

HOSPITAL INDUSTRY IN LEBANON

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Asset Management Unit Head office Riad El Solh Square Esseily Bldg - 7th Floor P.O. Box: 11-7048 Beirut - Lebanon Tel: +961(1)992705/6/7/8/9 www.bemobank.com Subsidiaries/Associates/Sister Bank

BSEC Structured Finance

3rd Floor Bloc A Two Parc Av. Blg, Minet El Hosn Beirut - Lebanon Tel: 00961-1-997998 **Bemo Europe - Banque Privée Bemo Paris** 63 Avenue Marceau 75116 Paris - France Tel: 0033-1- 44 43 49 49 www.bemo.fr

Bemo Luxembourg 18 Bvd Royal, L-2449 Luxembourg Tel: 0035-2-22 63 211 Advisor: Mr. Salim ChahinePh. D



Executive Summary

Lebanon is one of the most dynamic healthcare markets in the Arab region. The country remains a regional leader in healthcare, the standard of healthcare in Lebanon is world-class it has one of the better quality healthcare sectors in the Mid-East, it enjoys a growing health tourism and cosmetic surgery sector, and spends a noteworthy percentage of GDP on healthcare, the highest rate in the MENA region.

Despite its superior services to neighboring countries and it resilience to the global recession, the Health care sector in Lebanon is recently wallowing in a slowdown due to the negative spillovers from the neighboring conflict in Syria and the increasing cost of Healthcare. Nevertheless, Medical procedures in Lebanon cost less than they do in Europe or the United States.

The majority of the Lebanese individuals benefit from Health insurance, approximated at 76% coverage of the population.

The local healthcare consumer can be considered to be sophisticated in comparison with other regions. The consumer behavior is more oriented towards the selection of the doctor they wish to be treated by, rather than the hospital they wish to get care from. This behavior drove large hospitals to attract specialists and doctors to their counters leading to clustering of the key players in the industry around those large medical centers.

Lebanon is considered as a hub for medical treatment of the GCC Countries for the proximity of distance, language and culture. GCC Countries which subsidize treatment abroad for their nationals stopped referring their nationals to Lebanon due to the unstable political climate.

Lebanon benefit from an advanced academic and educational background within its population and a considerable portion of it is oriented towards healthcare. There are 3.54 doctors per 1000 people, over double the regional average. The high level of education in other sectors, such as technology, also allows Hospitals in Lebanon to maintain competitiveness in the region by improving the services offered and upgrading their equipments.

The Lebanese system is dominated by the private sector which is responsible for 90% of all total services according to the WHO. Lack of regulation of the private sector drove the industry to have an oversupply of private hospitals clustered in one area. The hospital sector suffers from distortions at different levels, including uneven geographical distribution of hospitals, dominance of inefficient small-size hospitals, limited supply of public beds, and low occupancy rates.

Lebanon also has presently and oversupply of doctors, while having a shortage in nurses and basic help staff. Services are in general specialized and advanced, and basic health services are underdeveloped, especially in rural areas.



Demographic Indicators

Population

The population in Lebanon is estimated around 4.8 Million according to the United Nations report, constituting around 2% of the total Western Asia population. Amongst the Western Asia countries, Turkey crowns the highest population number estimated around 73 Million, Followed by Iraq with 32 Million and Saudi Arabia with 28 Million. The Country with the lowest population number is Cyprus with 1.2 Million, while Bahrain and Qatar are second and third with 1.3 Million and 1.85 Million respectively. Lebanon is ranked the 8th with the lowest population among the 18 countries surveyed.

Population in Lebanon (In Millions)



In the last decade, Lebanon's population grew around 4.70%, relatively higher than the average of its neighboring countries which grew at 4.30%. However, according the United Nations' World Population Prospects (2012 Revision), Lebanon population growth is expected to contact between 2015-2012 before growing at a rate significantly lower than the average of the Western Asia region.

