osec business network switzerland

The Health Care Sector & related Services
The United Arab Emirates

Compiled by:

Swiss Business Hub Dubai, United Arab Emirates

Dubai, July 2006

Summary of contents

Healthcare Sector & Services in the UAE.

1. Introduction

Where the east meets the west and tradition hooks modernity, the United Arab Emirates (UAE) is the perfect example of a how desert was transformed into skylines. The country is one of the wealthiest in the region with a GDP Per capita of US $ $27,000 (2005 Est.) Much of the development has been due to the country's vast oil and gas reserves forming some 30% of the GDP.

The UAE, a seven emirates federation compromises of Abu Dhabi, Dubai, Sharjah, Ras Al Khaimah, Fujairah, Ajman and Umm Al Quwain. The UAE currency is the E-marati Dirham (DH or AED) which is pegged to the US dollar at a rate of AED 3.673 Even though Arabic is the official language of the state, English is widely used in both government and business places.

The core challenges in the earlier stages of healthcare development were to bring about a decline in the cases of communicable diseases, treatment of minor ailments and ensuring safe child bearing. Later on, however; following the rapid change in the socio-economic status of the residents, prominence was given to provision of preventive services for non-communicable diseases, control of environmental hazards and accidents.

The other area where much attention went to, was in the field of preventive and curative health services and over the years, the UAE has made tremendous achievements where in 2000 it was announced that the slogans of 'Health for All' and 'End of Decade goals for Children and Women' had been achieved.

Together with diabetes which affects almost 20% of the population, heart related diseases (such as hypertension) and cancer are the main causes of death. Other reports show a high percentage of women suffering from osteoporosis mainly due to Vitamin D deficiency.

2. Market Overview & Trends

In recent years, there has been a huge influx of foreigners into the country who constitute almost 90% of the total population. Since its formation in 1971, the UAE government has constantly incepted plans to increase healthcare standards in the country. The UAE joined the World Health Organization **(WHO)** on March 30 1972.

In 1971 there were only 7 hospitals and 12 health centers, **by 2005**, however, there were a **total of 330 hospitals** (Public & Private, including Primary Health Centers and Dental Clinics, Maternal & Child Health centers, School Health Care Centers), 973 pharmacies and 138 medical stores, mostly concentrated in the three key emirates of Abu Dhabi, Dubai and Sharjah.

In the last few years there has been a steady annual growth of 10% in the healthcare industry and the momentum is expected to prevail due to the high rate of population growth.

The government of the UAE has been promoting investments in the private healthcare sector. Consequently, reports unveil a substantial decline in the cases of overseas treatment mainly because more locals and expatriates favor treatment inside the country. While the nationals receive free medical services, the expatriates, however; are required to pay for their treatment and drugs. Naturally, the UAE **Healthcare industry is composed of the public and the private sectors.**

<u>The main authorities involved in the ownership and management of the **public sector** are</u>:

(i) **UAE Ministry of Health (MoH)**

The Ministry of Health (**MoH**), with a budget of US$470 million in 2004 (was US $455 million in 2003), is the main provider of healthcare services in the UAE. It has federal responsibilities over the healthcare services in the UAE including managing the Northern Emirates healthcare system, **excluding Dubai Emirate**. <u>Approximately 5% of the MoH budget is spent on medical equipment, tools, and supplies.</u>
Currently **MoH** operates 27 hospitals with 2100 beds and 108 Primary health Centers (PHC's) distributed throughout the Northern Emirates.
The **MoH** plans for expansion and upgrade of healthcare systems are ongoing, including the construction of several public hospitals and extensions to existing hospitals. Moreover, the MoH has granted licenses for the establishment of several new private hospitals in the different emirates.
The **MoH** over the years has carried out several programs on National Immunization for preventive medicine and control of infectious and non-communicable diseases, medical training, and the enhancement of healthcare services in the UAE. Moreover, the MoH launched ambitious programs to develop and modernize all preventive medicine institutions nationwide to upgrade their services for all nationals and expatriates.

In the process of developing healthcare services, the **MoH** has adopted an up-to-date set of regulations to govern the provision, pricing of healthcare care services, and the licensing of practicing doctors and nurses. Regular inspection is conducted in hospitals and healthcare centers to make sure that prices are clearly announced, working staff have valid practicing licenses, and that hospitals follow the regulations with regard to medical waste disposal. A similar policy has been adopted by the Ministry to monitor the provision, validity, pricing, and side effects of pharmaceutical products in the UAE. **A list of approved pharmaceuticals is regularly reviewed by the Pharmaceutical Supply Division of the MoH** (access able at: www.moh.gov.ae – medicine & pharmacy control – list of registered medicines)

(ii) **Abu Dhabi General Authority for Health Services (GAHS)**

In 2001, **GAHS** was established by a royal decree with a mandate to manage all the **MoH** hospitals and primary healthcare centres (12 hospitals with 1805 beds & 46 PHC's) **within the Emirate of Abu Dhabi**. These include Khalifah Medical City, Al Rahba hospital, Al Mafraq Hospital, Al Ain Hospital and Twam Hospital & others. The aim of the **GAHS** is to upgrade and operate all of the Emirate of Abu Dhabi hospitals according to accredited international standards. **It is said to have an open budget for 2005, which could exceed US$800 million.**

Not only will the Curative Medicine be transferred to **GAHS**, but Preventive Medicine Services and monitoring of private medicine and pharmacy practice in the Emirate of Abu Dhabi will also be handed over to the **GAHS** in the very near future.

GAHS is committed to a strategy to upgrade their healthcare standards to internationally
recognized and accepted standards. The standard they have chosen is "Joint Commission for International Accreditation (JCIA)", which is universally accepted as the "gold standard" for healthcare accreditation and is very difficult to get, as it must be earned and maintained.

