GCC Healthcare Industry

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ALPEN CAPITAL

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TABLE OF CONTENTS

1 EXECUTIVE SUMMARY

1.1 Scope of the Study

This report caters to investors looking for investment opportunities in the Gulf Cooperation Council (GCC) healthcare sector. The focus of the report is on the healthcare service segment and factors that drive growth in the sector.

Our aim has been to cover all – primary, secondary and tertiary – healthcare services comprehensively. For some GCC countries, finding comprehensive data, especially on primary healthcare, has been challenging.

1.2 Investment Rationale

The GCC healthcare sector is on a growth trajectory. The industry is poised for unparallel and consistent growth accompanied by a fundamental shift in the industry structure, infrastructure quality, payer model and funding options. The GCC countries are likely to experience a sharp increase in healthcare needs in coming years primarily led by a growing and ageing population and a rise in chronic non-communicable 'lifestyle' diseases.

The governments in the region display political will and strong intent to create infrastructure and promote innovation. All this creates opportunities with healthcare players from all over the world vying for a piece of the cake. This unparalleled convergence of necessity and opportunity throws up a number of opportunities and challenges.

INVESTMENT POSITIVES

Demographic advantage: The GCC population, currently at around 38 million, is growing at one of the fastest rates in the world. Moreover, changing lifestyles and high disposable incomes have engendered "diseases of affluence" such as obesity, diabetes and other cardiovascular diseases. In addition, the "over-60-year-olds" is emerging as the fastest-growing age group in the GCC.

The changes in demographic profile and disease mix call for higher growth in healthcare services. However, government-run hospitals and clinics are not adequately equipped to meet the growing and evolving demand. This creates a strong need for private sector participation, making the GCC healthcare sector an attractive investment destination.

- **Favorable regulatory landscape:** Given the robust demand growth, governments in the region are actively looking at ways to boost private sector participation in healthcare services. Qatar, Bahrain, and the UAE have been most proactive in this regard, by providing concrete incentives to attract private investment, including commitments to reimburse a minimum number of patient visits to such hospitals, even if the number of patients is less. Moreover, they have helped private players by engaging them in the management of public facilities and reimbursing them for treating patents.

- **Rising income level:** Income levels in the GCC region are broadly comparable to developed economies, however, the region trails the West in terms of healthcare expenditure. As per capita health spending increases, we expect to see a greater reliance on private sector players and increased private-public partnerships.

- **Other positive developments:** Apart from the above-mentioned general drivers, some regions in the GCC have started actively promoting medical tourism. Dubai has taken a lead by creation of the Dubai Healthcare City. The Emirate already has an edge over its GCC neighbors as a well-established tourist destination. Moreover, the ongoing insurance sector reforms are expected to play a pivotal role in catalyzing growth in the healthcare sector.

All these factors have created a vibrant investment opportunity. However, only a few healthcare stocks are listed on the capital markets. Thus, investors have limited options to participate in the booming GCC healthcare market. Therefore, private equity and venture capital are the most suitable investment vehicles.

INVESTMENT NEGATIVES

Although demand side factors spell confidence, the industry faces several supply-side constraints. Low private sector participation, sub-optimal health infrastructure availability and acute shortage of human resource for all medical services are major obstacles for growth in the industry.

- **Acute shortage of human resource:** The GCC needs to develop a strong professional healthcare workforce. Governments are rolling out red carpets to renowned western healthcare providers. However, unless the governments take strong initiatives to overcome the undersupply of healthcare professionals, the reform efforts will be rendered ineffective. Medical education and training of a para-medical workforce presents a major opportunity for private players to establish a footprint in the region.

- **Dearth of private sector representation:** Currently the industry is characterized by low private sector penetration, which stands at around 25% in terms of expenditure. The healthcare industry in the region will benefit from increased private sector participation to help keep pace with increasing demand. Moreover, treatment of lifestyle ailments calls for establishment of super specialty hospitals with state-of-the-art facilities, further necessitating higher private sector participation.

1.3 Industry Outlook

Total market estimated at US$ 18 billion in 2008 and about US$ 47–55 billion by 2020

Alpen Capital estimates the size of the GCC healthcare services sector to about 46 million treatments in 2008, which translates to about US$ 18 billion in value terms. We expect the industry to reach a market size of around US$ 47-55 billion by 2020, equivalent to a 9% CAGR. The growth will be driven by both an increase in demand (increased number of treatments) and the cost of healthcare provision (average cost per treatment).

Hospital pipeline sufficient to meet forecast demand

Despite some significant project delays, the pipeline of GCC hospital project announced or under construction is very substantial. Barring major additional project delays, we see a sufficient supply of hospital beds in all GCC countries, except Oman. The UAE and Qatar have the most ambitious pipelines as measured by the number of beds per capita, and are banking on medical tourism from within and outside the GCC to maintain adequate occupancy rates across the industry.

Per capita spending on the rise across the GCC

Per capita healthcare spending in the GCC was US$ 631 in 2006, below the global average of US$ 716. The US and the UK registered per capita healthcare spending of US$ 6,719 and US$ 3,332 respectively in the same period.

Going forward, we expect GCC per capita healthcare spending to grow faster than the global average. Growth in income levels as well as an increase in health insurance coverage will boost demand for healthcare services. Moreover, per capita healthcare requirements and spending will also increase as the GCC population ages and the disease mix changes.

1.4 Conclusion

The GCC healthcare sector is poised for a strong growth along with fundamental and structural changes. However, an efficient institutional framework and effective regulatory environment need to be prioritized to encourage private sector participation in the sector. Moreover, Alpen Capital believes that the GCC healthcare service sector will witness a major transition in the quality of services provided and in competitiveness on the global basis. The region's endeavors in setting up integrated healthcare facilities in the form of healthcare cities and medical hubs, coupled with continuous improvement in technology and infrastructure, will significantly improve the availability and quality of healthcare provision in the region.

2 THE GCC HEALTHCARE INDUSTRY OUTLOOK

2.1 Methodology Summary

We have forecast the GCC healthcare market size until 2020 based on healthcare data from the WHO and the Ministry of Health (MoH) of the respective GCC countries. Following is a brief of the methodology adopted.

Market size is calculated as:

Market Size = Outpatient market size (prevalence rate × population estimate × number of visit per disease × average cost per outpatient visit) **+ Inpatient market size** (prevalence rate × population estimate × average length of stay × average cost per inpatient day)

1) Projection for each of the above mentioned components is premised on historical values, forward estimates provided by global bodies such as the WHO, the IMF, the World Bank and our analysis of the GCC healthcare sector.

- Population estimates: Historical figures are from WHO sources, whereas the growth projection is as per estimates provided by the World Bank.
- Number of visits per disease: The historical average is used as a proxy for the forecast. Historical values are provided by the MoH of the respective countries and the WHO.
- Average length of stay (ALOS): Historical value is sourced from the MoH and the WHO. The projections are either kept constant at the historical average or modified based on expected industry level changes.
- Average cost per outpatient visit/inpatient day: The WHO provides historical average cost of inpatient as well as outpatient visit for the primary, secondary and tertiary segments. The projection is based on the historical cost and projected inflation and Alpen Capital's estimate for health inflation above normal inflation during the forecast period.
- Prevalence rate: We have derived the prevalence rate for both outpatient and inpatient diseases for historical periods using the mosaic approach (depending on data availability patterns in each country). Thereafter, one of three different sets of assumptions was employed for three different scenarios.

2) We have **modeled three scenarios** in our analysis to provide a range-based market size and related metrics.

- **Increasing prevalence rate scenario**: In this scenario, we have assumed an overall rise in disease prevalence in the region premised on the rationale that the rise in incidence of lifestyle ailments and other non-communicable diseases will outpace the decline in communicable diseases. Again, the rate of increase varies across the GCC countries.
- **Constant prevalence rate scenario**: Prevalence rate in each GCC country is kept equivalent to the average historical rate.
- **Decreasing prevalence rate scenario**: In this scenario, we have assumed an overall decline in the prevalence rate of diseases. However, the degree of decline varies across the GCC countries depending on historical trends, socio-economic conditions and industry progress (level of health awareness, practice of preventive measures etc). The underlying rationale is that the pace of decline in communicable diseases is higher than the rise in incidence of lifestyle ailments and other non-communicable diseases.

<< Please note: Empirical evidence suggests that as a country/region moves forward with economic development, communicable diseases get controlled due to higher awareness, increased immunization etc., whereas occurrence of chronic/affluent lifestyle diseases increases due to a more urbanized and sedentary lifestyle and food habits. The cost of treating the non-communicable lifestyle deceases is higher that that of communicable deceases. >>

Representation of GCC healthcare services market size estimation

Total market size = Outpatient market size + Inpatient market size

- **Outpatient market size =** (Prevalence rate) × (Population estimate) × (Number of visits per disease) × (Average cost per visit)
- **Inpatient market size =** (Prevalence rate) × (Population estimate) × (Average length of stay) × (Average cost per inpatient day)

2007

Government healthcare expenditure: **US$ 25.7 billion**

Healthcare services market: **US$ 15.8 billion**

GROWTH DRIVERS

- Rising prevalence rate of lifestyle diseases
- Rising and ageing population
- Growing medical tourism
- Medical inflation

GROWTH MITIGATORS

- Decreasing prevalence rate of communicable diseases
- Enhanced preventive healthcare measures
- Persistence of medical import

2020 Estimate

Increasing prevalence rate scenario:

Market size – **US$ 55 billion**
Bed count – **104,500**

Constant prevalence rate scenario:

Market size – **US$ 51 billion**
Bed count – **97,500**

Decreasing prevalence rate scenario:

Market size – **US$ 48 billion**
Bed count – **93,500**

Underlying scenario

Increasing prevalence rate scenario: Impact of increasing lifestyle diseases **outpaces** the impact of declining prevalence of communicable diseases

Constant prevalence rate scenario: Impact of increasing lifestyle diseases **balances** the impact of declining prevalence of communicable diseases

Decreasing prevalence rate scenario: Impact of declining prevalence of communicable diseases **outweighs** the negative impact of increasing lifestyle diseases

2.2 Outlook Snapshot

2.2.1 GCC healthcare service market valued at US$ 18 billion in 2008

Alpen Capital estimates the market size for healthcare services to be around 46 million treatments[1] in 2008, which translates into US$ 18 billion in value terms. The share of inpatients and outpatients is 9% and 91% in volume terms, and 20% and 80% in value terms.

2.2.2 Healthcare services market to grow to US$ 47-55 billion by 2020

We expect the market to grow to around US$ 47-55 billion by 2020, equivalent to a 9% CAGR over the next 12 years. More healthcare services will be required on aggregate as well as a per capita. While the GCC population growing at a pace higher than the global average will fuel a rise in aggregate healthcare demand, the region's per capita healthcare spending will escalate as Gulf baby boomers born during the region's first oil price boom enter the aged category.

2.2.3 Significant change in disease mix underway

Alpen Capital expects a marginal decline in the prevalence rate for communicable diseases, which generally decrease as economies develop and health consciousness rise. Communicable diseases, such as diarrhea, malaria and tuberculosis, can be substantially controlled through increased hygiene, higher availability of vaccines and greater awareness about prevention.

However, a decline in communicable diseases will be accompanied with a tremendous rise in lifestyle diseases such as cardiovascular ailments and diabetes. The incidence of these diseases, however, could be curbed largely through higher health awareness and preventive measures.

The GCC governments strive to spread awareness, success of these initiatives, however, still needs to be verified. Therefore, although a rise in lifestyle diseases is certain, the scale of the rise is still unknown. To address the issue, we have featured three scenarios in our forecast.

2.2.4 Additional bed requirement could reach over 25,000 by 2020

The GCC may require in excess of 25,000 additional beds by 2020 (from the 2007 level) to address the growing demand for inpatient treatments. The largest share of the demand increase is accounted for by Saudi Arabia, followed by the UAE. The figure assumes constant per capita bed availability and a moderate increase in disease prevalence rates. The bed requirement does not factor in any growth related to medical tourism.

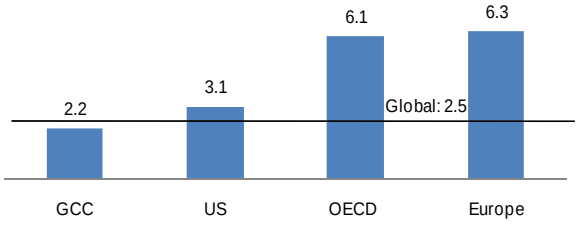
2.2.5 Announced projects sufficient to meet projected demand

Despite some significant project delays, particularly in Dubai and Oman, the GCC has a healthy hospital pipeline ensuring robust near-term supply. More than 200 hospital projects have been announced or are under construction with cumulative capacity of up to 27,000 beds, most of which are due to be delivered by 2015. (See appendix 3 for details on hospital projects).

This suggests the pipeline is sufficient to meet the forecast demand in all the GCC countries but Oman. The forecast demand does not include any increase in medical tourism however. Moreover, hospital beds per capita in the GCC is significantly lower than other developed as well as emerging countries. Average hospital beds of around 2.2 per 1,000 inhabitants in the GCC, compares with an OECD average of approximately 6.1. The gap is justified by demographical characteristics – a relatively young population, inequitable income distribution and a high ratio of expatriate population. The UAE and Qatar have the largest hospital pipelines measured by hospital beds per capita. Medical tourism from within and outside the GCC will play a key role in maintaining the current hospital bed occupancy rates in the two countries.

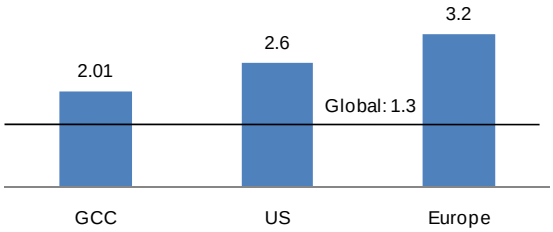
[1] the number of visits assumes one visit per disease for outpatients

Chart 1. Bed count per 1,000 population: 2007



Source: WHO

Chart 2. Number of physicians per 1,000 population: 2007



Source: WHO

2.2.6 GCC to continue facing medical staff shortages

The current shortage of medical professionals – physicians, specialists, dentists and nurses – will accentuate going forward as demand for healthcare services continue to grow. Training and development endeavors in the area of medical science have been insufficient to meet the surge in demand for such professionals resulting from higher healthcare services requirements.