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An expansion of the population offers an opportunity for the Hospital industry as more patients will be visiting their premises. Considering strictly the population driver for the Healthcare industry, the subdued growth in the Lebanese forecasted population combined with the high cost of establishing a hospital and the extended payback period do not attract new investments in the sector.





Crude Birth Rate/Crude Death Rate

The crude Birth Rate in Lebanon is relatively lower than the region, currently standing at 13.5 per 1000 individuals while the regional average is at 21.8 per 1000 individuals. The Death rate is consistent with the regional benchmark; Lebanon's death rate is 4.4 per 1000 individuals compared to 5.1 per 1000 individuals amongst the countries in study. These indicators combined reinforce the argument of a slowing population growth in Lebanon limiting the size of the market that hospitals could operate within.



Age Structure

Data Published by the United Nations indicated that Lebanon has a relatively elder population that western Asia. Lebanon population aged between 0-4% represent strictly 6.5% of the total population in comparison to 10.2% in the region, while the percentage of the population aged between 5-14% represent 13% compared to 19.1% in the neighboring countries. The portion of the population aged above 60 years old is significantly in Lebanon than the average of the countries surveyed standing at 12.4% while the average stands at 8%.

In reviewing the changes in the age structure of the Lebanese population, the trend indicates a budge in the population towards an aging one. The share of young population aged below 14% is forecasted to contribute to a meek 15% combined in the upcoming decade while the share of the 60+ population is forecasted to increase nearly the quarter f the total population with a notable surge in the elderly residents.

The shift in the age structure towards an aging population presents an opportunity for the Hospital sector that could benefit from the need of this age group for Healthcare and prevention needs.









Health Indicators



Data compiled from the United Nations indicate an increasing life expectancy rate for the Lebanese population, and at a moderately higher rate than the western Asia. Lebanon currently has a high life expectancy age 80 years compared to an average of 73.4 years in the region. This high rate is mainly attributed to the high per capita spending on healthcare in Lebanon and to the higher than average standards of healthcare.

However, the elongated life of individuals is convoyed with an increasing number of chronic disease and an increasing need for healthcare. All else held equal, an increase in the life expectancy will positively affect the future use of hospital inpatient services.

Infant Mortality

Infant mortality reflects the quality of medical infrastructure among other variables. Improving immunization against infectious diseases, and access to healthcare help reduce rates of infant mortality. In Lebanon, the low rate of infant mortality 8.3 infant deaths per 1000 births suggests an above average medical infrastructure and higher level of doctors education and advisory. The region's average rate is 22.7%. In the last two decades, the infant mortality rate dropped significantly in Lebanon from 25% to the current levels. According to the United Nations World Population Prospects (The 2012 Revision)

Under Five Mortality

Child mortality rate in Lebanon currently stands at 10 deaths per 1000 individuals, whilst western Asia average rate stands at 29 deaths per 1000 individuals. The low rate of Child mortality in Lebanon reflects abundance in the basic and primary healthcare services in Lebanon.

Probability of dying

The Probability at birth of not reaching the age of 40 in Lebanon is 5%, it is ranked the 101st among 111 countries surveyed according to the World Development Indicators database. The probability of dying between the age of 15 and 60 is 99 deaths per 1000 individuals for the Females and 148 deaths per 1000 individuals for the males















The Current Health Care System



Health expenditures



Source: World Bank Data





Source: World Bank Data





Source: World Bank Data











Health expenditures

The total expenditures per capita in Lebanon has been growing at an average rate of 3.81% between 1996 and 2011, however remarkable increase in the total expenditure per capita is witnessed in last half decade where total expenditure per capita grew at an average of 6.32%. The current Health expenditure per capita in Lebanon is estimated at 622 USD, amongst the highest in the world.

The public share of total health expenditure was estimated at 25.50% in 2011, entailing a heavy burden on the household income that has to ensure the rest.

The share of health spending as a percentage of total government spending dropped to 5.80% in 2011 from a high of 11.87% in 2005.

