

A Study on "Healthcare and Life Sciences" Sector in Dubai

15 December 2008



In line with the on-going preparation of the **Dubai Chamber of Commerce and Industry** participation in the 2nd round of the Dubai Hamburg Business Forum 2008 which will be held in Hamburg during the period 18-19 December, **Dubai Chamber** prepared a number of studies on certain economic sectors which will be the pivotal issues to be discussed by the participants of the Forum, in order to explore areas of anticipated cooperation between the businessmen and investors from Dubai and Hamburg in Germany. This study focuses on the development of the healthcare sector in Dubai, challenges and potential areas of cooperation with the German companies.

1. Abstract

Socio-economic development in UAE, characterized by increasing per capita income and access to modern amenities and services, has led to changes in the population's nutritional and lifestyle habits. With adequate capacity for dealing with relatively low incidents of communicable diseases in place, new approaches to the delivery of healthcare services are focused on lifestyle-related medical conditions, such as cardio-vascular diseases, cancer and diabetes, and in providing facilities and services to accident and trauma victims and to children with genetic disorders and congenital abnormalities.

To address the need for upgrading the state of healthcare and life sciences in Dubai and consistent with strong public-private approach to healthcare, the **Dubai healthcare City {DHCC}** and the Dubai Biotechnology and Research Park (DuBiotech) have been established as free zones, actively encouraging investments in education, research and development, and in provision of modern approaches to delivery of health services. These are the **Dubai healthcare City {DHCC}** and the Dubai Biotechnology and Research Park (DuBiotech).

In June 2007, the creation of **Dubai Health Authority {DHA}** as the health body responsible for the entire health sector in Dubai was announced. Its targets include full health provision coverage for Emiratis by 2009 and phased coverage for expatriates over several years. Completion in 2015 features basic health provision in Dubai at par with international benchmarks.

2. Healthcare in Dubai

Responsibility for the administration of hospitals, health centres and clinics in Dubai currently lies with the **Ministry of Health [MoH]**, for **MoH** -run facilities, and the Department of Health and Medical Science **{DOHMS}**. In the meantime, the newly-created **DHA** is into the establishment structures for primary care and hospital funding, creation of new central clearing house, and recruitment of full-time staff to help manage programme.

The Dubai Health Provision Report (June 2007) cited a total of 2,934 hospital beds in Dubai, with 69 percent (2,021) in public hospitals. Healthcare professional manpower consisted of more than 6 thousand doctors; a thousand dentists; 7 thousand nurses; one thousand four hundred pharmacists and 4 thousand technicians. Under the **DOHMS** are 5 hospitals, while **MoH** supervises 2 hospitals. In addition to the public hospitals, 18 private hospitals and about 600 polyclinics and healthcare centres provide healthcare services. Some 400 pharmacies ensure wide access to medical consumables and equipment. Prices of medicines are regulated by **MOH**.

The recent mandatory health insurance policy, designed to ensure that everyone in Dubai are given access to healthcare facilities, has led to increased demands for health services and products. Further, in a move to facilitate access of blue-collar workers, a system to have them registered to health clinics in their vicinity is being worked out. In line with this, licenses for establishment of new clinics are given only to those locating in areas with insufficient medical facilities.

2.1. Medical technology and medical consumables

Until recently, healthcare in the emirate had been limited to the delivery of health services and medical consumables. The establishment of Dubai Healthcare City {**DHCC**} in 2002 is considered to be the first step towards a global hub for specialized healthcare and medical services in Dubai through the acquisition of locally available technologies as well as technologies from abroad and the operation of healthcare facilities such as hospitals, general and specialized clinics in all major medical fields, pharmaceutical companies, pharmacies, pharmaceutical warehouses and manufacturing plants, medical laboratories, x-ray centres and other facilities, industries, medical and healthcare services and support industries. It will be a base for establishing healthcare and medical corporations, institutions, foundations and other healthcare service companies that will directly or indirectly meet the needs and objectives of Healthcare City. It will also establish medical institutes and centres that conduct research and studies in the healthcare and medical fields. The Dubai Healthcare City has a total investment of approximately US \$ 3 billion will be completed in the year 2010. The four entities involved in delivering **DHCC's** vision are:

- Dubai Healthcare City Freezone (**DHCC FZ**)
- Center for Healthcare Planning and Quality (CPQ)
- Harvard Medical School Dubai Center (HMSDC)
- Dubai Harvard Foundation for Medical Research (DHFMR)

DHCC, the world's first healthcare free zone, boasts two complementary communities, namely, the Medical Community and the Wellness Community. The Medical Community, which focuses on acute care services, occupies an area of 4.1 million square feet. The Wellness Community covers 19 million square feet and completes **DHCC's** healthcare continuum by housing hospitals, outpatient clinics, luxury spa resorts, and the entire spectrum of wellness services.

