United Arab Emirates

HEALTHCARE OVERVIEW

Q4 2013

Accelerating success.
Introduction

- As the delivery of healthcare in the Middle East and North Africa (MENA) region and around the world continues to evolve, the real estate and operational needs of healthcare providers becomes increasingly complex. Trends and industry changes require investors and operators of healthcare facilities to make challenging decisions. Over the years, despite improvements in healthcare systems across the region, the sector still offers significant opportunities for investors/operators on the back of the following factors:
  - High population growth rates. The MENA population increased from around 100 million in 1950 to 500 million in 2010. Current projections anticipate the population will further increase to 800 million by 2050, with approximately 33% under the age of 15.
  - Poor government provision of both volume and quality. Due to the income divide in the region, the expenditure on healthcare is half of the equivalent in Europe and the United States.
  - Introduction of compulsory health insurance (by a number of regional governments). After compulsory health insurance was introduced to Abu Dhabi, the revenues of most of the private hospitals doubled in subsequent years.
  - High returns on healthcare investments. High quality, efficient private hospitals could achieve 15% – 20% net profit margins.
  - Heavy reliance on imported medicine and medical equipment. This increases the cost of establishing healthcare facilities. A number of medical equipment suppliers provide medical equipment on long-term leases, and even equity investment in order to facilitate healthcare initiatives.
  - Continued growth of regional medical tourism. Most governments in the region are encouraging medical tourism with Jordan, Lebanon and Dubai leading the way.

- With an estimated population of 9.2 million residents with a CAGR of 7.9%, the UAE healthcare sector caters to a rapidly growing population and the concurrent increasing demand on the healthcare sector.

- The population of the UAE mainly consists of expatriates, which is a young demographic that falls between Generation X (1965-1980) and Generation Y (1981 and 2000), which presents opportunities to cater to the segments needs in accordance with the pertinent disease trends.

- The overall supply of healthcare facilities struggles to keep pace with the burgeoning population, a situation recognised by the Government who have recently introduced initiatives to encourage the private sector to match the shortfall and benefit from this potentially lucrative sector.

- The Healthcare sector in the UAE is mainly managed by the Government through the Ministry of Health (MoH) and the authorities that operate under it’s management in each Emirate.

**Overview provides a brief snapshot of the key factors impacting the UAE Healthcare sector and the future outlook.**
1. Economic & Demographic Overview of the United Arab Emirates

1.1 ECONOMIC PERFORMANCE

- UAE ranks 7th on the list of the world’s recoverable oil reserves, with a total of 97,800 MMBbl as confirmed reserves.
- UAE GDP is expected to record USD 378 billion in 2013, achieving a positive growth of 3.8%.
- Real GDP growth fell from 3.3% in 2008 to -1.60% in 2009, and subsequently -1.8% in 2010, mainly due to the global economic downturn and falling oil prices.
- Despite the fall in real GDP following the crisis, the UAE economy remained resilient and regained its growth in 2011, significantly exceeding 2008 figures, a time when most of the developed economies of the world recorded negative or at best, remained constant.
- Private consumption is expected to continue to expand, underpinned by robust national population growth and expansionary fiscal and monetary policies; whilst concurrently, government consumption will increase as the fiscal expansion continues.
- Despite the global financial crisis the government continued with its commitment to restructure the prevailing debts whilst further developing the country's infrastructure.
- As of 2012, the UAE economy has registered a GDP growth of 3.3%, which compared to multiple developed economies is much higher, as the majority of which are achieving negative GDP results or at best marginal outputs.
- The UAE is mainly superseded by fellow GCC nations along with Asian power economies such as India and China, where the latest GDP growth rate stood at 7.8%.
- Historically, the UAE economy has been highly dependent on exports from its hydrocarbon sector, accounting for more than 50% of the country’s GDP.
- The government realises the risk of over-reliance on the oil sector and has commenced over the past decade a strategy to invest substantial portions developing and upgrade public & social infrastructure, along with diversifying the country’s economic base to other non-oil sectors.
- UAE’s debt to GDP ratio is the third lowest in the world following Norway and Libya, currently standing at -93.5%, whilst the World average is set at 64% as of 2012, according to the IMF.
- Consequently, the UAE's debt to GDP ratio significantly exceeds multiple developed nations such as Germany and France, along with neighbouring GCC nations like KSA, Qatar and Kuwait, which is a testament to the overall strength of the country’s economy.
- Global oil demand is on the rise in 2013 as a result of continued growth in emerging markets, primarily Asia. This represents a positive indication for UAE’s economic growth, which is fairly dependent on oil revenues.