Lebanon is ranked the 15th in terms of private Health expenditure as percentage of GDP according to index mundi website; Sierra Leone is ranked the highest the highest at 15.45%.

On the overall, public expenditures on health, as a percentage of total expenditure has been decreasing, and total expenditures on health per capita in Lebanon have been increasing indicating a shift of the medical and health bill burden from the government to households.

Furthermore, external resources for health as percentage of total expenditure on health have been decreasing recently contribution to an immaterial 1% of the total. Out-of-Pocket health expenditure has been increasing in the last decade reaching 56.47% as percentage of total expenditure on health and 75.80% as percentage of private expenditure on health, limiting the ability of the hospital industry to further grow due to the higher burden born by private households.

Households that have difficulties paying medical bills may delay or forgo needed health care. If the financing of health care becomes more dependent on out-ofpocket payments, its burden is shifted towards those who use services more, and possibly from high to low income earners, where health care needs are higher leading part of the Lebanese population to poverty or worsening health conditions.

External resources for health (% of total expenditure on health)





Budgetary resources Indicators

	2009	2010	2011
Allocated to MOPH from Total Gov Budget	2.70%	2.50%	2.70%
Annual Budget of MOPH Billion (in LBP)	439.7	486.7	527.9
Annual Budget of MOPH per capita (in USD)	73.3	82	87

With a modest allocation of 2.7% of the total government budget, the MoPH has to cover the hospitalization cost of uninsured patients and provide them with expensive treatments that cannot be afforded by some households

A proportion of the MoPH's annual budget is allocated for covering uninsured patients, with the aim of ensuring universal accessibility to health services. These allocations have been growing over years with the development of the Ministry's financing function, leaving scarce resources to prevention, public health and regulation functions (MoPH, 2009).

According to the National Survey of Household Living Conditions in 2007, 48.3% of the interviewed population declared being covered by one or more public or private insurance schemes (CAS, 2009). Accordingly, 51.7% of residents are not formally covered by any public or private agency, and hence, more than two million people are entitled for MoPH coverage, regardless of their ability to pay. To undergo hospitalization (or tertiary treatment), an uninsured patient pays 5% of the bill in public hospitals, and 15% in private hospitals, 12% being the employer share and 3% that of the employee (Decree Numbers 2195 and 3686), while the MoPH covers the rest of the due amount (MoPH, 2012).



Distribution of Hospitals



Source: Ministry of Public Health

■Private ■Public



Source: Ministry of Public Health







Geographical Distribution of Hospitals





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Distribution of Hospitals

Distribution of Hospitals by Number of Beds			
Number of Beds	Public Hospitals	Private Hospitals	
Up to 70 beds	14	96	
71 to 200 beds	6	43	
Over 200 beds	0	4	

Source: NHA Matrices

There is a total of 163 Hospitals contracting with the MoPH, 84.66% of the Hospitals are private Hospitals while 15% are public hospitals. The highest concentration of hospitals is attributed to Mount-Lebanon with 37.40% of the total number of hospitals while the lowest number of hospitals available is in Nabatiyeh at 675%.

Amongst private hospitals, Mount Lebanon holds the highest number of hospitals (40.58%) followed by North Lebanon (18.84%) with the lowest number existing in Nabatiyeh (3.62%).

Between public hospitals, the highest number of hospitals available is in North Lebanon and Nabatiyeh (24%) with the lowest number in Beirut and South Lebanon (8%).

Number of Admissions by Type & Location



Source: Ministry of Public Health

■ Private ■ Public



Number of Admissions by Type & Location



The latest reported number of admissions In the Lebanese Hospitals is estimated around 236,634 admissions. The share of the private hospital is estimate around 69.41% compared to 30.59% of the total number of admissions.

Mount Lebanon has the highest rate of admissions (23.28%) followed by North Lebanon (21.28%) while the lowest admission rate is in Beirut (9.82%). Amongst private hospitals, Mount Lebanon holds the highest share of admission (27.48%) followed by Bekaa (23.4%) with the lowest number existing in Beirut (5.37%).