Moreover, the desire of **GAHS** is to establish centres of excellence. Each of its hospitals although currently serve as general hospitals will be identified as the reference centre for specific specialties. For instance, Al Mafraq Hospital in Abu Dhabi, which mainly focuses on cardiac surgery, including open-heart surgery and organ transplantation, will be a reference centre for these specialties. Similarly, Al Tawam Hospital in Al Ain and Al Mafraq Hospital in Abu Dhabi have special oncology departments offering therapeutic radiological facilities and surgical treatment for cancer patients. A number of hospitals, including Al Tawam Hospital have in-vitro fertilization laboratory for fertility treatment. **GAHS** has rehabilitation centres for elderly and disabled people, psychiatry hospital, herbal medicine centre, and a therapy centre. **GAHS** also has plans to open the first centre for treatment of cystic fibrosis patients in the UAE in the near future.

GAHS has recently announced that it is planning to move from the numerous publicly managed monopolies to public/private partnership models, as is the case with the UAE Government. This means everything, from hospital management of current facilities to new project development and services oversight/expansion are all effectively “on the table”, for review.

(iii) **The Ministry of Defense** / The Army Directorate of Medical Services **(DMS)**

DMS runs 3 hospitals and several field clinics. Healthcare services are provided to the military personnel and their direct family members. In 1999 DMS awarded a US 2.9 billion 14-year contract to a consortium of US healthcare service providers in a joint venture with a local company to provide medical services and renovate and upgrade the hospitals and clinics of the UAE Armed Forces. The contract was abruptly terminated two years later. Although the real reason for the contract termination has not been disclosed, DMS is very reluctant in outsource any of its services.

In an aim to nationalize its work force, DMS’s Continued Medical Education program, offering full scholarships for short term and long-term education/training opportunities to local physicians, nurses, technician, and hospital administration staff. Any DMS employee that applies for an international CME course is accepted on a full scholarship basis, provided that the course is a certified course and offered by a recognized institution.

Although the actual number was not disclosed, it is estimated that DMS sends over a 1000
patients each year for treatment abroad, mostly to the UK and Germany.

(iv) **Dubai Department of Health and Medical Services (DoHMS)**

DoHMS was established in 1972 by the Ruler of Dubai to provide healthcare services in the
Emirate of Dubai. DoHMS manages 4 hospitals, with 1524 beds: Al Maktoum Hospital, Rashid Hospital, Al Wasl Hospital and Dubai Hospitals, and 20 primary healthcare centers & peripheral clinics distributed throughout the Emirate of Dubai.

DoHMS hospitals provide specialized healthcare; for instance, Al Wasl Hospital in Dubai mainly specializes in obstetrics, gynecology, and pediatrics, and its subdivision Genetic and Thalassemia Center offers treatment and genetic counseling to patients with various inherited disorders of hemoglobin, including thalassemia. Al Wasl Hospital premises also include the Center for Arab Genomic Studies (CAGS), which was recently launched for establishing a database of genetic diseases prevalent in the Arab countries.

There has been talks within DoHMS about hospital privatization, but nothing is clear especially since DOHMS is planning to introduce a new health insurance scheme for the Emirate.

(v) Dubai Healthcare City (DHCC)

On November 5, 2002, Dubai launched DHC project, which is expected to be completed and
fully operational by 2010. DHC is expected to transform Dubai into a regional hub for specialized healthcare, and a center for medical education and research, serving patients from the entire region. DHC includes medical education and a research center, specifically addressing postgraduate schools and on the job education and clinical research. It will include a leading and innovative business center leveraging the integration of technology and healthcare services (e.g. **Tele-Health, E-enabled services**).

The **DHCC** project consists of three medical clusters:

1) **The University Medical Complex**, which includes a University Hospital, a Medical School, a Nursing School, and a Life Sciences Research Center.
2) **The Medical Cluster** which includes Day Clinics, a Specialized Diagnostic Laboratory, and a Rehabilitation Center.
3) **The Wellness Cluster** which includes, Check up Clinics and Sports Medicine.

The total site comprises of two phases, including disease treatment, prevention and wellness facilities. **Phase I** which has been completed and sold out, is located behind Wafi City, Dubai, it is approximately 4.1 million square feet in size.

Phase II, which is four times bigger than **Phase I,** is not completed yet and investment opportunities in this phase are already put on offer. It will be announced soon. **DHCC's** services and facilities will be available to the UAE, the whole of the Middle East, and surrounding regions. www.dhcc.ae

Total investments in phase I and phase II has been projected at US$2.9 billion. The first medical facility has already started operating since the first quarter of 2005. Mayo Clinic, has opened a full-time heart clinic at the DHCC staffed with a full-time cardiologist and support workers. Major heart surgery will not be done there, but the services offered are likely to increase.

DHCC and **Harvard Medical International** have formed a joint initiative at DHCC for Healthcare Planning and Quality (CPQ). The CPQ oversees healthcare quality, clinical planning, education, project management, training, licensing and credentialing within the DHCC. The CPQ's consulting program has been asked to assist in the enhancement of healthcare services and education throughout the region. Other major local private hospitals have plans in starting facilities at **DHCC**.

