لۇيىڭ VISION



KINGDOM OF SAUDI ARABIA





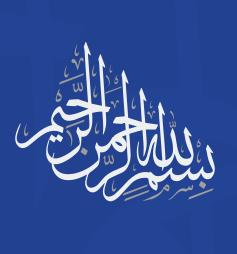
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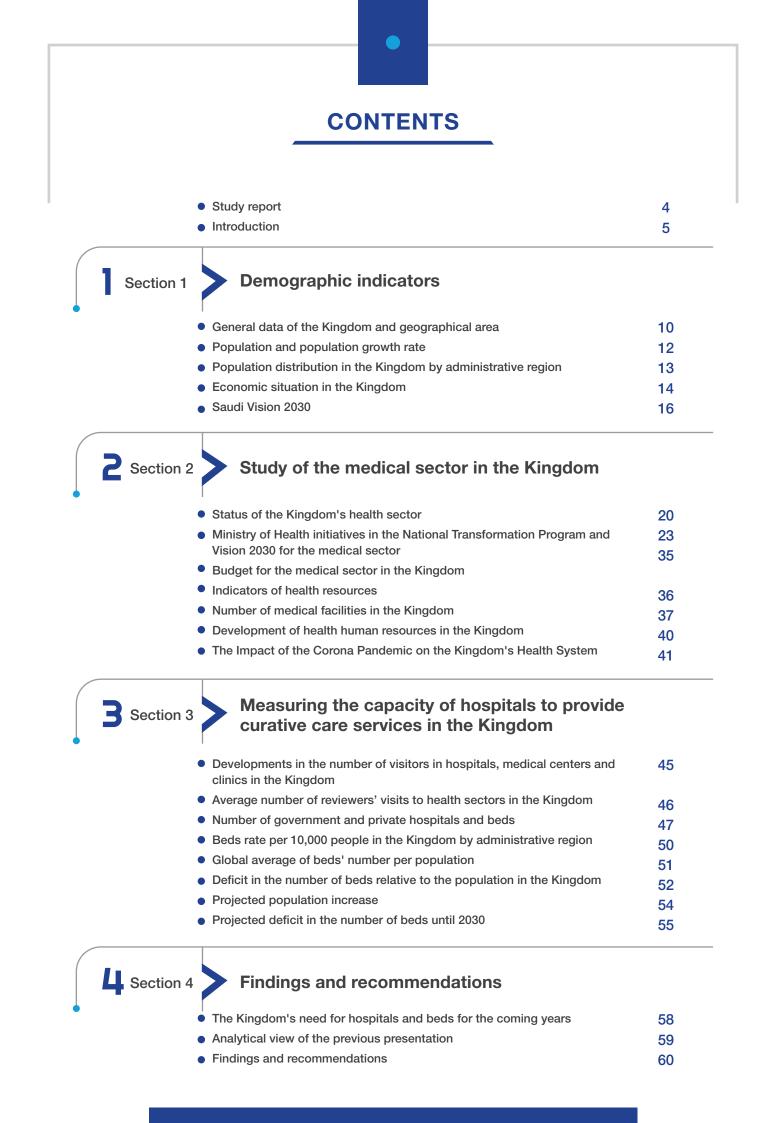
Specialized Research Study Measuring The Ability of Hospitals To Provide Curative Care Services in KSA

مكتب معتمد من وزارة التجارة والاس ترخيص رقم 13412



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STUDY REPORT

15/2/2022

Dear Dr. Ahmed Hassan Alhaizaey

After Greeting

At the request of Your Excellency, a research study has been prepared that specializes in measuring the ability of hospitals to provide curative care services in the Kingdom. The study showed that there has been a development in the medical sector in the Kingdom under the ambitious Vision 2030. Despite the scale of this development, there is still a deficit in the number of beds in the Kingdom, considering that there is a difference between the global rate of the number of beds as compared to the population and the actual rate in the Kingdom, In considering the target indicator for investigation under Vision 2030, the study showed that there was an actual shortage of 15,940 beds during 2020, The results of the study showed that the number of beds expected to increase until 2030 according to the growth rates achieved (%2.63 per year) is about 23,297, while the additional number of beds required to fill the deficit in 2030 is about 18,532. The Kingdom therefore needs a total of 41,829 beds until 2030 to achieve the Vision 2030 target, which requires 27 beds per 10,000.00 people. The Kingdom therefore needs to increase the clinical capacity of government hospitals and to provide more incentives to the private sector to expand the establishment of hospitals in various parts of the Kingdom. We agree with Your Excellency on the conclusions and recommendations proposed by you, which are annexed to this study, and you would like to accept our utmost regards and respect.

Best Regards.



Signature of study management team

10





INTRODUCTION

The health sector in the Kingdom has achieved remarkable development in recent years in accordance with the programs to achieve Vision 2030.

Therefore, the Ministry of Health has taken many ambitious decisions, which led to a qualitative shift in the quality of medical services, despite this significant development, we will shed light in this study on the existing deficit The number of hospital beds in relation to the population. The number of beds reached 78,000, at a rate of 22.4 beds for every 10,000 people as a minimum, and the global average is 27 beds for every 10,000 people.

The following is a study of the status of the Kingdom's medical sector and a measurement of the extent to which hospitals are able to provide curative care services in the Kingdom through the average number of beds.

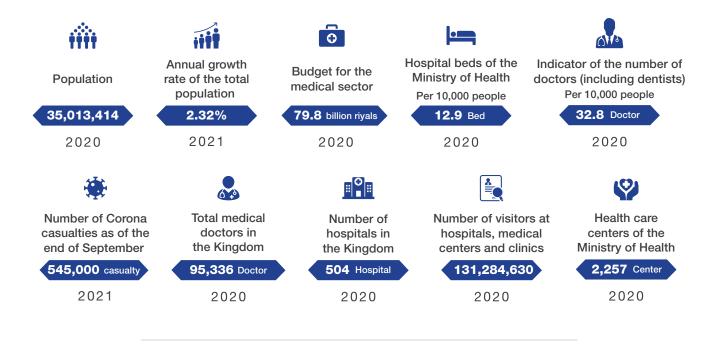
The following elements should be studied: -





in the Kingdom

STUDY RESULTS SUMMARY



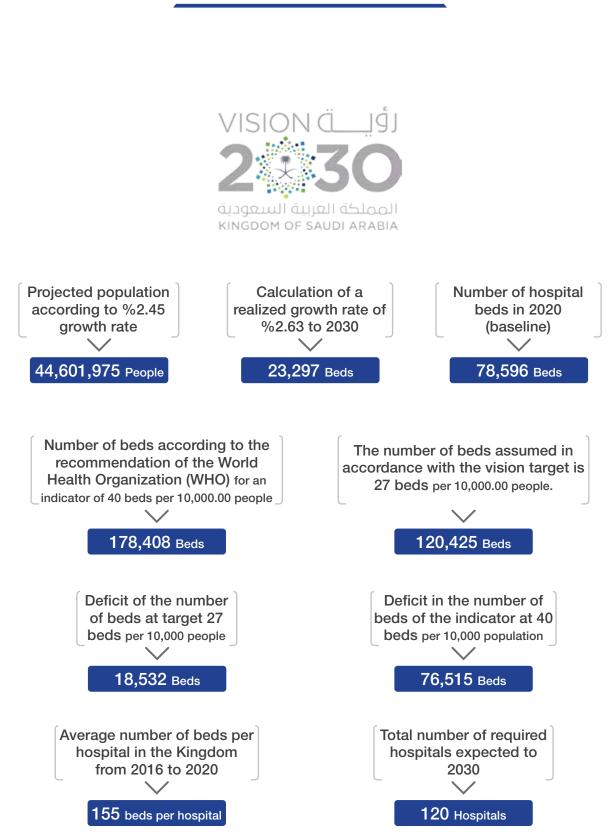
Current status of the number of beds in the Kingdom

22.4 beds per 10,000 people Hospital beds in the Kingdom (all sectors) Average global average of the number of beds to population 27 beds per 10,000 people Number of beds assumed as recommended by the World Health 40 beds per 10,000 people Organization • Total number of medical beds in the Kingdom 78.596 beds Number of beds assumed in the Kingdom as recommended by the 140,054 beds World Health Organization (at the indicator of 40 beds per 10,000 people) Deficit in the number of beds in the Kingdom (At an indicator of 40 beds) 61,458 beds per 10,000 people) 6 كناالنكنتين للإستنتنارات Connection Consulting Saudi Arabia - Riyadh- - License No. 13412 - P.O Box 84994 - Code No. 11684

