

EMRO

# HEALTH SYSTEM PROFILE

## LEBANON



Regional Health Systems Observatory  
World Health Organization

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## FOREWORD

Health systems are undergoing rapid change and the requirements for conforming to the new challenges of changing demographics, disease patterns, emerging and re emerging diseases coupled with rising costs of health care delivery have forced a comprehensive review of health systems and their functioning. As the countries examine their health systems in greater depth to adjust to new demands, the number and complexities of problems identified increases. Some health systems fail to provide the essential services and some are creaking under the strain of inefficient provision of services. A number of issues including governance in health, financing of health care, human resource imbalances, access and quality of health services, along with the impacts of reforms in other areas of the economies significantly affect the ability of health systems to deliver.

Decision-makers at all levels need to appraise the variation in health system performance, identify factors that influence it and articulate policies that will achieve better results in a variety of settings. Meaningful, comparable information on health system performance, and on key factors that explain performance variation, can strengthen the scientific foundations of health policy at international and national levels. Comparison of performance across countries and over time can provide important insights into policies that improve performance and those that do not.

The WHO regional office for Eastern Mediterranean has taken an initiative to develop a Regional Health Systems Observatory, whose main purpose is to contribute to the improvement of health system performance and outcomes in the countries of the EM region, in terms of better health, fair financing and responsiveness of health systems. This will be achieved through the following closely inter-related functions: (i) *Descriptive function* that provides for an easily accessible database, that is constantly updated; (ii) *Analytical function* that draws lessons from success and failures and that can assist policy makers in the formulation of strategies; (iii) *Prescriptive function* that brings forward recommendations to policy makers; (iv) *Monitoring function* that focuses on aspects that can be improved; and (v) *Capacity building function* that aims to develop partnerships and share knowledge across the region.

One of the principal instruments for achieving the above objective is the development of health system profile of each of the member states. The EMRO Health Systems Profiles are country-based reports that provide a description and analysis of the health system and of reform initiatives in the respective countries. The profiles seek to provide comparative information to support policy-makers and analysts in the development of health systems in EMR. The profiles can be used to learn about various approaches to the organization, financing and delivery of health services; describe the process, content, and implementation of health care reform programs; highlight challenges and areas that require more in-depth analysis; and provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries. These profiles have been produced by country public health experts in collaboration with the Division of Health Systems & Services Development, WHO, EMRO based on standardized templates, comprehensive guidelines and a glossary of terms developed to help compile the profiles.

A real challenge in the development of these health system profiles has been the wide variation in the availability of data on all aspects of health systems. The profiles are based on the most authentic sources of information available, which have been cited for ease of reference. For maintaining consistency and comparability in the sources of

information, efforts have been made to use as a first source, the information published and available from a national source such as Ministries of Health, Finance, Labor, Welfare; National Statistics Organizations or reports of national surveys. In case information is not available from these sources then unpublished information from official sources or information published in unofficial sources are used. As a last resort, country-specific information published by international agencies and research papers published in international and local journals are used. Since health systems are dynamic and ever changing, any additional information is welcome, which after proper verification, can be put up on the website of the Regional Observatory as this is an ongoing initiative and these profiles will be updated on regular intervals. The profiles along with summaries, template, guidelines and glossary of terms are available on the EMRO HSO website at [www.who.int.healthobservatory](http://www.who.int.healthobservatory)

It is hoped the member states, international agencies, academia and other stakeholders would use the information available in these profiles and actively participate to make this initiative a success. I would like to acknowledge the efforts undertaken by the Division of Health Systems and Services Development in this regard that shall have the potential to improve the performance of health systems in the Eastern Mediterranean Region.

Regional Director

Eastern Mediterranean Region

World Health Organization

# 1 EXECUTIVE SUMMARY

## **Socio Economic Geopolitical Mapping**

Lebanon as a Mediterranean country has experienced one of the most serious and destructive civil wars in the region. Hence, it is very logical that all aspects of life be affected, one of them being the health sector. Accordingly, the war became a reference point in the diversion of many aspects of the health system. The proliferation of the private sector during the war years at the expense of the wounded public sector is still dragging in consequences till now. Moreover, in the post war period, new actors in the field emerged, like the Non-Governmental Organizations and International Donors. To go beyond the causes of the civil war, one cannot ignore the once prevailing attitudes of power struggles between different national parties and sects. It is still a fact that the Lebanese population enumeration is a very sensitive issue to be set aside as it is a potential cause of conflict, not only for religious considerations, but also for proper provision of services for different geographical areas. The deteriorating economic situation in the past few years has paused the issue of impoverishment and inequity. The difficult situation has also brought about the continuing drain of the younger generation for opportunities abroad with estimates of outflows of 100,000 persons per year.

