



Creating a sustainable healthcare system

Although Saudi Arabia is a relatively wealthy country per capita – the country has the world's largest oil reserves and is the world's largest exporter of oil – it nonetheless has been facing a mounting financial burden from healthcare expenditure in its effort to sustain its national healthcare system, a system which has provided free basic healthcare to all its citizens and foreign residents. Realising that such a system is unsustainable in the face of a growing and ageing population, the government has, over the past few years, initiated measures to reform it. *Middle East Health* reports.



Riyadh

The Kingdom of Saudi Arabia (KSA) has the largest population of the Gulf Co-operation Council (GCC) countries, estimated in 2008 to be around 28 million, including around 5.5 million foreigners.

Despite its relatively high GDP per capita wealth – US\$14,653 in 2006 according to the *Saudi Arabia Health Statistical Yearbook* – the kingdom, which aspires to provide healthcare on a par with economically advanced

countries, is facing a growing financial burden and shortage of infrastructure in the healthcare sector due to a number of reasons. These include a steadily growing population (estimated to be around 2% a year, according to CIA World Factbook); an ageing population (the pensionable population is expected to grow from 2.8% of the population in 2005 to 4% of the population in 2020 and to 6.5% of the population in 2030, according to a

2009 Business Monitor International [BMI] report); an increasing awareness by its citizens about quality healthcare; and a changing pattern of disease – largely as a result of lifestyle changes emanating from the modernisation of Saudi society.

Starting in the 1970's the government has implemented a series of five-year development plans using its oil wealth to transform the country from a relatively undeveloped country into a modern industrial state. More recently there has been an attempt to gradually transform the economy to one that is not so heavily dependent on petroleum in an effort to broaden the economic base and increase the living standards of all Saudis. Although this has not as yet been entirely successful there has been some diversification of the economy into industry and agriculture. These development plans have also

resulted in considerable growth of the kingdom's infrastructure, which has seen the building of roads and highways, a significant increase in power generation, the construction of ports and the establishment of modern communications systems.

Another key aspect of these five-year development plans has been the development of education, healthcare and social services. To encourage development in these areas the government invited the private sector to establish public-private partnerships and joint enterprises supported by generous government financing and incentive programmes. This took place in the late 1980s and early 1990s and the healthcare sector, in particular, saw the construction of a number of large private and public hospitals in major cities in the kingdom.

Development of the healthcare sector has been ongoing,

Overview of Saudi Arabia

Pop (2006)	23,678,849
Crude Birth rate / 100 pop	24.9
Rate of natural increase (%)	2.32
Pop under 5 years (%)	11.6
Pop under 15 years (%)	32.9
Pop 15-64 years (%)	64.4
Pop 65 & above (%)	2.8
Fertility rate	3.22
Life expectancy at birth	73.1
Male	72.1
Female	74.1

(Source: Saudi Arabia Health Statistical Yearbook, 2006)

although currently the public sector still dominates health-care provision, with state healthcare expenditure representing 75% of total spending and about 80% of bed capacity provided by the Ministry of Health, the Ministry of Defence and state owned companies.

The Ministry of Health

The Ministry of Health (MoH) is the major government agency responsible for the management, planning, financing and regulation of the healthcare sector. It provides preventive, curative and rehabilitative healthcare services as well as primary healthcare (PHC) services through a network of 1,925 healthcare centres throughout the kingdom (according to 2006 MoH Department of Statistics health indicators).

The MoH has adopted the referral system whereby general practitioners at health centres refer patients to specialists at some 220 general and specialist hospitals (according to 2006 MoH Department of Statistics health indicators).

There are three other health-care service providers in the kingdom which are responsible for providing healthcare to their sectors of the population. They are: the Ministry of Defense and Aviation (MODA), the Ministry of Interior (MOI) and the Saudi Arabian National Guard (SANG).

In addition, the Ministry of Education provides primary health care to students and the Ministry of Labor and Social Affairs operates institutions for the mentally retarded and custodial homes for orphans.