With two physicians per 1,000 population, the GCC countries remain above the global average of 1.3, but below the US and Europe at 2.6 and 3.2 respectively (See chart 1 and 2).

2.3 Growth Drivers

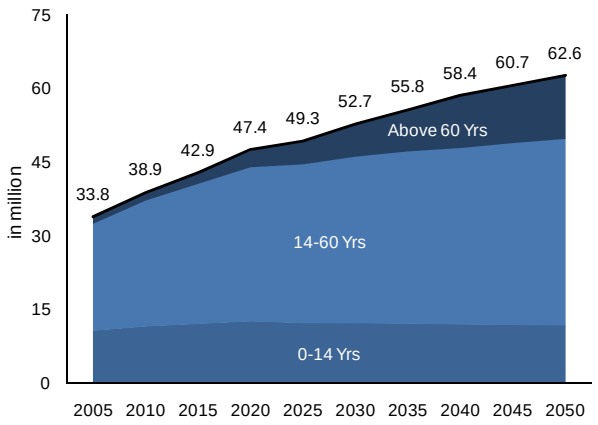
Model estimates are based on the following factors, which in our view are the major growth drivers for the GCC healthcare sector.

2.3.1 Favorable demographic profile

Rising population coupled with ageing demographic pattern is expected to drive healthcare demand in the GCC. The GCC population growth has averaged 3% per annum over the past five years, among the highest growth rates in the world (See chart 3). Mass immigration and a significant decline in mortality rates are boosting population growth in the region. The Gulf's real estate and construction sector boom has attracted expatriate workers to the region. Infant mortality has dropped from an average of 19 deaths for every 1,000 births in 1990 to 10 for every 1,000 in 2007. Moreover, the average life expectancy across the region has risen from 60 year in the late 1970s to 75 years primarily due to various health reforms.

The sharp population growth is set to be accompanied by a shift in the demographic structure of the region over the next 20 years, as the young population ages. The current average age in the Gulf ranges from 23 to 31 years, however, the proportion of population above 60 years of age will increase as Gulf baby boomers born during the region's first oil price boom become pensioners.

Chart 3. GCC – Growing and ageing population



Source: World Bank

This will generate significant healthcare demand according to health experts, four-fifths of a person's healthcare needs typically occur during the post retirement age.

2.3.2 Improved healthcare awareness

As there is no direct metric to measure this, we have used the mortality rate and life expectancy at birth, as proxies for health awareness. Moreover, rising literacy rate in the region adds to the health awareness quotient of the GCC citizens.

All these metrics have registered a marked improvement in the GCC, indicating a rise in health awareness (See chart 4). Alpen Capital believes that an increase in awareness will translate into higher demand for healthcare services.

Chart 4. Improved Health Awareness Indicators

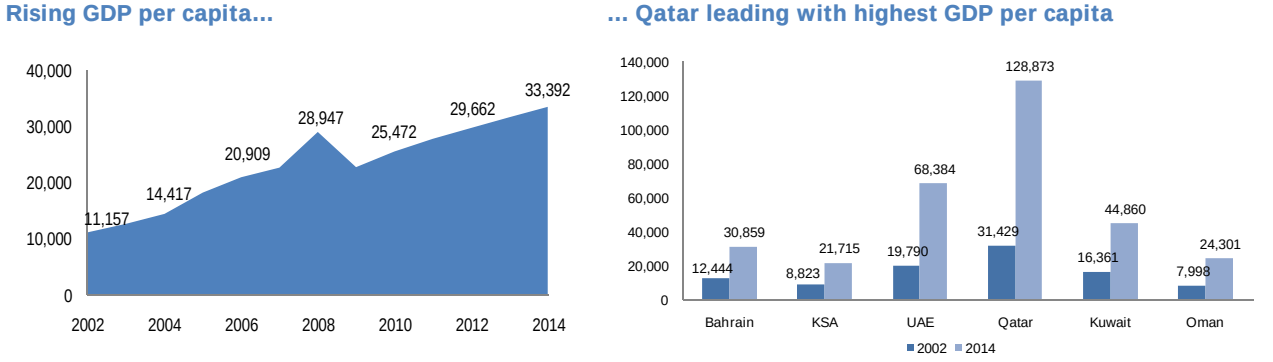
GCC Countries	Infant mortality rate (per 1,000)		Life expectancy at birth (in yrs)	
	1990	2007	1990	2007
Bahrain	20.0	7.6	73	75
Kuwait	10.7*	8.6	73	78
Oman	29.0	10.2	70	74
Qatar	12.9	7.5	75	76
Saudi Arabia	30.0	17.4	68	71
UAE	11.4	7.7	73	78

Source: WHO
** : data for 1992*

2.3.3 Rising per capita income

A rise in regional income, coupled with favorable growth in per capita income, provides a positive boost to per capita healthcare expenditure. The overall income level for residents in the GCC has risen over the past couple of years due to a sharp rise in oil prices. The GCC's combined GDP stood at US$1,075 billion in 2008, compared with nearly US$733 billion in 2006. The growth in income outpaced the population rise in the region, resulting in a favorable trend in the region's per capita income. The GCC exhibited an increase in per capita income of around 28% during 2008 (See chart 5).

Chart 5. GDP per capita for GCC nations (in US$)



Source: Alpen Capital and IMF

2.3.4 Increased incidence of lifestyle diseases

Urbanization and rising per capita income have led to the consumption of unbalanced diets and a more sedentary lifestyle in the GCC, thereby aggravating the prevalence of lifestyle ailments such as diabetes and cardiovascular diseases. The UAE ranks second highest in the world for diabetes prevalence (20%), followed by Saudi Arabia (16.7%), Bahrain (15.2%) and Kuwait (14.4%), according to the International Diabetes Federation. Coronary problems and other obesity-related diseases are also on a rise in the Gulf region.

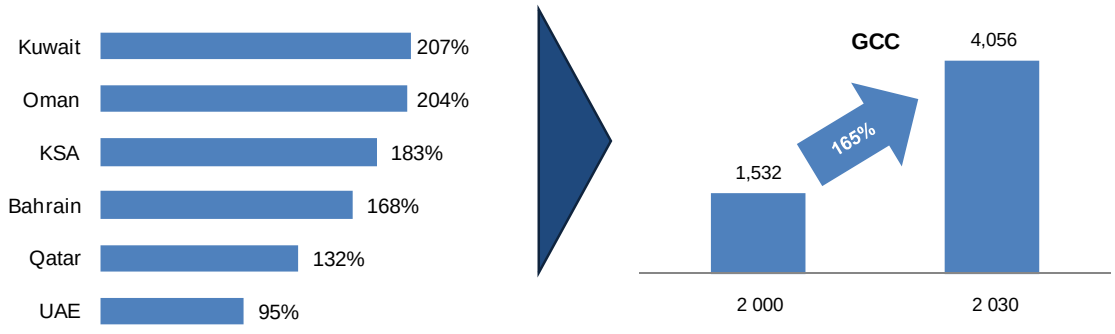
increase by 3.5% annually from 890,000 in 2000 to 2,523,000 in 2030, while those in the UAE are expected to increase by 2.3% per annum from 350,000 in 2000 to 684,000 in 2030 (See chart 6).

Higher incidence of lifestyle diseases translates into higher per capital healthcare cost, as the average treatment cost in the case of lifestyle-related ailments is higher than other hospitalized cases.

2.3.5 Growing insurance penetration

According to re-insurer Swiss Re, GCC per capita insurance stood at US$ 129 in 2007, significantly lower than the global

Chart 6. Growth in Diabetes and Affected Population (in '000) during 2000 to 2030



Source: WHO

According to WHO, the diabetes-affected population in the region is expected to increase 2.5 times by 2030 from 2000 levels, with Kuwait and Oman registering the highest CAGR of 3.8%. Diabetes patients in Saudi Arabia are projected to

average of US$ 519. The same pattern of lower insurance coverage is prevalent in the healthcare sector with only 10% of the GCC population covered under a health insurance program. However, latent potential in the form of an under-

penetrated health insurance market is slowly unlocking with the introduction of mandatory medical insurance for expatriates. Most GCC countries are framing legislative policies to mandate employers to provide basic healthcare services, including insurance, to their expatriate employees. The expatriate workforce forms about 40–80% of the total population of the GCC countries.

Saudi Arabia was among the first GCC nations to mandate medical insurance for expatriates in January 2006; the law required all employers with more than 500 expatriate workers to provide private health cover to their expatriate employees.

This was later extended in two phases - first, to firms with over 100 expatriate employees, and then in September 2008 to firms with more than 50 international employees. The mandatory insurance has now been extended to Saudi nationals as well. All GCC countries are either following or are intent on following the same path – mandating health insurance for corporations employing expatriates and eventually covering nationals too (See chart 7).

Chart 7. Health Insurance outline in GCC Countries

Bahrain	▪ General Organization for Social Insurance (GOSI) provides insurance services to expatriate workers ▪ Mandatory insurance for expatriate workers in companies with more than 500 employees in planning phase; expected to be introduced in 2009-10
Saudi Arabia	▪ 2006 – Regulation was passed requiring compulsory health insurance for firms with more than 500 expatriate employees ▪ 2007 – Law extended to firms with more than 100 expatriate workers ▪ 2008 – Law extended to firms with more than 50 expatriate workers ▪ 2009 – Extended to all companies
UAE	**Abu Dhabi** ▪ 2006 – Health insurance made compulsory for expatriates of companies with more than 1,000 employees ▪ 2007 - Health insurance mandated for all expatriates ▪ 2008 – Health insurance plan extended to all UAE nationals in Abu Dhabi **Dubai** ▪ Plans to introduce mandatory health insurance for expatriates and nationals by 2010
Qatar	▪ Plan to introduce compulsory health insurance for expatriates ▪ On producing a government issued card, non-nationals can avail subsidized healthcare services at government hospitals
Kuwait	▪ Expatriates need to pay health insurance premium to the government if they don't have any other private/company funded health insurance
Oman	▪ Mandatory health insurance law at planning stage

Source: Each country's Ministry of Health and WHO

3 GLOBAL HEALTHCARE INDUSTRY

Although the global recession presents great challenges to business worldwide, the healthcare service market remains one of the few recession proof sectors, along with education and entertainment industries. A growing and ageing population, increasing prevalence of chronic diseases and globalization of medical services have enhanced the necessity of profound healthcare service systems globally.

3.1 Global healthcare growth outpaces GDP growth

The global healthcare market remains growth-oriented. The past three decades have seen the sector grow at a rate higher than GDP growth in western countries. As one of the world's fastest growing industries, global healthcare sector spending hovers around 8–10% of GDP with around 50–60% contribution from the public sector and the rest from the private sector.

3.2 The US leads in the healthcare space

The US leads the global healthcare market with more than 750,000 physicians and 5,200 hospitals. The country registers approximately 3.8 million inpatient visits and 20 million outpatient visits a day. Furthermore, the US has the largest healthcare workforces – one in every 11 US residents is employed in healthcare or peripheral businesses.

3.3 Health-related expenditure on a sequential rise

Global healthcare expenditure has been increasing steadily owing to surging demand for improved healthcare services. In 2006, global expenditure on health accounted for 8.7% of the world's GDP, rising from 8.2% in 2000. The proportion of government's expenditure on healthcare more or less remained constant at around 57% during 2000–2006. The average per capita spending on healthcare increased considerably from US$ 473 in 2000 to US$ 716 in 2006 (See chart 8).

Chart 8. Improving Health Expenditure Ratio

Health Expenditure Ratio	2000	2006
Total expenditure on health as % of gross domestic product	8.2	8.7
General government expenditure on health as % of total healthcare expenditure	56.6	57.6
Private expenditure on health as % of total healthcare expenditure	43.4	42.4
Per capita total expenditure on health at average exchange rate (US$)	473	716

Source: WHO

3.4 Key growth drivers

The key factors driving such remarkable growth in the healthcare sector are favorable demographic changes (growing and ageing population), increased incidence of non-communicable diseases, constant medical improvements and increasing budgetary allocation to the sector. The sector has seen significant activity in terms of innovations in technology, driven by strong economic pressures on individual countries to reinvent their healthcare systems and ensure efficient service delivery.

➢ *Demographic changes*

At present, the population aged above 64 years represents over 8.7% of the world's total. This number has been increasing rapidly over the past few years owing to the advancement in medical technology and is in turn driving the demand for healthcare worldwide.

➢ *Increasing incidence of non-communicable diseases*

By 2030, deaths due to cancer and cardiovascular ailments are together expected to account for 70% of the total number of deaths, translating into huge demand for related healthcare services.

➢ *Constant advancement in medical technology*

Constant innovation in the fields of drug discovery and development, new cures and treatments, gene testing for insurance, genetic predictions of diseases, human cloning and reproductive technologies are important drivers of the medical industry.

3.5 Constraints and challenges

The healthcare sector faces problems in the form of rising costs and uneven distribution of healthcare service, not only across various regions of the world but also across geographies and income groups within each country.

➢ *Unsustainable healthcare costs in low income countries*

In a number of low-income countries, both the public and the private sector have been unable to sustain the rising costs of healthcare. External resources in the form of foreign aid have had to be employed to fund the healthcare sector in these countries. In some cases, external resources have accounted for over 66% of the country's total health expenditure. Considering that 65% of the world's population lives in lower-middle and low income countries, this is the most serious challenge for the healthcare sector worldwide.

➢ *Health inequities across regions and within countries*

A wide gap exists in the healthcare expenditures across various regions of the world. Although global expenditure on health was about 8.7% of GDP in 2006, it varied within a very wide range from 3.4% in South-East Asia to 12.8% in the Americas. The per capita expenditure was as low as US$ 31 in the South-East Asia region compared to US$ 2,636 in the Americas.

Moreover, there is significant inequality in healthcare availability within each country/region. Statistics collated by the WHO for 90 countries indicate that although per capita healthcare expenditures have increased substantially, the existing healthcare systems have not been successful in delivering facilities and care to all citizens. The chart below depicts the huge disparity that exists across urban and rural regions as well as across various income groups within a country.

To highlight key statistics from the chart, we take the median values for both indicators. While 88% of the urban births were attended by skilled medical personnel, only 50% of the rural delivery cases were under the supervision of any medical staff. In addition, a mortality rate under five amongst rural and lower income populations were significantly higher (median value of 99 and 121 per 1,000, respectively) than the mortality rate in urban and high income group (median value of 75 and 64 per 1,000, respectively). In both categories, disparity across income class is wider than across regions (rural and urban).