## **Health status and demographics**

The last census that was conducted in Lebanon dates back to the year 1932. Many indicators relating to health status assessment that are in part or as a whole related to population figures are lacking and when used they are solely based on estimation which does not rule out inaccuracy. In addition, relying on vital registration, which involves lots of misreporting, makes the provision of certain services inaccurate. It is currently estimated that the Lebanese population sums up to around 4,400,000 residents, but differentials of estimation exist, both inter-country and when compared with international organizations, which affects the per capita figures, as well as the demographic, mortality and morbidity rates. For example, eligibility for immunization should take into consideration the number of children as broken down by age in months for those less than 2 years of age. As they are not available, estimating the numbers, based on inaccurate Infant Mortality and Under-Five mortality rates, leads to inaccuracy in immunization coverage not to mention the procurement of vaccines. Also, the figures that are based on deaths and causes of death are not accurate, which challenges the accuracy of mortality rates, as well as priority setting in terms of disease monitoring and control. Furthermore, the epidemiological transition has touched the Lebanese population, raising the responsibility of the health system to tackle, not only communicable diseases, but also chronic non-communicable diseases, with all their risk management and prevention strategies.

## **Health System Organization**

The actors in the health system are many. From public to private providers, to public and private financing agents, to the issuance of laws and their implementation, to political agendas, and the lack of transparency in information generation and dissemination. The health system in Lebanon is highly fragmented, with the governmental bodies as the official regulators, but standing behind the scene, are the private providers as the true influential parties in the health sector. The main features in the market are the public, the private and the public-private mix. Provision of health care in the public sector is

executed through, the public Primary Health Care centers and dispensaries, in addition to non-individual preventive and promotive care through health education and screening campaigns. Private providers, though, are hospitals, clinicians, private labs and NGO-owned PHC centers. Currently, being depressed during the war, the public sector is being rehabilitated through strengthening the PHC services and adopting the law of public-autonomous hospitals.

### **Human Resources**

This renaissance of the health system after the war wouldn't have been possible without the support and help of the other actors, like the physicians, the nurses, public health workers and administrative personnel. The human resources in the country, though, are an issue of concern if one needs to tap onto the health sector. The oversupply of physicians from the different specialties and different medical schools poses a problem, not only as to the imbalances in health human resources when compared to other medical and paramedical professions, but also in the difficulty of setting clinical protocols and drug prescription rules that rely in essence on the education and practice of physicians.

### **Governance/Oversight**

The challenge that Lebanon faces can be mainly divided into two branches. The first branch follows the public-private partnership in health, and the second tackles the shift into the epidemiologic transition era. Bearing in mind the long years of civil war, and the depression that all sectors have faced, the ability of resurrection was limited to a certain extent, though less so in the private sector. The recommendations that were proposed by the National Health Accounts project of 1998, helped in setting up the goals of cost containment, the strengthening of the PHC sector, the control of pharmaceutical expenditures as well as controlling the capital expenditure in medical technology. Decentralization in Lebanon is not a feature of the health system alone. Decision of that sort needs to be taken at the level of the country and should include all governmental bodies. To date, it is not as strong as it is supposed to be because, in many areas of health care provision, the decision still needs to be taken at the central level.