3. Population Trends & Analysis

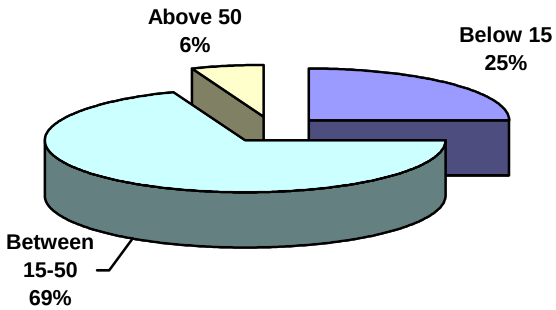
Since 1995, the total population has doubled from 2 million to 4.5 million in 2005. According to the Ministry of Planning the UAE has a fertility rate of 4% which is one of the highest in the world. Statistics from 2004 show that 63,114 babies were born, 27,273 of whom were UAE nationals.
Statistics published by the Ministry of Health (MoH) suggest that:

- Infant mortality rate fell from 11.4 per thousand live births in 1990 to 8.71 in 2004.
- Under 5 mortality rate fell from 2.4 per thousand live births in 1995 to 1.81 in 2004.
- Maternal mortality rate fell from 0.3 per thousand live births in 1990 to zero in the year 2003.

Average live expectancy at birth has increased from 70 to 74 for males and from 72 to 76 for females during the past decade and is now comparable to the developed nations.
The UAE has implemented various health campaigns through out where the Expanded Program of Immunization achieved an overall coverage of 94% of the target population. While measles is in advanced stages of elimination, no indigenous malaria transmission has been reported since 1997. The UAE has been a polio free country since 1992.

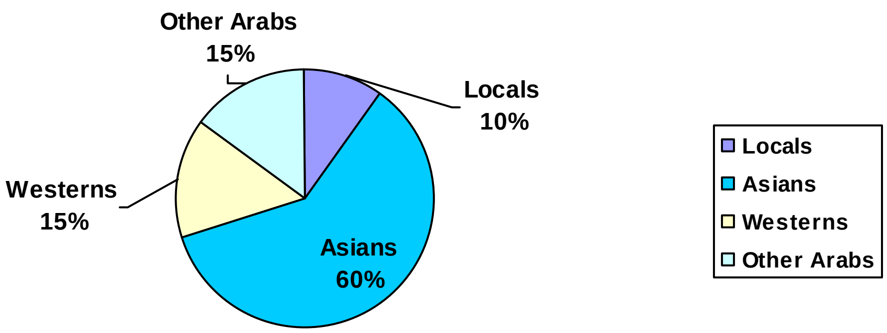
3.1 Population break-up by *(i)* age-group, *(ii)* nationality and *(iii)* income-group.

(i) **Population Break-up by age group**



In 2004, those between the ages of 15-50 years constituted almost 70% of the population representing the high number of working expatriates from which arises the need for specialties in orthopedics, cardiology, obstetrics and gynecology. Reports unveil that within this age group (15-50 years of old) males represent a higher percentage, almost three times that of females in the working population. While the youth group namely those below the age of 15 years amounted to 24%, the elderly group those above the age of 50 years fell in the remaining 6% of the total population.

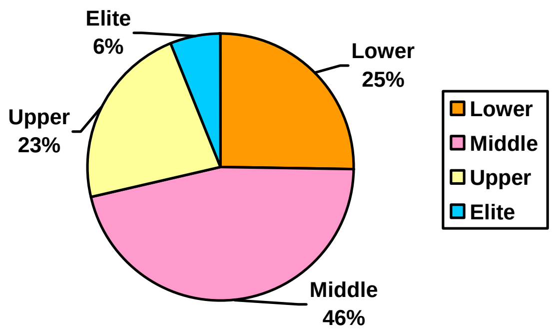
(ii) **Population break-up by nationality**



While the UAE nationals make up only **10%** of the population, the Asian community mainly people from South Asia (i.e. India & Pakistan) and the Far East (China, the Philippines) form **60%** of the population. The Western expatriates account for **15%**, whereas the non-local Arabs account for only **15%** of the total population.

(iii) **Population break-up by income group**

Annual Income (DHS)	%	Income Group
Less than 24,000	21	Lower
24,001-36,000	4.3	Lower
36,001-48,000	5.3	Middle
48,001-60,000	23.5	Middle
60,001-108,000	17.2	Middle
108,001-180,000	16.3	Upper
180,001-300,000	6.3	Upper
Above 300,000	6.1	Elite



The UAE nationals tend to have a very high buying power hence they are included in the Elite and Upper income group. The expatriates from the European countries who constitute approximately 15% of the population occupy high positions in various multinational organizations generally tend to have high incomes. The Asian Community who form 60% of the population can be divided into various income levels; the upper income businessmen, the middle executives and the lower income laborers. Furthermore, those receiving a monthly income between AED 3000 - 9000 make up more than 50% of the population which can be considered as middle income group. Although medical care is free for the UAE nationals, medical expenses is not an issue for them since they fall either in the upper or elite income level group.

4. Rules & Regulations

The main regulatory authorities are the following:

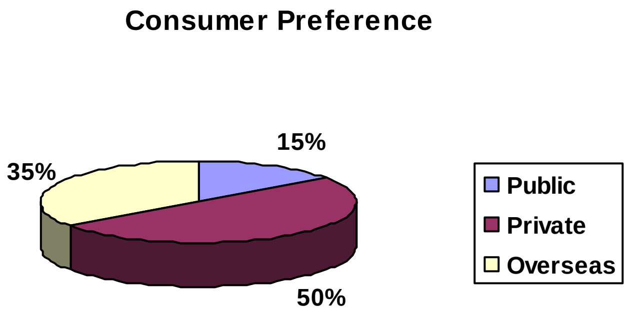
- *(i)* UAE Ministry of Health (**MoH**),
- *(ii)* Dubai Department of Health & Medical Services (**DoHMS**)
- *(iii)* The Dubai Health Care City (**DHCC**)
- *(iv)* The Abu Dhabi General Authority for Health Services **(GAHS)**

There has been an effective growth of regulatory activities as the country opts to level the domestic practices with the international standards. Since joining the World Trade Organization **(WTO)** in1996, the UAE government has sought to liberalize its laws in various areas, including the health sector to reflect the government's commitment to follow the WTO rules and regulations.