The Mohammed Bin Rashid Al Maktoum Academic Medical Center is at the core of the **DHCC's** clinical and educational structure. This central core comprises five components, namely, the University Hospital; the Harvard Medical School Dubai Center Institute for Postgraduate Education and Research; the Dubai Harvard Foundation for Medical Research; Al Maktoum Harvard Medical Library; and Boston University Dental Health Center & Institute for Dental Research & Education.

2.2. Biotechnology and Research Institutes

A large project critical to the establishment of a viable local research base is the Dubai Biotechnology and Research Park (DuBiotech). The US\$400 million centre features a 300-hectare biotech science park with 30mn square metres of office and laboratory space. Presently, some 30 international companies are on the list of partners of the complex. The park comprises two main 'clusters': an Industry Cluster, and the government-funded Foundation for Research and Innovation (FRI). DuBiotech attracts a mix of biotechnology and pharmaceutical companies active in R&D, scientific discovery, testing, production, storage, sales and distribution, as well as business support and legal services, and venture capital (VC) firms specializing in the biotech industry, among others. Companies locating in the DuBiotech Park receive 100% exemption on corporate and personal tax guaranteed for 50 years, 100% ownership of their business, 100% repatriation of capital and profits, no currency restrictions, support services, simplified incorporation, and a fast-track visa-application process.

2.3. Pharmaceuticals

Pharmaceutical sector in UAE in general, and particularly in Dubai, is considered one of the vital sectors. There are eight pharmaceutical factories in UAE with investments totalling USD 64.2 million. Local manufacturing industry activity has increased notably over the past few years, with a strong focus on regional and global exports. The Leading player is the Gulf Pharmaceutical Industries (Julphar), in addition to the new companies that include Globalpharma, Gulf Inject and Medpharma, Neopharma and Pharmacare. On of the latest additions to the list of partners of DuBiotech is Pfizer International Corporation.

Dubai's pharmaceutical market was estimated at AED 1.1 billion in 2005. The value of pharmaceuticals in Dubai's exports in 2005 was AED 56. 4 million, while the imports were more than AED 1.2 billion. About AED 179 million of these imports were re-exported to other countries. In 2007, total exports of pharmaceutical products reached AED 84.4 million, while re-exports reached AED 194 million. Total imports during the year amounted to AED 2.15 billion. Largest suppliers of pharmaceutical products were UK, Germany and France, supplying 45 percent of Dubai's imports of the products.

The local manufacturing of pharmaceuticals is much less than other countries and it still need more to spend on R&D in the sector and to establish more developed institutions to provide quality products. The current manufacturing products are dependent on the unpatented products.

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2.4. Hospitals and clinics

The March 2007 Dubai Healthcare Provision Report cited 7 public hospitals; 5 of which managed by **DOHMS** and 2, by **MoH**. The former has capacity of 1,711 beds and the latter, 310 beds. Of the **DOHMS** managed hospitals, one is specialized in maternity/pediatrics, one is an emergency hospital, while the rest are general hospital. On the other hand, one of the **MoH** -managed hospitals is specialized in psychiatry while the other is a general hospital.

In addition, the 18 private hospitals added capacity of 913 beds. The Neuro Spinal Hospital, with 36 beds is specialized in neurosurgical and rehabilitation, while a hospital specialized in maternity and surgery had 14 beds, and one hospital specialized in plastic surgery has 4 beds. The others are general hospitals.

In addition to the above, the **DoHMS** manages 6 public specialty medical centres, while **MoH** managed a diabetes centre and a blood bank. A total of almost 700 outpatient clinics are operating in various parts of the emirate.

Other healthcare-related facilities included 22 dental laboratories, 227 optical shops, about 400 pharmacies and 65 drug stores (retailers).

Reported diagnostic services were 21 laboratories, 9 radio-diagnostics, and 15 radio-diagnostics and laboratories. Major diagnostic equipment included 10 MRI, 17 CT, 5 Gamma Camera, 16 Mamogram, 7 C.Cath Lab, 6 Liphotripsy, 58 Dialysis machines, and 9 Bone density.

Professional manpower included more than 6 thousand doctors, 7 thousand nurses, 4 thousand technicians, 1,500 pharmacists, and a thousand dentists.