### **Health Care Finance and Expenditure**

But, provision of care is the end point of a chain of events starting by financing the health sector, and allocation of resources through financing agents. The financing schemes in Lebanon are many. We have two employment-based social insurance schemes, four different schemes to cover the security forces, the Ministry of Health financing, which is the insurer of uninsured, the private insurance sector, in addition to out-of-pocket expenditures. All public schemes involve some cost sharing. In addition, the rate of coverage changes between the primary beneficiaries and their dependents. While members of the security forces are fully covered in hospitalization and ambulatory services, their dependents vary in benefits according to the degree of relationship to the member. In employment-based schemes, both the members and their dependents are not fully covered. Not all schemes, however, provide full service coverage. In addition, the employed population is usually the younger one. Also, the private insurance companies usually select the healthy population for eligibility. All of this leaves the MOH financing scheme, which is not affected by employment or wealth, under a high burden of health financing in the public sector. Moreover, the high burden of out-of-pocket expenditure remains the largest source of health expenditure in Lebanon reaching as high as 70% of total expenditures on health. One figure of which is the pharmaceutical expenditure, which amounted to 25% of total health expenditure in 1998, most of which

are out-of-pocket. Currently, the government has decreased the price of drugs by 20%, which is supposed to decrease the pharmaceutical bill pronouncedly. In addition, the new policy which is supposed to promote the use of generic drugs, will help further in strengthening the cost containment strategy in the pharmaceutical sector.

### **Health Service Delivery**

The health service delivery system is characterized by an oversupply of private hospital beds and a recovering public hospital sector heading towards the complete execution of the public hospital autonomy law. The supply of hospital beds is currently being controlled in part by the system of accreditation of hospitals, which, helped to enhance the quality of care to meet the basic requirements, as well as enhanced competitiveness to contract with the public funds. The Primary Health Care strategy that was enacted in 1994, and newly revised in 2004, has provided a widespread network of services and established a very successful link between the public sector and the private sector through the Non-Governmental Organizations and the existing local authorities in districts. In addition, the basic package of services that is offered together with the program of distribution of essential drugs continues to be the financial resort to citizens in view of the increasing economic burdens they face.

### **Health System Reforms**

The previously set picture of the system was largely enhanced through the health sector reform project that tackled in addition to enhancing the quality of care issue, other aspects of administrative and technical nature. The construction of premises and the allocation of resources, both physical and manpower, that started after the war period, are currently being continued, though at a lesser momentum. The achievements today in reform are more centralized towards the introduction of new information technology through automation of the data, and interconnection of databases to insure dissemination of information and transparency in public financing, especially in the public funding agencies. In addition, the new drug policy is gaining interest towards controlling the pharmaceutical market and the possible shift towards generic drug acquisition. It is worth noting that a health system reform is not a one point of time achievement, but rather a continuous process that builds upon evaluation to revise and set forth other coming reforms.



## 2 SOCIO ECONOMIC GEOPOLITICAL MAPPING

### 2.1 Socio-cultural Factors

**Table 2-1 Socio-cultural indicators**

Indicators	1990	1995	2000	2002
Human Development Index:	0.673	0.732	0.752	0.758
Literacy Total:	80.3	-	86.5	-
Female Literacy:	-	-	-	-
Women % of Workforce	26.7	28.2	29.6	30.1
Primary School enrollment (gross)	120.33	109.35	102.46	-
% Female Primary school pupils	-	-	48.44	-
%Urban Population	83.17	84.99	86.64	87.19

*Source:* Human Development Report 2004: [http://hdr.undp.org/statistics/data/cty/cty\\_fLBN.html](http://hdr.undp.org/statistics/data/cty/cty_fLBN.html)

The outburst of the civil war in Lebanon made a turning point in the life of the Lebanese population, affecting all sectors in the country. Nonetheless, the end of the war presented, not only another dramatic change, but also a serious challenge for the rehabilitation of the Lebanese sectors, especially the economic one. It is within this economic context, that the needs of the population grow now facing an aging boom, and increased unnecessary demands induced by oversupply. Not only this, but the Lebanese population has now awakened to the fact that the country is overcoming an epidemiological transition which is putting the traditional health system under stress. The health sector, being directly influenced by the economy, is but one figure in the context. It wouldn't be much to say, that providing equitable and affordable access to health services, given the scarce financial resources and the psychological burden set forth by the ending war, was a major concern of the health authorities. The responding of the system to the growing demands of the population, involves a socio-cultural dimension as well; according to which, the needs of the population are expected to be rational and met, but also quality should be equitable and offered at a rational cost. The Lebanese population is highly urbanized, but given the small territorial spread, access to services from the small spread rural settings is at a short distance making it almost always available when needed.