In general, all the above mentioned regulators ask interested investors to submit a feasibility study for their projects; this requirement will have to take population trends and needs into consideration. New establishments are required to follow the **American, British, Australian and Asian standards.**

5. The Health Care Industry & providers
5.1. <u>The public sector</u>

In the public sector there exists a disparity in availability of healthcare services between the urban centers and the rural areas, to tackle this problem, the **Ministry of Health** budget has increased from AED 1671.7 million (US$455 million) in 2003 to AED 1725.4 (US$470 million) in 2004. It has decided to invest US$ 326.7 million to build hospitals, clinics and healthcare centers covering the northern regions of the country. These projects are scheduled to be completed by 2008.



A recent survey by a local media has revealed that only 15% of residents would prefer to be treated in a state-run hospital while more than 50% preferred the private sector. The public sector has traditionally been associated with long waiting lists, shortage of medical specialists and a general mistrust of doctors. For a long time the government's programs were concentrated on improving the condition of medical services for the women, especially for those in childbearing ages, as a result, the Obstetrics and Gynecology are the only areas of the public health sector comparable to the private sector.

The UAE is divided into **nine medical districts**; <u>Abu Dhabi</u> (A.D), the West, Al Ain, Dubai, Sharjah, Ajman, Umm Al Quwwain (U.A.Q), Ras Al Khaimah (R.A.K) and Fujeira.

Statistics from 2005 published by the Ministry of Health (**MoH)** reveals that **it owns & runs 27 Hospitals & 108 Public Health Centers.**

5.1.1. Statistics break-up on Public Sector: *(i)* Manpower, *(ii)* Number of Hospitals, Primary Health Care Centers (P.H.C), Dental Clinics, Maternal & Child Health Centers (M.C.H), School Health Care Centers (S.H.C) and *(iii)* Number of Hospitals, Drs., Dentists, Nurses.

(i) **Statistics break up on:**

Manpower - **in 2004** *(public sector, managed by the Ministry of Health, Statistics provided by MoH)*

Category		A.D.	West	Al Ain	Dubai	Sharja	Ajman	U.A.Q.	R.A.K	Fujeira
	Doctors	705	125	355	212	391	100	81	223	143
	Dentists	105	15	21	33	31	14	10	24	19
	Pharmacists	76	2	15	40	27	6	2	9	5
	Technicians	1052	139	393	243	417	131	104	273	155
	Nurses	1691	285	947	425	1089	294	169	606	329
	other	1258	184	453	610	602	246	205	536	228

- **In sum:** There were a total of 2,335 doctors, 272 dentists, 182 pharmacists, 2,907 technicians and 5,898 nurses.

(ii) **Statistics break up on:**

Number of Hospitals, Primary Health Care Centers (P.H.C), Dental Clinics, Maternal & Child Health Centers (M.C.H), School Health Care Centers (S.H.C) **- in 2004** *(Public Sector, operated by the Ministry of Health, Statistics provided by MoH)*

.

District	Hospital	P.H.C	Dental Clinics		M.C.H		S.H.C	
			Central	Units	Centers	Units	Centers	School
A.D.	5	20	2	19	1	19	1	125
West	5	8	0	6	1	2	1	35
Al Ain	2	19	1	15	1	18	1	112
Dubai	2	9	1	9	1	8	2	88
Sharjah	5	16	1	11	1	14	2	115
Ajman	1	6	1	4	1	3	1	42
U.A.Q	1	4	1	4	1	0	1	19
R.A.K	4	17	1	13	3	13	1	70
Fujeira	2	9	1	8	1	6	1	34

- **In sum:** there were a total of 27 hospitals, 108 P.H.C, 9 Dental Clinics, 11 M.C.H and 11 S.HC.

(iii) **Statistics break up on:**

Number of Hospitals, Drs., Dentists, Nurses Etc. - *In* **2004** *(Public Sector, - NOT - operated by the Ministry of Health, Statistics provided by MoH).*

District	Hospital	No. Beds	Manpower						Managed by:
			Drs.	Dentists	Pharma.	Nurses	Tech	Others	
A.D.	Khalifa	214	166	4	114	395	165	633	Health Auth.
	Al Rahba	104	70	0	19	192	29	156	Health Auth.
	Kornaish	235	100	2	10	465	55	344	Health Auth.

	Police	59	86	21	10	241	40	15	Interior
	3 Defence		…	…	…	…	…	…	Defense
West	Al Rewaise	36	24	3	5	71	19	16	Adnoc
Al Ain	Tawam	397	223	29	35	749	304	717	Health Auth.
Dubai	Rashid	451	242	61	36	703	334	538	DoHMS
	Dubai	607	261	0	36	867	218	279	DoHMS
	Wasl	482	122	0	25	606	166	393	DoHMS
	Maktoom	56	189	0	63	524	134	376	DoHMS
	Iranian	160	19	8	11	223	159	226	Self
Fujeira	Iranian	…							

- **In sum:** In the public sector a total of 15 hospitals are not operated by the MoH.

5.2. The private sector

With 31 hospitals, 1461 beds & 1’281 private clinics, the government of the UAE has initiated plans to boost the market share of the private sector, as a result, **many new hospitals have entered the market and a steady increase in the number of hospitals is expected in the years to come**. This increase has brought in competition which is expected to result in availability of high quality and affordable treatment in the country.