Chart 9. Health inequities across regions

Indicator		Urban	Rural	High Income class	Low Income class
Birth attended by skilled health personnel (%)	Maximum	100	100	100	100
	Minimum	30	3	27	1
	Median	88	50	94	35
Under-5 mortality rate (per 1,000 live births)	Maximum	250	279	187	257
	Minimum	10	19	16	22
	Median	75	99	64	121

Source: WHO

3.6 Shift from local service systems to global approach

The rise of a global healthcare marketplace is underway. There is a major shift from the traditional approach of keeping healthcare services localized to a new global citizen-driven approach of globalizing the healthcare service. Innovative business models are being thought of to globalize the concept of healthcare service. The key elements of this new global approach to healthcare include:

➢ *Consumer mobility*

A large population lives away from their country of birth and a considerable fraction is always on the move for work-related assignments. This trend will likely increase, with the largest markets in Western Europe, the Middle East, North America and East Asia region. Increased consumer mobility necessitates the creation of a healthcare system that supports the entire population's healthcare needs anywhere across the globe.

➢ *Medical tourism*

The rising popularity of the concept of medical tourism has also fuelled the need for a global healthcare system. Significant cost arbitrage and quality concerns are promoting the concept of medical tourism. At present, over 100 hospitals worldwide have an accreditation from the Joint Commission International (JCI), a body providing internationally recognized accreditation.

➢ *Fading language barriers*

English is increasingly becoming the lingua franca of medicine across the globe. At the same time, an increase in migration to Europe and the US from Latin America, Asia and Africa is creating preference towards medical professionals, who are trained and have gained practical knowledge outside their countries. This is because the hospitals stand a better chance to cater to a diverse patient base if it has doctors with diverse geographical experience.

4 GCC HEALTHCARE

4.1 Overview and Structure

4.1.1 GCC healthcare remain buoyed by demand-push factors

The GCC government healthcare spending stood at US$ 25.7 billion, around 3% of GDP, in 2007. The market for healthcare services was estimated at US$ 15.8 billion for the same year. The sector has exhibited significant growth over the past few years, primarily driven by demand push factors including a rising population – nationals as well as expatriates, demographic shift towards an ageing population and rising incidents of lifestyle diseases. In addition, the sector is now able to reduce medical imports from neighboring countries as the GCC healthcare industry moves to higher quality standards and more international players enter the market.

4.1.2 Public sector dominates the GCC healthcare landscape

With over 75% of the total healthcare expenditure in the region incurred by the public sector, the government remains the chief financier and provider of healthcare in the region. The Ministry of Health (MoH) in each of the GCC countries is responsible for provision of healthcare services in their respective country and looks after the regulatory requirements of the sector.

Slicing it further, the healthcare providers in the region can be categorized into three segments – MoH, non-MoH public sector entities and the private sector. Although the MoH is the chief public sector organization providing healthcare services, a number of other public sector entities, including military, national guards, security forces and university hospitals, also cater to the healthcare needs in the region. Although their contribution to the total healthcare expenditure is meager compared to the MoH, their role in the provision of healthcare services to the population cannot be underplayed.

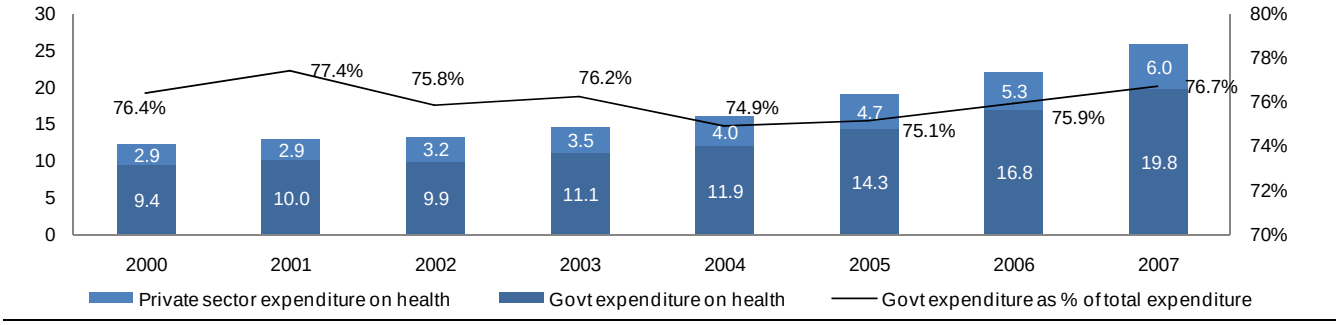
In spite of the considerable efforts and costs expended by both the MoH and other public sector entities to provide healthcare service in the region, the sector has been facing challenges in keeping up with the rising healthcare demand. The government has therefore been encouraging the participation of the private sector to ensure efficient and effective provision of healthcare service.

Although private sector health expenditure is rising, it has not kept pace with growth in overall healthcare expenditure resulting in a declining share in total healthcare spending (See chart 10).

4.1.3 Saudi Arabia largest overall while Qatar scores highest on per capita metric

Of the six countries constituting the GCC, Saudi Arabia, the most populous country, commands the largest share of total expenditure on healthcare. With 68.4% of the GCC region's population living in Saudi Arabia, the country accounted for 53% of the region's total expenditure on healthcare in 2007. However, Qatar scores highest on per capita parameters, with per capita health expenditure of US$ 3,416 in 2007,

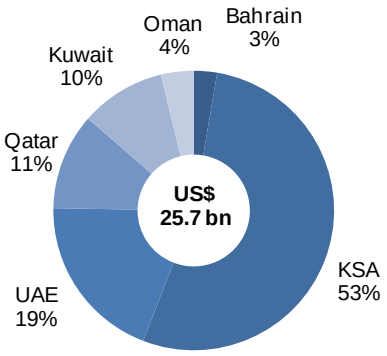
Chart 10. GCC – Healthcare Expenditure in US$ billion (2000–2007)



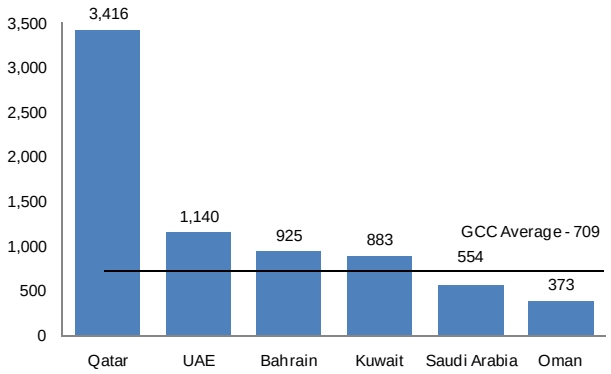
Source: WHO

Chart 11. GCC –Aggregate and per capita healthcare expenditure (in US$) for 2007

Saudi Arabia commands the bulk (53%)



Qatar per capita spending is 4.8 time the GCC average



Source: WHO

comparable to that of developed markets (See chart 11).

4.1.4 Unstructured regulatory landscape

The MoH is the statutory health authority in all GCC countries and is responsible for oversight of the development of the health system. However, the same body is also the leading healthcare service provider in each of the countries. This situation seems a major limitation from foreign investors' perspective, who prefer an independent regulatory body.

In terms of policy framework, the GCC countries are currently in different stages of designing/amending regulatory policies to:

- Diversify source of healthcare spending (from government to independent insurers)
- Boost private sector involvement in the sector
- Provide a level playing field for all players – public, private and foreign

Regulatory reform is taking place...

Gulfnews.com, 2008:

Five new health agencies will replace Dubai's Department of Health and Medical Services (Dohms) by the end of 2012. The new agencies are Dubai Medical Regulatory Agency, Dubai Hospitals Agency, Dubai Primary Care Agency, Dubai Ambulance Agency and the Shared Services Agency.

The Dubai Medical Regulatory Authority (DMRA) will set standards and regulate the public and private healthcare sectors. Dubai Hospitals Agency will run the government hospitals while Dubai Primary Care Agency will take care of government clinics and primary healthcare centres. Dubai Ambulance Agency will take over the existing Unified Ambulance Services while Shared Services Agency will cover IT and other services.

The new agencies will function under the umbrella of DHA. They will be independent and have their own budgets and policies. The only role the DHA and Executive Council will have is of appointing CEOs to each agency.

4.1.5 GCC healthcare quality lags behind international standard

There has been significant progress in the quality of healthcare services in GCC region over the past few years. This is indicated by the improving health indicators in the region – life expectancy has risen and mortality rates have fallen considerably during the past few years (See chart 12). Increasing government expenditure on the sector together with growing private sector participation has resulted in improved efficiency and quality of healthcare services.

However, the region lags behind developed economies like the US, the UK, Japan and Canada in terms of key healthcare parameters. Per capita total expenditure on health at average exchange rates for the entire region was US$ 631, lower than the global average of US$ 716 in 2006 and far lower than the developed nations' average of US$ 4,182 per capita. Life expectancy in the region is considerably lower than developed economies and the infant mortality rate has not been controlled adequately.

The primary reason for this is the region's overall low spending on healthcare, which accounts for only 2-4% of GDP compared to 8% in Europe and 11.4% in the US in 2007. Moreover, the sector faces several supply side constraints in terms of lower than adequate availability of medical infrastructure and human resources to cater to the rapid rise in demand for healthcare services. There is inequitable distribution of medical facilities, with remote areas having limited access to medical care. This is the primary reason for the higher infant mortality rate as doctors and nurses fail to provide assistance in child delivery due to lack of proximity.

Chart 12. The GCC compared to other countries

Parameter	Year	Japan	Canada	UK	US	China	Thailand	GCC
Life expectancy at birth (years)	2007	83	81	80	78	74	70	**75.3**
HALE[2] – Male at birth (years)	2007	73	71	71	68	65	59	**66.0**
HALE – Female at birth (years)	2007	78	75	73	72	68	65	**66.7**
Total expenditure on health as % of GDP	2006	8.1	10	8.2	15.3	4.6	3.5	**3.0**
Government expenditure on health as % of total expenditure on health	2006	81.3	70.4	87.3	45.8	40.7	64.5	**75.7**
Private expenditure on health as % of total expenditure on health	2006	18.7	29.6	12.7	54.2	59.3	35.5	**24.3**
Per capita total expenditure on health at average exchange rate (US$)	2006	2,759	3,917	3,332	6,719	94	113	**631**
Out-of-pocket expenditure as % of private expenditure on health	2006	80.8	49	91.7	23.5	83.1	76.6	**64.7**

Source: WHO – World Health Statistics – 2009

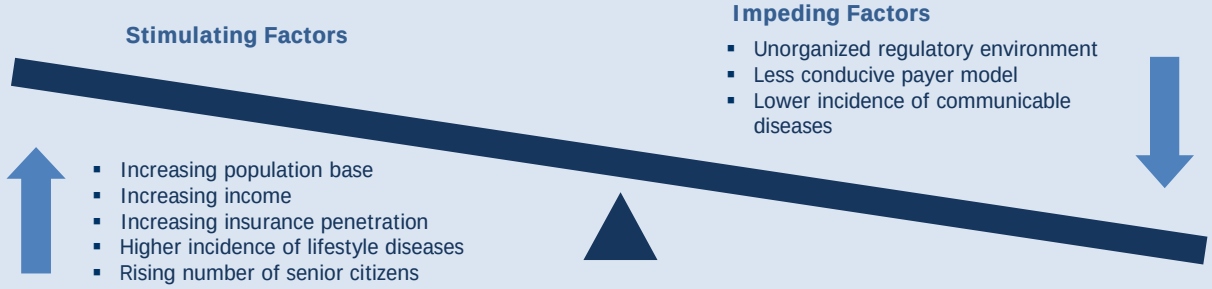
[2] HALE – Health adjusted life expectancy

4.2 Emerging Trends

4.2.1 Growing private sector participation

In an attempt to meet the soaring healthcare demand, governments in the GCC countries are encouraging the private sector to play a larger role in the market. GCC healthcare is characterized by low private sector penetration, which currently stands at 25% of expenditure. The private sector accounts for only 28% of the total healthcare spend in Saudi Arabia and as little as 15% market in Oman. Bahrain registers the highest rate of private sector involvement at more than 33%.

Stimulating factors for private sector growth outweigh impeding factors



To achieve the levels of funding and specialty treatment needed, governments are keen to increase private participation in the healthcare sector, be it by buying equity stakes in health initiatives, developing new projects or outsourcing management of existing public hospitals. Saudi Arabia, for example, is considering privatizing or outsourcing the management of more than 200 public hospitals. Moreover, the governments commit to reimburse fees for a minimum number of patient visits to private hospitals even if the number of actual patient visits is lower. Other incentives such as interest-free loans and partnership schemes are being promoted to make the sector more appealing for potential private investors.

Regional leader: The reforms are meeting with a positive response, especially in the UAE, where the healthcare sector is undergoing radical changes. According to MEED, private capital is funding about two-thirds of the new hospital capacity under construction in Dubai.

4.2.2 Technology enhancement is gathering momentum

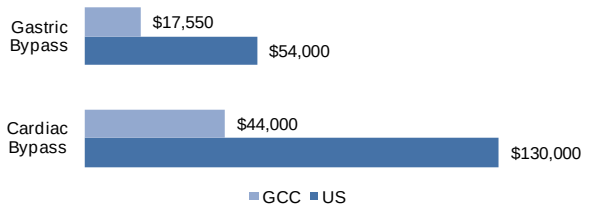
The GCC countries are showing interest in improving the healthcare services systems through investment in information technology. The role of technology in healthcare is rapidly growing in the GCC region, as these solutions influence every aspect of healthcare and hospital management and lead to improved deliveries and cost efficiencies. Moreover, Healthcare Information and Management Systems Society (HIMSS) has established an educational advisory committee with representatives from the Gulf region's health ministries and healthcare providers.

Regional leader: Among GCC nations, Qatar spends the most per capita spent on healthcare technology initiatives. Furthermore, the country also plans to start an e-health program in hospitals and clinics nationwide. The e-health program would include an electronic health record (e-HR) for every citizen to improve quality of patient treatment as well as reduce overall administration costs. It is expected that by 2011, 80% of clinicians in Qatar will have access to e-HR.