**Impact on Healthcare:** Overall the UAE economy has been performing well, following a period of downturn during the global financial crisis, which bodes well for the healthcare industry.

- Anticipated increases in oil prices and strong GDP growth forecasts will help to strengthen the market and encourage private sector investment in healthcare sector from both UAE Nationals and Expatriates in the coming years.
1.2. PER CAPITA INCOME

- The MENA region is categorised by two very diversified groups in terms of income and population; the Arabian Gulf (GCC) countries, have some of the highest per capita levels in the world with small population bases.

- Conversely, there are other neighbouring Arab countries, some of which have undergone recent regime change, with a large population base, low GDP per capita and significant sections of the population living below the poverty line.

- The United Arab Emirates belongs to the former category having a population of approximately 9.2 million. It makes up only 2.25% of the total Arab World Population of 351 million.

- The per capita income in the UAE (USD 47,893) is the third highest in the Arab Region, whereas Qatar has the highest income per capita at US$ 88,314 whilst the lowest is Sudan currently registered at USD 2,325 (Refer to Exhibit 4).

- With the current population, the UAE population accounts for almost 20% of the GCC population, but only 2.6% of Arab World.

1.3 DEMOGRAPHIC ANALYSIS

- UAE has one of the largest and fastest growing population in the GCC. According to the National Bureau of Statistics (NBS), the UAE population at the end of 2012 stood at approximately 9.2 million, with an overall CAGR of 7.9% for the period between 2008-2012.

- By 2018, Colliers International estimates that the UAE population should exceed the 14.5 million, subject to maintaining the current growth patterns. However, should the projected CAGR remain around 5%, then the expected population will be 12.3 million in 2018, which seems more realistic.

- It is noteworthy that between the period of 2003 to 2008, prior to the global financial crisis, the UAE population was growing by a CAGR of 15.1% compared to the period following the crisis (2008 – 2012), where the CAGR stood at 7.9%.

- The expanding population, coupled with rising average income levels, will continue to feed demand for infrastructure and services particularly in energy, water, telecoms and technology, housing, health, education, and financial sectors.
1.3 DEMOGRAPHIC ANALYSIS

- One of the major consequences of the projected population growth is that the percentage of UAE Nationals as a percentage of the total population is currently at 11.5%, and is expected to decrease considerably if the current disparity in population growth rates between Nationals and Expatriates continues.

- Dubai registers the highest recorded share of Expatriates with a share of 91% of the population, whilst a fairly high number of UAE Nationals live in Abu Dhabi, decreasing the Expatriate share to 81%. The Northern Emirates of the UAE hold lowest share of Expatriates, which currently stands at 78%, according to the latest statistics.

- Males in the UAE constitute more than 75% of the total population, the majority of which belong to the 20-45 year age category, a category between Generation X (1965-1980) and Generation Y (1981 and 2000). The population below the age of 34 years accounts for close to 60% of the total population in the UAE (Refer to Exhibit 8).

- The rapidly growing young population is one of the key factors driving demand for the real estate/healthcare sectors and the reduction in the average family household size.

Exhibit 8: Age - Gender Distribution of UAE Population

![Exhibit 8: Age - Gender Distribution of UAE Population](image)

Source: Ministry of Health; Colliers International 2013

- Moreover as the profile of the UAE population changed from Baby Boomers to Generation X, Y & Z due to influx of Expatriate population, the need for healthcare services, both in terms of disease pattern, as well as, type of healthcare services provided is also expected to change dramatically (Refer to Exhibit 9).