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OUTLOOKS FOR 2030





CHAPTER ONE

DEMOGRAPHIC INDICATORS

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CHAPTER ONE

DEMOGRAPHIC INDICATORS



General data of the Kingdom and geographical area

Population and population growth rate

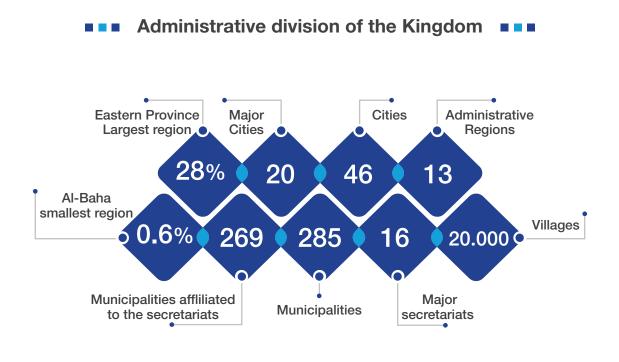
Population distribution in the Kingdom by administrative region

Economic situation in the Kingdom

General data of the Kingdom and geographical area

Saudi Arabia is the largest state in the Arabian Peninsula, bordered by the Red Sea and Gulf of Aqaba to the west and the Arabian Gulf to the east. Neighboring countries include Bahrain, Jordan, Iraq, Kuwait, Qatar, the Sultanate of Oman, Yemen and Bahrain, and are connected to Saudi Arabia by paved roads. The Kingdom has 35.0 million people (mid2020-s), with Riyadh as its capital. The economy of the Kingdom is based on petroleum; 90 per cent of export revenues come from the oil industry; The Kingdom is the world's largest oil producer and exporter. The Kingdom has developed an ambitious Vision 2030, which has been translated into three main axes: a vibrant society, a prosperous economy and an ambitious homeland.





Demographic indicators

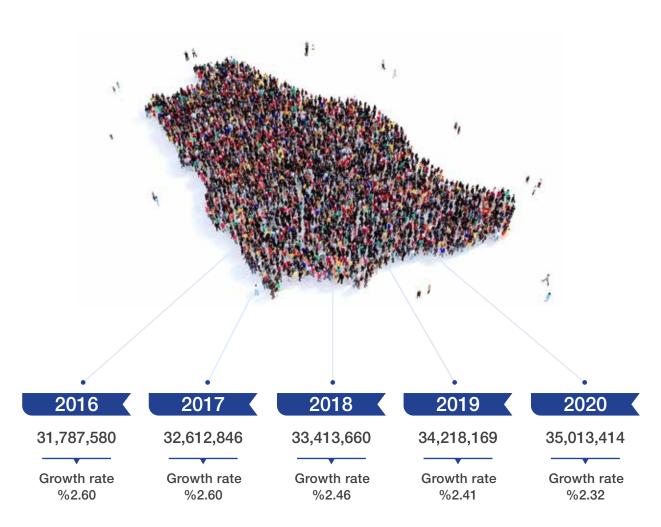
	2019	2020
estimated population	34,218,169	35,013,414
Proportion of Saudi Arabian population	62.0	61.2
Proportion of non-Saudi Arabia population	38.0	38.8
Annual growth rate	2.40	2.38
Proportion of children under 5 years of age (%)	8.3	8.3
Proportion of children under 15 (%)	24.5	24.4
Proportion of population 65 years and over (%)	3.2	3.2
Proportion of births below normal weight (%)	7.8	8.5
For males *	73.6	73.7
For females *	76.3	76.4
Total *	74.9	75.0

Vital Statistics

Crude birth rate	Crude mortality rate	Infant mortality rate	Under-five mortality rate	Maternal mortality rate	
Per 1,000 people	Per 1,000 people	Per 1,000 live births	Per 1,000 live births	Per 1,000 live births	
2019 ▶ 17.23	2019 ▶ 2.9	2019 ► 6.3	8.9 ▶ 2019	2019 > 12.0	
2020 ► 14.3	2020 > 2.4	2020 ► 6.0	8.5 ▶ 2020	2020 ► 11.9	



Population and population growth rate



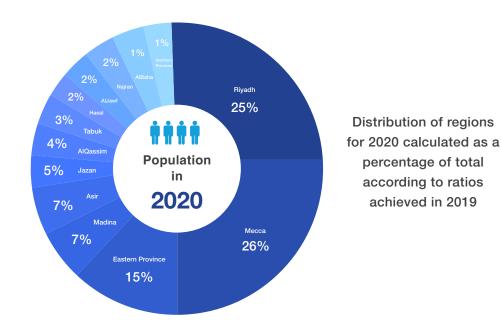
Source: General Authority for Statistics

The kingdom's population rose from 31 million in 2016 to 35 million in mid- 2020, with an average growth of %2.4.



Population distribution in the Kingdom by administrative region

Administrative areas	2016	2017	2018	2019	2020
Riyadh	8,014,678	8,234,302	8,446,866	8,660,885	8,862,168
Mecca	8,338,321	8,575,578	8,803,545	9,033,491	9,243,433
Medina	2,083,326	2,136,553	2,188,138	2,239,923	2,291,980
Al-Qassim	1,389,929	1,423,130	1,455,693	1,488,285	1,522,873
Eastern Province	4,787,375	4,909,385	5,028,753	5,148,598	5,268,254
Asir	2,166,983	2,214,736	2,261,618	2,308,329	2,361,976
Tabuk	891,813	911,331	930,507	949,612	971,681
Haeal	685,423	700,865	716,021	731,147	748,139
Northern Borders	359,663	367,558	375,310	383,051	391,953
Jazan	1,535,167	1,569,872	1,603,659	1,637,361	1,675,414
Najran	569,875	582927	595,705	608,467	622,608
Al Bahah	466,946	477,105	487,108	497,068	508,620
Al-Jawf	498,081	509,504	520,737	531,952	544,315
Total	31,787,580	32,612,846	33,413,660	34,218,169	35,013,414



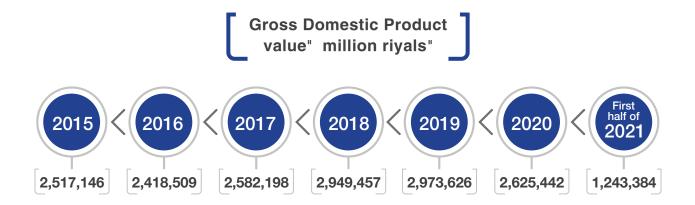


The economic situation of the kingdom can be identified through:



Gross Domestic Product is defined "as a method to measure the size of the national economy by calculating the value of goods and services produced from locally located resources in a region within a given period of time".

the following is an evolution of Gross Domestic Product values from 2015 to the first half of 2021: -



- The value of GDP rose from 2.51 trillion riyals in 2015 to 2.9 trillion riyals in 2019 but fell to 2.62 trillion riyals in 2020.
- By the end of the first half of 2021, the value of GDP had reached about 1.24 trillion riyals.
- The decline in GDP is due to a number of factors, the main ones being the consequences of the Corona pandemic and the decline in output growth in the oil sector.

GDP per capita

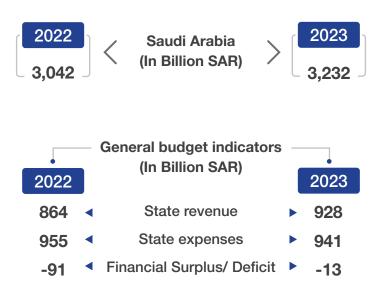
GDP Population Average per Year (million riyals) (million people) capita (riyal) 2016 2,418,508 31.7 76,083 32.6 79,177 2017 2,582,198 2018 2,949,457 33.4 88,271 2019 2,973,626 34.2 86,902 2020 2,625,442 35.0 74,984

The following is the evolution of the Kingdom's per capita GDP over recent years

Source: General Authority for Statistics

The Gross domestic product (GDP) per capita data show the continuous variation in value over the previous years, whereas theGDP per capita in 2016 was around 76,083 riyals, it rose to 88,271 riyals in 2018, and declined in the following two years to 74,984 riyals in 2020.

Future prospects for Saudi economic performance







On April 2016 ,25, the Saudi government announced the features of an ambitious economic reform and development plan, dubbed "Saudi Vision 2030", with the goal of promoting the Kingdom's economy and liberating it from heavy dependence on oil.

The following are the most prominent points included in the plan, as announced by the Saudi crown prince who heads the Council of Economic Affairs and Development in the Kingdom:

Axes of vision 2030

1. The Arab and Islamic Depth: The presence of the Two Holy Mosques, the cleanest parts of the earth, and the Qibla of more than a billion Muslims.

2. A leading investment force: Saudi Arabia has huge investment capabilities that will be an engine for its economy and an additional resource for the country.

3. The axis of connecting the three continents: Saudi Arabia is distinguished by its strategic geographical location, as Saudi Arabia is the most important gateway to the world as a hub for the three continents, surrounded by the most important water crossings.