4.2.3 Medical tourism finding footprints

Medical tourism is a growing industry in the GCC with several patients now seeking treatment in high-class hospitals in the GCC rather than in the US or Europe primarily due to significant cost arbitrage. The global medical tourism industry is currently valued at US$20 billion and is expected to grow to US$60 billion within the next 10–15 years.

Chart 13. Medical treatment cost arbitrage



Source: www.arabianbusiness.com

Regional leader: Among the GCC countries, the UAE is the most lucrative market for medical tourism, as it possesses an efficient healthcare infrastructure and offers good quality healthcare services at a relatively low price (See chart 13). The country has a number of exclusive healthcare zones, such as Dubai Healthcare City (DHCC) and Shaikh Khalifa Medical City, delivering high quality services.

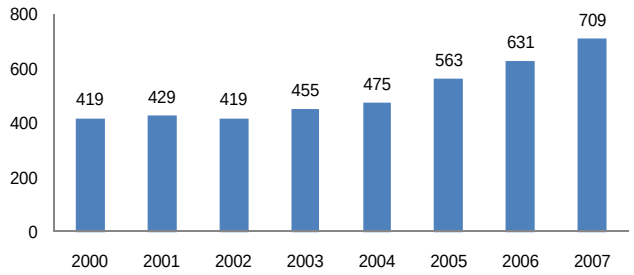
4.2.5 Growing healthcare infrastructure

As the healthcare sector is growing, the GCC countries are increasing their healthcare infrastructure investment. Moreover, healthcare infrastructure is also developed in the form of healthcare cities and e-health initiatives by Gulf governments such as the DHCC and the King Abdulaziz Medical City. GCC governments have expressed keen interest in promoting the concept of healthcare centers in view of several socioeconomic benefits attached to such projects. Apart from being profitable as real estate projects, it offers high quality medical services as hospitals get monitored by regulators of these healthcare cities. Moreover, establishment of such health cities opens opportunities in the area of higher medical education and research.

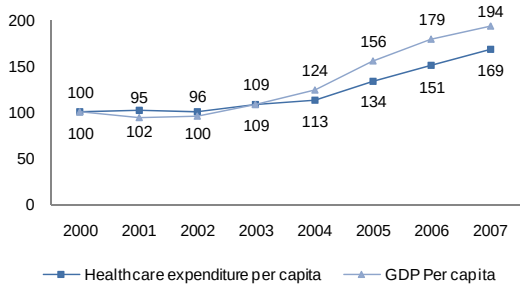
The multi-billion DHCC project has boosted Dubai's image as a destination for medical tourism and attracted medical professionals and patients worldwide. The DHCC is developed by the UAE government to create a regional center of excellence for medical services, medical education, and research and development activities.

Chart 14. GCC Per capita spending on healthcare

Rising healthcare per capita spending…



…however, lags the GDP per capita growth



Source: WHO

*rebased to 100

4.2.4 Rising per capita health spending

Healthcare continues to flourish, led by rising healthcare spending in the region. As the GDP per capita is increasing, per capita spending on healthcare is also on the rise (See chart 14).

Although per capita healthcare expenditure is rising, spend as a percentage of GDP remains lower than global peers. With GDP linked largely to the price of oil, it is perhaps not surprising that there is no more than a loose link between GDP and healthcare spending. Rising prosperity should however lead to higher healthcare spending over time.

Chart 15. Ongoing healthcare construction activities

Bahrain	▪ Major healthcare project ongoing in Bahrain incl. US$1bn Bahrain Health Oasis project ▪ Around 1,000 hospital beds are expected to be added in the country in the next five years
Kuwait	▪ Kuwait has a one major hospital project under construction - the $1.3 billion Jaber Al Ahmed Al Sabah Hospital ▪ Minimum 3,000 beds to be added by 2016
Oman	▪ Oman is the least active market in the region ▪ As of December 2007, it had 50 public hospitals and 160 clinics, along with five private hospitals and 787 clinics
Qatar	▪ The largest healthcare project under way in Qatar is the US$2.3bn Sidra Medical & Research Centre at Education City ▪ As of 2007, the country had 9 hospitals and 23 health centers
Saudi Arabia	▪ Saudi government allocated $14bn (10.9% of total government expenditure) to the healthcare sector in 2009. Plans include the construction of 86 hospitals and primary care facilities ▪ The country is building a series of smaller hospitals to improve the coverage of its public health system, rather than concentrating on mega projects
UAE	▪ Major construction activity is undergoing in the UAE, as a measure to promote medical tourism activity in the region ▪ Hospital projects of some 9,000 additional beds announced

Source: MEED database and other news articles

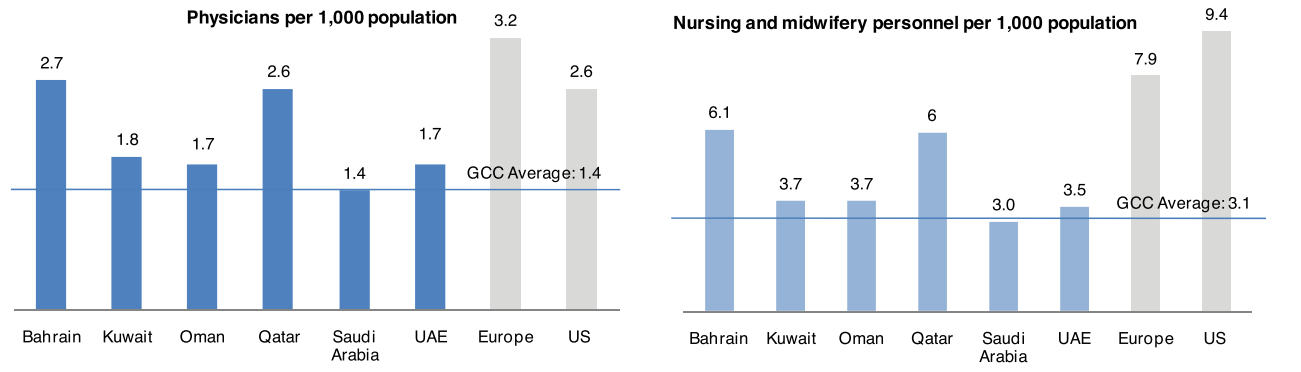
4.3 Key Challenges

Investment in the Gulf's healthcare sector is trailing behind the development of the rest of the economy. Consequently, standards of treatment in some areas fail to match patients' expectations, with a high numbers of complaints over sub-standard service, equipment shortages and waiting times in state-funded hospitals. Billions of dollars of investment is needed to bring existing facilities up-to-the mark and to build new treatment centers to cope with increased patient numbers. In addition, new fields of medical expertise need to be developed in line with changing disease patterns and demand for better care.

investment, success of these strategies would be challenged as long as the region faces a shortage of medical professionals.

Moreover, the region depends excessively on expatriate healthcare professionals, particularly in the higher profile category of surgeon and specialty experts. The proportion of expatriate population in the total pool of physicians ranged from 20% in the case of Bahrain to as high as 80% in Saudi Arabia in 2006. Similarly, expatriates constituted around 40% of all nurses in Oman while the ratio in the UAE was as high as 92%. The expatriate workforce brings its own problems, including poor communication on health issues due to language constraints, cultural differences and a very high attrition rate.

Chart 16. Physicians and Nurses per 1,000 population: 2007



Source: WHO

4.3.1 Shortage of healthcare professionals

The GCC healthcare sector faces a severe shortage of healthcare professional workforce. The GCC average of physicians and nurses per 1,000 population is substantially lower than Western countries. The availability of doctors in the Gulf averages 1.7-2.7 per 1,000 people, compared with 3.2 per 1,000 people in Europe (See chart 16).

However, the shortage is more serious in the nursing field. Qualified nursing personnel are a critical element in supporting patient care and the work of healthcare teams. In its absence, growth of the sector could be impacted. Although the GCC governments are implementing strategies to invest in and develop their national medical infrastructure to serve the region's growing population, and attract foreign

The MoHs are making efforts to promote human capacity building in the GCC health sector in an attempt to resolve the human resources problems. Two GCC bodies, the Health Specialization Council and the Nursing Specialization Council, have been formed to improve the quantity and quality of medical professionals in the region. These bodies, along with the governments in the GCC countries, are working to enhance quality and increase the number of number of medical institutes in the region.

Following are key developments in the area of medical education in the GCC region.

Chart 17. Measures to attract healthcare professionals in the region

Steps	Key Examples
Establish new medical, para-medical and nursing institutes	▪ Establishment of King Saud University of Health Sciences, Saad College of Nursing, Allied Health Sciences and 400-bed hospital and a medical and pharmaceutical college at Umm al-Qura University in Mecca ▪ Kuwait is planning to open a medical faculty and 600-bed teaching hospital at Shadiyah
Tie-ups with western medical universities to upgrade local institutes to international standards	▪ Abu Dhabi signed an agreement in February this year with two German universities, Munich Technical University and the University of Bonn, to establish a college for medicine and health sciences in the emirate ▪ Qatar's "Education City" houses several branches of renowned American universities ▪ The Royal College of Surgeons in Ireland-Medical University of Bahrain established in 2004 ▪ Establishment of Harvard Medical School at Dubai Healthcare Centre
Scholarship schemes for eligible nationals opting for medical education	▪ Tuition fees and expenses of eligible Qatari students at Carnegie Mellon University, Qatar, reimbursed by Supreme Education Council ▪ UAE students enrolled at Dubai Healthcare City receive 100% financial aid from UAE government
Encourage establishment of private medical colleges	▪ Abu Dhabi University, a private university, signed a MoU with two German universities to establish a private college for Medicine and Health Sciences
Incentivize foreign medical education providers to set-up institutes	▪ Expenses incurred in setting up foreign universities in Qatar are taken care of by the Qatari government

Source: MEED, company website, Zawya

4.3.2 Continued import of medical treatments

The expatriates in the GCC prefer their native country for medical treatment over hospitals in the GCC. This is primarily because the majority of residents remain unsatisfied with the availability and quality of medical care at government-run hospitals and clinics in the GCC. There is a severe shortage of medical specialists along with a lack of managerial skills in the government-run hospitals and healthcare centers. Moreover, government hospitals and clinics are not well prepared to handle the growing prevalence rate of chronic diseases such as cancer and other cardiovascular diseases, which require specialty treatment.

To raise standards of healthcare and attract expatriates and foreign nationals to avail medical facilities, some GCC governments have encouraged internationally renowned hospitals and academic institutions to establish facilities in the region. However, more participation from the private sector is required to meet the growing demand in the future.

4.3.3 Overdependence on government funding

The GCC healthcare sector is over dependent on government funding. As medical care is free in government hospitals, these hospitals enjoy an occupancy nearing 80%; whereas, private hospitals not affiliated with the government operate at significantly lower capacity. Patients tend to pay private

providers for diagnoses and then go to a free public hospital for treatment.

Considering the rising population and increased health awareness among residents, the healthcare sector is growing in the region, thereby also increasing the burden on the government. With reduced petrodollars in some regions (e.g. Dubai), the governments may be unable to fund/subsidize healthcare provision and private-sector help will be needed. Therefore, fundamental changes are called for in the government's role as a payer, provider and regulator of healthcare services.

4.4 The Way Forward

4.4.1 Public Private Partnership

One way forward for the sector in uncertain economic times is private public partnerships (PPP). The scarcity of finance to launch new projects and to complete those in the pipeline could be met through PPP deals, in which private and public entities forge long-term equity and management partnerships. Moreover, the PPP model is highly desirable for projects with long gestation periods wherein the government provides long term commitments for funding and private players bring capital, expertise and experience to international standards.

Abu Dhabi exemplifies a successful PPP model. The General Authority of Health services was divided into these entities: Abu Dhabi Health Authority, Daman – the health insurance firm and SEHA – the corporate entity that owns and manages hospitals.

4.4.2 Focused approach to growth in medical tourism

Currently, there is a need to identify areas of medical tourism that can be boosted. Areas characterized by over-capacity, or those not required by the local population, could be the initial target. An accreditation process has to be in place to ensure that the quality of facilities and services provided meets global standards. There is also a need to create governing bodies to overlook the activities of government, semi-government and private health authorities in the healthcare space.

4.4.3 Need for numerous super-specialty centers

Rising incidence of lifestyle diseases calls for greater demand for specialty medical care. A large proportion of this specialty service demand either remains unmet or lacks quality, leading to enhanced preference for treatment abroad, particularly by expatriates. Given that such diseases will be rising significantly going forward, there is a serious need to establish super-specialty centers across the GCC. Establishment of such centers will have added advantage such as curbing expenditure on sending patients abroad. Moreover, as these centers will attract high-end medical professionals, they will promote research activities and proliferation of higher medical education in the region.

4.4.4 Business-unit type framework for MoH sponsored hospitals

Lack of accountability is the root cause of inefficiencies and quality-related problems in the government hospitals, particularly those funded by the MoH. The majority of these hospitals have no periodical budget or performance and efficiency targets. Hospital managements have no incentive to maintain and timely update payroll, and patient-related records. Moreover, many times, costs are simply not considered while deciding the purchase of equipment and other hospital utilities.

Converting these hospitals into a separate business unit is a probable solution. Under the separate business unit set-up, each hospital will be evaluated objectively on how it uses its budgets and how it serves the markets, thus providing a sense of accountability.

4.4.5 Higher awareness to curb lifestyle diseases

The region currently faces the threat of rising lifestyle diseases. Education and health awareness plays a key role in curbing the occurrence of these diseases. More emphasis on preventive medicine and encouraging people to take proactive measures is required to avoid an epidemic progression of lifestyle diseases in the GCC.

4.4.6 Independent regulatory body

The growing private sector participation will necessitate a more structured and independent healthcare regulator for both the public and private sector to set high quality standards and effective implement checks. Currently, the MoH is both regulator and major provider of healthcare services. More international investments – both direct and institutional will be available once sound and independent regulatory bodies are established.

4.4.7 Operational streamlining and optimization

Governments in the GCC countries are realizing that private operators bring a lot of experience in hospital

management, and they do it better than the government. The private sector can assist government hospitals in reducing cost while maintaining optimal patient volumes and leveraging economies of scale. In October 2008, the Saudi government announced plans to privatize or outsource the management of 218 government-run hospitals in the country.