Amongst public hospitals, the highest number of admission is in Nabatiyeh (21.64%) followed by North Lebanon (21.37%) with the lowest number in South Lebanon (8.27%).





However, considering the number of Hospitals available as indicated in the Admission/number of Hospitals Heat-Map, Mount Lebanon has the lowest ratio 903 admissions per hospital, indicating an oversupply of hospitals in this region, while Nabatiyeh has the highest ratio 2255 admissions per hospital reflecting a relatively higher demand and an opportunity for the emergence of new hospitals in the region.



Evolution of Admission Type

According to the Ministry of Public Health, year after year, the public hospitals are continuing to offer an improving quality services, and their admissions have been increasing steadily. But, this increase has reached a plateau revolving around 30/70 ratio with the private sector. This is due to the fact that originally the number of public active beds is lower than that of the private beds in addition to reaching a maximum occupancy rate in the public hospitals.

Public vs Private Admissions trend



Source: Ministry of Public Health/Bemo Research

Hospital Beds Availability



Hospital beds Growth vs Population Growth



Supply of Beds



Source: World Bank Data

The supply of beds in Lebanon has been balanced since 2005; the number of beds available per 1000 individuals was maintained between 3.43 and 3.60. Currently, the number of hospital beds available in Lebanon s estimated around 14864 beds, i.e. a ratio of 3.5 beds per 1000 individuals. Among 181 Countries surveyed by indexmundi website, Japan has the highest hospital beds density, 13.75 beds/1000 populations while Ethipia and Cambodia have the lowest rate at 0.18 and 0.1 beds/1000 population. Lebanon is ranked 59th in total, however, as compared to the Arab World, and excluding Israel, Lebanon is ranked the 1st.



Hospital Beds Availability



Source: Index Mundi

Physician's Availability



Physicians (per 1,000 people)





World Bank data evidenced the availability of 3.5 physicians per 1000 individuals, which according to data collected by indexmundi ranks Lebanon the first amongst the Middle East countries (Ex-Israel). Between the countries surveyed, Cuba is ranked first with 6.5 physicians available per 1000 individuals whilst Lebanon is ranked the 26th, positioning the country at as a viable destiny for healthcare.



Physician's Availability



Source: Index Mundi



Growth Drivers



MoPH and Government Efforts to reform Healthcare

In its latest strategic plan in 2007, the MoPH presented an update of its progress in the Healthcare reform, the following stipulates a summary of the main achievements:

Under the purpose of developing a national strategy for health financing reform aiming at harmonizing the overage system and improving efficiency, the MoPH accomplished the following:

- National Health Accounts survey for the year 1998, 1999, and 2002 (2003 under development).
- National Household and Health Services Survey 1999.
- Burden of Disease Study (BOD) 2002.
- Health system Responsiveness Study.
- Revising payment mechanisms and introducing a DRG reimbursement system.
- Analysis of financial and legal impact of different reform options.
- Actuarial study of health benefit package.
- Stakeholders analysis of social health insurance options.

Following its purpose to develop and implement of a hospital accreditation and quality improvement system for contracting with public and private hospitals based on established quality standards, the ministry accomplished the following:

• Development of hospital accreditation standards for acute care hospitals (first edition in 2001 and second edition in 2003)

- Conduction of two national hospitals surveys (first survey in 2001-2202 and second survey in 2004 and 2005).
- Conduction of two follow up surveys (first survey in 2002-2003 and second survey in 2006).
- Development of an action plan for future development of the accreditation program.
- Establishing a link between accreditation results and contracting with private and autonomous hospitals.
- Development of a model linking accreditation bands to hospital payment.

Furthermore, the Lebanese government continued its efforts to establish 27 new health care centers covering all regions of Lebanon and seven new public hospitals have been completed. In addition, work is underway on the construction, expansion and renovation of 15 hospitals.

Demand for Healthcare

Demand for healthcare have been increasing in the last few years driven by a multitude of factor among which the change in disease patterns, change in health seeking behavior life styles and change in the environment.