Vision goals:

1 Prosperous economy:

- Increasing the proportion of non-oil exports from %16 to at least %50 of non-oil GDP.
- The Kingdom's ranking in the Logistics Performance Index has progressed from 49 to 25 globally and 1 regionally.
- Accessing the contribution of the private sector to the GDP from 40 to %65
- Increasing the proportion of foreign direct investment in GDP from %7.5 to the global rate of %8.3.
- Moving from the 25th position in the Global Competitiveness Index to one of the first 10 places.
- Increasing the value of the assets of the Public Investment Fund from 600 billion to more than 7 trillion Saudi riyals.
- Increase the local content in the oil and gas sector from 40 to %75.
- Increasing the participation rate of women in the labor market from %22 to %30.
- The rise in the size of the economy and its transition from 19th to the top 15th in the world.
- Increasing the contribution of small and medium enterprises to the GDP from %20 to %35.
- Reducing the unemployment rate from %11.6 to %7.



VISION OF SAUDI ARABIA KINGDOM 2030



2 Vital community

A. Its structure is solid

- 1. Increased life expectancy from 74 to 80 years.
- 2. Improving the social capital index from the 26th to the 10th rank.
- B. Its environment is prosperous
 - 1. Ranking 3 Saudi cities among the 100 best cities in the world.
 - 2. Household spending on culture and entertainment in the Kingdom increased from %2.9 to %6.
 - 3. At least double the number of UNESCO-registered archaeological sites.
- C. Good value
 - 1. Increasing the capacity to receive the pilgrims from 8 million to 30 million pilgrims.

3 An ambitious homeland:

- A. Responsible countryman
 - 1. Reaching 1 million volunteers in the nonprofit sector annually, compared to 11,000 now.
 - 2. Increasing the non-profit sector's contribution to GDP from less than %1 to %5.
 - 3. Increasing household savings ratio of their total income from %6 to %10.

B. His government is effective

- 1. To reach from rank 36 to the first 5 ranks in the e-government index.
- 2. Increasing government non-oil revenues from 163 billion to 1 trillion riyals annually.
- 3. Getting from 80th to 20th in the government effectiveness index.





CHAPTER TWO

STUDYING THE MEDICAL SECTOR IN THE KINGDOM

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CHAPTER TWO

STUDYING THE MEDICAL SECTOR IN THE KINGDOM



Status of the Kingdom's health sector

The health sector in the Kingdom of Saudi Arabia has witnessed a remarkable development in recent years, both in terms of health facilities, efforts made to combat epidemics, and confront health crises. Among the most important developments in the medical sector in the Kingdom are: -

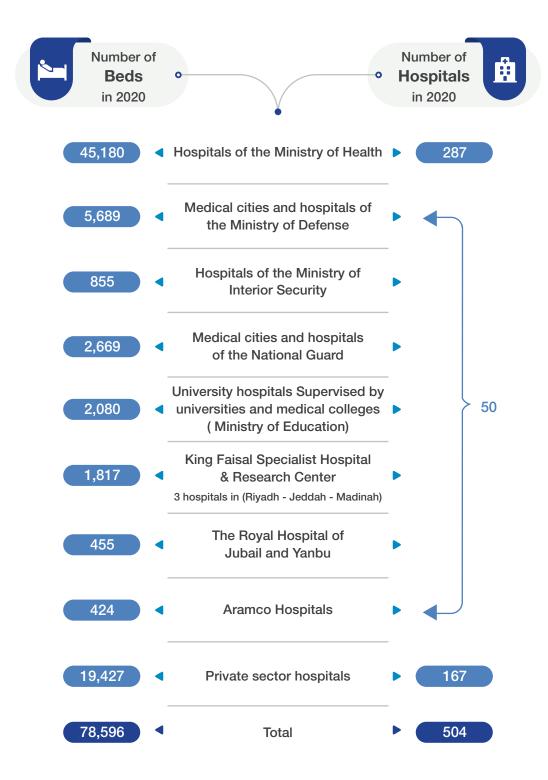
- The Kingdom has developed various health projects in its various regions and has improved many facilities for citizens to benefit from these services.
- The Kingdom has been able to keep pace with technological development in the field of health, supporting hospitals in many places in the Kingdom.
- Hospitals have been supported by numerous modern medical devices, making hospitals in the Kingdom one of the most important in the world.

		2016	2017	2018	2019	2020
Ministry of Health	Beds •	41,835	43,080	43,680	44,665	45,180
	Hospitals •	274	282	284	286	287
Other government	Beds •	11,581	12,279	12,662	13,177	13,989
bodies	Hospitals 🔹	44	47	47	48	50
Private sector	Beds •	17,428	17,622	18,883	19,146	19,427
	Hospitals 🔹	152	158	163	164	167
	_					
Private	Beds •	70,844	72,981	75,225	76,988	78,596
sector	Hospitals 4	470	487	494	498	504
Rate of beds						
per ten thousand people	Beds •	22,30	22,40	22,50	22,50	22,40

■ ■ Health facilities in the Kingdom ■ ■

Health facilities in the Kingdom consist of several important structures:

Distribution of hospitals and beds by agency

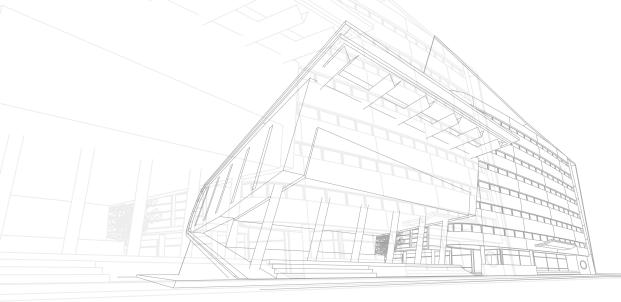


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Latest infrastructure and project updates

- Royal Phillips, a global health technology company, announced that it has collaborated with the Saudi Ministry of Health to provide a cardiovascular information system (CVIS) through multiple facilities.Under the Taji project, medical information will be available to patients on demand at the point of care in each of the related hospitals to help improve the quality of access to cardiac care managed by a network of specialists.
- In 2018, it was announced that the Ministry of Health of Saudi Arabia had established a holding company and five regional companies under plans to privatize the health care sector. The plans will allow full ownership of foreigners in the health sector, and thus the Ministry will become a regulator rather than a service provider. In the end, the Kingdom plans to privatize 290 hospitals and 2300 primary health centers by 2030.
- In 2019, NMC Health terminated a joint venture agreement with the General Organization for Social Insurance of the Kingdom of Saudi Arabia involving investments of up to 6 billion riyalsin the Kingdom over a five-year period. The joint venture will acquire and develop facilities with a capacity of up to 3000 beds and will be staffed to 10000 full-time and part-time employees.
- Global Health has announced a partnership agreement with Tatweer Medical Company, an investment arm of Tatweer Holding Company, to develop an advanced diagnostic facility in what is expected to become one of the largest specialized medical universities in the Kingdom. It hosts the Medical Village project, which was announced in 2018.



The program aims to restructure the health sector in the Kingdom into a comprehensive, effective and integrated health system, based on the health of the individual and society (including citizen, resident and visitor), it relies on the principle of value-based care that ensures transparency and financial sustainability through the promotion of public health, disease prevention and the application of the new model of disease prevention care, as well as improving access to health services through optimal coverage, comprehensive and equitable geographical distribution, expansion of e-health and digital solutions, as well as improving the quality of health services, focusing on the satisfaction of beneficiaries through the application and application of best international evidence-based standards, the establishment and empowerment of integrated health-care systems covering all regions of the Kingdom through the activation of targeted procurement of services, and promoting community awareness of traffic and safety, the Health Sector Transformation Program also harmonizes and coordinates all health sector actors, Vision Realization programs and relevant government agencies, and alignment and connectivity with strategic national objectives during the Transformation journey.

The establishment of the Health Sector Transformation Program is one of the programs developed for the Kingdom's Vision 2030, which will be launched in 2021, to ensure the continued development of health-care services and the concentration of efforts in this important sector, the National Transformation Program has achieved strategic achievements and targets that have been developed from the health sector to meet the challenges of health services by increasing their quality and efficiency and increasing levels of prevention against health risks.

Efforts to develop the health sector, which was considered one of the strategic dimensions of the National Transformation Program, emerged by addressing the novel coronavirus pandemic. The programs to achieve the Kingdom's Vision 2030 have had an important and pivotal role in facing the Kingdom's health, economic and social effects of the pandemic, and overcoming the crisis with all its challenges.

During the previous phase, the health sector achieved many accomplishments, such as improving the quality and efficiency of health services and facilitating access to them by taking care of digitizing the health sector, launching a package of applications (Sehhaty, Mawaed) and increasing service coverage for all regions of the Kingdom.

Given the evolution of the global health systems, the health transformation program will enable the overall transformation and restructuring of the sector into a comprehensive, effective and integrated health system.

Health sector objectives and initiatives within Vision 2030



1 > Reforming and restructuring of primary health-care services

Description of the initiative

This initiative is concerned with the development of primary health care throughout the Kingdom by providing better health facilities through the establishment and development of the infrastructure of primary health care centers, in addition to improving health care access to remote and peripheral areas.

Achievements

▶ Health centers providing emergency and extended care were increased to 239 during 2018.