In 2004, **the private sector accounted for 56% of the overall health expenditure** and a further increase is expected in the years to come. **The increase in the private sector has been mainly due to the government’s decision to no longer offer free medical assistance to the expatriates.**

Dubai’s Department of Health and Medical Services (**DoHMS**) has announced that the private sector will provide 70% of the health services in the next ten years. Studies reveal that the increased involvement of the private sector has resulted in shorter waiting time for the patients, made available the latest specialized treatments, highly talented specialists, made available modern and sophisticated infrastructure and has reduced overseas treatment.

5.2.1 Statistics break up on Private Sector: Number of Hospitals, Doctors, Dentists, Nurses, Private Clinics and Private Pharmacies.

(i) Statistics break-up on:

Number of Hospitals, Doctors, Dentists, Nurses, etc. **In 2004** *(Private Sector, Statistics provided by MoH)*

District	Hospital	No. Beds	Manpower					
			Drs.	Dentists	Pharma	Nurses	Tech	Others
A.D.	7	295	495	52	9	580	150	0
West	0	0	0	0	0	0	0	0
Al Ain	4	148	87	6	9	125	30	0
Dubai	13	421	356	40	56	756	233	810
Sharjah	3	140	164	15	10	164	49	0
Ajman	1	50	24	1	2	31	7	0
U.A.Q	0	0	0	0	0	0	0	0
R.A.K	1	20	11	2	0	4	0	0
Fujeira	0	0	0	0	0	0	0	0

- **In sum**: there were a total of 29 hospitals, 1,137 doctors, 116 Dentists, 469 technicians, 1,663 nurses.

(ii) **Number of Private Clinics** in 2004 reached 1479 operating all over the U-AE. *(Private Sector, Statistics provided by MoH)*

(iii) **Number of Private Pharmacies** in 2004 reached 954 operating all over the UIAE, with 1373 pharmacists. *(Private Sector, Statistics provided by MoH)*

6. Epidemic Trends

Percentage of Outpatients 2004 (Total No. 1,887,876) of inpatients 2004 (Total No. 159,007)

Specialty	% Outpatients	% Inpatients	% Ratio of inpatients
Internal Medicine	15.03	16.49	9
General	10.87	3.69	2.86
Pediatrics	9.97	17.38	14.68
Gynecology & Obstretics	9.91	27.61	23.47
Physiotherapy	9.08	0	0
Orthopedics	7.07	5.65	2.86
Dermatology	6.94	0.08	0.09
Opthalmology	6.33	1.56	2.07
ENT	5.65	2.98	4.45
Dental	4.97	0.32	0.55
General Surgery	4.63	12.57	22.89
Cardiology	3.22	5.31	14.92
Urology	2.86	2.54	7.49
Psychiatry	2.13	1.46	5.79
Neurology	1.04	1.9	15.37
Plastic Surgery	0.32	0.46	11.98
Total No.	**1,887,876**	**159,007**	

Statistics published by the Ministry of Health (MoH) for the year 2004 give the following idea about the epidemic pattern in UAE; Internal medicine with 15.03% has the highest number of outpatients followed by pediatrics 9.97% and Gynecology & Obstetrics at 9.91% while Plastic Surgery has the lowest number with 0.32%.

7. Medical Equipment
Medical equipment carries a five percent import duty

(i) **Market**

As per latest available statistics, the UAE market for medical equipment and supplies was estimated in 2004 at US$361 million, with US market share accounting for 28.5% of the total.

Considering the recent increase in the Euro & the CHF exchange rate, there is strong competition between the less costly US medical equipment in the local market. However, it is important to add that the Swiss quality image "Swiss made" of medical equipment, supplies, healthcare technology and services are considered to be highly reliable & are still purchased.

Major UAE medical imports are: diagnostic, therapeutic and patient monitoring equipment, which are perceived to be high technology and state of the art.

In view of the strong competition, the market still has much coming business opportunities for imaging and monitoring equipment, ventilators, life support and operating theatre equipment.
Local production accounts for only 7.5 percent of the market for medical equipment and supplies. Only 2 percent of imports and locally produced medical supplies are re-exported. The UAE imports medical equipment and pharmaceuticals mainly from the US, France, Germany, Italy, UK, **Switzerland**, Sweden, and Japan. In this respect, companies exporting medical equipment to the UAE are required to have a local agent registered with the MOH.

The most promising sub-sectors within the healthcare sector, with the estimates- 2004

Total Market Size of each in millions of US dollars:

- Diagnostic equipment **73**
- Therapy & Rehabilitation equipment **64**
- Disposables **56**
- Monitoring Equipment **50**
- Medical Aids **33**
- Surgical **22**
- Other **63**

(ii) **Analysis:**

The leading exporters of diagnostic imaging equipment are Germany, the Netherlands, US and Japan. Major market leaders are General Electric (GE), Philips Medical Systems, and Siemens which all compete vigorously in similar product lines. GE has the biggest market share in diagnostic equipment. Toshiba and Varian (Swiss/American) are other major players. In radiotherapy, Electa/Philips is number one player. In radiology, GE is dominant. In litho tripsy, Dornier (German) and Siemens are major players.
With regards to patient monitoring equipment, GE/Marquette (U.S) dominates the market. Other players in the market are Space Labs (U.S.), Siemens, and HP. US companies lead the market for Intensive Care Units (ICU) and Cardiac Intensive Care Units (CICU). Some of the equipment used in ICUs such as blood gas analyzers is European.
As for rehabilitation equipment, US companies dominate the market for non-electrical physiotherapy equipment and related consumables. Dutch and British companies lead the electro therapy equipment market. Laser equipment used in the different fields of surgery, dermatology, and physiotherapy are controlled by U.S. companies.
Endoscopy equipment, U.S. companies lead the market for rigid endoscopes used in invasive surgery. In diagnostic Ear, Nose & Thorax (ENT) Endoscopy, German companies dominate the market. Both European and U.S. companies compete in the market for laboratory equipment. As for dentistry equipment, European companies dominate 70 percent of the market. They are followed by the U.S. and Japanese companies.

