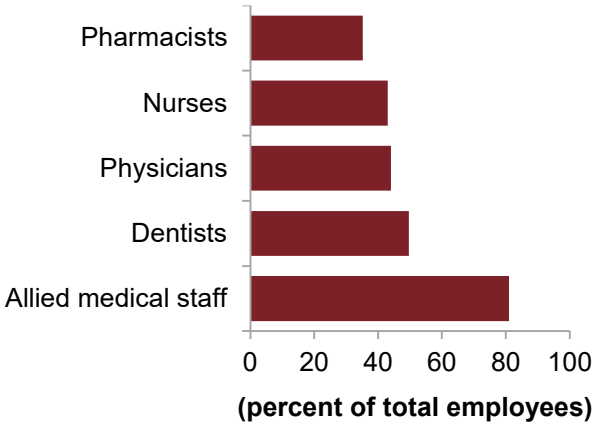
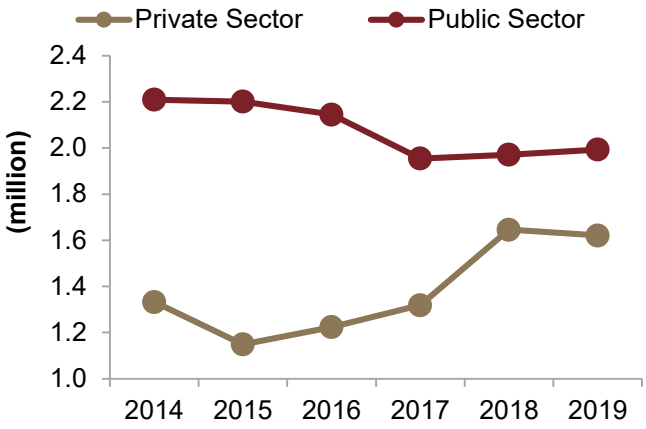


Figure 19: Hospital inpatients by sector



Budgeted government spending on health & social development rose by an annual average of 13 percent over the last decade.

Given the large role of public sector in healthcare, it is unsurprising that budgeted government spending on health & social development rose by an annual average of 13 percent over the last decade (Figure 20). Whilst no breakdown is provided between health & social development expenditure, we can see from MoH's budget allocation (which makes up part of health & social development expenditure), that growth in capital expenditure (capex) has outstripped growth in operational expenditure (opex). More specifically, our estimates show that capex grew by 280 percent in the decade to 2019 (Figure 21), whilst opex (mostly compensation of employees) grew by 178 percent over the same period. As a result, capex's share of total MoH spend rose from 36 percent in 2010 to 47 percent in 2019 (Box 7). The growing proportion of capex has, in turn, helped improve the Kingdom's health expenditure efficiency score. According to Bloomberg's Primary Health Care Spending Index (which assess government health expenditure relative to healthcare outcomes) the Kingdom was 39th in overall global efficiency rankings in 2020 (with Singapore 1st, Norway 11th, and UAE 13th).

We estimate that MoH's capex grew by 280 percent in the decade to 2019.

Box 7: Global experience: the NHS

Rising levels of healthcare expenditure have been seen across various global healthcare systems.

Rising levels of healthcare expenditure have been seen across various global healthcare systems, including, for example, the second largest universal healthcare system in the world, the National Health Service (NHS) in England.

The NHS is the publicly funded healthcare system in the UK, which was established in 1948. Between 2008 and 2018, government expenditure on healthcare in England rose by 25 percent in real terms, substantially more than the 13 percent growth in GDP over the same period. According to various research, the rise in spending was due to both in lifestyle and behavioural trends related to smoking, diet and physical activity, and an ageing population.

Between 2008 and 2016, current expenditure on NHS rose from GBP59 billion to GBP85 billion.