2 > Improving the performance of primary health-care centers in the Ministry of Health

Description of the initiative

- The initiative aims to improve the quality of priority care services in order to improve the efficiency of performance in 6 main areas of health centers:
 - 1. Inadequate referrals to hospitals.
 - 3. Increased coverage of vaccinations
 - 2. Increase in the number of patients enrolled
 - in health centers within the service

- 4. Diagnosis and medicine based on evidence
- 5. Increase in audit satisfaction
- 6. Increase in staff satisfaction

Achievements

The completion rate of the initiative is %6 in 2018 and the target is %24.



3 Balanced distribution of health services and facilities

Description of the initiative

The initiative examines the current situation of distribution of facilities and services with a view to developing a national plan for distribution of health facilities and services to ensure easy access and obtain the service.

Achievements

10 mobile clinics have been launched in 7 areas, namely Riyadh, Jeddah, Medina, Asir, Jazan, Tabuk, and will be inaugurated in other areas as planned.



Description of the initiative

The initiative aims to equip health centers and their staff to provide primary psychiatric health care, from diagnosis and treatment, by equipping psychiatric clinics in primary health care centers and training the workforce of doctors and nurses to deal with the most common psychiatric disorders of anxiety and depression.

Achievements

Psychological care units were developed through the opening of 20 units at the Kingdom level.

5 Saudi Centre for Medical Appointments and Cases

Description of the initiative

The aim of the initiative is to manage the movement of medical referrals and scheduling procedures for all patients transferred between health facilities within and outside the Kingdom through standard operating procedures and through the design of a standard electronic case and schedule system.

Achievements

The completion rate of this initiative is %46 and the target is %46.

6 Market Market

Description of the initiative

The aim of the initiative is to improve the performance of hospitals, specialized centers and medical rehabilitation centers in providing curative services according to regional and global standards. The initiative aims to support specialized centers through the qualified workforce of doctors and health practitioners, thereby ensuring increased provision of specialized services.

Achievements

The completion rate of this initiative is %24 and the target is %38.





The initiative aims to identify the resource requirement for the Saudi health sector, including: Manpower, services and facilities, using systematic planning mechanisms and scientific prediction tools based on inputs that contribute mainly to shaping the future picture of health

Achievements

The completion rate of this initiative is %33 and the target is %33.

2 Health application within eHealth Initiative

Description of the initiative

▶ The objective of this initiative is to improve the effectiveness and efficiency of the health-care sector through information technology, digital transformation and the provision of advanced, high-quality services to citizens at the Kingdom level, such as: Automated medicine, remote visual consultations.

Achievements

The number of registered date applications was 4 million in 2018, compared to 17,624 in 2017.

3 > Application of an e-Health Initiative appointment

Description of the initiative

"Mawid" is an electronic service that enables the beneficiary to book and manage his/her appointments in primary health-care centers by modifying or cancelling them, as well as to manage his/her other appointments in any hospital transmitted through an electronic smartphone app.

Achievements

The number of incoming calls to the health center was 4,137,509 - 937 during 2018, an increase of %184 over 2017.

Center 937

Description of the initiative

The 937 Center provides a range of distinct services, including a service for inquiries about services provided by the Ministry, a query about information issued and received by the Ministry, as well as health services, medical consultations, requests for inter-hospital transportation as needed, and reports and complaints to all State and private health facilities. The Centre receives all communications from patients regarding the health aspect of the Centre. (Health), in addition to all complaints and observations 24 hours a day, to be passed on to the relevant departments and branches of the Ministry, as well as to receive all emergency and urgent communications; To act as a listening permission for patients to know their needs and requirements and to work towards their implementation.

Achievements

Public citizens' satisfaction rate at the health center (937) was %86 during 2018, an increase of %4 over 2017.

5 Expanded coverage of specialized services

Description of the initiative

The initiative aims to support specialized centers through a qualified workforce of doctors and health practitioners to ensure increased provision of specialized services.

Achievements

%2 of this initiative has been completed and the target is %37



Description of the initiative

The initiative aims to provide extended health-care services, including medical rehabilitation, long-term care, psychiatric shelters and home health care, through private procurement of services.

Achievements

%5 of this initiative has been completed and the target is %16





2 Development of blood transfusion services

Description of the initiative

The initiative aims to raise the level of blood transfusion services so that they are attractive to blood donors, to reach the percentage of voluntary donation of %100, and it also aims to provide adequate needs of blood and all its components that are safe for patients with all diseases.

Achievements

The proportion of voluntary blood donations increased to %50 by the end of 2018, with an increase of %67 over 2017.

3 Develop and equip primary health-care centers to conform to the standards of the National Initiative for Patient Quality and Safety (CBAHI)

Description of the initiative

The objective of this initiative is to prepare and equip primary health-care centers to conform to national standards of quality and patient safety by providing the necessary construction needs in line with basic safety requirements, providing necessary medical equipment in various departments, training district leaders and workers in primary health-care centers in a comprehensive quality culture and the mechanism for implementing and adhering to policies and procedures.

Achievements

The completion rate of this initiative is %9 and the target is %30. The number of centers conforming to national standards of quality and patient safety (CBAHI) is 207 during 2018, with an increase of %117 over 2017.

4 > Ensuring basic safety standards in health facilities and emergency repairs

Description of the initiative

This initiative is concerned with the development and rehabilitation of health facilities in accordance with safety standards as well as the training and rehabilitation of the workforce.

Achievements

%45.5 of this initiative has been completed and the target is %74

5 > Saudi Centre for Disease Safety

Description of the initiative

The initiative aims to establish and fully launch the National Patient Safety Centre to promote a national culture of patient safety reporting and awareness-raising on patient safety issues.

Achievements

%100 completion of this initiative



6 > Health Performance Program

Description of the initiative

The program aims to improve the performance of hospitals, specialized centers and medical rehabilitation centers of the Ministry of Health to provide curative services according to regional and global standards. by improving procedures for obtaining specialist medical consultations within a standard period of time. and the development of performance indicators to identify and measure targets and develop cadre skills.

Achievements

Implementation of the mechanisms of the Health Performance Program during the Hajj season 1439 for the first time to improve the services provided to pilgrims, which included 9 hospitals with 1,316 beds, 950 health staff under the supervision of 70 data collectors, in addition to field supervisors, 8 improvements and 4 central improvements performance indicator. A number of 2,371,675 pilgrims and 81,730 attendants of emergency departments and outpatient clinics were served.



Description of the initiative

The initiative aims to introduce a new method of health care that is concerned with the maintenance of health and not just the treatment of the disease, so that the role of the individual, society and its institutions is integrated with that of the health service providers, ensuring access to care in accordance with best health practices.

Achievements

%65 of this initiative has been completed and the target is %66

2 > Upgrading the skills of ambulatory providers

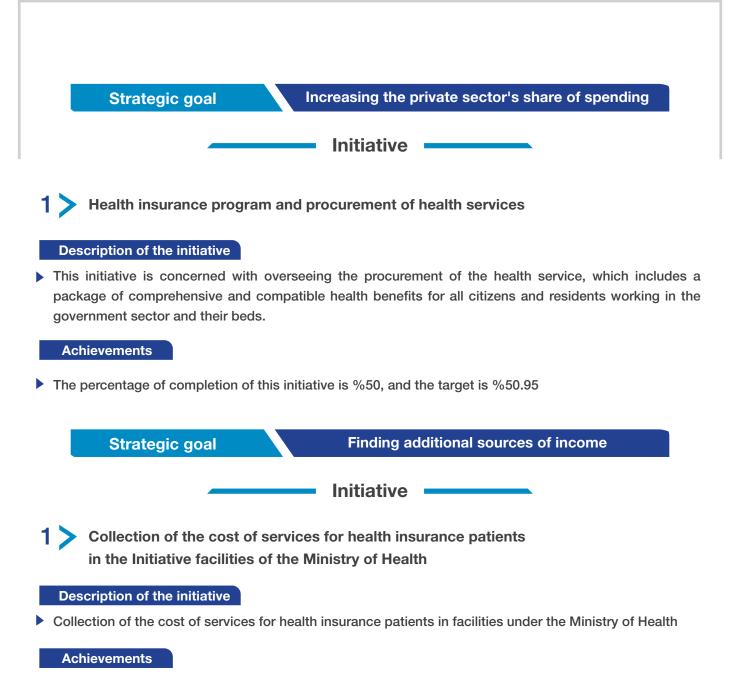
Description of the initiative

The initiative aims to develop and improve the ambulatory skills and knowledge required of service providers.

Achievements

▶ The percentage of completion of this initiative is %25, and the target is %55,



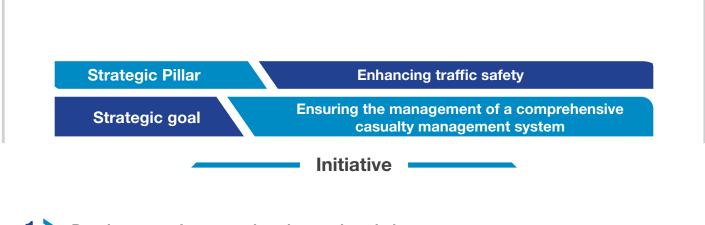


The percentage of completion of this initiative is %100, and the target is %100





33



Development of a comprehensive pre-hospital care system

Description of the initiative

The objective of this initiative is to consolidate the ambulance system and develop ambulance services to ensure access to casualties within the limits of international best practices, train traffic, road security and civil defense providers in initial response and first responder certification, and develop national standards and specifications for the accreditation of ambulances.