The shift in demographics is the main driver of the shift in disease patterns with diseases impacting the elderly as the average life expectancy has increased. Changes in life styles and the environment have also accelerated the growth of many diseases. The private sector accounts for the bulk of the hospital and healthcare infrastructure in the country.

Health expenditure burden

Lebanon spends above 6% of its GDP on Healthcare services. This figure has dropped from above 10% in the recent years due to the poor performance of the economy, high net public debt and increasing wages, pressuring the government budget. The burden of the health expenditure has been shifting from the government to the private households, however, unless significant gains in the country's economic performance takes place, the current pattern of health care expenditure will weigh on the Hospital industry adversely affecting the quality of services provided.



Capital Investment in Medical Technology

The Lebanon NHA study reiterates previous findings that government reimbursements for high cost services has resulted in a rapid growth of high technology centers. This in turn has contributed to cost escalation. As example, as the number of centers capable of doing open-heart surgeries grew from 3 to 8, the number of surgeries performed increased from 600 to 1800, and expenditures rose from 8 billion pounds to 25 billion

Medical Tourism

Lebanon's superior position as Healthcare provider renders the country as a regional healthcare destination. In an interview conducted by the executive magazine, International patients account for roughly 20 percent of the total number of patients in the hospitals. Patients are drawn to the highly specialized healthcare services.

Lebanon's hospitals are especially reputable in the fields of oncology and digestive, cardiac and brain surgeries. Cosmetic surgery is a major component of medical tourism in Lebanon. Most of the foreign patients come for routine operations like plastic surgery, dental or eye care. Lebanon's hospitals are also capable of performing specialized procedures such as internal bypass surgery and other technical treatments. Its top clinics and hospitals are equipped to handle the full range of surgical procedures. ISO certified hospitals are among the leaders in servicing foreign patients. With costs significantly lower than in most developed countries and plenty of highly-skilled surgeons and physicians, health care in Lebanon is an attractive prospect.

However, with conflicts in the Middle East and worsening political situation in Lebanon and neighboring Syria, independent medical travelers will be more cautious to visit Lebanon.

In efforts for the government to promote its reputation as a Healthcare destination, Caretaker Minister of Tourism Fadi Abboud launched the Eighth Conference on medical tourism to be held in Beirut from November 15 till 17, 2013 assuring that the conference's main objective was to promote Lebanon as a destination on the map of medical tourism, health and beauty, and to shed light on Lebanon's best characteristics.

Medical Outcomes

Mentioned in the executive-magazine, a recent study undertaken by GlobeMed showed that one in every 143 people admitted to a hospital is going to die in what is called a "medical outcome" or negative change in the health status of a patient due to clinical intervention. Under the definition used in the study, medical outcomes also include infections, complications, readmissions and deaths. The total rate of medical outcomes in Lebanon was 5 percent during the years 2005 to 2010, and the study only looked at patients whose accounts were managed by GlobeMed, which means large patient groups such as those on NSSF and MoPH accounts were not included. GlobeMed said the outcomes rate in Lebanon was higher than in the United States (3 to 4 percent) but lower than in Canada (7.5 percent).



Industry Attractiveness



The Five force analysis

Bargaining Power of Suppliers

Doctors: Strong

- (+) Key decision makers
- (+) Doctor centered behavior
- (+) Doctors' services are the most critical input to a hospital
- (+) Expert knowledge takes a long time period to inculcate
- (+) Order of Physicians
- (-) Oversupply of Doctors

Nurses: Strong

- (+) Shortage of Nurses
- (+) Nurses' Services are a vital input to a hospital
- (+) Expert Knowledge
- (+) Order of Nurses

Laboratories: Weak

- (+) Increased reliance on Laboratories tests
- (-) Backward Integration by Hospitals
- (-) Absence of Syndicate

Equipment Suppliers: Strong

- (+) Oligopolistic presence of equipment suppliers
- (+) Service and maintenance agreements
- (+) Developing technological needs