More specifically, a number of studies found that between 2008 and 2016, total current expenditure on NHS rose from GBP59 billion (3.4 percent of GDP) to GBP85 billion (4.4 percent of GDP), with expenditure focused on three categories:

1. Hospital based care: the largest expenditure item (at 50 percent of the budget), including both inpatient and outpatient services.
2. Diagnostics and therapeutics: at 7 percent of total the NHS expenditure and which included chemotherapy, radiotherapy,

Figure 20: Central budget spending on healthcare & social development

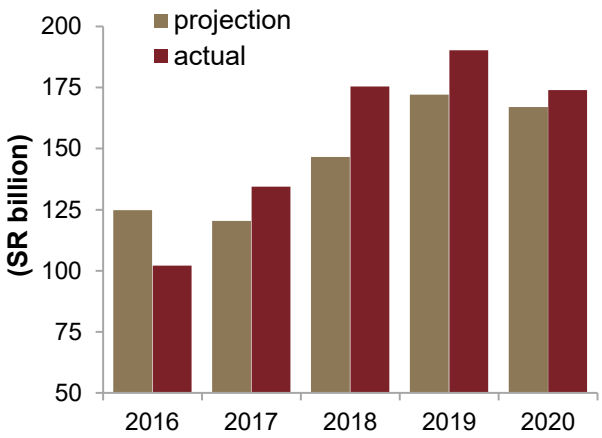
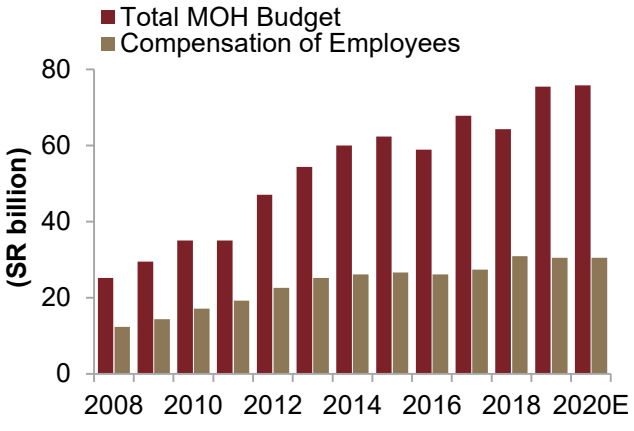


Figure 21: MOH budget



high cost drugs and radiology. In fact, D&T grew by 255 percent in the in the nine years to 2016, with the largest rise coming from 'high cost drugs' by 271 percent.

3. Community care: accounting for 20 percent of total NHS spending, which included community services, optometry, dentistry, rehabilitation, and community prescribing.

Overall, the above categories accounted for 82 percent of total NHS expenditure, and rose by 50 percent over 2008 and 2018 period.

We estimate that the cumulative investment gap would total circa SR132 billion by 2030...

Whilst there has been a clear improvement in the efficiency of healthcare expenditure, further improvement is possible. More specifically, as the HSTP highlights, a change in the current healthcare structure, through separating the role of regulator, financer and service provider (all three of which are currently carried out by MoH) would raise the level of governance, transparency and quality of services. That said, a transition to such a system would need to attract significant amounts of investment. More specifically, we estimate that the cumulative investment gap would total circa SR132 billion by 2030 under such a system, which would have to be filled by local private sources or foreign direct investment (Box 8).

...which would have to be filled by local private sources or foreign direct investment.

Box 8: Foreign Direct Investment (FDI)

Whilst global healthcare FDI still accounts for around 1-4 percent of overall greenfield (new) FDI, (Figure 22), the share has grown considerably across OECD and developing countries, with Asia being a particularly attractive geographical destination for healthcare investments over the last 15 years. Within the healthcare sub-groups, investment in medical devices, pharmaceuticals and biotechnologies makes up for 90 percent of total global greenfield FDI projects. The remaining 10 percent pertains to medical services and infrastructure, with investments in this segment being constrained due to a higher share of government involvement and regulation (Figure 23).

Investment in medical devices, pharmaceuticals and biotechnologies makes up for 90 percent of total global greenfield FDI projects.