The Government also funds certain key tertiary hospitals such as the King Faisal Specialist Hospital and

Location	1998	1999	2000	2001	2002	2003	2004	2005	2006
United States of America	1810	1881	1997	2193	2367	2527	2695	2861	3074
France	1770	1837	1952	2089	2249	2441	2550	2720	2833
Denmark	1784	1875	1960	2084	2236	2366	2531	2650	2812
Canada	1636	1690	1766	1908	1994	2150	2262	2424	2585
Germany	1988	2068	2127	2227	2326	2430	2435	2499	2548
United Kingdom	1261	1362	1493	1678	1804	1944	2162	2262	2434
Australia	1289	1432	1518	1581	1709	1787	1930	2012	2097
Japan	1411	1483	1598	1699	1741	1812	1910	2047	2067
Bahrain	568	550	478	535	573	597	593	621	669
United Arab Emirates	596	522	478	558	484	491	458	447	491
Kuwait	580	451	391	434	450	433	433	378	422
Saudi Arabia	268	379	430	460	433	436	421	434	468
Turkey	213	227	272	311	340	359	412	422	461
Iran (Islamic Republic of)	151	131	135	166	186	221	221	378	406
Lebanon	170	166	177	202	192	212	251	254	285
Malaysia	123	133	147	166	173	250	230	203	226
Egypt	55	77	83	92	100	103	100	106	129
Yemen	28	26	28	31	30	33	31	37	38
India	13	13	13	14	14	15	16	19	21

Source: WHO

Location	%	Year
United States of America	15.3	2006
France	11.1	2006
Germany	10.4	2006
Canada	10	2006
Denmark	9.5	2006
Lebanon	8.9	2006
Australia	8.7	2006
United Kingdom	8.4	2006
Japan	7.9	2006
Iran (Islamic Republic of)	7.8	2006
Egypt	6.3	2006
Turkey	5.6	2006
India	4.9	2006
Yemen	4.6	2006
Malaysia	4.3	2006
Bahrain	3.8	2006
Saudi Arabia	3.4	2006
United Arab Emirates	2.6	2006
Kuwait	2.2	2006

Source: WHO

Location	international \$	Year
Kuwait	48310	2005
United States of America	44070	2006
Canada	36280	2006
Denmark	36190	2006
Bahrain	34310	2005
Australia	33940	2006
United Kingdom	33650	2006
Japan	32840	2006
Germany	32680	2006
France	32240	2006
United Arab Emirates	31190	2004
Saudi Arabia	22300	2006
Malaysia	12160	2006
Iran (Islamic Republic of)	9800	2006
Lebanon	9600	2006
Turkey	8410	2006
Egypt	4940	2006
India	2460	2006
Yemen	2090	2006

Source: WHO

Research Center in Riyadh, a state-of-the-art facility offering healthcare on a par with some of the leading facilities in economically advanced countries.

Infrastructure

As an example of the ongoing healthcare infrastructure development, late last year, Prince Naif Bin Abdul Aziz, the Interior Minister, announced plans for seven new hospitals and nine health centres to be built in various places across the kingdom. One of these projects is the King Abdullah Medical City in Makkah, the first phase of which is already complete. When the final phase is complete it will consist of three hospitals with a total of 1,500 beds – a 500-bed

specialist hospital, a 500-bed maternity and children's hospital and Makkah's 500-bed Al Nur Specialist Hospital will be incorporated into the medical city.

Dr Fatih Mehmet Gul, Business Development Manager of Acibadem Healthcare Group and Chief Editor of Healthcare Business Middle East, based in Jeddah, told *Middle East Health* that there are other key healthcare projects being developed in Riyadh, Jeddah, Qassim, Madinah and Dammam with several small scale projects in other cities.

“King Abdullah Economic City project outside Jeddah will have a healthcare city, Qassim will have another medical city and there will be

one other medical city in Madinah,” he said.

According to the BMI report, the MoH has embarked on an initiative to build 2,000 Primary Healthcare Centres across the kingdom in an effort to provide greater access to primary care and to facilitate healthcare awareness campaigns.

The report notes that in 2005 a research paper by the *International Journal of Quality Health Care* assessed the quality of primary healthcare in Saudi Arabia. Along with a number of other findings the paper identified weaknesses in chronic disease management programmes. To remedy the situation the government has placed more emphasis on developing disease-specific treatment centres, such as the



establishment of country's largest diabetes centre at Prince Salman Hospital in Riyadh in 2007. Diabetes is a major issue in KSA. In 2007 it had the third highest diabetes prevalence in the world – 16.7% according to the International Diabetes Federation.