Achievements

The percentage of completion of this initiative is %5, and the target is %10

2 Establishment and operation of the General Secretariat of the Ministerial Committee on Road Safety

Description of the initiative

This initiative aims at establishing and operating the General Secretariat of the Ministerial Committee on Road Safety and oversees project management and governance by defining roles and responsibilities and fully detailing the Organization.

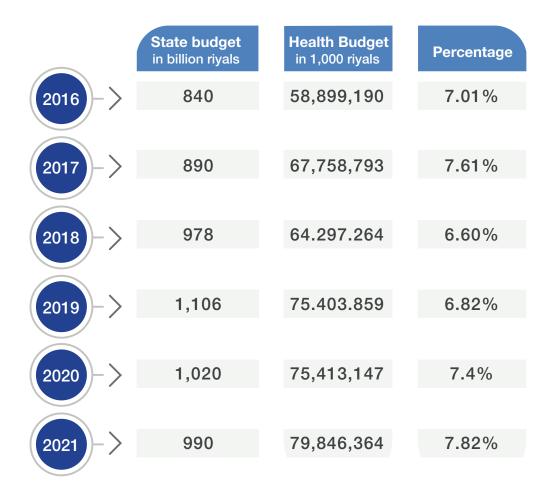
Achievements

▶ The percentage of completion of this initiative is %57.5, and the target is %57.5



Budget for the medical sector in the Kingdom

The value of allocations to the medical sector in the Kingdom's budget is the most important aspect of the growth of the medical sector.



The number of allocations to the medical sector of the Kingdom's budget increased from 58.9 billion riyals in 2016 to 79.8 billion riyals in 2021.



Indicators of health resources

	2016	2017	2018	2019	2020
 Doctors (including dentists) 	28.3	30.1	31.4	33.1	32.8
Medical doctors	23.9	25.3	26.4	27.6	27.2
Dentists	4.4	4.8	5.0	5.5	5.6
Pharmacists	7.9	8.7	8.7	9.3	7.9
Nursing	55.9	55.9	54.0	57.0	54.9
Medical auxiliary categories	33.8	34.4	37.2	36.1	35.4
Primary health-care centres in the Ministry of Health	0.7	0.7	0.7	0.7	0.6
Hospital beds in the Kingdom (all sectors)	22.3	22.4	22.5	22.5	22.4
Hospital beds of the Ministry of Health	13.2	13.2	13.1	13.1	12.9
Hospital beds of other government agencies	3.6	3.8	3.8	3.8	4.0
Private sector hospital beds	5.5	5.4	5.6	5.6	5.5

Source: Annual Report, Ministry of Health

- The i ndicator of doctors rose (including dentists) from 28.3 doctors per 10,000 people in 2016 to 32.8 doctor in 2020.
- The indicator of doctors rose from 28.3 doctors per 10,000 people in 2016 to 27.2 doctor in 2020.
- The indicator of dentists rose from 4.4 dentists per 10,000 people in 2016 to 5.6 doctor in 2020.
- The indicator of pharmacists rose from 7.9 pharmacists per 10,000 people in 2016 to 9.3 pharmacists in 2019 but dropped to 7.9 pharmacists in 2020.
- The indicator of nursing rose from 55.9 nurses per 10,000 people in 2016 to 57 patients in 2019 but dropped to 54.9 patients in 2020.
- Hospital beds increased from 22.3 beds per 10,000 people in 2016 to 22.4 beds in 2020. The Ministry of Health hospital beds indicator fell from 13.2 beds per 10,000 people in 2016 to 12.9 beds in 2020.
- The indicator of other government hospital beds rose from 3.6 beds per 10,000 people in 2016 to 4 beds in 2020.
- The indicator of private hospital beds rose from 5.5 beds per 10,000 people in 2016 to 5.6 beds in 2019 and fell to 5.5 beds in 2020.

Number of medical facilities in the Kingdom



Complexes and other health facilities in the private sector in the Kingdom

Hospital numbers in the Kingdom



The number of hospitals in the Kingdom increased from 470 in 2016 to 504 hospitals in 2020.

Regions	2016-2015	2017-2016	2018-2017	2019-2018	2020-2019
Riyadh	424	436	447	415	415
Mecca	331	340	344	324	335
Medina	162	159	159	149	156
Al-Qassim	177	181	183	156	155
Eastern Province	250	255	255	244	240
Asir	334	339	339	334	316
Tabuk	83	87	96	96	94
Haeal	105	110	111	109	110
Northern Borders	47	47	48	43	42
Jazan	178	170	170	168	168
Najran	68	69	68	69	69
Al Bahah	105	108	108	94	94
Al-Jawf	61	60	62	60	63
Total	2,325	2,361	2,390	2,261	2,257

Number of health-care centers in the Ministry of Health

Source: Ministry of Health

The number of health-care centers in the Ministry of Health varied from 2,325 in 2016 to 2,390 in 2018, and declined in the following two years to 2,257 in 2020.

Other health complexes and facilities of the private sector in the Kingdom

	2015 2016	2016 2017	2017 2018	2018 2019	2019 2020
	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Number of complexes	2,754	2,767	2,930	2,980	3,005
Private clinics	65	61	63	47	49
Labs	107	122	144	155	174
Centre for Physiotherapy and Rehabilitation	147	177	166	175	172
Optometrist	2,351	2,346	2,336	2,056	1,699
Teeth installers	79	84	110	110	86
Pharmacies	8,114	8,720	8,683	8,586	9,026

- The number of complexes increased from 2,754 in 2016 to 3,005 in 2020, while the number of private clinics decreased from 65 in 2016 to 49 in 2020.
- The number of physiotherapy and rehabilitation centers varied from 147 in 2016, to 177 in 2017, to 172 in 2020.
- The number of glasses stores fell from 2,351 in 2016 to 1,699 in 2020, while the number of dental installers rose from 79 in 2016 to 110 in 2019 and declined in 2020 to 86.
- The number of pharmacies increased from 8,114 in 2016 to 9,026 in 2020.

Development of health human resources in the Kingdom

			2016	2017	2018	2019	2020
	Psychiatrists		39,180	42,609	45,571	49,139	50,065
	Dentists		3,588	3,996	4,137	4,843	5,815
Ministry	Total doctors	>	42,768	46,605	49,708	53,982	55,880
of Health	Nursing [101,256	103,990	105,473	107,092	107,846
	Pharmacists		3,525	3,853	4,006	4,221	4,358
	Medical classes		57,474	59,646	69,530	71,284	71,838
			2016	2017	2018	2019	2020
	Psychiatrists		15,879	16,346	18,155	18,464	20,234
	Dentists		1,327	1,283	1,431	1,683	1,768
Other	Total doctors	\mathbf{i}	17,206	17,629	19,586	20,147	22,002
government	t 🔪 Nursing 🏻 🛛		36,927	35,808	35,697	44,188	44,287
bodies	Pharmacists		2,285	2,304	2,652	2,940	2,760
	Medical classes		29,871	30,214	30,857	26,032	27,041
			2016	2017	2018	2019	2020
	Psychiatrists		20,681	23,420	24,297	26,732	25,037
	Dentists		9,020	10,420	11,184	12,285	12,039
Private	Total doctors	>	29,701	33,840	35,481	39,017	37,076
Sector	Nursing		42,638	45,895	43,395	47,733	44,568
	Pharmacists		19,309	22,155	22,467	24,711	20,411
	Medical classes		19,978	22,001	23,925	26,303	25,094
			2016	2017	2018	2019	2020
	Psychiatrists		75,740	82,375	88,023	94,335	95,336
	Dentists		13,935	15,699	16,752	18,811	19,622
-	Total doctors	>	89,675	98,074	104,775	113,146	114,958
Total	Nursing [180,821	185,693	184,565	199,013	196,701
	Pharmacists		25,119	28,312	29,125	31,872	27,529
	Medical classes		107,323	111,861	124,312	123,619	123,973

■ The total number of doctors increased from 89,675 in 2016 to 114,958 in 2020.

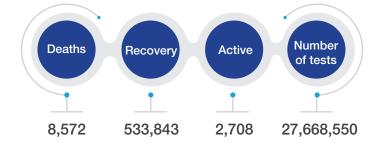
The number of nursing staff rose from 180 thousand to 196.7 thousand in 2020.

- The number of pharmacists rose from 25.1 thousand to 27.5 thousand.
- The number of Assistive medical classes increased from 107.3 thousand to 123.9 thousand in 2020.