Exhibit 9: Demographic Structure of UAE

![Exhibit 9: Demographic Structure of UAE](image)

Source: Ministry of Health; Colliers International 2013

- Some analysts maintain a distinction between diseases of longevity or diseases of civilization interchangeably) are diseases that appear to increase in frequency as countries become more industrialised and people live longer. They can include Alzheimer's disease, atherosclerosis, asthma, some kinds of cancer, chronic liver disease or cirrhosis, Chronic Obstructive Pulmonary Disease, Type 2 diabetes, heart disease, metabolic syndrome, chronic renal failure, osteoporosis, stroke, depression and obesity.

- As a result of urbanisation and rising disposable income the majority of the GCC population including the UAE, have adopted a sedentary lifestyle characterised by an aversion to exercise and consumption of processed foods leading to increased chronic diseases (such as diabetes, coronary problems and other obesity related illnesses) previously uncommon to the region. For example, in recent years the rate of diabetes related illnesses have witnessed an unprecedented increase in the GCC which is expected to increase from 1.5 million cases in 2000 to 4.5 million by 2030.

Source: Colliers International Research 2013
2. Healthcare Sector Overview

2.1 KEY PLAYERS

- **Ministry of Health (“MoH”):** Approximately 36.4% of all hospitals within the UAE are owned and operated by the MoH (Refer to Exhibit 10). These hospitals provide basic healthcare services, as well as in certain cases, specialised facility centres.

- The Ministry of Health delegates some of the duties to specialized health authorities for every emirate as shown below:

- **Private Sector:** Since 2006, the Private sector has been gaining an increased share in patient encounters, where the Private sector share was equally split between both sectors at 50% each, as opposed to 2011, where the Private sector controls almost two-thirds of the market, with 64% of the total patient encounters within the UAE healthcare market, according to the latest data available from the National Bureau of Statistics.

2.2 BUDGET ALLOCATION

- Since 2007, the healthcare budget allocated by the UAE has nearly doubled, from USD 6.5 billion in 2007, exceeding USD 12 billion in 2012.

- During the same period, the healthcare budget as a percentage of the GDP has experienced an increase from 2.5% to 3.1% in 2012, with a high point of 4.4%, registered in 2009 following the global financial crisis.

- Consequently, the UAE Healthcare budget has been disrupted by periods of increase and decrease, affecting the consistency of the growth pattern from 2008 onwards.

- The UAE’s healthcare spending as a percentage of the GDP of 3.3% is one of the highest in the GCC, coming third to Bahrain and KSA, as opposed to developed countries, where it is roughly one-third or even one-fourth, such as 9.3% in the UK and 12.0% in Holland (Refer to Exhibit 12).

Exhibit 10: Total Number of Hospitals in the UAE

Exhibit 11: Healthcare Budget in the UAE (USD Million)

Exhibit 12: Healthcare Spending as % of GDP

Source: NBS 2012, Colliers International Research 2013

Source: UNDP 2012, Colliers International 2013
2.3 KEY HEALTHCARE INDICATORS

• Comparing the healthcare indicators of the UAE to other developed countries such as the US, UK and Germany demonstrates there is a shortage of doctors, nurses and beds in the country.

• The shortage is prevalent across all GCC countries; the UAE has the lowest number of beds per population (1.1) even within the GCC (Refer to Exhibit 13).

• The UAE currently holds one of lowest ratios for nurses (2.7) across the GCC, surpassed only by KSA.

• UAE ratio for physicians (1.5) currently lags behind the average ratio of physicians across the GCC (1.75)

• Accordingly, the UAE key healthcare indicators clearly showcase how far behind the country is lagging behind both in developed markets across the world and neighbouring markets in the GCC.

• To address the rapidly increasing demand for health services, recognised as a crucial issue within the Government, and actively encourage the private sector to invest in the healthcare industry within the UAE.

Exhibit 13: UAE Key Healthcare Indicators (per 1,000 people)

Source: World Development Indicators 2012, Colliers International Analysis 2013

2.4 HOSPITALS & BED CAPACITY

• There are currently over 88 hospitals, both within the public and private sectors, providing various healthcare facilities and treatment throughout the UAE (Refer to Exhibit 14).