Alpen Capital believes outsourcing of key government hospital activities will be a key industry driver in the coming years while gradual privatization of government hospitals is an attractive long-term prospect.

Country Profiles

Bahrain

Snapshot (2007)

Total number of beds	2,043
Total number of inpatient treatments	98,245
Total number of outpatient visits	5,035,958
Average length of stay (days)	5.0

Source: WHO, MoH

Overview

The market for health provision in Bahrain is growing strongly, aided by the strategic position next to Saudi Arabia. While, the Ministry of Health operates the main hospital in the country, there also exist several private hospitals and private general and specialized clinics, polyclinics and specialized centers.

Socio-economic indicators

Indicator	Year	Value
Population (million)	2008	0.77
Inflation rate (CPI average)	2008	3.5%
GDP (BHD billion)	2007	6.7
GDP per capita* (BHD)	2007	9,078

Healthcare status vs. regional average

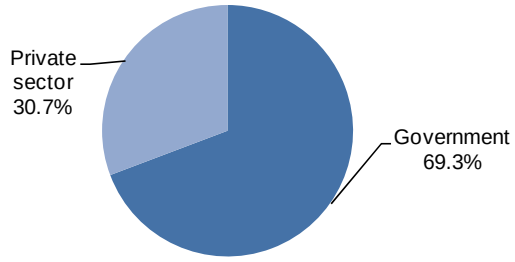
Indicator	Year	Bahrain	*GCC (Avg)*
Life expectancy at birth (years)	2007	75.0	75.3
Healthy average life expectancy (years)	2007	66.0	66.3
Healthcare expenditure as % of GDP	2007	3.9	3.1
Healthcare expenditure per capita at average exchange rate (US$)	2007	925	709

*Source: WHO, MoH, World Bank; * - GDP/Capita as per WHO Stats*

Healthcare expenditure landscape

Expenditure on healthcare represented 3.9% of Bahrain's GDP in 2007

Healthcare expenditure by sector (2007)



Source: WHO

Government expenditure (BHD million)	**181**
Ministry of Health (%)	79.7
Social Security Funds (%)	0.4
Others (%)	19.9
Private sector expenditure (BHD million)	**80**
Pre-paid and risk-pooling plans (%)	12.6
Non-profit institutions serving households – NGOs (%)	4.9
Out-of-pocket payments (%)	68.5
Others (%)	14.0

Sector qualitative assessment

Industry Positives

- Qualified and experienced staff
- Well-developed sector with good technology and facilities
- Strategic alliances with other nations, the WHO as well as other important organizations
- Measures being taken to enhance the healthcare workforce in terms of number and quality

Industry Negatives

- Unorganized sector in terms of healthcare delivery and coordination among various entities
- Rising incidence of lifestyle diseases

Key features and trends

Impressive measures for healthcare workforce development

Although Bahrain's expenditure on health is relatively low compared with other GCC countries, the healthcare sector in Bahrain has registered an impressive overall growth. The healthcare indicators for Bahrain are in line with the regional average. The country is particularly successful at human workforce development. A large number of nurses and allied health professionals graduate from the College of Health Sciences every year. The college also undertakes training programs for the expatriate workforce. Moreover, the Medical Equipment Directorate is the WHO's regional training centre for medical equipment repair and maintenance.

Rising prevalence of non-communicable diseases

Although Bahrain has achieved commendable success in curbing communicable diseases through extensive immunization programs, it is facing difficulties due to the rising incidence of non-communicable diseases. Affluence diseases such as diabetes, cancer and cardiovascular ailments are prevalent in Bahrain and are becoming the leading causes of death in the country. A few viral infections such as gonococcal infection, syphilis, and viral hepatitis are also on the rise.

Rising healthcare cost

To cope with the rising healthcare cost, the government is encouraging the participation of the private sector to ensure comprehensive healthcare delivery to all.

Future outlook

Indicators	2005–10	2010–15	2015–20	2020–25	2045–50
Birth rate (per 1,000 people)	18.0	17.2	15.5	13.9	13.1
Death rate (per 1,000 people)	3.3	3.4	3.6	4.1	8.6
Life expectancy at birth (years)	75.8	76.5	77.2	77.9	80.4
Infant mortality rate (per 1,000 live births)	11.2	9.9	9.2	8.6	6.3
Population above 60 years as a % of total population	5.0	6.3	8.9	11.5	21.5

Source: World Bank

Kingdom of Saudi Arabia (KSA)

Snapshot (2007)

Total number of beds	53,519
Total number of inpatient treatments	2,792,106
Total number of outpatient visits	122,674,166
Average length of stay (days)	3.0

Source: WHO, MoH

Overview

Saudi Arabia has the largest healthcare market in the GCC. It is one of the most developed and technologically advanced medical sectors in the Middle East, with modern equipment and amenities. The healthcare professionals have an international recognition and are familiar with Western practices and standards.

Socio-economic indicators

Indicator	Year	Value
Population (million)	2008	24.78
Inflation rate (CPI average)	2008	9.87%
GDP (SAR billion)	2007	1,430.4
GDP per capita* (SAR)	2007	51,840

Healthcare status vs. regional average

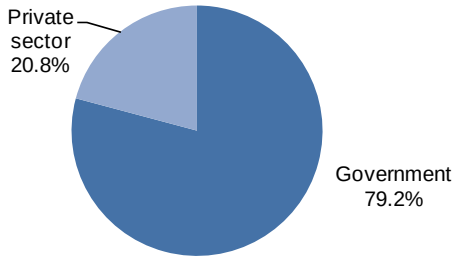
Indicator	Year	KSA	*GCC (Avg)*
Life expectancy at birth (years)	2007	73.2	75.3
Healthy average life expectancy (years)	2007	62.0	66.3
Healthcare expenditure as % of GDP	2007	3.6	3.1
Healthcare expenditure per capita at average exchange rate (US$)	2007	554	709

*Source: WHO, MoH, World Bank; * - GDP/Capita as per WHO Stats*

Healthcare expenditure landscape

Expenditure on healthcare represented 3.6% of Saudi Arabia's GDP in 2007

Healthcare expenditure by sector (2007)



Source: WHO

Government expenditure (SAR million)	**40,636**
Ministry of Health (%)	NA
Social Security Funds (%)	NA
Others (%)	NA
Private sector expenditure (SAR million)	**10,693**
Pre-paid and risk-pooling plans (%)	53.5
Non-profit institutions serving households – NGOs (%)	1.8
Out-of-pocket payments (%)	11.3
Others (%)	33.4

Sector qualitative assessment

Industry Positives

- Advanced sector with state-of-the-art facilities and technology
- Rapid development in the kingdom due to a booming economy

Industry Negatives

- MoH unable to cope with the rising healthcare costs
- Limited healthcare workforce
- Lack of coordination among various concerned entities due to absence of a National Health Information System
- Growing incidence of non-communicable diseases

Key features and trends

Privatization of the healthcare sector

In view of rising demand for healthcare services, the government has been aggressive in implementing policies to increase the participation of the private sector. As a result, the private sector has seen significant growth in the healthcare sector over the past decade, accounting for 57% of newly established hospitals and 54% of incremental bed capacity.

The major factors that have led to the expanding role of the private sector include:

Specialized treatment offered by the private sector
Superior quality of services and facilities
Long waiting lists at the public sector health centers

Limited availability of qualified and experienced health personnel

Saudi Arabia's healthcare sector faces a shortage of qualified and well-trained healthcare workforce.

Only 20% of doctors and nurses in the Kingdom are nationals
More than 50% of technicians are non-Saudis
A considerable fraction of Saudis in the health field are occupied in administrative functions
There is a disproportionate distribution of health personnel with a high concentration in urban areas

The development of an efficient workforce is necessary to enhance the quality of health services provided in the country. The sector requires considerable investments in medical education and allied health disciplines from both the public and private sectors.

Emerging concept of "Family medicine"

Although there are close to 2,000 primary healthcare (PHC) centers across the Kingdom, providing free curative, preventive, and rehabilitative services, many remote areas in the Kingdom do not have access to PHC centers. The government is making efforts to ensure PHC to all segments of the society across the entire kingdom. The Ministry of Health that looks after healthcare service in the kingdom is now attempting to develop more coherent family practitioner practices at the PHC level. Family medicine is being developed as a clinical specialty, and 'mini-clinics' have been established for chronic disease care.

Healthy Cities Program

Saudi Arabia Ministry of Health has sponsored the Healthy Cities Program to cover environmental health (food and water safety and chemical and radiation safety) in the kingdom. The Healthy Cities project covers 20 cities.

Future outlook

Indicators	2005–10	2010–15	2015–20	2020–25	2045–50
Birth rate (per 1,000 people)	24.6	22.3	20.4	18.6	13.2
Death rate (per 1,000 people)	3.7	3.7	3.8	4.1	7.9
Life expectancy at birth (years)	73.0	74.0	75.0	75.8	79.0
Infant mortality rate (per 1,000 live births)	18.8	16.4	14.3	12.6	8.1
Population above 60 years as a % of total population	4.5%	5.3%	6.8%	9.0%	19.0%

Source: World Bank

Qatar

Snapshot (2006)

Total number of beds	2,112
Total number of inpatient treatments	108,181
Total number of outpatient visits	2,831,172
Average length of stay (days)	5.0

Source: WHO, MoH

Overview

The quality of healthcare provided in Qatar is high and on par with that in industrialized countries. The sector's development reflects in the constantly improving health indicators of the country. It has a referral system in place, which ensures free healthcare service to all nationals as well as expatriates.

Socio-economic indicators

Indicator	Year	Value
Population (million)	2008	1.33
Inflation rate (CPI average)	2008	15.05%
GDP (QAR billion)	2007	258.6
GDP per capita* (QAR)	2007	317,328

Healthcare status vs. regional average

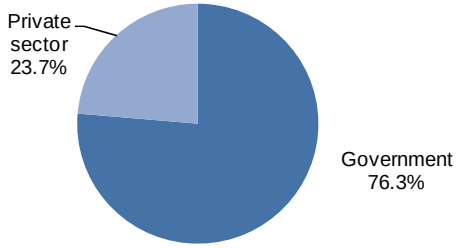
Indicator	Year	Qatar	*GCC (Avg)*
Life expectancy at birth (years)	2007	76.0	75.3
Healthy average life expectancy (years)	2007	67.0	66.3
Healthcare expenditure as % of GDP	2007	4.0	3.1
Healthcare expenditure per capita at average exchange rate (US$)	2007	3,416	709

*Source: WHO, MoH, World Bank; * - GDP/Capita as per WHO Stats*

Healthcare expenditure landscape

Expenditure on healthcare represented 4.0% of Qatar's GDP in 2007

Healthcare expenditure by sector (2007)



Source: WHO

Government expenditure (QAR million)	**7,979**
Ministry of Health (%)	NA
Social Security Funds (%)	0
Others (%)	NA
Private sector expenditure (QAR million)	**2,475**
Pre-paid and risk-pooling plans (%)	NA
Non-profit institutions serving households – NGOs (%)	NA
Out-of-pocket payments (%)	88.4
Others (%)	NA

Sector qualitative assessment

Industry Positives

- Investment in healthcare is a key priority for the State of Qatar

Industry Negatives

- Lack of coordination of strategic plans and policies of the Ministry of Health, the Hamad Medical Corporation and the Planning Council
- HIV/AIDS and hepatitis still prevalent in the country

Key features and trends

Management of communicable and non-communicable diseases

The major challenges faced by the Ministry of Health are the management of communicable diseases such as sexually-transmitted infections, HIV/AIDS, hepatitis and tuberculosis, as well as controlling the increasing incidence of non-communicable diseases.

Need for strengthening health system

There is a lack of clarity between different stakeholders regarding health policy analysis, strategic health planning, priority setting and coordination for monitoring and assessment. In addition, the system is lax and needs improvement. Similarly, quality of care and efficient use of resources need attention.

Future outlook

Indicators	2005–10	2010–15	2015–20	2020–25	2045–50
Birth rate (per 1,000 people)	15.8	13.8	12.6	12.3	10.6
Death rate (per 1,000 people)	2.8	3.3	4.1	5.2	12.9
Life expectancy at birth (years)	75.4	76.2	76.9	77.5	80.2
Infant mortality rate (per 1,000 live births)	8.2	7.7	7.3	6.9	5.3
Population above 60 years as a % of total population	4.6	7.4	12.2	16.7	28.8

Source: World Bank

Kuwait

Snapshot (2006)

Total number of beds	5,797
Total number of inpatient treatments	277,179
Total number of outpatient visits	8,422,202
Average length of stay (days)	5.0

Source: WHO, MoH

Overview

Kuwait's healthcare sector is still at a developing stage and has been expanding rapidly. Although the Ministry of Health is primarily responsible for providing healthcare to Kuwait nationals, the private sector is playing an increasing role.

Socio-economic indicators

Indicator	Year	Value
Population (million)	2008	3.41
Inflation rate (CPI average)	2008	10.5%
GDP (KWD billion)	2008	42.5
GDP per capita* (KWD)	2008	12,672

Healthcare status vs. regional average

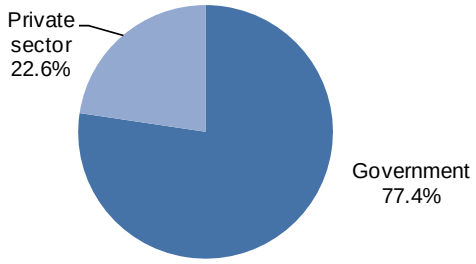
Indicator	Year	Kuwait	*GCC (Avg)*
Life expectancy at birth (years)	2007	78.6	75.3
Healthy average life expectancy (years)	2007	69	66.3
Healthcare expenditure as % of GDP	2007	2.2	3.1
Healthcare expenditure per capita at average exchange rate (US$)	2007	883	709

*Source: WHO, MoH, World Bank; * - GDP/Capita as per WHO Stats*

Healthcare expenditure landscape

Expenditure on healthcare represented 2.2% of Kuwait's GDP in 2007

Healthcare expenditure by sector (2007)



Source: WHO

Government expenditure (KWD million)	**553**
Ministry of Health (%)	100
Social Security Funds (%)	0
Others (%)	0
Private sector expenditure (KWD million)	**162**
Pre-paid and risk-pooling plans (%)	8.4
Non-profit institutions serving households – NGOs (%)	0
Out-of-pocket payments (%)	91.6
Others (%)	0

Sector qualitative assessment

Industry Positives

- Increased participation of the private sector in the healthcare arena
- Rapid increase in the number of hospitals and clinics in the country

Industry Negatives

- Shortage of nationals in the healthcare workforce; over 98% of nurses in Kuwait are expatriates
- Rising incidence of non-communicable diseases
- Inadequate awareness about health and diseases

Future outlook					
Indicators	**2005–10**	**2010–15**	**2015–20**	**2020–25**	**2045–50**
Birth rate (per 1,000 people)	17.4	15.3	14.0	13.4	12.3
Death rate (per 1,000 people)	2.0	2.4	2.9	3.5	8.7
Life expectancy at birth (years)	77.6	78.2	78.8	79.3	81.5
Infant mortality rate (per 1,000 live births)	8.1	7.6	7.2	6.8	5.3
Population above 60 years as a % of total population	4.2	5.9	8.7	12.0	22.9

Source: World Bank

Oman

Snapshot (2007)

Total number of beds	5,367
Total number of inpatient treatments	274,251
Total number of outpatient visits	15,083,173
Average length of stay (days)	2.5

Source: WHO, MoH

Overview

Despite achieving commendable success economically, Oman faces several challenges in the healthcare sector such as unequal distribution of healthcare in the region and the rapid transition in the pattern of diseases from communicable to non-communicable diseases.