The Impact of the Corona Pandemic on the Kingdom's Health System

A brief overview of Corona statistics in Saudi Arabia



The Kingdom of Saudi Arabia is one of the first countries which initiated safety precautions and preventive measures, and sensed the danger inherent in this outbreak, which turned into a global pandemic within a short period of time, the Kingdom's efforts to confront the COVID- 19 pandemic have not been limited at the local level only, but it overcame that to global levels due to its political, strategic and economic importance. This is clearly reflected inin the Kingdom's leading role in the chairmanship of the G20- in 2020. The Kingdom's efforts at the national and international levels to strengthen response, develop treatment methods and ensure the availability of protective equipment and its initiative to provide financial support of 500 million dollars have been commended by a number of international organizations. This support is in response to the Kingdom's commitment to financing international organizations in accordance with the agreements announced at the Special Summit of Leaders of the G20-, called for by the Kingdom. As a result of Saudi Arabia's experience accumulated over the years in risk management and continuous assessment to ensure national and global health security, the security and safety of pilgrims, migrants and visitors each year and the development of a highly efficient health system, having had previous experiences with the Middle East respiratory syndrome epidemic

The Kingdom has taken many early precautionary measures and measures, the most important of which are described below: -

6 Curfew

The State has worked in all its sectors to counter the Corona virus to protect citizens from the damage caused by it.Each entity has acted according to its entrusted role in reducing the spread of the virus.The Government of the Custodian of the Two Holy Mosques, King Salman bin Abdulaziz, has made 24 hours curfew every day in cities, which have seen an increase in casualties, going out was excluded to meet the necessary needs.In order to help fulfil people's needs in a manner that ensures the safety of all, the State has organized this process through the application of "Tawakolna," which grants electronic permits to government sector and private sector members, in addition to individuals, is in cooperation with the Ministry of Health and a number of government agencies.It is also possible through the application to report individuals and groups that violate the existing precautionary procedures, besides reporting on movement into forbidden neighborhoods, which were isolated at the discretion of the stakeholders.

2 Extended Scan

In view of the rapid spread of the virus among people and the Kingdom's desire to limit this spread, it has established fixed sites for scans of all citizens and residents free of charge, without having to go to hospitals or health centers. It had therefore identified certain locations in different cities, whereby any citizen or resident who feels the symptoms of the virus can download (Sehhaty) application, book an appointment at one of these sites and perform a test.

3 Domestic isolation

The Kingdom has taken care to provide protection and health care to citizens and residents referred to domestic isolation or quarantine, to ensure their safety, the procedures for their recovery are enhanced by (Tetamman) application of one of the Ministry of Health's applications, which provides access to the results of the tests, updating the data of the contacts, daily monitoring of the health situation, as well as the countdown indicator of health isolation and other services.

4 Distancing

In order to limit the spread of the new Corona virus, the Saudi Authority for Data and Artificial Intelligence (SDAIA) has launched (Tabaud) application, as a means to notify contacts to those infected with the new corona virus, which enables the user to obtain direct and proactive notifications as soon as any recorded injury is detected, for the purpose of requesting direct health support from the Ministry.

5 Awareness

The Kingdom has made every effort to raise public awareness of all developments in the Corona virus and how to prevent and reduce its spread by answering questions clearly and from reliable sources. Since it provided the answer to questions regarding the virus (here too), and how to prevent it, what appropriate precautionary measures are in place for all places in the mosque, at work or elsewhere, and what applications people might need during this crisis.

6

Mental health during the Corona pandemic

The Kingdom is aware of the psychological impact of outbreaks and epidemics, and ensures that its citizens and residents are kept as safe in psychological terms as it is physically concerned. It prepared awareness-raising messages to support the mental and psychological health of the general population of the Kingdom during this period. It worked to provide platforms to help all patients or health practitioners, or even from people who have not infected with virus through health and psychological education and answers to questions and concerns. It also provided access to telephone assistance by contacting the 920033360 Psychiatric Counselling Centre or through the Psychoanalytic Counselling App (Qrybwn) of the National Center for Mental Health.

Reserving an appointment for coronavirus test

An appointment for a test may be reserved through a health application, which is available to all citizens or residents free of charge and requires only an account in Absher.



9

7

Free vaccine for residents and citizens

The clinical capacity of concentrated care is increased by %30





1 1

CHAPTER THREE

MEASURING THE CAPACITY OF HOSPITALS TO PROVIDE CURATIVE CARE SERVICES IN THE KINGDOM

> **Specialized Research Study** Measuring the ability of hospitals To provide curative care services in KSA

CHAPTER THREE

MEASURING THE CAPACITY OF HOSPITALS TO PROVIDE CURATIVE CARE SERVICES IN THE KINGDOM



Developments in number of visitors in hospitals, medical centers and clinics in the Kingdom

Average number of visitors to health sectors in the Kingdom

Number of governmental and private hospitals and beds

Beds rate per 10,000 people in the Kingdom by administrative region

Global average of beds' number per population

Deficit in the number of beds relative to the population in the Kingdom

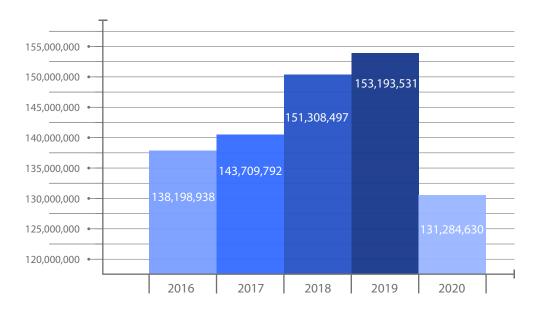
Projected population increase

Projected deficit in the number of beds until 2030

Developments in number of visitors in hospitals, medical centers and clinics in the Kingdom

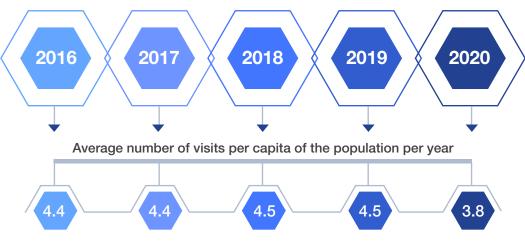


Source: Ministry of Health

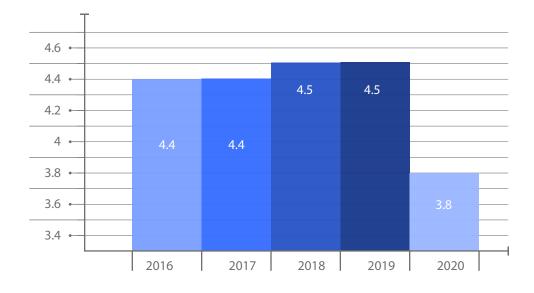


The number of visitors increased from 138 million visitors in 2016, to 153.1 million visitors in 2019, and fell to 131.2 million visitors in 2020.

Average number of visits to health sectors in the Kingdom



Source: Ministry of Health



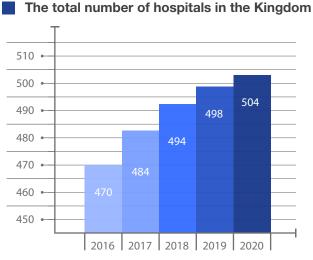
The average number of visits per capita of the population per year increased from 4.4 in 2016 to 4.5 in 2019, and then dropped to 3.8 in 2020.



2

Number of governmental and private hospitals and beds

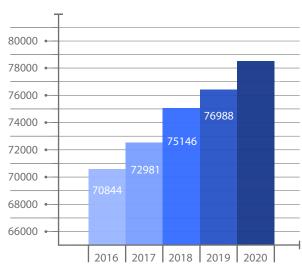
Health region	Ministry of Health		Other government bodies		Private sector		Total	
nealthregion	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds
(2015-2016) 1437	274	41,835	44	11,581	152	17,428	470	70,844
(2016-2017) 1438	282	43,080	44	12,279	158	17,622	484	72,981
(2017-2018) 1439	284	43,680	47	12,583	163	18,883	494	75,146
(2018-2019) 1440	286	44,665	48	13,177	164	19,146	498	76,988
(2019-2020)1441	287	45,180	50	13,989	167	19,427	504	78,596



The number of hospitals in the Kingdom increased

from 470 in 2016 to 504 in 2020

The total number of beds in hospitals



The number of beds rose from 70,844 to 78,596 in 2020.