According to a Research and Markets report, government capital health spending for 2009 was to be spent on establishing 86 new hospitals with a capacity of 11,750 beds, several new health centres and further development of the Saudi Red Crescent. According to the report, 2009 health infrastructure development was second only to education and manpower in terms of budget allocation for capital expenditure.

Manpower

These are positive developments, however the development of these new facilities will trigger an increased demand for foreign medical workers, which creates a new set of challenges.

In 2008 KSA recruited 8,000 nurses – 25% of them from the Philippines. However, the kingdom still faces a shortage of nurses and this is expected to be exacerbated with these new developments. To counter this, the government and private sector are establishing a number of nurse training facilities to increase the number of Saudi nurses. The Soliman Fakeeh College of Nursing & Medical Science and the Batterjee Medical College, both in Jeddah, are two examples.

Most of the kingdom's healthcare workers are recruited from abroad. And in an effort to meet demand, the MoH is in the process of recruiting a further 5,000

Hospital beds (per 10 000 population)

Location	Year
Japan	141 2005
Germany	83 2006
France	73 2005
Australia	40 2005
United Kingdom	39 2004
Denmark	38 2004
Lebanon	36 2005
Canada	34 2005
United States of America	32 2005
Bahrain	27 2006
Turkey	27 2006
Saudi Arabia	23 2005
Egypt	22 2005
Kuwait	19 2005
Malaysia	19 2006
United Arab Emirates	18 2005
Iran (Islamic Republic of)	17 2005
Yemen	7 2006

Source: WHO

Physicians density (per 10 000 population)

Location	Year
Denmark	36 2004
France	34 2006
Germany	34 2006
Bahrain	27 2005
United States of America	26 2000
Australia	25 2001
Lebanon	24 2005
Egypt	24 2005
United Kingdom	23 1997
Japan	21 2004
Canada	19 2006
Kuwait	18 2005
United Arab Emirates	17 2002
Turkey	16 2006
Saudi Arabia	14 2004
Iran (Islamic Republic of)	9 2005
Malaysia	7 2002
India	6 2004
Yemen	3 2004

Source: WHO

doctors from India, Pakistan, Bangladesh and other Middle Eastern countries to staff these new facilities, according an *Arab News* report in February. Dr Khalid Al-Mirghlani, spokesman for the Ministry of Health, was quoted as saying general physicians, consultants, specialists and surgeons were required. The BMI report says the recruitment drive aims to bring the doctor-patient ratio down from 1:4,000 to 1:400, making it more in line with that in economically advanced countries.

In May the MoH announced that the Government would inject a further SR15 million (about US\$4 million) into the Saudi Council for Health Specialties (SCHS) over the next three years with the aim of increasing the number of Saudi healthcare professionals. Also, in May some 407 Saudi physicians were awarded the Saudi Board Fellowship Certificate (SBFC) by SCHS. The graduates, of whom 165 are women, received their certificates in 34 specialties. It is expected they will ease the shortage of senior physicians in the Saudi healthcare system.

It was also reported in May that HH King Abdullah had approved a new grading system for Saudi healthcare profes-

sionals which aimed to remove disparities among Saudi physicians working at different healthcare centres in the kingdom "by extending the principles of justice and equality to all of them". This has resulted in a standardised salary scale for doctors and other staff working in government and specialised hospitals, which applies to hospitals of the National Guard, Defense and Aviation Ministry, Interior Ministry, Health Ministry and King Faisal Specialist Hospital and Research Center.

The growth in new medical facilities across the kingdom is also likely to please medical device manufacturers as these new facilities will boost demand for medical supplies, devices and equipment. However, in an effort to regulate and reduce the costs of imported medical equipment, the Saudi Government established in 2007 the National Company for Unified Purchase of Medicines and Medical Appliances to act as the sole supplier of medicines and medical appliances to government health institutions. The organisation has been tasked with developing and enforcing a regulatory system for medical devices. This will include establishing licensing proce-

dures for manufacturers and suppliers. In what is a first step in developing a regulatory framework for medical devices, the organisation in 2007 started the Medical Devices National Registry, which is a voluntary web-based project involving the registration of manufacturers, agents and suppliers in the country.