In general, drivers of FDI in healthcare are similar to those in other services; rising local demand due to a growing population, limited or unavailable specialist healthcare services, and a growing demand for health and medical tourism. Complementary to this, the impact of FDI in health services and infrastructure also depends on the policies placed by the receiving government. If the right policies are in place, FDI can enlarge the available resources for investment, alleviate the pressure on the healthcare sector, expand the range of

Figure 22: Healthcare greenfield FDI

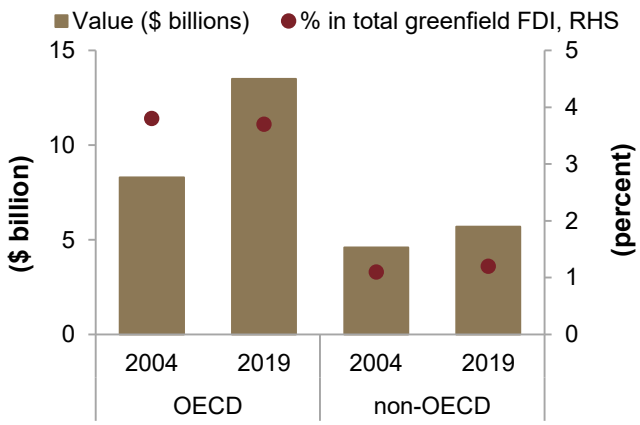
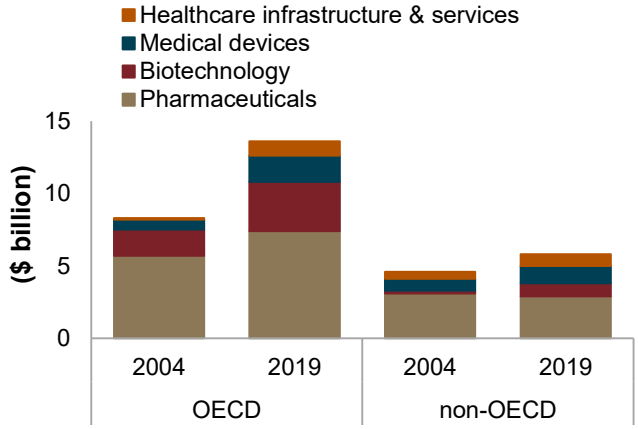


Figure 23: FDI in healthcare by sector



services, and raise overall standards and efficiency. In Saudi Arabia, a study by the MoH in 2018 estimated that every SR1 invested in healthcare generated an economic return of SR1.8, which would suggest that the current set of healthcare policies and market conditions are strongly suited for investment opportunities.

Challenges and Opportunities

The Kingdom's healthcare sector will require sizable levels of investment in the coming decade, in order to deal with a number of developments.

As we have noted, there has been a clear strategy under the various VRPs to improve the sector through setting out targets (a lot of which have been or are being implemented) to generally improve the attractiveness of the sector. Overall, the Kingdom's healthcare sector will require sizable levels of investment in the coming decade in order to alleviate the expected near, medium and long term pressure on the healthcare sector:

The pandemic highlights the case for developing a vaccination industry…

1. **Covid-19 remains a challenge:** Even as the pandemic recedes, research shows that the virus will persist through variants, which emphasizes the need for continued caution and, with it, additional resources for the foreseeable future. In fact, the pandemic highlights the case for developing a **vaccination industry**, not only to provide sufficient vaccines to the regional and global under-supplied markets for the current outbreak, but to also safeguard against possible future pandemics.

...and added extra pressure through delaying the diagnosis of other diseases.

2. Additionally, healthcare research suggests that Covid-19 will leave a **medium-term burden on healthcare**, mainly through delaying the diagnosis and treatment of a number of other diseases during the pandemic. For example, the UK Health Secretary recently stated that 5.3 million people (or 8 percent of the population) were waiting for routine operations and procedures. Evidently, therefore, the backlog of patients will add more pressure on healthcare services in the Kingdom as well.

Growing population, and the rise in chronic diseases, provide an elevated pressure in the Kingdom.

3. According to our estimates, Saudi Arabia's **population** is expected to grow by 19 percent in the next decade, to approximately 42 million (versus 35 million currently) resulting in higher numbers of both elderly and youth age groups, in turn raising demand for various specialized healthcare services.

4. **A rise in chronic diseases:** The higher prevalence of chronic diseases (versus OECD averages, for example), therefore adds more pressure on the healthcare system for more frequent and advanced treatments.

As the MoH aims to focus on being a regulator, there is a need to expand the role of the private sector within healthcare.