Beds rate per 10,000 people in the Kingdom by admin Distribution of hospitals by health region

Health region	Ministry	Ministry of Health		Other government bodies		Private sector		Total	
ricalti region	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	
Riyadh	49	8,707	16	5,883	45	6,212	110	20,802	
Месса	10	2,694	1	176	8	523	19	3,393	
Jeddah	13	3,091	4	1,900	39	3,794	56	8,785	
Taif	16	2,640	5	834	5	509	26	3,983	
Medina	18	3,118	4	958	11	1,085	33	5,161	
AI-Qassim	19	2,909	1	54	4	343	24	3,306	
Eastern Province	21	3,456	8	1,890	24	4,065	53	9,411	
Al-Ahsa	10	2,055	2	370	5	673	17	3,098	
Hafar Al-Batin	7	1,000	1	265	2	150	10	1,415	
Asir	20	2,330	2	607	12	1,187	34	4,124	
Bisha	8	920	0	0	0	0	8	920	
Tabuk	12	1,820	2	659	1	86	15	2,565	
Haeal	14	1,940	0	0	3	170	17	2,110	
Northern Borders	11	1,460	0	0	0	0	11	1,460	
Jazan	21	2,225	1	58	3	250	25	2,533	
Najran	10	1,300	3	335	3	250	16	1,885	
Al Bahah	10	1,295	0	0	2	130	12	1,425	
Al-Jawf	9	1,330	0	0	0	0	9	1,330	
Qurayyat	4	490	0	0	0	0	4	490	
Al Qunfudhah	5	400	0	0	0	0	5	400	
Total	287	45,180	50	13,989	167	19,427	504	78,596	

Source: Ministry of Health

Riyadh Health District ranked first with 110 out of a total of 504 hospitals, followed by Jeddah Health District with 56 hospitals and Eastern District with 53 hospitals.



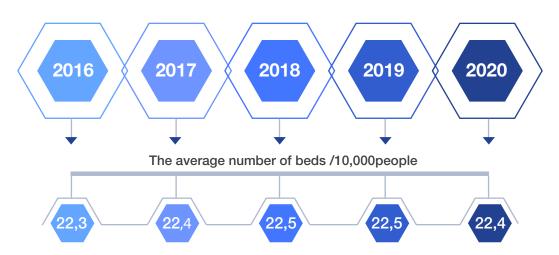
Distribution of hospital beds by health regions

Health regions	Population in mid- 2020	Number of hospital beds for 2020	population in middle of 2030 at a growth rate of %2.6	Number of required hospital beds for 27 beds per 10,000 people	Increase in number of hospital beds at a growth rate of %2.63	Deficit required in 2030 for indicator 27 per 10,000.00 people
Riyadh	8,872,712	20,802	11,302,539	30,517	26,968	3,549
Mecca	2,512,462	3,393	3,200,510	8,641	4,399	4,243
Jeddah	5,031,820	8,785	6,409,804	17,306	11,389	5,917
Taif	1,387,686	3,983	1,767,709	4,773	5,164	-391
Medina	2,291,092	5,161	2,918,517	7,880	6,691	1,189
Al-Qassim	1,520,434	3,306	1,936,811	5,229	4,286	943
Eastern Province	3,485,383	9,411	4,439,869	11,988	12,201	-213
Al-Ahsa	1,305,172	3,098	1,662,598	4,489	4,016	473
Hafar Al-Batin	476,443	1,415	606,919	1,639	1,834	-196
Asir	1,940,123	4,124	2,471,433	6,673	5,346	1,326
Bisha	414,197	920	527,626	1,425	1,193	232
Tabuk	968,414	2,565	1,233,618	3,331	3,325	5
Haeal	746,046	2,110	950,354	2,566	2,735	-169
Northern Borders	390,656	1,460	497,639	1,344	1,893	-549
Jazan	1,670,569	2,533	2,128,061	5,746	3,284	2,462
Najran	621,040	1,885	791,114	2,136	2,444	-308
Al Bahah	506,866	1,425	645,673	1,743	1,847	-104
Al-Jawf	362,580	1,330	461,874	1,247	1,724	-477
Qurayyat	180,430	490	229,841	621	635	-15
Al Qunfudhah	329,289	400	419,466	1,133	519	614
Total	35,013,414	78,596	44,601,975	120,425	101,893	18,532

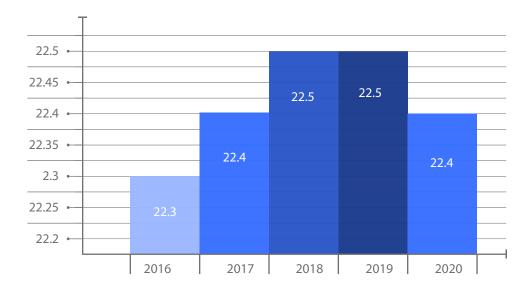
Source: Ministry of Health

Negative numbers mean that the number of beds growing will be higher than the number of beds needed according to the indicator of 27 beds per 10,000 people..





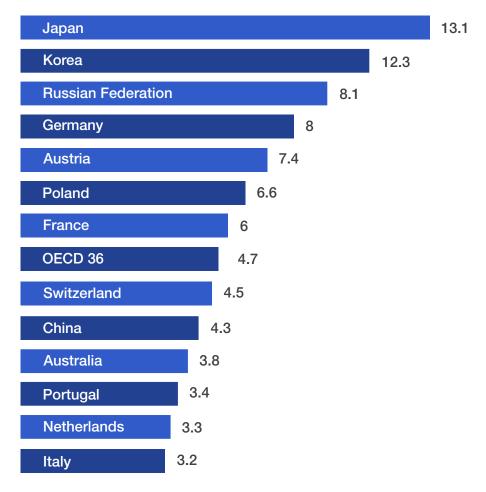
Evolution of the average number of beds per population (10,000) in the Kingdom



The number of beds per 10,000 people increased from 22.3 beds in 2016 to 22.4 beds in 2020.

4

There is no fixed number of beds in relation to the population, as the World Health Organization indicated that there is no specific ratio for the number of beds in relation to the population, but the results of the research showed that the ratio in 2018 amounted to about 4.57 beds per thousand people for the 35 largest countries in the world according to a number of websites Research, while the average of OECD countries was about 4.7 beds per thousand people in 2019. The global average reached 2.7 beds per thousand people, which is the target for achieving within the Kingdom's 2030 vision.



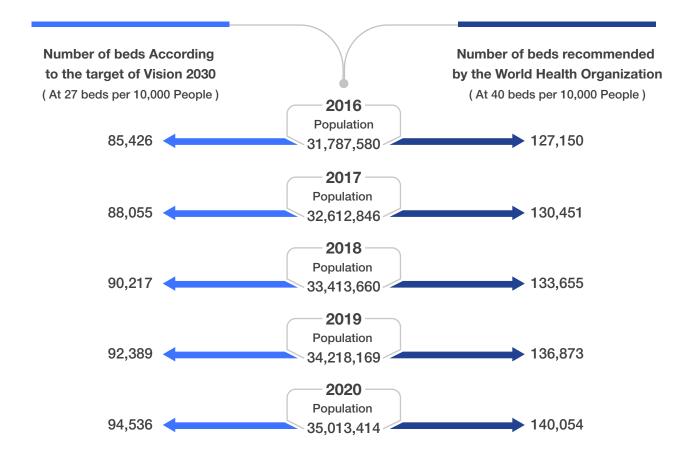
The number of beds in the major States per 1000people is as follows:

Japan ranked first with 131 beds per 10,000 people, followed by Korea with 123 beds, Russia with 81 beds, and Germany with 80 beds per 10,000 people.

Deficit in the number of beds relative to the population in the Kingdom

Number of beds assumed as recommended by the World Health Organization

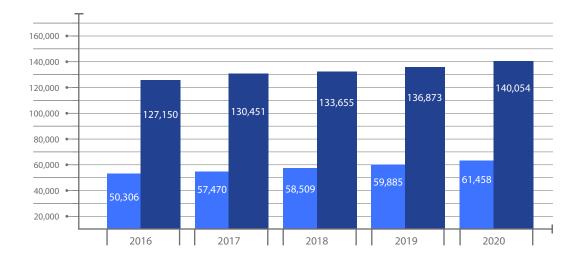
The following is the figure for the number of beds to be achieved in the Kingdom: 4 beds per 1,000 people (40 beds per 10,000 people), which is lower than the rate achieved in previous ratios and higher than the world average of about 2.7 beds in 2018.



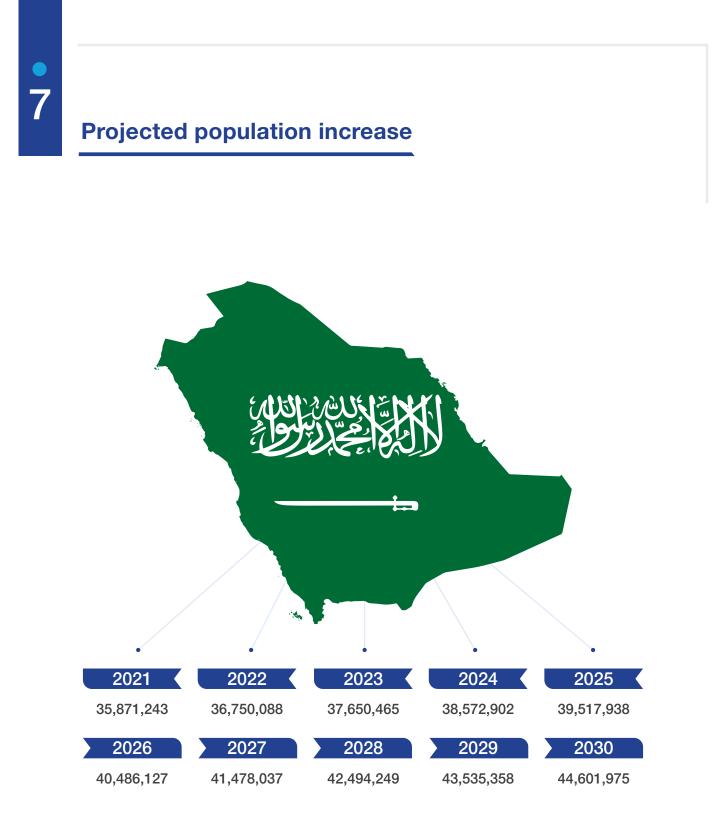
- The number of beds assumed according to the Health Organization (at an indicator of 40 beds per population of 10.000) for 2016 was 127,000, rising to 140,000 in 2020.
- The number of beds assumed according to Vision 2030 (at an indicator of 27 beds per 10,000.00 people) for 2016 was about 85,000, rising to 94,000 in 2020.