Important health care & related exhibitions held here like "**Arab Health**", "**Arab Lab**" & "**AEEDC**" have often attracted good number of **Swiss & Lichtenstein producers of various kinds of medical equipment & related products and services, like:**

Swiss-Ray, Raymed AG, Varian, Arcomed, Ardo Medical, Belimed, Bien-Air, Ganzoni CIE, Hamilton Medical, AKD – Davos, Schiller AG, Linde Medical, Saremco, Tecan, EMS, Nouvage, Sodem Diffusion, Synthes, Derungs Licht, HMT AG, Salzmann AG, Straub Medical AG, Diaswiss, Edenta, JTC – Fulldent, Polydentia, Produits Dentaires, Straumann, Unident, A.Deppler, Dentsply, Buchi Labortechnik, Camag, Diamed, Metrohm, Mettler-Toledo, Precisa, Buchi AG, Bio Engineering, Socorex , Unisantis, and **many others.** It's believed that the coming projects, would bring good business opportunities to part/all these firms having business relations here.

8. End Users

At the moment there are **68 hospitals** with a total of **8,343 beds** in the UAE and well over **110 PHC's** well equipped modern primary health centers, and **11 Mother & Child Health Care Centers.**

The MoH runs 27 hospitals with 2100 beds and 108 PHCs, **GAHS** runs 12 hospitals with 1805 beds and 46 PHCs, **DoHMS** runs 4 hospitals with 1524 beds and 20 PHCs. The Department of **Defense** runs 3 hospitals and Abu Dhabi National Oil Company (**ADNOC**) runs one hospital with 36 beds. **The private sector owns 31** hospitals with a total of **1461 beds.** This is notwithstanding the 2 Iranian and maternity hospitals in Dubai and Fujeirah. According to the MoH, in the UAE there are 1281 private clinics, 200 of which are dental clinics.

Few hospitals, specialize in one field; Mafraq, for example, is known for being a cardiac centre. It has also recently installed a radiotherapy system. Corniche Hospital is a maternity hospital. Tawam Hospital specializes in radiotherapy and cancer treatment being the first hospital in the UAE to install radiotherapy systems.

9. New projects & upcoming business opportunities:

The UAE, is witnessing a big boom, which has covered all sectors. In this respect, latest media reports mentioned big number of health care projects, including:

-On 5th March 2006, Mr. M Al Abbar, Chairman of the famous property developer "**EMAAR**" has revealed the plans to invest about **US$ five billions** during the next 10 years **to build 100 state of the art hospitals with a capacity of 20'000 beds.**
-As per Al Khaleej Arabic Newspaper of 16th May 2006, "**PMG Financial Consultants**"in Saudi Arabia, announced their promotional campaign to raise **US$3.6 Billion** to establish "**Dubai Health Centre**", that includes hospitals, specialized clinics & a 5 stars hotel. Other involved partners are "World Care Wellness International", "Duke University - USA" & others.
-**The International Golden Group** will be investing in a US$27 million Ozone Centre in **Abu Dhabi** to promote Medical Tourism in the UAE. Land has been allocated and project to be tendered soon.
-**The Ministry of Health** (MoH) has approved eight healthcare projects for the Emirate of Fujairah in the **2005** budget. **The projects, all under construction**, include medical clinics and centers, and providing hospitals with proper equipment and staff.
-**Mubadalla Development Program** "**Offset**" will open a new Diabetes Centre soon in cooperation with the Imperial College Research Centre. The Centre will have several clinics that deal with diabetic patients and an awareness centre for prevention/control of diabetes.
-**The Ministry of Public Works** has recently put up for tender five hospital construction projects. The projects are for a 180-bed maternity and pediatric hospital in Sharjah, a 150-bed psychiatric hospital in Dubai, a general hospital in each of Umm Al Quwain and Ras Al Khaimah and a hospital in Masfoot in Ajman.
- A new 300-bed private hospital is planned for Al Barsha area. The construction cost of the project, owned by the **Saudi German Hospitals Group**, is estimated at around

US$100 million. The project will be built on a 91,973 square meter plot of land, with the total area of the hospital building to come to 39,016 square feet.
- **The General Authority for Health Services in Abu Dhabi (GAHS)** has plans to revamp all of its 46 existing Primary Healthcare Centers (PHCs) in the Emirate of Abu Dhabi.
The plan includes setting up of new additional centers that will provide a complete one-stop healthcare for Abu Dhabi residents both the nationals and expatriates.
GAHS will adopt the concept of the Family Medicine Model of Care, focusing on preventive, and curative, which is community, based and caters to the needs of the whole family from newborn to elderly. As the first step, some of the existing centers will be renovated and upgraded while some will be replaced with new buildings.
The **GAHS** will also build 10 state-of-the-art centers of different categories with facilities including a specialty clinic, laboratory, pharmacy, X-ray, ultrasound, dental clinic, woman and child health services etc.
It has plans to interlink the hospitals and the Primary Healthcare Centers in the Emirate of Abu Dhabi (a US$20 million fully integrated hospital information system for all of its hospitals and clinics) with an electronic network system that will facilitate sharing of information on treatment, medication, consultation and referral.