### 2.2 Economy

**Table 2-2 Economic Indicators**

Indicators	1995	2000	2002	2003	2004
GNI per Capita (Atlas method) current US\$	2,650	4,000	3,900	-	-
GNI per capita (PPP) Current International	3,940	4,450	4,690	-	-

GDP per Capita (constant 95\$)	2,776	2,876	2,922	-	-
GDP annual growth %	4.51	-1.81	0.95	-	-
Unemployment %	-	18 (97)	-	-	-
Public Debt as % GDP*	-	153.7	181.5	184.6	184.1
External Debt as % of GDP	26.68	59.78	93.51	-	-
External balance on goods and services (% of GDP)	-53.60	-24.79	-25.55	-	-

*Sources:* Banque Audi, Quarterly Economic Bulletin, First Quarter 2005.

CIA factbook: <http://www.cia.gov/cia/publications/factbook/geos/le.htm>

UNDP, Human Development Reports <http://www.hdr.undp.org>

**Table 2-3 Major Imports and Exports**

<b>Major Exports:</b>	Machinery and electrical equipment, base metals and precious stones, chemical products, prepared foodstuffs, textiles and vegetable products.
<b>Major Imports:</b>	Metal and metal products, machinery and electrical equipment, transportation equipments, chemical products, pearls and precious and semi-precious stones, works of art and antiques

*Source:* Banque du Liban, Quarterly Bulletin, second Quarter 2004.

### Key economic trends, policies and reforms

The 1975-91 civil war seriously damaged Lebanon's economic infrastructure, cut national output by half, and all but ended Lebanon's position as a Middle Eastern port of entry and banking hub. Peace enabled the central government to restore control in Beirut, begin collecting taxes, and regain access to key port and government facilities. A financially sound banking system and resilient small- and medium-scale manufacturers helped economic recovery. Family remittances, banking services, manufactured and farm exports, and international aid provided the main sources of foreign exchange. Lebanon's economy made impressive gains since the launch in 1993 of "Horizon 2000," the government's \$20 billion reconstruction program. Real GDP grew 8% in 1994, 7% in 1995, 4% in 1996 and in 1997, but slowed to 1.2% in 1998, -1.6% in 1999, -0.6% in 2000, 0.8% in 2001, 1.5% in 2002, and 3% in 2003. During the 1990s, annual inflation fell to almost 0% from more than 100%. Lebanon has rebuilt much of its war-torn physical and financial infrastructure. The government nonetheless faces serious challenges in the economic arena. It has funded reconstruction by borrowing heavily - mostly from domestic banks. The very large majority of external assistance originated from bilateral donors (55%) and non-UN system multilateral donors (32%). In order to reduce the ballooning national debt, the re-installed Hariri government began an economic austerity program to rein in government expenditures, increase revenue collection, and privatize state enterprises. The Hariri government met with international donors at the Paris II conference in November 2002 to seek bilateral assistance restructuring its domestic debt at lower rates of interest. While privatization of state-owned enterprises had not occurred by the end of 2003, massive receipts from donor nations stabilized government finances in 2002-04. After the assassination of PM Hariri, and despite the reassuring factor of the Lebanese will to emerge from the crisis, the concern remains over the possibilities of further incoming donations and investments.

## 2.3 Geography and Climate

Lebanon is a small country of only 10,452 sq km, from north to south it extends 217 km and from east to west it spans 80 km at its widest point. The country is bounded by Syria on both the north and east and by Israel (the Palestinian Occupied territories) on the south. Lebanon's landforms fall into four parallel belts that run from northeast to southwest: a narrow coastal plain along the Mediterranean shore. Most of Lebanon has a Mediterranean climate, with warm, dry summers, and cool, wet winters, although the climate varies somewhat across the landform belts. The coastal plain is subtropical, with 900 mm (35 in) of annual rainfall and a mean temperature in Beirut of 27° C (80° F) in summer and 14° C (57° F) in winter.

Map of Lebanon



## 2.4 Political/ Administrative Structure

Lebanon's constitution, written in 1926, declares the country a secular Arab state, parliamentary democracy, and free economy. It recognizes the rights of each religious community, but calls for the ultimate abolition of political confessionalism. The president is elected by the National Assembly (parliament) and, in theory, serves for one six-year term, although the term of Mr Hrawi and now Mr Lahoud were extended to nine years because of regional political conditions. The president appoints the Prime Minister, after conducting obligatory consultations with the parliamentary members (MPs).