5. **The changing role of the MoH:** the HSTP highlights the challenges faced by the MoH being the regulator, financer, and the healthcare provider at the same time. Going forward, the program indicates that the MoH's main role will focus on being the regulator. A transition to such a system would need to attract significant amounts of investment.

6. **The need to expand the role of the private sector:** whilst both private and public hospitals provide similar services, the former still receives a lower number of all inpatients. This share needs to be larger in order to alleviate the expected pressure on the healthcare sector in the future.

The healthcare sector needs more localization within various industries.

7. **A high share of imported medical goods:** the Kingdom is hugely dependent on importation within the health sector, with around 90 percent of all medical devices being imported (Figure 24).

8. The lack of **preventative** healthcare within the current system, with historically more emphasis on treatment. Such a set-up is inevitably more costly (especially so in later stages of treatment) and can be avoided if more focus is made on prevention.

9. The healthcare sector is still reliant on **government expenditure**: despite capex rising gradually over the course of the previous decade, there is still a sizable share of the budget that is devoted to opex, which limits the room for new larger projects.

The healthcare labor force needs to expand in order to cope with rising demand for healthcare services.

10. **Human resources:** the healthcare labor force needs to expand in order to cope with rising demand for healthcare services, especially when considering the level of planned expansion within the sector. At the same time, targeted higher Saudization levels will require higher demand for healthcare education, which, in turn, will mean more international scholarships, and investment in local public and private specialized education institutions (Figure 25).

11. **Premature deaths** accounted for an average of 90 thousand citizens annually, caused by chronic diseases. As such, life expectancy is still lower in the Kingdom (at 75 years) than the OECD average (at 80 years). In addition, premature deaths are also caused by traffic injuries. Therefore, the HSTP suggests following a prevention approach, to enhance the quality of life and raise awareness amongst the youth at an early stage.

The continued roll-out of eHealth and mHealth, and already high internet penetration sets the stage for further digital transformation.

12. The Covid-19 pandemic has accelerated the adoption of digital technology by patients and significantly changed the delivery of healthcare services in some areas in the Kingdom. The continued roll-out of eHealth and mHealth, and already high internet penetration sets the stage for further **digital transformation**.

Figure 24: KSA's imports of medical and pharmaceutical products

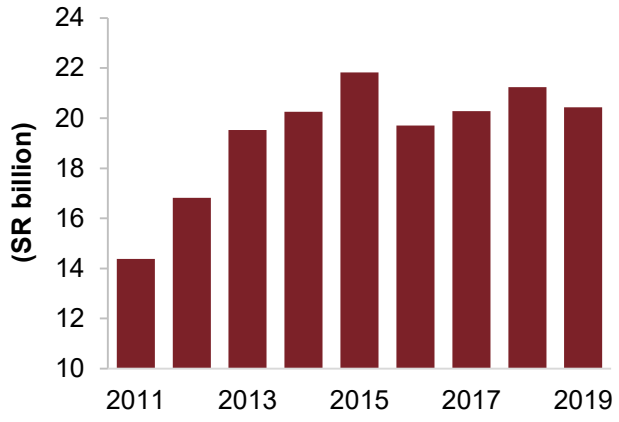
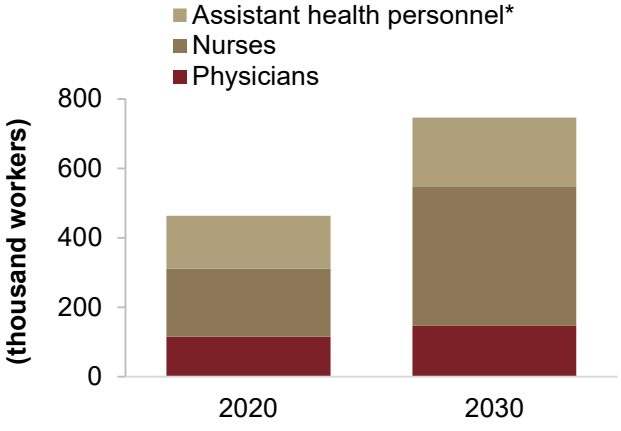


Figure 25: The healthcare labor force needs to expand in order to cope with rising demand



**including pharmacists*

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