It also announced granting of **three licences to the investors in the private sector for building three new hospitals**. Each of the hospitals is expected to have **150 beds** and each one will specialize in a different area; one will specialize in Maternity & Childcare, one in Cancer treatment while the remaining one will be a General Hospital. The projects are expected to be acquainted with international health standards and will be built on a total budget of AED 380 million.

- **The Department of Health and Medical Services** - Dubai **(DoHMS**) approved the Electronic X-ray and Medical Imaging project for all DoHMS medical centers and hospitals and directed the replacement of all existing equipment with digital equipment for the purpose of linking all **DoHMS** x-ray equipment electronically.

A new government hospital called the **New Rashid Hospital** is going to be built in Dubai. The hospital will have 600 beds and will offer, among other things, improved dental services and a unit for the control of infectious disease. The New Rashid Hospital will be operated by the Dubai Department of Health and Medical Services (**DoHMS**).The project will cost AED 300 million (US$90.00 million) and is expected to be opened in late 2007.

- The Government of Fujairah is planning to invest in its famous Al Ghamoor sulphur water spring, turning it into a health centre and a tourist destination. The spring has been attracting visitors from the UAE and the Gulf States as well as other countries for decades. The spring is targeted by patients who are convinced of the water's curative effects on different diseases including joints and back pains, skin diseases and rheumatism. An optimal health centre included different units for physiotherapies will be established to provide integrated health services to visitors of Al Ghamoor spring.

Major on going projects

Dubai & northern Emirates

- Dubai Health Care City (DHCC)
Good number of the planned projects is already operating, the rest to come in due time, it is expected to be completed by 2010 and will be built on a budget of US $ 1.8 billion.

- "DuBiotech"
"**Dubai Biotechnology**" initiative is to "advance research and foster biotechnology in the region." The project will consist of a 300-hectare biotechnology science park with 30mn square meters of office and laboratory space. The park will be composed of **two main** '**clusters'**; an **Industry Cluster and the Foundation for Research and Innovation (FRI)** which will focus on government funded research and development.

The core activities of the park will include, among other things:
Biotechnology research, Pharmaceutical R&D, Medical Devices, Forensics and Agricultural Biotechnology. Companies operating in the park will enjoy **100%** exemption on corporate and personal tax guaranteed for 50 years. The park also offers 100% foreign ownership, 100% repatriation of profits, no currency restrictions, easy company registration and a fast-track visa application process. The DuBiotech will be built on a budget of **US $ 400 million** and the first phase of the project is expected to be completed in the year 2006.

- On 11th April 2006, "**Welcare World"** a project of AED 1 billion will be built in the Dubai Health Care City (DHCC). The hospital is expected to specialize in Cardiovascular and Orthopaedics. **Welcare World** is a part of **Varkey Group** who has a long history of delivering health services in the UAE.

- Sharjah Emirate:

In association with the **Monash University of Australia**, a new hospital called the University of Sharjah Hospital will be built alongside the Sharjah University. Medical students will have the opportunity of continuing their clinical studies at the hospital. The hospital will have 500 beds and is expected to be completed in 2007.

10. Medical Tourism

With 106 airlines currently operating at the Dubai International Airport offering flights to 145 destinations around the world, Dubai Emirate has put forward a plan to attract as many as 15 million visitors by the year 2010. The presence of such a large number of people will create a significant demand for healthcare services. Moreover, Medical Tourism Industry is one of the fastest growing multi-billion dollar market worldwide and Dubai's world class hospitality character will help the smooth development, and create investment opportunities in this area.

Medical tourism generally defined as the provision of 'cost effective' private medical care in association with the tourism industry for patients who need surgical and other forms of specialized treatment is like any other leisure product and the medial treatment for various ailments are included with recuperative leisure packages at world class tourist resorts.

Medical tourism is being actively promoted and highly acclaimed in many parts of the world. Thailand, for example, in 2003 generated approximately US $ 280 million in revenue for treating some 308,000 foreign patients. While in the Arab world Jordan in 2002 was able to make US $ 600 million for treating 109,000 Arab patients. Reports and forecasts reveal that the Medical Tourism market in Dubai could reach one billion US dollars by the year 2012.

11. Visiting Professor program

This important program is adopted & followed by all official health providers; (MoH) Ministry of Health, **(GAHS)** The Abu Dhabi General Authority for Health Services **and** (**DoHMS)** Dubai Department of Health & Medical Services, where approximately 50-60 foreign visiting doctors a year are invited each month coming mainly from the UK, Germany and US, to tend to patients and treat difficult cases & perform surgical procedure.

The average stay of a doctor is 1 week and the average number of patients seen is 50-60. This is a very successful program that brings considerable image to the involved hospitals & foreign countries. According, to **DoHMS**, offers from doctors/institutes interested in providing such services are welcome. Those interested can submit their proposals and based on patients' needs, DoHMS will invite them.

12. Health Insurance & eHealth Card

According to the law, each person residing in the UAE must have a health card to access the
public sector hospitals and healthcare centers. Services are provided for a fee set by the **MOH/DOHMS** and are considered by far lower than the fees charged by the private hospitals and healthcare centers in the UAE. The possession of a valid health card is a pre-requisite for residency visa renewal at all Emirates. Expatriates residing in the UAE are charged USD 80 for the health card, which is valid for one year. UAE nationals, however, pay only USD 27 for their annual health card and enjoy the privilege of free-of-charge medical treatment in public hospitals, healthcare centers, and laboratories.

The cost of healthcare is continuing to increase, as is the expatriate population within the Emirate of Abu Dhabi, thus the need to underwrite primary care healthcare cost for those who access the public facilities and services is inevitable.