The National Assembly has 128 members, elected every four years with all men and women over 21 eligible to vote. Currently, Lebanon has undergone an election round that was scheduled during May-June 2005. So far, candidates campaign largely on their family name, with no policy platform; nonetheless, parliamentary clusters sharing the same political agendas have usually same policy concerns. Seats are distributed to ensure balanced sectarian representation: half Muslim, half Christian.

The bureaucratic and judicial systems are based on the French model, with authority concentrated in Beirut. There are 6 governorates (Mohafazat, singular: Mohafaza), Beirut, Beqaa, The North, The South, Mount Lebanon, and Nabatieh. There is a system of municipal administrations, but they enjoy little policymaking autonomy and have limited financial resources.

The judicial system is headed by a five-person Court of Justice dealing with matters of state, working alongside four courts of cassation (3 courts for civil and commercial cases, and one for criminal cases), 11 courts of appeal and 56 lower courts. The judiciary is nominally independent, but in reality often acquiesces to the demands of the security services and the police. Courts deal with civil and criminal cases, which are brought by a government-appointed prosecuting magistrate, who exerts considerable influence over judges, for example recommending verdict and sentence. Laws related to health care can be issued at any of two levels, Ministerial decree or Primary legislation through the Parliament according to the concerned issue.

### **Key political events/reforms**

The constitution was amended by the Taif Accord of 1989, which was signed at the end of the civil war and gave more power to the majority Muslim community. Before Taif, executive power was held largely by the Christian-Maronite president, chosen by parliament for a single six-year term. Under Taif, executive power moved to the Council of Ministers, membership of which was divided equally between the main confessional groups, but which was headed by the Sunni Muslim prime minister. In effect, this shifted power from the head of the largest Christian community to the head of one of the Muslim communities, resolving a key issue behind the civil war. The passage of UN Security Resolution 1559 was set in early October 2004 in effect of regional and national political changes; the effect of which are yet to be evaluated and clarified both internally and at an international level. The assassination of Ex-Prime Minister Hariri in February 2005 has brought about a lot of political changes as to the emergence of new internal political agendas conforming thus to the changes that are taking place in the region. In effect, the Syrian troops that were present in central and eastern Lebanon since 1976 were withdrawn from the Lebanese territories in April 2005.

### 3 HEALTH STATUS AND DEMOGRAPHICS

#### 3.1 Health Status Indicators

**Table 3-1 Indicators of Health status**

Indicators	2000	2003	2004
Life Expectancy at Birth:	70.40	70.20	72.35
HALE:	59.4	-	-
Infant Mortality Rate:	27	-	25.48
Probability of dying before 5 <sup>th</sup> birthday/1000:	35	-	-
Maternal Mortality Rate:	104 (96)	-	-
Percent Normal birth weight babies:	93%	-	91.5%
Prevalence of stunting/wasting:	12 (96)	-	-

*Source:* State of Children in Lebanon 2000, Central Administration of Statistics  
National Perinatal Survey 1999-2000, MOH and UNICEF  
Social Health Department, MOH, Annual Report, 2004.  
Pap Child survey, National Council of Arab States, 1996.

**Table 3-2 Indicators of Health status by Gender**

Indicators	Male	Female
Life Expectancy at Birth	69.91	74.91
HALE&	56.5	62.2
Infant Mortality Rate:	30	24
Probability of dying before 5th birthday/1000:	28.21	22.61
	40	30

*Source:* State of Children in Lebanon 2000, Central Administration of Statistics  
CIA Fact book Lebanon Profile: <http://www.cia.gov/cia/publications/factbook/geos/le.html>  
& WHO estimates for 2002

**Table 3-3 Top 10 causes of Morbidity from two sources**

Rank	Mortality	Morbidity
1.	Hypertension	Back pain
2.	Back pain	Hypertension
3.	Arthritis	Rheumatoid arthritis
4.	Heart Disease	Abnormal levels of lipoproteins
5.	Dyslipidemia	Cardiac problems

Rank	Mortality	Morbidity
6.	Diabetes Mellitus	Digestive ulcers
7.	Migraine	Diabetes
8.	Anemia	Migraine
9.	Renal Conditions	Thyroid problems
10.	Asthma	Kidney problems