Socio-economic indicators

Indicator	Year	Value
Population (million)	2008	2.63
Inflation rate (CPI average)	2008	12.6%
GDP (OMR billion)	2008	20.2
GDP per capita* (OMR)	2008	6,105

Healthcare status vs. regional average

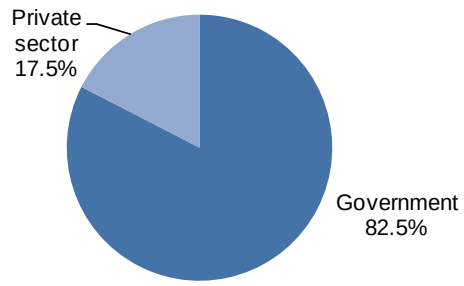
Indicator	Year	Oman	*GCC (Avg)*
Life expectancy at birth (years)	2007	74.0	75.3
Healthy average life expectancy (years)	2007	65.5	66.3
Healthcare expenditure as % of GDP	2007	2.4	3.1
Healthcare expenditure per capita at average exchange rate (US$)	2007	116	709

*Source: WHO, MoH, World Bank; * - GDP/Capita as per WHO Stats*

Healthcare expenditure landscape

Expenditure on healthcare represented 2.4% of Oman's GDP in 2007

Healthcare expenditure by sector (2007)



Source: WHO

Government expenditure (OMR million)	**307**
Ministry of Health (%)	77.5
Social Security Funds (%)	NA
Others (%)	NA
Private sector expenditure (OMR million)	**64**
Pre-paid and risk-pooling plans (%)	23.1
Non-profit institutions serving households – NGOs (%)	NA
Out-of-pocket payments (%)	58.2
Others (%)	NA

Sector qualitative assessment

Industry Positives

- Regional hospitals are being built, with referral system in place to rationalize use of services
- Health-related projects and community volunteers to educate communities on health issues and aid inter-sectoral collaboration
- Numerous Millennium Development Goals (MDGs) have already been achieved

Industry Negatives

- Inadequate access to water, sanitation and sewage services
- Over-prescription of medicines and over-use of hospitals
- Poverty prevalent in some places

Key features and trends

Healthcare workforce development

Expatriates form a major fraction of healthcare personnel in Oman. The government is taking measures to increase the number of Oman nationals in the healthcare workforce. In addition to the Sultan Qaboos University Medical College, the Ministry of Health has established several training institutes to train Oman nationals. However, there is also a concern that if a large number of young and inexperienced Oman nationals take over from qualified expatriates, it may adversely affect the quality of the healthcare provision in the region.

Shift from communicable to non-communicable diseases

Oman has been successful in controlling communicable diseases in the country. The immunization program in the country has been able to cover almost the entire population. There are several programs such as the HIV/AIDS control program established in 1987, which keeps a regular surveillance of the incidence of these diseases amongst the population. This has helped in restraining the incidence of communicable diseases in the country; however, there has been a significant increase in the number of patients with complex, non-communicable diseases.

Morbidity due to diseases such as hypertension and diabetes is increasing. The Ministry of Health is implementing programs and regional centers for the management of these diseases. An example of these measures is the establishment of a diabetes management protocol at the primary healthcare level.

Challenges in maternal and child health

The country has still not been able to ensure efficient healthcare service to pregnant women and infants. Anemia is rampant among pregnant women. Poor knowledge about post-natal care, inadequate infant feeding practices, poor maternal nutrition and hygiene are common causes for the prevalence of poor health conditions among infants. A number of congenital anomalies are found among infants as marriages between first and second cousins are quite common. There is an increasing need to create awareness about healthcare and post-natal care among women from the lower strata of the society.

Future outlook

Indicators	2005–10	2010–15	2015–20	2020–25	2045–50
Birth rate (per 1,000 people)	22.1	22.1	20.9	19.0	13.5
Death rate (per 1,000 people)	2.8	2.9	3.2	3.6	7.2
Life expectancy at birth (years)	75.7	76.7	77.4	78.1	80.6
Infant mortality rate (per 1,000 live births)	12.3	10.5	9.7	9.0	6.6
Population above 60 years as a % of total population	4.8	5.8	7.4	9.4	20.9

Source: World Bank

United Arab Emirates (UAE)

Snapshot (2006)

Total number of beds	5,348
Total number of inpatient treatments	442,306
Total number of outpatient visits	11,597,703
Average length of stay (days)	5.0

Source: WHO, MoH

Overview

The ealthcare sector in the UAE is one of the most organized in the GCC. Decentralization of the sector has helped in establishing an efficient healthcare service system in the region.

Socio-economic indicators

Indicator	Year	Value
Population (million)	2008	4.22
Inflation rate (CPI average)	2008	11.45%
GDP (AED billion)	2008	955.4
GDP per capita* (AED)	2008	206,727

Healthcare status vs. regional average

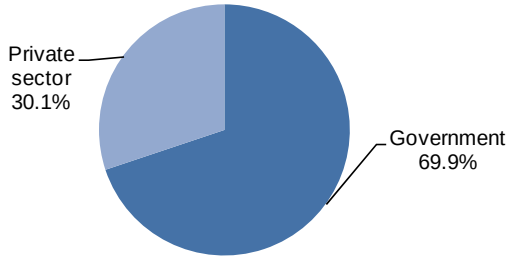
Indicator	Year	UAE	*GCC (Avg)*
Life expectancy at birth (years)	2007	76.0	75.3
Healthy average life expectancy (years)	2007	68.0	66.3
Healthcare expenditure as % of GDP	2007	2.5	3.1
Healthcare expenditure per capita at average exchange rate (US$)	2007	1,140	709

*Source: WHO, MoH, World Bank; * - GDP/Capita as per WHO Stats*

Healthcare expenditure landscape

Expenditure on healthcare represented 2.5% of UAE's GDP in 2007

Healthcare expenditure by sector (2007)



Source: WHO

Government expenditure (AED million)	**12,813**
Ministry of Health (%)	22.3
Social Security Funds (%)	NA
Others (%)	NA
Private sector expenditure (AED million)	**5,530**
Pre-paid and risk-pooling plans (%)	20.2
Non-profit institutions serving households – NGOs (%)	10.4
Out-of-pocket payments (%)	69.4
Others (%)	0

Sector qualitative assessment

Industry Positives

- Access to funds and adequate government support to invest in health
- Implementation of regionalization and decentralization due to federal nature of the country

Industry Negatives

- Outdated health-related laws, procedures and financing options
- Need to increase national health professionals to consolidate ongoing scattered health educational activities; lack of Internet infrastructure to deploy e-health solutions in healthcare institutions

Key features and trends

Organized healthcare service sector

The healthcare sector in the UAE is well organized with six different federated authorities and nine regionalized medical districts providing healthcare to the emirates in the country. The primary healthcare system is decentralized with 26 hospitals and 106 primary healthcare centers providing healthcare services to the entire population.

Good immunization coverage

Efficient immunization programs have made UAE a polio-free country and the country will soon be able to eradicate measles completely. There is also a marked decrease in the incidence of vaccine-preventable childhood diseases.

Association with external agencies

The UAE government is associated with the WHO for collaboration in coordination, joint planning, transparency, information sharing, and a few other logistic and administrative measures. The Ministry of Health has associations with UNDP and UNICEF, primarily for exchange of ideas and technical assistance for areas such as social and economic development, services, education, health and management.

Medical tourism

Dubai's city-state tourism predicts that the UAE would receive 11.2 million medical tourists by 2010. However it is still struggling to hold on to its own patients as the medical tourism in the UAE is mainly outbound. The UAE boasts 15 internationally accredited hospitals, but the treatment prices are double that of Southeast Asia. A cardiac bypass costs around US$ 130,000 in the US, compared with US$ 44,000 in the UAE. This same surgery costs around US$ 18,500 and US$ 11,000 in Singapore and Thailand, respectively. The UAE can excel if it follows a niche market plan and targets specific services.

Future outlook

Indicators	2005–10	2010–15	2015–20	2020–25	2045–50
Birth rate (per 1,000 people)	16.4	15.2	13.5	12.2	10.6
Death rate (per 1,000 people)	1.5	1.7	2.1	2.6	8.0
Life expectancy at birth (years)	78.9	79.5	80.1	80.6	82.8
Infant mortality rate (per 1,000 live births)	8.2	7.6	7.1	6.7	4.9
Population above 60 years as a % of total population	2.9	4.5	6.7	9.6	25.7

Source: World Bank

Company Profiles

Care Holdings

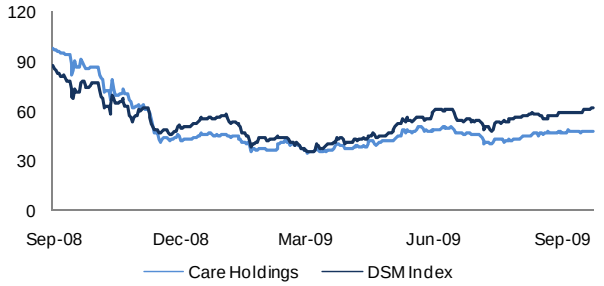
Publicly Listed

Stock Data

Bloomberg Ticker	MCGS QD Equity
Price	9.4
52 Week High/Low	17.1/6.8
Enterprise value (QAR million)	259.9
Market cap (QAR million)	264.6
6M avg. daily trading value (QAR thousand)	3,520.4

Stock Price chart

(rebased to 100)



Source: Bloomberg, Data as on 24th September 2009

Performance Summary

(US$ million)	2007	2008	% change
Revenue	17.7	38.2	115.8
COGS	13.1	27.1	106.9
Operating income	-5.9	-3.8	35.9
Operating margin (%)	-33.3	-9.9	70.1
Net income	-6.7	5.3	-179.1
Net income margin (%)	-37.8	13.8	-136.7
ROE (%)	-8.7	-1.0	88.5
ROA (%)	-4.3	2.6	160.4

Source: Bloomberg

Business description

The company is engaged in the establishment and operation of specialized hospitals in Qatar. It is actively involved in the promotion of medical services in Qatar. The company was established in 1996 and was known as Al Ahli Specialized Hospital Company QSC until June 2006. It was called Medicare Group until May 2008 and is now known as Care Holdings.

Segment and services

- **Segments**

  The company owns the Al-Ahli Hospital (AAH) (100% holding) and the Specialized Centre for Ophthalmology (50% holding). AAH has 250 guest rooms (including royal suites), 16 rooms for day surgery, 8 beds in the Neonatal Intensive Care Unit, 5 beds in the Intensive Care Unit and 5 beds in the Coronary Care Unit. The hospital is managed by Aus Health International, a major Australian healthcare company, under a contractual agreement.

- **Services**

  The AAH provides anesthesiology, cardiology, dentistry, dermatology, general surgery, gastroenterology, internal medicine, neurology, nursing, orthopedic, pathology, pediatrics, pharmacy, physiotherapy and radiology services. The Specialized Centre for Ophthalmology includes specialized clinics, eye clinics, hospitals with accommodation utilities and integrated medical services.

Recent developments and future plans

- **Technology advancement**

  In March 2009, the company introduced capsule endoscopy in Qatar. In February 2009, it launched SOMATOM Definition AS+, the highest performance scanner in the entire Middle East.

- **Expansion plans**

  The company plans to expand AAH by adding 500–650 new beds, three new buildings and additional workforce.

Gulf Medical Projects

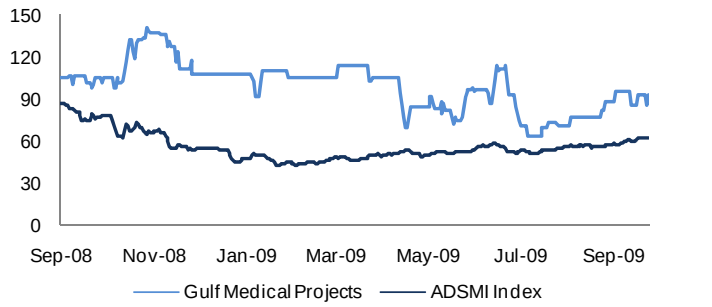
Publicly Listed

Stock Data

Bloomberg Ticker	GMPC UH Equity
Price	3.4
52 Week High/Low	5.1/2.3
Enterprise value (AED million)	2,105.8
Market cap (AED million)	1,774.5
6M avg. daily trading value (AED thousand)	125.6

Stock Price chart

(rebased to 100)



Source: Bloomberg, Data as on 24th September 2009

Performance Summary

(US$ million)	2007	2008	% change
Revenue	55.3	76.8	38.9
COGS	34.0	45.2	32.9
Operating income	15.0	22.8	51.9
Operating margin (%)	27.2	29.7	9.4
Net income	19.2	9.2	-51.9
Net income margin (%)	34.6	12.0	-65.4
ROE (%)	NA	15.5	NA
ROA (%)	18.8	5.3	-71.7

Source: Bloomberg

Business description

Gulf Medical Projects manages hospitals and medical clinics. It is also engaged in establishing companies working on medical projects, manufacturing of medicines and trading in surgical equipment and medical appliances. The company holds the following portfolio: Al Zahra Private Hospital (AZH) Company Limited (100%), Gulf Medical Commercial Agencies (100%) and Al Zahra (Pvt.) Hospital Dubai (L.L.C) (68.38%).