Medical Supplies: Weak

- (-) High competitiveness between suppliers
- (-) Accessible via international sources

Bargaining Power of Customers

Inpatients & Outpatients: Strong

- (+) High cost relative to income
- (+ High price sensitivity to other healthcare services
- (+) Financial Burden makes the services non essential
- (+) Consumer judgment is subjective (emotional decision making)
- (+) Consumers are not organized

Consultations: Strong

- (+) High cost of Consultation
- (+) Undifferentiated consultation services
- (+) Low switching cost



The Five force analysis

Threat of Substitutes

Government: Weak

(-) Poor level of service and absence of improvement plan

(-) Increasing budget deficit

Health centers: Strong

(+) High medical bill push patients to favor nearby small health centers over hospital visits

(+) Lower charges

(+) High level of service

Pharmaceuticals: Strong

(+) Patients prefer taking medication

(+) Development in the pharmaceutical sector lowers the need for hospitalization

Technological advancement: Weak

(-) Medical equipment still needs the presence and the operation of doctors within hospital premises

Threat of Potential Entrants

- (-) Large Capital needs and complexity to establish a hospital
- (-) High cost to attract expert doctors
- (-) High concentration of hospitals in the cities and lack in the suburbs
- (-) Government regulation
- (-) No incentives to new entrants
- (-) Long gestation period
- (-) Long payback period
- (-) High cost of importing specialized equipment and technology

Rivalry among Existing Players

(-) Concentrated market: Large hospitals and hospitals attributed to Universities account most of the private sector

- (+) Increasing specialization in services
- (-) High exit costs



SWOT Analysis

Internal

Strengths

- Inherent capacity which it can utilize for gaining strategic advantage to further strengthen its medical tourism sector,
- Lebanese doctors are recognized as amongst the best at international scale; skilful, qualified, share information with patients and are readily available, whenever required.
- Medical technology, equipment, facilities and infrastructure are at par with international standards amongst some of the large hospitals
- Multilingual country with high academic profile
- High density of Hospital beds
- High density of Physicians available
- Highly specialized healthcare services
- Lebanon's hospitals are especially reputable in the fields of oncology and digestive, cardiac and brain surgeries.
- High Medical Bill as compared to region but lower than developed countries
- Suitable environment for rest and care after medical procedures
- Travel and Holiday destination for Arab population

<u>Weakness</u>

- High accommodation costs
- Deficiency in information and lack of transparency
- The main financing source remains the households which is carrying more and more of the burden.
- High public deficit limit public expenditure on healthcare
- The Health consciousness in Lebanon remains primitive
- Expenditures on prevention and medical awareness remain trivial
- Proper orientation and education due to shortage of informative material, absence of behavioral studies and no proper enforcement of an ethical conduct refrains the development of the sector
- Commercial Behavior of some hospitals
- Deterioration of the Standards: Some hospitals do not meet the basic requirements for functioning and were given a period of one year to meet the standards.
- Uncontrolled administrative conduct
- Increasing Medical tab
- The absence of a well-defined health policy
- The mismanagement of public services and subordination to the private sector
- The absence of an adequate information system
- The absence of generalized social coverage
- Inequity in the access to healthcare
- The absence of outcome assessment criteria
- Doctor-centric behavior



SWOT Analysis

External

Opportunities

- Cost of medical treatment in developed western world remaining high providing Lebanese medical tourism sector with a unique opportunity
- The medical care facilities in other Arab countries are not up to the mark. Patients from these countries find good quality care in Lebanon.
- A specialization model will lead to higher margins
- Expanding diagnostic services to capture demand from other regions
- Setting up channeling centers in other regions
- Building a strong brand name
- Efficient and effective use of information systems
- Investing in medical technology

Threats

- Jordan can act as competitor in the medical tourism sector.
- Deterioration of the political situation in Lebanon and neighboring countries
- Halt of subsidized payments and referral from GCC Countries

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