Deficit in the number of beds in the Kingdom

Year	Actual number of beds	Number of beds assumed by World Health Organization	Deficit (bed) according to the organization	Number of beds assumed according to Vision 2030	Deficit (bed) according to Vision 2030
2016	70,844	127,150	56,306	85,426	14,582
2017	72,981	130,451	57,470	88,055	15,074
2018	75,146	133,655	58,509	90,217	15,071
2019	76,988	136,873	59,885	92,389	15,401
2020	78,596	140,054	61,458	94,536	15,940



- The deficit in the number of beds in the Kingdom, as recommended by the World Health Organization (WHO), increased from 56,000 beds in 2016 to 61,000 beds in 2020.
- According to the Kingdom's Vision 2030, the deficit in the number of beds in the Kingdom increased from 127,000 in 2016 to 140,000 in 2020.



- The expectations of the population in the Kingdom were calculated according to the %2.45 growth achieved between 2016 and 2020.
- The population of the Kingdom is expected to reach 44.6 million in 2030, according to the %2.45 growth achieved in previous years according to data from the General Bureau of Statistics.

Years	Population	Projected number of beds	Assumed number of beds	Projected deficit	Assumed Bed number According to the vision	Projected deficit According to the vision
2021	35,871,243	80,663	143,485	62,822	96,852	16,189
2022	36,750,088	82,785	147,000	64,216	99,225	16,440
2023	37,650,465	84,962	150,602	65,640	101,656	16,694
2024	38,572,902	87,196	154,292	67,095	104,147	16,951
2025	39,517,938	89,490	158,072	68,582	106,698	17,208
2026	40,486,127	91,843	161,945	70,101	109,313	17,470
2027	41,478,037	94,259	165,912	71,654	111,991	17,732
2028	42,494,249	96,738	169,977	73,239	114,734	17,996
2029	43,535,358	99,282	174,141	74,860	117,545	18,263
2030	44,601,975	101,893	178,408	76,515	120,425	18,532

- The projected number of beds is calculated according to the %2.63 growth in the number of beds achieved from 2016 to 2020.
- The projected population was calculated according to a population growth rate of %2.45 for the period 2016 to 2020. The number of beds assumed based on population is then calculated at two indicators, namely 40 beds per 10,000 people and 27 beds per 10,000 people.
- According to the World Health Organization (WHO) indicator, the deficit in the number of beds is expected to reach about 76,515 in 40) 2030 beds per 10,000 people).
- The bed deficit is expected to reach 18,532 beds in 2030 according to a vision target indicator (27 beds per 10,000 people).



CHAPTER FOUR

FINDINGS AND RECOMMENDATIONS

Specialized Research Study Measuring the ability of hospitals To provide curative care services in KSA

CHAPTER FOUR

FINDINGS AND RECOMMENDATIONS



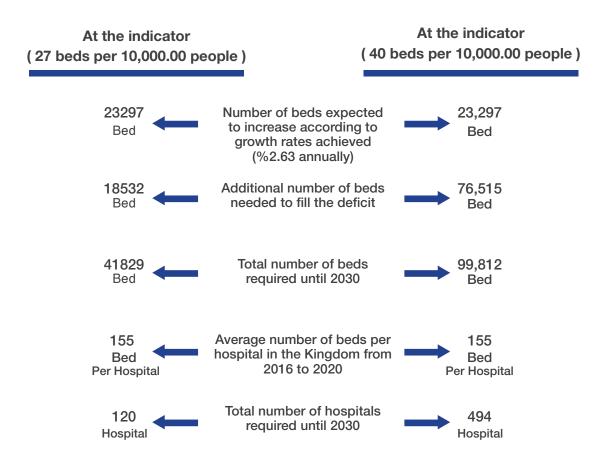
The Kingdom's need for hospitals and beds for the coming years

Analytical view of the previous presentation

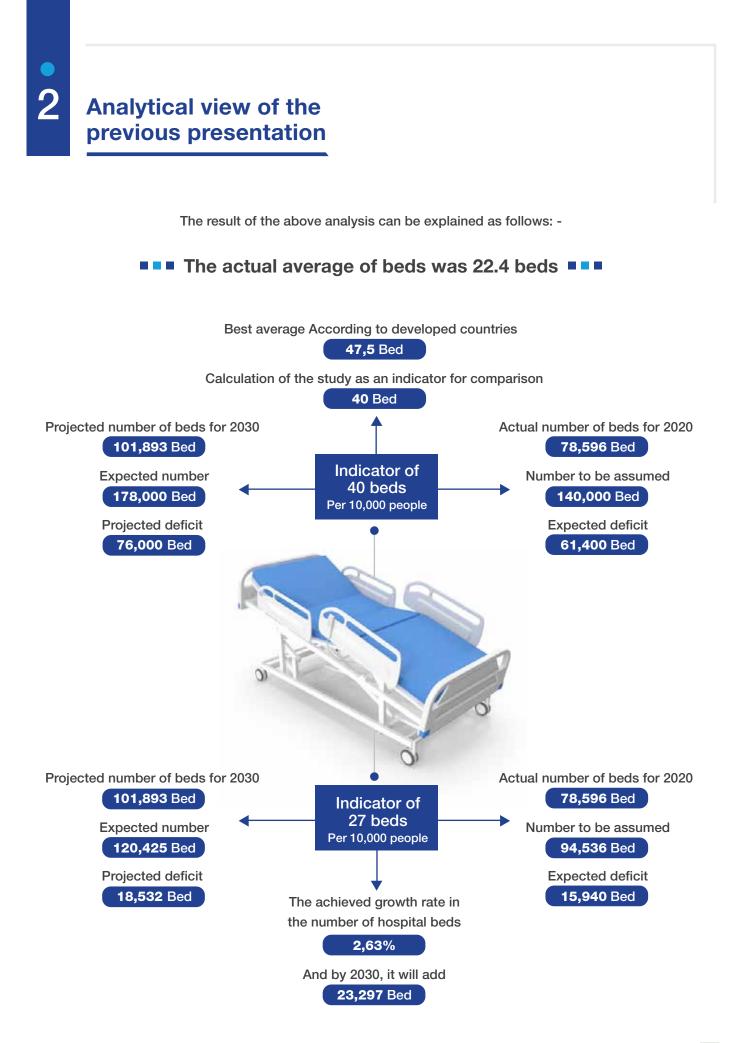
Findings and recommendations

The Kingdom's need for hospitals and beds for the coming years

The Kingdom needs 120 new hospitals, with a total of 18,532 beds up to 2030, with an average of 155 beds per each new hospital (according to the average achieved from 2016 to 2020).







The Kingdom of Saudi Arabia needs to add 18,532 beds to the curative care services sector with a total of 120 hospitals until 2030 in order to achieve the global average at a minimum (27 beds for every 10,000 people)

With the monitoring of achieving the expected annual growth rate for the existing hospital beds, which is %2.63, with a number of 23297 beds, to fill the gap calculated in this report.

- Achieve a balanced geographical distribution of all administrative regions, according to population growth rate growing to 2030.
- The departments responsible for stimulating health investment in the Ministry of Health play a more active role in guiding and stimulating investment in providing curative care services and directing investment in a balanced manner towards the need of each administrative region.
- Participation of investors in the national market and inviting other efficient investors from the external market to fill the gap as proposed in the national strategic plan.
- Inform the relevant planners of the content of the Strategic Plan, including the Emirate of Regions and Chambers of Commerce.
- The expected investments in the medical sector will add significant jobs for Saudis and residents and create multiple jobs, which will have a positive impact on many other economic sectors.



PROJECT TEAM

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Connection ConsultingTeam

https://mobile.twitter.com/connection_ksa?locale=ar Selected consultants of holders of Doctorate and master's degrees in business administration and economics With high scientific qualifications and more than 24 years of practical experience, specialized in studies and consultations, an office approved by the Ministry of Commerce and Investment - License No. 13412



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