Segment and services

- **Segments**
  - Al Zahra Private Hospital offers an extensive range of outpatient medical, surgical and dental services as well as diagnostic services. The hospital also offers 100 rooms for inpatient services.
  - Al Zahra (Pvt.) Hospital Dubai, established in 1993, provides modern healthcare facilities to the locals and expatriates in the UAE. If offers family medicine and dental services and complementary services such as physiotherapy, radiology and clinical laboratory.
  - Gulf Medical Commercial Agencies are involved in the trading and dealership of medical equipment and appliances.

- **Services**

  The hospital offers multi-specialty care and treatment to patients. It provides hospital services and specialized treatment that meets the international standards.

Oman Medical Projects Company SAOG

Publicly Listed

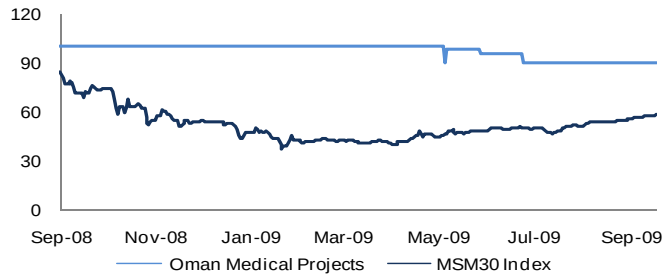
Stock Data

Bloomberg Ticker	OMPS OM Equity
Price (as on 17 Sept'09)	0.9
52 Week High/Low	1/0.9
Enterprise value (OMR million)	11.3
Market cap (OMR million)	5.5
6M Avg daily trading value (OMR thousand)	0.99

Source: Bloomberg, Data as on 17th September 2009

Stock Price chart

(rebased to 100)



Performance Summary

(US$ million)	2007	2008	% change
Revenue	11.3	16.7	47.7
COGS	NA	NA	NA
Operating income	-0.7	-0.04	94.3
Operating margin (%)	-6.2	-0.2	96.8
Net income	-1.3	-0.6	53.8
Net income margin (%)	-11.5	-3.6	68.7
ROE (%)	NA	-2.2	NA
ROA (%)	NA	-1.2	NA

Source: Bloomberg

Business description

Oman Medical Projects Company is engaged in establishing hospitals, clinics and medical centers across the country to provide medical services to the population. The company is building the Al-Ahli Specialist Hospital, which will have capacity of 60-120 beds.

The major shareholders of Oman Medical Projects Company are Saudi Medicare Company Limited (50.1%), Oman, and Emirates Investment Holding Company SAOG (35.5%).

Segment and services

- **Segments**

  The company holds a 100% stake in Muscat Private Hospital (MPH).

- **Services**

  MPH provides a range of facilities and services including anesthesia, assisted conception unit, dentistry and oral surgery, diagnostic centre, emergency room services, laboratory, medical specialties, pediatrics, pharmacy, physiotherapy, obstetrics and gynecology and surgery services.

Recent developments and future plans

- **Introduction of new services**

  In December 2008, MPH was Oman's first private hospital to start a cardiac surgery program for the correction of cardiac disorders. In February 2009, MPH started offering pediatric endocrinology services.

Al Mouwasat Hospitals and Centre

Private – Joint stock

Snapshot

Year Established	1975
Location	KSA
Ownership	Private
No. of employees	

Source: Company website

Business description

Al-Mouwasat dispensary was launched in 1975; however, the company was registered as a limited liability company in 1997. The Company was converted from a limited liability into a joint stock company in 2006. It is engaged in ownership, management, operation and maintenance of hospitals, medical centers, medicine warehouses and pharmacies.

Performance Summary

(SAR million)	2007	2008	% change
Revenue	400.7	454.6	13.5
COGS	205.9	231.8	12.6
Operating income	96.1	110.8	14.8
Operating margin (%)	24.0	24.3	1.2
Net income	88.7	97.1	9.5
Net income margin (%)	22.1	21.4	-3.5
ROE (%)	25.0	23.7	-5.2
ROA (%)	15.9	15.6	-1.9

Hospitals under management

Al Mouwasat company operates five hospitals, two dispensaries, skin-care centers and pharmacies in the KSA.

- **Al-Mouwasat Hospital in Dammam**

  Al Mouwasat Hospital in Dammam is accredited by JCI. The hospital has 52 outpatient clinics covering all basic medical specializations, as well as 8 specialized clinics. There are 250 beds in the hospital. Other facilities present in the hospital include radiology department, chemical and hematology medical lab department and histopathology department.

- **Al-Mouwasat Hospital in Jubail**

  The Al-Mouwasat Hospital in Jubail started its operations as a medical dispensary with an outpatient department. It included the inpatient facility in 2004. The hospital has 84 beds – all rooms equipped with state-of-the-art medical technologies. The hospital serves Sabic staff members and their families as its key clients. It has allocated 65% of its operation capability to meet their requirements.

- **Al-Mouwasat Hospital in Riyadh**

  AlMouwasat Hospital in Riyadh is a 160-bed hospital. The hospital serves various departments including pediatrics, gynecology, cardiology, psychiatry and orthopedics.

- **Al-Mouwasat Hospital in Madinah**

  Al Mouwasat Hospital in Madinah started its operations in 2000. The hospital has an inpatient capacity of 120 beds and 25 outpatient clinics, emergency room and fast aids. It is considered to be the second biggest hospital in Al-Madina considering its capacity and related facilities.

- **Al-Mouwasat Hospital in Qatif**

  Al Mouwasat Hospital in Qatif (previously known as Gulf Specialized Hospital) is a 120-bed hospital.

Recent developments and future plans

- **Recent developments**

  The company launched its IPO in August, 2009 and will get listed soon on the Saudi Stock Exchange to offload 30% equity.

- **Future plans**

  Al Mouwasat plans to build a 175-bed $67 million hospital in Riyadh that will be operational in 2013.

  In order to improve its healthcare provision services, Al Mouwasat company has the following expansion plans.

  - The company plans to expand Al-Mouwasat hospital in Dammam from 43 outpatient clinics to 100 clinics, set up 28 additional executive and deluxe suite rooms and expands the dental, physiotherapy and dialysis units.
  - Al-Mouwasat Hospital in Jubail currently caters to 70% of medical needs of SABIC group of companies. The inpatient facility in the hospital is planned to be expanded to accommodate 30 inpatient rooms and 12 additional clinics.
  - Al Mouwasat company plans to establish a new Dammam Dispensary to shift the existing facility to the new facility on a land area of 5,000 m2, which consists of outpatient cumulative skin facility, cosmetology center, day care center, minor operating room, cosmetology center with complete radiology services and a complete laser unit to cater to the growing need of cosmetic surgery services.
  - Al Mouwasat Company is analyzing three other avenues to expand the network of Al-Mouwasat medical services in areas such as Qatif, Jeddah and Bahrain.

International Hospital of Bahrain

Private

Snapshot

Year Established	1978
Location	Manama, Bahrain
Ownership	Private
No. of employees	700

Source: MoH – Bahrain

Business description

International Hospital of Bahrain (IHB) is a non-profit organization. The profits are invested in charity and assistance to the community and in updating the equipment and services, thus helping in the advancement of the sector. The hospital was the country's first Private Medical Centre and is one of the most important community hospitals in Bahrain.

Segment and services

- **Services**

  IHB is a multi-specialty hospital that provides comprehensive treatment for ailments from simple diseases to complex disorders. The hospital possesses state-of-the-art equipment and facilities.

  It also offers diagnostic and radiological services with advanced equipment.

  The hospital offers a 'Health Library' feature on its website that is as an important resource for information on healthcare and health-related services. This is an important initiative taken by the hospital for increasing awareness about healthcare amongst the population.

Operating structure

Number of beds	100
Occupancy rate	45.4%
Average length of stay	2.4

Source: Company website, GulfBase, Zawya

- IHB has around 100 physicians who cover most of the major specialties.
- It also has around 400 allied personnel and technicians.

Recent developments and future plans

- **Awards and recognition**

  IHB won the Bahrain eContent Award in the eHealth category in March 2009 for its excellence in creating an informative and user-friendly website.

- **Expansion in facilities and services**

  IHB has considerably expanded in the past two years in terms of facilities and services. A new emergency room, intensive care unit, internal medical centre and a pediatrics clinic were started by the hospital in the past two years. The hospital also started providing In Vitro Fertilization treatment. It recently started its first satellite clinic and has plans to set up a bigger satellite clinic in the near future.

  IHB also constantly updates and improvises its online 'Health Library' to create awareness about healthcare.

Welcare Hospital

Private

Snapshot

Year Established	1998
Location	Dubai, UAE
Ownership	Private
No. of employees	522

Source: Zawya

Business description

Welcare Hospital is a leading healthcare provider in Dubai. It is managed by EHL, a healthcare management company, which is a joint venture between the listed South African private hospital group Medi-Clinic, the Dubai-based Varkey Group and General Electric.

Segment and services

- **Segments**

  The following hospitals and clinics form the group of Welcare Hospitals:

  - The City Hospital
  - Welcare Clinic Qusais
  - EDC
  - Welcare Ambulatory Care Centre
  - Welcare Clinic Mirdif
  - Welcare Diagnostics and Treatment Centre

- **Services**

  The hospitals and clinics offer a comprehensive range of inpatient as well as outpatient services.

Recent developments and future plans

- **Accreditation**
  - Welcare Hospital was the first private hospital in Dubai to receive the prestigious Dubai Quality Appreciation award and the ISO 9001:2000 certification.
  - The hospital is looking forward to the Joint Commission International Accreditation – the most widely accepted hospital accreditation program worldwide.

Saudi German Hospital (SGH)

Private

Snapshot

Year Established	1988
Location	Jeddah, KSA
Ownership	Private
No. of employees	5,000

Source: Zawya

Business description

Saudi German Hospitals Group (SGH), owned by the Batterjee family, is considered the largest private hospital company in the MENA region that builds, owns, operates and manages a network of hospitals. It currently has hospitals in Jeddah, Aseer, Riyadh, Madinah and Yemen.

Segment and services

- **Segments**

  The company's activities are divided into five categories—Tertiary hospitals with advanced medical profiles, non-profit healthcare clinics; healthcare education; corporate social responsibility, and non-profit community services.

- **Services**

  It provides cardiology, dental, maxillofacial, dermatology, E.N.T, trauma centers, neurology obstetrics, gynecology, ophthalmology, orthopedics, pediatrics, physiotherapy, psychiatry, urology, radiology and rehabilitation and rheumatology services.

Operating structure

Number of beds	1,600

- The company aims to design, finance, construct and operate 30 world-class hospitals and create 50,000 jobs by 2015.
- It also plans to establish five medical colleges by 2010.

Source: Zawya

Recent developments and future plans

- **Healthcare for lower strata of the society**

  In May 2008, SGH and Grameen Healthcare Trust of Bangladesh signed a cooperation to build social business hospitals to provide health services to the poor and disadvantaged. For this purpose, a 50-bed hospital 'Al Sabeel-Grameen Hospital' would be built in Dhaka.

- **Expansion plans**

  SGH strategic plan is to build three hospitals each in Lahore and Nigeria. It also intends to develop 14 hospitals across Africa.

Saad Specialist Hospital

Private

Snapshot

Year Established	2001
Location	Al Khobar, KSA
Ownership	Private
No. of employees	2,000

Source: Company website

Business description

Saad Specialist Hospital (SSH) is a private tertiary care and referral healthcare facility. The company was established in 1997, but started operating in 2001.

Services

- **Services**

  It provides anesthesia, cardiovascular, dental, neuroscience, orthopedic, psychiatry, pediatrics, radiology and Women's Health Services.

Operating structure

Number of beds	600

- It is the only private company in GCC to receive accreditation by three major international organizations — The Joint Commission International, The Canadian Council on Health Services Accreditation and The Australian Council on Healthcare Standards.

Source: Company Annual Report 2005

Recent developments and future plans

- **Recent developments**

  In 2008, the company opened a Health Sciences Centre, which is the focal point in the Gulf Region for treatment of cancer.

  As Saudi citizens working in the private sector are required to have insurance by 2010 as per a regulation, SSH has entered into agreements with a number of insurance players to enable their policyholders to use Saad Hospital. In October 2008, SSH entered into an agreement with Bahrain-based Takaful International Company, an Islamic Insurance company.

- **Acquisition plans**

  The company plans to bid for some of the ministry hospitals and aims to be amongst the first organizations to own public sector hospitals.

United Medical Service

Private

Snapshot

Year Established	2003
Location	Kuwait
Ownership	Private
No. of employees	

Source: Zawya and Company Website

Business description

Established in 2003, United Medical Services Company is a subsidiary of United Health Care Company. The company's objective is to enhance the health sector in Kuwait and other GCC nations. The healthcare related services offered by UMS include dental care, medical healthcare, supply of medical technologies, consumables and equipment, supporting services to the healthcare sector, laboratory services, medical consultancy & technical support, pharmaceuticals, emergency related health services and building, establishing and managing hospitals and medical centers.

Hospitals under management

The subsidiaries of UMS include – Maidan Dental Clinic, International Health Services, United Laboratories Co., Kuwait Medical Services Co., United Pharmaceutical Co., United Food & Nutrition, United Medical Technologies, Advanced Technology Co. and Bubyan United Hospital.

- **Bubyan United Hospital**

  Bubyan United Hospital Company (BUH) was established in 2004 to construct and manage a medical insurance hospital in the Dhajeej area in Al-Farwaniya. Its specializations and services include outpatient clinics, emergency unit, rheumatology & physiotherapy departments and diagnostic imaging. The hospital has 150 beds, which would be increased to 400 beds. The expansion project was put on hold due to external factors related to the government's legislations.

- **Al Seef Hospital**

  A 120-bed hospital, Al Seef hospital is Kuwait's newest private hospital, specializing in women's, children's and family treatment services in both outpatient clinics and inpatient beds. It is a part of the UMS group.

- **International Hospital**

  International Hospital includes 140 inpatient beds and extensive outpatient and diagnostic services. It has the infrastructure to expand to 200 beds in the future. The hospital offers the following specializations: gastroenterology & endoscopies, neurology, laparoscopy, ophthalmology, internal medicine, nuclear medicine, hematology, cardiology, general surgery, ENT, orthopedics and urology.