• A closer analysis of the bed capacity at hospitals in the UAE reveals that the total number of beds in the country as of the end of 2011 was at 9,176 beds.

• Overall, the average beds per hospital for all types of hospitals in the UAE currently stands at 104 beds per hospital.

• Abu Dhabi has a total of 35 hospitals, across both public and private sectors, providing a total of 3,464 beds.

• Dubai has a total of 35 hospitals, across both public and private sectors, providing a total of 3,464 beds.

• Abu Dhabi and Dubai combined account for over 68% of the hospital in the UAE, across the public and private sectors.

Exhibit 14: UAE Key Healthcare Indicators – Hospitals & Bed Capacity - 2011

<table>
<thead>
<tr>
<th>Type</th>
<th>Hospitals</th>
<th>Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Public</td>
<td>34</td>
<td>37%</td>
</tr>
<tr>
<td>Private</td>
<td>58</td>
<td>63%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: NBS 2012, Colliers International 2013

Exhibit 15: Average Bed Capacity per Hospital Type

Source: NBS 2012, Colliers International 2013
2.4 HOSPITALS & BED CAPACITY (CONTINUED)

- An analysis of the bed capacity at hospitals in the UAE reveals that the total number of beds at public sector hospitals increased from 5,833 in 2007 to 6,712 in 2011, with the government’s direction towards the private sector.
- Consequently, the private sector hospitals bed capacity increased from 1,150 in 2007 to 2,464 in 2011, achieving an increase of over 114% during that period, with the sector taking on a larger role within the market.
- The gradual increase in private hospital beds is also due to the influx of expatriate patients seeking medical treatment, supported by the consistent population growth.
- The majority of the hospitals in the UAE are General hospitals (Refer to Exhibit 16), with a minor presence for specialised hospitals, which showcases the opportunity for growth in alternative options such as further exploring niche specialities.
- The bed capacity at MoH hospitals is by far the largest, accounting for 73.1% of cumulative hospital bed supply in the UAE.
- Accordingly, the private sector hospital beds account for the remaining 26.9% of bed capacity at hospitals in the UAE.

2.5 INPATIENTS AND OUTPATIENTS:

- The number of outpatients is considerably higher than inpatients. This is in line with the nature of outpatient treatments which are less than a day long with a high percentage of cases consisting only of consultations.
- Based on the latest data available in 2011, out of the total 13.3 million patients across the UAE, almost 97.4% were outpatients, compared to only 2.6% of the total patients as inpatients (Refer to Exhibit 18).
- The average rate of visits to public sector hospitals was 0.5 visits per person per year, whereas, the average rate of visits to private healthcare facilities was 0.9 visits per person per year.
- The average length of stay in hospitals in Abu Dhabi currently stands at 5.71 days, whilst in Dubai ALOS currently stands at 2.3 days across all specialities.
- The average bed occupancy rate in Abu Dhabi currently stands at 71% according to HAAD, whilst in Dubai the rate is lower at 56.6% according to the latest data from the DHA.
2.5 ANALYSIS OF PHYSICIANS OPERATING IN HEALTHCARE SECTOR -

- Based on information provided by National Bureau of Statistics, HAAD and DHA, the following distribution of physicians has been derived for the UAE.

**Exhibit 21: Distribution of Physicians (inc Dentists) in the UAE**

- Considering the capacity masterplans developed by each emirate of the UAE, the need for additional physicians to meet the healthcare requirements of the increasing population is expected to be significant.
- In this regard, low and high estimates have been prepared to estimate the annual growth in the number of physicians required to sustain healthcare services in the UAE. (Refer to Exhibit 20).
- Low estimates project the number of physicians to grow by 3.4% CAGR over the next decade.
- High estimates project the number of physicians to grow by 9.0% CAGR over the next decade.
- Internal medicine, general surgery, anaesthesiology and radiology are likely to be the key growth fields within the distribution of physicians in the UAE.
- The key growth drivers of the UAE healthcare sector include:
  - Population growth
  - Demographic change of population
  - Increasing penetration of healthcare insurance
  - Surge in lifestyle related diseases
  - High GDP, healthcare expenditure per capita
  - Government initiatives to increase investment in the healthcare sector
  - Quality of healthcare service