2.5. Personal care manpower

Nearly half (49%) of the total number of nurses in Dubai were employed in **DOHMS**- managed facilities, while 6 percent were in **MoH** -managed facilities. In contrast, more than three-quarters (77%) of doctors were in private facilities and only 21 percent were in public facilities. Dentists and pharmacists in the private sector accounted for 84 percent of their respective total numbers, while 58 percent of technicians were in the private sector.

In the public sector, there were 3 nurses for every doctor. In the private sector, however, there were more doctors than nurses, for a nurse-doctor ratio of only 6 nurses for every 10 doctors, suggesting sharing of nurses' services in private clinics and healthcare centres.

2.6. Health Insurance

Historically, the Ministry of Health has been the primary healthcare provider in the UAE. Free, high quality care and medicines have been readily available at the government's hospitals and pharmacies. For the UAE nationals, healthcare is totally free of charge. Expatriates have been, until 2001, entitled to use the government's health services on deliverance of a health card, which costs as little as AED 300 (USD 82) per annum.

The Federal government has adopted an innovative strategy to introduce a comprehensive health insurance scheme throughout the country. This scheme has already started in Abu Dhabi but targeting only companies having employees greater or equal to 1,000. Recently, Dubai government issued a decision that Dubai's residents and visitors will be covered by a health insurance scheme. The government sets up a temporary health insurance policy committee to draw up a plan for health insurance in the emirate.

In April 2007, the Health Insurance Committee (HIC) was created to look into the future of healthcare funding in Dubai. In December of the same year, the committee submitted its full report and recommendations to The Executive Committee (TEC), leading to the health funding system to be implemented by the **DHA**, the agency taking over from **DOHMS** the responsibility for the entire health sector of Dubai.

The **DHA** health funding structure will be largely employer or sponsor funded, but does not stop individuals to secure private "top-up" health insurance in addition to the basic system which is compulsory. The basic principles of the funding system are:

- Outpatient Care Practices (OCP) will be at the centre and will be responsible for managing patient care.
- Patients have the right to treatment at the OCP in which they enroll.
- Hospitals will continue to be the sole provider of acute care, funded by the health benefits contribution (HBC).

2.7. Fitness and wellness

In addition to world-class services provided by hospitals and clinics, leisure and sports facilities are strategically located to provide the population with access to services and facilities for healthy activities. In addition, the emirate has a non-smoking policy in public places often visited by the general population.

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The Wellness program of the **DHA** is actively developing the health infrastructure which ensures that the roll-out scheduled for 2009 will lead to the full health insurance coverage for UAE nationals and start the smooth transition for expatriate population for whom full coverage will be attained over several years, culminating to the provision of basic health services equivalent to the international benchmarks.

In the immediate future, number of hospital beds is expected to reach 5,415 by 2010, or nearly double the capacity available in 2007. These will be made possible through the establishment and expansion of 9 hospitals in Dubai, contributing 1,075 beds to the current capacity; and 9 hospitals at **DHCC**, contributing additional 1,006 beds.

The initiatives of establishing **DHCC** and DuBiotech aligned with global positive healthcare prospects will increase the investment in the sector and attract more FDI to Dubai giving the growth of the population that expected to grow by 6%, the higher per capita income and purchasing power of both locals and expatriates residing in Dubai.

With modern hospitals and clinics, skilled healthcare manpower, and wellness facilities, supported by strong health tourism and modern transport facilities, Dubai makes a strong bid for leadership in the region.

4. Opportunities for bilateral cooperation

In view of the investment opportunities Dubai offers and the technology and expertise of Hamburg, opportunities for bilateral cooperation between Dubai and Hamburg include the following:

a. Transferring patients requiring special care/treatment. This requires established linkages among hospitals and clinics in Dubai and in Hamburg for flexibility and ease of transferring patients requiring special attention/treatment not available in the location

b. Research & Development partnership

- Establishing medical R&D in biotechnology, pharmaceutical and medical products and equipment
- Developing stringent regulatory standards for R&D on life sciences

c. Training and education of doctors and nurses through exchange programs and the establishments of medical institutions and centre

d. Popularization of e-health

- Learning new business models in delivery of healthcare
- Education of patients to accept non-traditional method of delivery of healthcare
- Re-education of health practitioners for acceptance of non-traditional method of delivery of healthcare

e. New concept of hospitals and delivery of services

- Increasing focus on prevention/wellness

- University hospitals

- New concepts of hotel based hospital care (indoor vis-à-vis outdoor)

- Development of specialized medical services to address population demographics (needs of aging population of Germany and needs of young and expatriate population of Dubai)

- Development of medical facilities and services for medical tourism

{Zawya}