Minister of Health

In February this year Dr Abdullah bin Abdul Aziz Al-Rabeeah was appointed Minister for Health. Following his appointment he said he would give priority to addressing the shortage of beds and medical facilities at public hospitals.

Speaking in April during the inauguration of a new wing of the King Saud Medical Complex in Riyadh he said there was a growing demand for more medical facilities throughout the kingdom. He added that the ministry had embarked on a several new projects such as family health and home health care programmes.

More recently Dr Abdullah Al-Rabeeah has ordered the restructuring of all existing boards of administration of medical cities and specialised hospitals that are under the



jurisdiction of the Ministry of Health. All existing boards for these facilities will be abolished and replaced with a single board to be known as the Medical Cities and Specialized Hospitals Board. It will act as the supreme directing body for these establishments, which includes King Abdullah Medical City in Makkah, King Fahd Medical City in Riyadh, King Khaled Eye Specialist Hospital in Riyadh and King Fahd Specialist Hospital in Dammam.

Insurance

To alleviate the increasing financial burden on government of funding a national health system, the state has enacted a health insurance law which makes it mandatory for employers to buy private health insurance for their expatriate workers. The gradual rollout of this initiative is being overseen by a specially established council of the MoH, which among several responsibilities, regulates the private medical insurance industry. In January this year,

the government introduced new regulations that expand the insurance scheme to Saudi nationals working in small and medium enterprises in the private sector. Large private sector companies already provide health insurance for all their employees.

The Government is aware of the problems it faces in ensuring an equitable provision of quality healthcare to all its citizens. If it can meet the targets it sets itself in the five-year development plans; if it can constructively engage the

private sector to take over the running of certain healthcare facilities as well as play a greater role in investment in manufacturing of medicines, pharmaceuticals and medical equipment, through the privatisation of several state-owned operations; and if it can keep a lid on the burgeoning growth of modern lifestyle diseases, then the Kingdom of Saudi Arabia will in all likelihood stay on track with its aspiration to provide a standard of healthcare that rivals the best in the world. **MEH**

Sepco Environment uses latest technology for medical waste management

In 1997, Saudi Gulf Environmental Protection Company (SEPCO Environment), a company specialising in the field of environmental protection, was established. The company, which has a mission to preserve, develop and protect the environment, initially specialised in biological waste management and is still the leader in the GCC/North Africa region in this field.

SEPCO Environment has 10 major waste treatment facilities spread across Saudi Arabia and three other treatment plants in Lebanon, Sudan and Tunisia. SEPCO Environment services 4,884 healthcare facilities, including polyclinics, hospitals, research facilities and many others.

As the leader in advanced medical waste management, SEPCO Environment uses the latest technology and offers excellent treatment and management programmes for the medical waste problems in the Kingdom of Saudi Arabia.

SEPCO Environment

utilises state-of-the-art technology – the Microwave Disinfection System, the Autoclave Disinfection System and the Thermal Oxidation Unit – for treating not only medical waste, but other waste as well.

In accordance to the conditions set by the Presidency of Meteorology and Environment (PME) and Ministry of Health (MoH), SEPCO Environment has its own fleet of trucks, which are well equipped for safe collection, handling and transportation of biological waste, from the source to the company's treatment stations. The company is certified by PME for the development of Environmental Impact Assessment (EIA) projects in various sectors of industry and provides chemical waste management, pharmaceutical waste management and municipal solid waste management.

Furthermore, SEPCO Environment has developed its own autoclave machine the 'SepcoClave', a locally engineered autoclave that is



utilised by SEPCO Environment for treating infectious biological waste. The technology is not only certified by PME in Saudi Arabia, but also certified in Qatar, United Arab Emirates, Egypt, Tunisia and Sudan.

SEPCO Environment uses its extensive resources to research and acquire the best available technology for the treatment of different wastes. The company continues to develop relationships with international companies specialising in waste management.

As well as providing new technologies to combat

different waste streams, SEPCO Environment also provides technical assistance to the community, local agencies and private companies. The company helps raise public awareness by providing booklets, magazines, seminars, training and workshops. Raising public awareness and developing skills in this field helps preserve and protect the environment. As a company committed to environmental protection SEPCO Environment is accredited with ISO 14001 and ISO 9001:2000.

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