**Exhibit 20: Projected Growth of UAE Physicians**

<table>
<thead>
<tr>
<th>No. of Physicians</th>
<th>CAGR Low Scenario</th>
<th>CAGR High Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>2.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Dentistry</td>
<td>3.6%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>0.7%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>4.8%</td>
<td>12.1%</td>
</tr>
<tr>
<td>General Surgery</td>
<td>4.4%</td>
<td>11.0%</td>
</tr>
<tr>
<td>OBGYN</td>
<td>3.8%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Anaesthesiology</td>
<td>4.0%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Radiology</td>
<td>4.0%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>2.9%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Pathology</td>
<td>3.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Others</td>
<td>4.8%</td>
<td>12.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.4%</strong></td>
<td><strong>9.0%</strong></td>
</tr>
</tbody>
</table>

*Source: NBS, HAAD, DHA, Colliers International 2013*

Healthcare Insurance in the UAE

- One of the key drivers of the healthcare sector in the last five years has been the increasing penetration of health insurance in the UAE market.
- The market remains fragmented, with each emirate having its own health insurance legislation.
- Abu Dhabi introduced mandatory health insurance for all residents in 2006. Residents can qualify for one of three plans. The Thiqa system covers all Emirati’s and is provided by the state-owned Daman National Insurance Company (DNIC). DNIC also provides a basic insurance package for low-salaried workers whilst the entire health insurance market competes for the remaining expatriate population.
- The introduction of mandatory health insurance in Abu Dhabi resulted in an immediate increase in demand for the healthcare services of over 40%.
- The Health departments at each emirate are considering the application of mandatory health insurance and appropriate legislation is expected to be introduced in the short to medium term. In the short term health insurance penetration continues to increase.
- Once private health insurance takes hold in the other emirates, it is expected that patient volumes for private providers will rapidly increase as patients are allowed to pursue reimbursed care at private institutions.
Colliers International Healthcare Insights (CIHI)

The healthcare market continues to grow in the UAE, primarily due to demand from an increasing population base, urbanisation and in particular the changing lifestyle which is resulting in an increase in chronic diseases previously uncommon to the region. The key insights are summarised below:

**High Population Growth:**
- Colliers International estimates that the population of the UAE is expected to exceed 12.3 million in 2018, and subject to the continuance of the existing growth trend the population may reach 14.5 million in the same year. As the current young population of the UAE will age, there is likely to be a sharp rise in healthcare demand, as almost 80% of a person’s healthcare requirements typically occur after the age of 40-50 years.
- In contrast to the aforementioned challenges, the healthcare indicators do not reflect the income level enjoyed by the majority of the population in the region and in the UAE.

**Shortage of Healthcare Facilities:**
- Overall, the supply of healthcare facilities struggles to keep pace with the burgeoning population, a situation recognised by the Government who have recently introduced initiatives to encourage the private sector to match the shortfall and benefit from this potentially lucrative sector.
- Comparing healthcare expenditure to global benchmarks, confirms the UAE has significant ground to cover in order to classify as an international supplier of healthcare solutions or regional healthcare hub.

**Size of the Private Sector Market:**
- Colliers International estimates the private hospital property value to be US$ 6.9 billion in 2013 in the UAE, and is estimated to increase by US$ 6.1 billion to reach US$ 13.0 billion in 2020.

**Public Private Disparity**
- The share of Ministry of Health (MoH) hospital in 36.4% compare to 63.6% for the private sector, however, the bed capacity at MoH hospitals is 73.1% compared to only 26.9% for the private sector.
- Average bed capacity for MoH hospitals are 207 per hospital, compared to only 44 beds per hospital for the private sector.
- MoH hospitals having a share of 71.1% of total beds provide services to 57.2% inpatients, compared to that the private sector having only 26.9% of bed capacity caters to 42.8% inpatients.
- In case of outpatients, public sector caters to only 35.6% of the market compared to 64.4% catered by private sector. However, it should be noted that out of total clinics of 3,196 in the UAE, only 269 (8%) are in the public sector, compared to 2,927 (92%) in the private sector.
- The private sector mostly provides general medicine, with some specialities, such as, dentistry, paediatrics, internal medicine, general surgery, ostracises / gynaecology, dermatology and radiology and pathology, while public sector provides most of the super speciality treatment.