NMC Group

Private

Snapshot

Year Established	1975
Location	UAE
Ownership	Private
No. of employees	375 (medical specialists)

Source: Company website

Business description

NMC is a diversified business conglomerate operating primarily in the healthcare sector. The various business segments of NMC include financial services, trading in pharmaceuticals, FMCG brands, scientific, laboratory, education & medical supplies, foodstuff, retail pharmacies, gold & diamond jewellery, advertising, hospitality, real estate, information technology, engineering projects and services.

Hospitals under management

NMC group operates eight hospitals, pharmacies, special medical services centre, specialty hospitals as well as a holistic health centre in the UAE.

- **NMC Specialty Hospital, Abu Dhabi**

  NMC Specialty Hospital in Abu Dhabi is a multi-disciplinary hospital including super-specialty services. It employs over 100 doctors and 400 paramedics. Around 2000 patients are treated daily in the hospital. It has the largest laboratory in the private sector in Abu Dhabi, offering extensive investigative facilities.

  NMC Specialty Hospital has entered into a strategic partnership with Germany's Universitats Freiburg Klinikum, The London Clinic, London, Universitats Spital Zurich, Switzerland and other leading hospitals in Europe and USA. It has also been certified as per ISO 9001:2000 in Quality Management Systems.

- **NMC Hospital, Dubai**

  NMC Hospital, Dubai, is supported by highly qualified and skilled specialists, super-specialists, nursing staff and paramedics. The hospital was among the first in the region to use the latest in medical equipment.

- **NMC Specialty Hospital, Dubai**

  NMC Specialty Hospital in Dubai is a 100-bed hospital offering most-modern facilities including heart mapping system, multi-slice CT scan, MRI and a cardiac catheterization laboratory. The hospital also has specialized and unique departments such as physical medicine & rehabilitation department, allergy department and sleep lab.

- **New Medical Centre, Sharjah**

  New Medical Centre, Sharjah offers medical care to the people in the southern Emirates especially Sharjah and Ajman. The hospital is fully equipped to provide ambulatory (OPD) care with its well-equipped departments in all its specialties.

- **New National Medical Centre, Mussafah**

  The hospital facility was started in 1999. The departments in the facility include general practice, pediatrics, gynecology & obstetrics, dental and urology. Other facilities include laboratory, radiology and ultrasonography.

- **National Hospital, Abu Dhabi**

  Starting operations as a clinic in 1994, National Hospital achieved hospital status within a few years. National Hospital provides all round health care including a holistic health centre offering complementary alternative therapies.

- **NMC Specialty Hospital Al Ain**

  NMC Specialty Hospital in Al Ain is a multi-specialty healthcare facility started in 2007. The hospital is more

than hundred bedded medical facility along with 60 OPD rooms.

- **NMC Family Clinic - Dubai**

  NMC Family Clinic is an initiative to strengthen patient-physician relationship through its neighborhood presence, such that the relationship spans over a long period of time, and health needs of the entire family are taken care of.

Recent developments and future plans

- **Recent developments**

  The nephrology department at NMC Specialty Hospital, Dubai, included dialysis service in its portfolio of services offered.

Appendix

Appendix I: Key Healthcare Indicators by Country

Exhibit 1: Demographic Indicators

Indicators	Unit	Year	Bahrain	Kuwait	Oman	Qatar	KSA	UAE
Population	'000	2007	752	3,328	2,577	1,305	24,242	4,106
Urban Population	%	2007	100	100	71[b]	100	85[e]	82[e]
Crude birth rate	Per '000	2007	20.2	17.3	24.2	15.1	24.5	15.7
Crude death rate	Per '000	2006	3.1	1.7	2.5	1.6[f]	3.9[f]	1.5[d]
Population growth rate	%	2007	2.7[e]	9.1	2.2[e]	55.7	2.2	4.9[d]
Dependency ratio	%	2006	42.5	28.4[f]	66.0	31.1[d]	NA	26[d]

Source: WHO, Alpen compilation

Exhibit 2: Health Expenditure Indicator

Indicators	Year	Unit	Bahrain	Kuwait	Oman	Qatar	KSA	UAE
Per capita expenditure on healthcare	2007	US$	925	883	373	3,416	554	1,140
Per capital government expenditure on healthcare	2007	US$	641	683	308	2,607	438	796
Healthcare expenditure as a % of GDP	2007	%	3.9	2.2	2.4	4.0	3.6	2.5
Ministry of health budget as % of government budget	2006	%	10.0	6.2	6.1	9.7[f]	8.7[f]	8.6[a]

Source: WHO, Alpen compilation

Exhibit 3: Healthcare resource: Physical and Human

Indicators	Unit	Year	Bahrain	Kuwait	Oman	Qatar	KSA	UAE
Physicians per 10,000 population	number	2006	27.6	18.0	18.2[f]	27.6	20[d]	16.1[d]
Dentists per 10,000 population	number	2006	4.1	3.0	1.9[f]	5.8	2.1[d]	4.0[d]
Pharmacists per 10,000 population	number	2006	8.3	2.0	3.4[f]	12.6	3.5[d]	5.8[d]
Nursing and midwifery personnel per 10,000 population	number	2006	55.0	36.0	38.7[f]	73.8	34.6[d]	29.1[d]
Hospital beds per 10,000 population	number	2006	27.4	19.0	20.2[f]	25.2	22[f]	18.8[d]

Source: WHO, Alpen compilation

[a] *Data for 2001* [b] *Data for 2003* [d] *Data for 2005* [e] *Data for 2006* [f] *Data for 2007*

Appendix II: Private Equity presence in GCC Healthcare

The GCC healthcare presents a ripe investment opportunity as sector prepares for unparallel demand growth driven by rising and ageing population, higher prevalence of affluent lifestyle diseases and increasing per capita healthcare spending across the region. However, investors have limited options to participate in the booming GCC healthcare market through capital market, as there are very few listed healthcare stocks. Therefore, private equity becomes a more suited investment vehicle to participate in the growing GCC healthcare market.

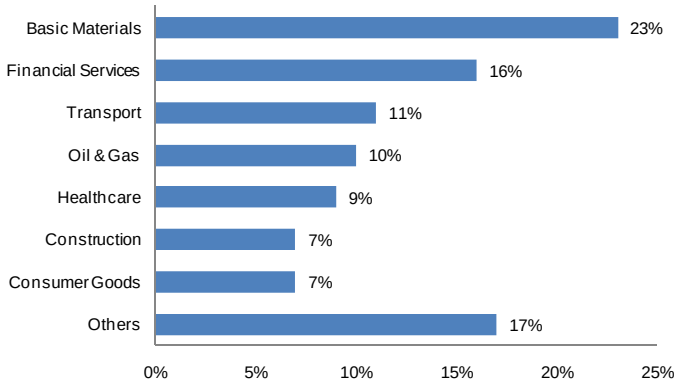
According to Bahrain-based Gulf Venture Capital Association (GVCA), a trade body for venture capital and private equity firms, investment in the healthcare sector increased from 8% of total PE investment in the GCC to around 16 per cent in the year 2008 (See chart 19).

Among the investments made in 2008, Dubai's Abraaj Capital, one of the largest private equity houses in the region, bought stakes in Saudi Tadawi Healthcare Company (Tadawi), the kingdom's largest pharmacy chain, with a network of 470 shops, and Al-Borg Laboratory, an Egyptian medical testing company. Another Dubai-based firm, Ithmar Capital, has invested in Belhoul Lifecare, which runs private hospitals and clinics around the region, and Pharma World Holdings, which distributes and markets medicines in the UAE.

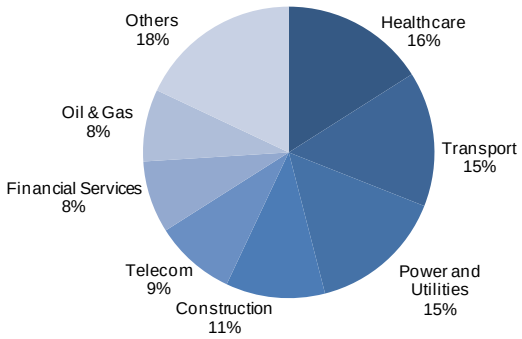
PE firms remain buoyant regarding their investment plans in the GCC healthcare sector. According to a recent survey conducted by GVCA, 44% of the surveyed PE firms have plans to invest in the GCC healthcare sector over the next few months.

Chart 2. Sector split of GCC PE Investments

1997-2007: healthcare sector investments formed 10% of total PE investments



2008: Healthcare sector contribution increased to 16% of all PE investments in the region



Source: Zawya, GVCA

Appendix III: Major GCC Healthcare Projects – delivered 2008 onwards

Project	Region	Year	Cost ($ mn)	Beds Count
Dilmunia Health Island - Wellness Hospital	Bahrain	NA	1,600.0	358
Dilmunia Health Island - Women and children Hospital	Bahrain	*2012		216
King Hamad General Hospital	Bahrain	2010	130.0	312
Jaber Al Ahmed Al Sabah Hospital	Kuwait	2011	1,200.0	1168
8 hospitals - first phase; Al Jahra hospitals, second phase; Amiri and Al Adaan hospitals, third phase; Sabah health area	Kuwait	2016	3,100.0	500
Farwaniya Hospital - Extension	Kuwait	NA	NA	270
Mubarak Hospital - Extension	Kuwait	NA	NA	240
Ahmadi Hospital	Kuwait	2009	241.0	200
Al Razi Hospital - Extension	Kuwait	2011	NA	180
Al Safat American Hospital	Kuwait	2009	30.0	120
Al Seif Hospital	Kuwait	2008	88.7	120
KMSC Kuwait Hospital	Kuwait	2008	16.0	120
Al Maidan Maternity Hospital	Kuwait	2008	30.0	108
MDC healthcare city	Oman	NA	800.0	NA
Cardiac Centre at Sultan Qaboos Hospital	Oman	2011	39.0	NA
Sidra Medical and Research Centre	Qatar	2012	2,300.0	412
Weill Teaching Hospital in coop with Cornell in Education City	Qatar	2010	900.0	350
Al Wakra Hospital - HMC	Qatar	2011	500.0	305
Al Ahli Hospital – Care holdings	Qatar	2010	108.0	300
Barwa City Hospital	Qatar	2012	NA	250
3 Expat Labourer Hospitals, Doha (80 bed each)	Qatar	2011	NA	240
Children's Hospital - HMC	Qatar	2011	350.0	217
New Women's Hospital - HMC	Qatar	2012	NA	189
Cardiology Hospital - HMC	Qatar	2010	27.0	112
Teaching Hospital King Khalid University	Saudi Arabia	2012	800.0	800
Al Nur Specialist Hospital in King Abdullah Medical City	Saudi Arabia	2010	NA	500
Pediatric Hospital in King Abdullah Medical City	Saudi Arabia	2010	54.0	500
Specialist Hospital in King Abdullah Medical City	Saudi Arabia	2010	90.2	500
Pediatric & Maternity Hospital	Saudi Arabia	2008	NA	400
Hospital - Riyadh	Saudi Arabia	NA	NA	300
Al Amal Hospital	Saudi Arabia	NA	42.0	300
General Hospital for Saudi Arabia Ministry of Health	Saudi Arabia	2008	70.0	300
King Abdullah Oncology & Liver Center	Saudi Arabia	NA	25.0	300
Sharq Al Riyadh Hospital	Saudi Arabia	2008	110.0	250
Maternity and children's hospital	Saudi Arabia	NA	20.3	200
Al Laith and Al Mekhwat hospitals	Saudi Arabia	2010	46.0	200
Al Ahsa Hospital	Saudi Arabia	2008	55.1	200

Al Khobar Hospital	Saudi Arabia	2010	55.0	200
Al Wajeh Hospital	Saudi Arabia	2009	25.0	200
Saud Bin Jalwaei Hospital	Saudi Arabia	2011	55.0	200
Al Mouwasat hospital in Riyadh	Saudi Arabia	2013	67.0	175
Saudi German Hospital – Hail	Saudi Arabia	2010	43.2	150
Bumrungrad Hospital (Canal Point Hospital)	UAE	2012	540.0	690
Mafraq Hospital - Abu Dhabi	UAE	2013	NA	690
Al Ain Hospital - Abu Dhabi	UAE	2013	NA	688
Cleveland Clinic - Abu Dhabi	UAE	2011	1,900.0	684
Specialty hospital - Ras Khaimah	UAE	2010	67.5	500
Al Mafraq Hospital	UAE	2011	545.0	460
Tatweer University Hospital	UAE	2011	567.0	450
University Hospital - Dubai Healthcare City	UAE	2011	NA	400
Jebel Ali Trauma and Emergency Centre	UAE	2010	NA	400
Al Maktoum Hospital - Jebel Ali, Dubai	UAE	2011	432.0	300
ETA Star healthcare - 3 hospitals	UAE	NA	81.0	300
Saudi German Hospital – Dubai	UAE	2010	90.0	300
Shaikh Khalifa Specialist Hospital	UAE	2011	220.0	248
University of Sharjah Teaching Hospital	UAE	2009	NA	220
Al Jalila Bint Mohammad Bin Rashid Al Maktoum Hospital	UAE	2011	370.0	200
Al Jalila Children's Speciality Hospital	UAE	2011	256.5	200
Gulf Medical Projects Company – Al Zahra Hospital, Dubai	UAE	2009	200.0	200
Al Qasimi Hospital - Extension of Heart Surgery Unit	UAE	2009	NA	200
Al Qasimi Hospital - Extension of Maternity Hospital	UAE	2009	104.0	200
Obstetrics, Maternity & Pediatrics Hospital - Sharjah	UAE	2009	NA	200
Umm Al Quwain Hospital	UAE	2011	109.0	200
Al Wasl Hospital	UAE	NA	270.0	200
Creek Hospital - Dubai Healthcare City	UAE	2008	21.0	180
Sharjah Women's & Children's Hospital	UAE	2008	33.0	180
Danat Al Emarat Hospital	UAE	2011	205.0	170
Obaid Allah Geriatric Hospital	UAE	2009	6.5	126

Source: Zawya; MEED; Arabianbusiness.com; Bncnetwork; Constructionweekonline; Proleads and company websites
**Construction commences*

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