GAHS is the first to take steps to introduce a private healthcare system. It is currently finalizing the first draft of an insurance law that makes it mandatory for employers in the Emirate of Abu Dhabi to shoulder the costs of health insurance on behalf of their employees. **GAHS** officials stated that it wants to locate a technical partner that can help with laying down a foundation for an insurance company. **GAHS** met with five companies in Germany and the United Kingdom recently to help with the establishment of the insurance company, which would be the first in the UAE to be specifically concerned with health insurance. The proposed capital of the insurance company is estimated to be about US $136 million, which should provide comprehensive insurance policies for about 700,000 expatriates in Abu Dhabi.

It is said that the MoH and **DoHMS** also have similar plans to be implemented in the near
future. Mandatory health insurance will alleviate much of the financial strain of governmental healthcare expenditures. At the same time it will provide expatiates a wider range of choices as to which healthcare provider they will choose, be it public or private**.**

The eHealth card a combination of the eGate Card* and the regular health card will be mandatory for expatriates and companies who apply for a residency visa. The eGate Card is expected to expedite the visa application and the medical examination procedures.

* The eGate Card facilitates passport control procedures when leaving or entering the UAE.

13. Tariff rate / import duties

Tariff rate and import duties both are **fixed at 5 percent**. For further info please visit **"Dubai Ports, Customs & Free Zones Corporation"** on**:** **www.dxbcustoms.gov.ae**

14. Upcoming Trade Events

Arab Health Exhibition 2007
Date: 29th Jan. – 1st Feb 2007
Website: **www.arabhealthonline.com**

Arab Lab Exhibition
Date: 11th – 14th Feb 2007
Website: **www.arablab.com**

AEEDC (Dental Exhibition)
Date: 21 – 24th Oct 2007
Website: **www.aeedc.com**

These Dubai held exhibitions are the most important, successful health & related shows and are the largest related events in the Gulf & the Middle East.

15. Conclusion, personal impression, recommendation

A country that started off with basic health care services has rapidly transformed itself into a world class health destination. Credit should be given to the policy makers of the country who have constantly sought developing the infrastructure of, and created friendly business & residential environment in the country. **Today, the UAE ranks the 2nd among the Arab nations and 41st among the 177 UN member countries in terms of human development**.

The expenditure on the health sector remains one of the highest in the region with the involved authorities investing around US $ 600 million annually in the heath sector. The UAE is on the verge of experiencing a demographic transition where the elderly population is growing at a rate of 10.3 percent annually. The growing elderly population will require delivering of additional health services in coping with age related disease. The UAE will continue to invest in the healthcare industry and the private sector will enjoy even more opportunities to deliver first class medical services in the country.

In conclusion, it's believed that the combined efforts of all involved authorities & private investors to make the UAE in particular & Dubai Emirate in particular a "Health Care Destination" deserves much consideration from all Swiss Health Care & related, due to the great number of business opportunities to be carried out in the soon future.

In this respect, it's recommended that all Swiss firms interested here that they better keep good eye on this market, maintain, develop & follow up existing relations with local agents, importers and distributors.

*The given statistics (**2004-the latest available**) & analysis of **SBH Dubai** is to hopefully reflect a true picture to all Swiss health sector & related promoters in prioritizing and setting up their goals & plans.*

16. Useful addresses

The UAE Ministry of Health (MoH)
P.O. Box 848, Abu Dhabi, UAE
Tel: 971-2-6330000
Fax: 971-2-6313525
Website: www.moh.ae

-H.E. Humaid Al Qatami - Minister of Health
-H.E. Mr. Hassan Alkeem - Secretary General
-H.E. Dr. Abdul Raheem Abdullah Ja'fer -Secretary General (Consultant with Ministerial level)
-Mr. Abdul Ghafar Abdul Ghafour - Asst. Under Secretary for Curative Medicine
-Eng. Haifa Al Safi - Director Purchasing Department

The Abu Dhabi General Authority for Health Services (GAHS)
P.O. Box 5674, Abu Dhabi , UAE
Tel: 971-2-4493333
Fax: 971-2-4447688
Website: www.health.ae

-Dr. Ahmed Al Mazroui - Director General
-Eng Zaid Al Suksuk – Head of Planning

Dubai Department of Health & Medical Services (DoHMS)
P.O. Box 4545, Dubai, UAE
Tel: 971-4-334 4333
Fax: 971-4-336 6600
Website: www.dohms.gov.ae

-Mr. Qadhi Saeed Al Murooshid - Director General

Directorate of Medical Services (DMS) - at the GHQ of UAE Armed Forces
P.O. Box 3740, Abu Dhabi, UAE
Tel: 971-2-4448100
Fax: 971-2-4444081

-Dr. Ahmed Abdullah - Director of Medical Services
-Dr. Asma Sultan Al Mughery - Deputy Director of Medical Services
-Dr. Ali Obaid , Commander - Zayed Military Hospital

Dubai Healthcare City (DHCC)
P.O. Box 66566 Dubai, UAE
Tel: +971 4- 324 5555
Fax: +971 4 - 324 9000
Email: info@dhcc.ae
Website: www.dhcc.ae

DuBiotech
Dubai Biotechnology and Research Park
Tel: + 971 4 - 390 2222
Fax: + 971 4 - 390 8444
Email: info@dubiotech.com
P.O. Box: 73000 Dubai, UAE
Website: www.dubiotech.com

17. Data Sources

UAE Ministry of Health (MoH)
National Health Report 2004
BMI
Local newspapers & Magazines

Date:	Dubai, 19.07.2006
Author:	Wafa Y. Hijjawi, Adib Fahim
Author's Address:	Swiss Business Hub Dubai P.O. Box 9300 Dubai, United Arab Emirates Phone +971 4 329 09 99 Fax +971 4 331 36 79 E-Mail: sbhdubai@dai.rep.admin.ch