**Medical Insurance:**
- With the initial introduction of compulsory health insurance in Abu Dhabi, a similar law is expected to be introduced across the UAE in the short to medium term. The UAE health insurance, and consequently the healthcare sector as a whole, is expected to grow significantly once the law is implemented. There is however concern among insurance companies that the costs versus premium may be unsustainable, this could lead to a greater tiered provision of cover and enhanced scrutiny of healthcare providers. This is already being echoed by multiple brands, and therefore cost, offering from operators.
COLLIERS HEALTHCARE SERVICES - SNAPSHOT

- Regulatory Environment
  - One of the main challenges facing new and established healthcare players include the regulatory framework which differs from country to country in the region and also from emirate to emirate in the UAE.
  - There are increasing numbers of market entrants. Healthcare players must identify clear strategies and markets to differentiate their services in an increasingly competitive market, due to complexity of healthcare offering new players require careful planning to enter in the market.
  - The majority of private hospitals are established in urban areas of the UAE primarily Abu Dhabi and Dubai. Rural areas of the country are typically served by public sector providers. The introduction of compulsory health insurance across the UAE is likely to trigger greater participation of private healthcare providers in the rural regions of the country.

- Attracting and Retaining Quality Human Resources:
  - The major challenge facing operators is the ability to attract and retain quality staff in order to deliver on the promise of quality healthcare services. Operators desperate to recruit appropriate specialised staff have prompted a trend of poaching physicians from competitors. With a limited pool of established physicians, physician salaries have witnessed exceptional growth in the recent past in the UAE. A successful international recruitment process is paramount to operational success.
  - Further, it is quite common for nursing and allied health professionals to use their experience in the UAE as a launch pad to practice medicine in larger more established markets, typically spending only 3-5 years in the country. The pattern represents a significant burden on healthcare organisations.

- Funding Options for the Private Sector
  - Funding options are available to healthcare players. Al Noor Hospital, NMC Healthcare and Dallah Healthcare Holding have all successfully listed on regional or international exchanges (IPOs).
  - Banks are also actively seeking investments within the healthcare sector, however they are limiting exposure to established players with proven track records. Investors entering the healthcare sector with greenfield projects struggle to find project finance unless via recourse to alternative cash flows. Further difficulties arise with the terms offered. Healthcare investments are typically long term investments contradicting banks risk appetite which typically extends to terms between 5-7 years.
  - Typically real estate investments in the healthcare sector generate yields of 9%-11%, whilst IRR’s for healthcare operations range between 15% to 23%. Exploring the sales and leaseback model is an alternative approach for established players to improve returns through release of cash from noncore activities, and directing capital into core business strategies, in order to accomplish further growth.

- What Next?
  - The UAE suffers from a scarcity in healthcare facilities catering to niche specialities, maturity of the UAE market has transformed the private sector from general service provision to either specialist niche provision or general service but drawn from a platform of inter related verticals including pharmacies, clinic’s and hospitals.
  - Exploring the option of establishing satellite clinics is a beneficial approach for healthcare operators, as they ultimately act as feeders to their main establishment, and consequently improve figures. However, their are many players who are already exploring this option and thus requiring careful planning to enter in a highly competitive market.

Conducted Studies for the Following Specialities (2010-2013)
- General Hospital (20+ Hospitals)
- Maternity & Childcare (10+ Hospitals)
- Polyclinics (5+ Centres)
- Day-Care Centre (5+ Centres)
- Trauma & Rehabilitation (5+ Hospitals)
- Paediatric (5+ Hospitals)
- Cardiac (2 Hospitals)
- Oncology / Cancer (1 Hospital)
- Orthopaedic (1 Hospital)
- Medical College (1 Institution)