*Source:* National Household Health Expenditure and Utilization Survey, 1999.  
Beirut: Health Profiles 1984-1994, American University of Beirut Publications, 1997

There are no definite definitions of urban and rural settings in Lebanon, although the rural settings are mostly the villages, and the term urban is more defined to be the large cities. There are clusters of areas that do not have by themselves an administrative partitioning but rather are included under the big umbrellas of the administrative levels they belong to. There are some studies however that differentiate a cluster called "underserved areas" as the Qazas of Hermel, Menieh-Dhennieh, Akkar, and Baalbeck, mainly in the National Perinatal Survey done by UNICEF and the MOH in 2000, but the relevant data to this section (namely, low birth weight babies) show no significant variability by region. Although efforts are underway to undergo a National Burden of Disease study in Lebanon, still there are no single national study that classifies diseases by priority of neither morbidity nor mortality, but small scale studies have identified this ranking by certain category of disease (for example in the National Cancer Registry, cancer cases are ranked by incidence). The NHHEUS has sited the most prevalent diseases nationwide, and these were partitioned by sex. In the Beirut health profiles study conducted in 1994, which was carried out by the American University of Beirut, another set of reported morbidities for the Beirut area was found. In either study, this was reported morbidity and not diagnosed, which does not grant the data great reliability from the point of view of policy decisions. Keeping that fact in mind, both sources of data still reflect the epidemiological transition in a fairly clear way showing the increased complaints from chronic conditions.

### 3.2 Demography

**Table 3-4 Demographic indicators**

Indicator	1990	1995	2000	2002	2004
Crude Birth Rate:	27.72	24.12	20.12	19.00	19.31
Crude Death Rate:	8.04	7.06	6.36	6.40	6.28
Population Growth Rate:	1.97	1.89	1.33	1.27	1.3
Dependency Ratio:	0.67	0.66	0.61	0.58	0.51
% Population <15 years	34.91	33.71	32.07	30.83	26.9
Total Fertility Rate:	3.22	2.74	2.33	2.22	1.95

Source: <http://www.cia.gov/factbook> (estimates for Lebanon, 2004)  
WHO estimates for 1990 to 2002

## Demographic patterns and trends

The population of Lebanon belongs to the two religions, Christianity and Islam. No official census has been taken since 1932, reflecting the political sensitivity in Lebanon over confessional (religious) balance. The estimate is that more than two-thirds of the resident population is Muslim (Shi'a, Sunni or Druze), and the rest is Christian (predominantly Maronite, Greek Orthodox, Greek Catholic, and Armenian). Shi'a Muslims make up the single largest sect. Claims since the early 1970s by Muslims that they are in the majority contributed to tensions preceding the 1975-90 civil war and have been the basis of demands for a more powerful Muslim voice in the government.

According to figures from the UN Development Programme (UNDP), Lebanon's population (excluding refugees and foreign workers) has grown at around 2.5% a year over the past decade, resulting in a very young population, with half under the age of 24. In the Lebanon factbook developed by CIA, the median age of the Lebanese population was estimated to be 26.9 years (25.9 for males, and 27.9 for females).

Moreover, with no official figures available, the population of Lebanon is estimated to be around 4,000,000 in 1998, 7% of whom are non-Lebanese citizens. It is estimated that 600,000-900,000 persons fled the country during the initial years of civil war (1975-76). Although some returned, continuing instability until 1992 sparked further waves of emigration, casting even more doubt on population figures. Approximately 17,000-20,000 people are still 'missing' or unaccounted for from the civil war period.

While 380,000 Palestinian refugees have registered in Lebanon with the United Nations Relief and Works Agency (UNRWA) since 1948, estimates of those remaining range between 160,000-225,000. They are not accorded the legal rights enjoyed by the rest of the population.

Many Lebanese still derive their living from agriculture. The urban population, concentrated mainly in Beirut and Mount Lebanon, is noted for its commercial enterprise. A century and a half of migration and return have produced Lebanese commercial networks around the globe--from North and South America to Europe, the Gulf, and Africa. Lebanon has a high proportion of skilled labor compared with many other Arab countries. In 1997, a study conducted by the Central Administration of Statistics and published in 1998 showed that 9% of the working force is in agriculture, 14.7% in industry, 11.2% in construction, 22.3% in commerce and the majority (42.8%) work in services. In addition, 21.6% of the active population are females. With economic activity concentrated on trade and services, some 90% of the population is urban. Rural-urban migration continues, reflecting the poor economic resources in rural areas and the limited agricultural sector.



## 4 HEALTH SYSTEM ORGANIZATION

### 4.1 Brief History of the Health Care System

In the first fifteen years of independence (1943-1958), the State built a network of regional, district and rural hospitals, all within a referral system, to provide care, for essentially the under-privileged. Patients were then required to attest to their financial need to be admitted for care. This regulation (that had continued from the earlier days), impacted negatively on the Government facilities, since it stigmatized the users within their community, as being in need. Although this regulation was discontinued in 1970, the perception remained and languished. The ethos of care by the Government was "paternalistic", a favor to the less privileged.

After a civil disturbance in 1958, the Government attempted major reforms in all sectors. In the health sector, these reforms were quite advanced even when compared with more advanced countries. Social development with community participation, primary health care principles, were actively encouraged and institutionalized. The National Social Security Fund was established in 1964, to insure social programs in Maternity, Medical Care (1971), Occupational accidents, end-of-service indemnities, family allowances, for its enrollees and their dependents. The Cooperative of the Civil Servants was also established four months later, as a temporary institution, to cover the civil servants (until the NSSF had time to extend its programs).

The civil disturbances that had started in 1975 had a major negative impact on the public health care system. The state facilities were in their majority destroyed or deserted. The centralization of the Ministry of Health had prevented the smooth flow of supplies, pharmaceuticals, systems, manpower and regulations. To provide care for the traumatized population, the Government relied on the private sector. Before the war, in 1970, only 10% of the Ministry budget used to be expended on the care of its patients in private facilities, principally for advanced care that was not available in the public hospitals. With the end of the civil war in 1992, meaningful infrastructure rehabilitation efforts were devoted to health care facilities, among other sectors. The high cost incurred with these achievements has led to important budget deficits. In addition, the destruction of public sector facilities, both physically and technically, and the proliferation of the private sector that started during the war, continue to shape the health care system till now.

### 4.2 Public Health Care System

#### Organizational structure of public system

The development phases the Ministry of Public Health has undergone could be summed up as follows:

**First phase:** Adoption of the Master Plan for Curative Health Services. Many hospitals and dispensaries were established for this purpose.

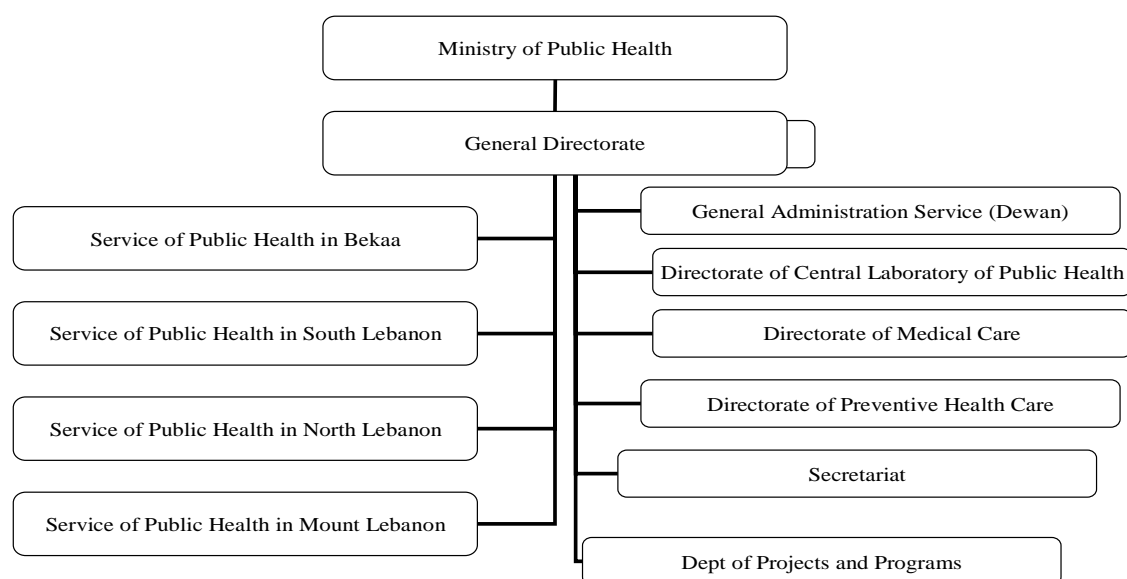
**Second phase:** Merger of the MOPH and the Social Welfare Service, which gave the MOPH a social role that goes along with its health targets. This operation didn't last for long as the Ministry of Social Affairs has been instituted.



**Third phase:** The modern phase in the Ministry's life after a long absence due to the civil war, which ended in the early 90's.

This third stage is characterized by the following::

- Quantitative and qualitative development of Health services and activities in the public and private sectors. In addition, there has been major adoption of sophisticated medical technologies and equipment in the private sector. Moreover, there was the application of the Primary Health Care programs and the successes achieved in a number of them.
- Quantitative development within the health workforce, specially physicians, pharmacists and dentists



The organizational structure of the Ministry of Public Health is divided as follows: Beside the Minister of Public Health (which is not considered as an official employee):

## 1. Directorate General of Public Health

A Director General, who represents the top of the administrative hierarchy in the Ministry, manages it. All regional health divisions and departments, except those located in Beirut are directly submitted to his authority.

### A. Directorate of Medical Care.

It undertakes the following tasks:

- Organize and define the curative services. It includes construction and use (operation) licenses for dispensaries and hospitals, hospital classification operations, fee determination, contract preparation and need assessment.
- Organize and define the pharmacist profession. It includes all organizational operations that are necessary to open pharmacies, import, export, control and check the effectiveness of drugs and medical materials as well as to determine the price of all kinds of drugs.

- Organize and define all medical professions.

## **B. Directorate of Health Prevention**

It undertakes the following tasks:

- Enhance health prevention through the implementation of several programs such as those consisting of infectious disease control, vaccination, communicable disease control, reproductive health, school health, oral health and mental health programs, health education programs, essential drug programs, and other.
- Enhance the role of sanitary engineering: it includes control of Public health components: food, water and activity of the classified facilities of all categories.
- Enhance the MOPH central and regional capacities to carry out effective epidemiological surveillance operations.

## **C. Directorate of Public Health Laboratories**

It carries out activities that consist mainly of drug quality control, food control, ensuring water safety, active participation in the epidemiological surveillance operations in order to fight against intoxication cases or food contamination.

## **D. General Administration Service (or the Diwan)**

Also called the Secretariat, it is a part of the central administration, it deals with all administrative and financial issues, including employee's rights and duties and proper allocation of expenses through the Accounting Department affiliated to it.

Though it's being the Chef d'Orchestre, the Ministry of Health is not the sole contributor to health in the country. Other ministries and governmental organization contribute as well. The Ministry of Environment conducts programs relating to environmental protection and effect of environment on health. From its part, the Ministry of Education contributes, in collaboration with the MOH, by conducting health education sessions in schools with the additional contribution of Non-Governmental Organizations in some issues of concern. The Ministry of Social Affairs plays a parallel role with the MOH as far as social development and Primary Health care are concerned. Last, but certainly not least, stands the Ministry of Finance, as the mainframe server of budget and its distribution for various funds and ministries according to predefined action plans.

The MOH also plays an important role as a national health care financing body. There are five public financing agencies in Lebanon under the auspices of five governmental ministries and institutions. The National Social Security Fund, managed by the Ministry of Labor; the Civil Servants Cooperative under the authority of the Presidency of the Council of Ministers; the Army financing fund, under the patronage of the Ministry of Defense, in addition to three schemes for the security forces, namely Internal SF, State SF and General SF, all are under the umbrella of the Ministry of Interior. The fifth public funding agency stands for the Ministry of Health, which has for potential beneficiaries, all those who are not covered by any of the public funds schemes.

## **Key organizational changes over last 5 years in the public system, and consequences**

A key organizational reform was the creation of the Inter-ministerial Commission for Health Reform in June 1999, presided over by the Prime Minister, represented by the Minister of Health and with the Ministers of Finance and Social Affairs as members. It relies on a participatory approach that aims to roll out gradually an evolving strategy that associates all stakeholders in the health sector. For that purpose, three technical

committees were formed on health financing, hospital services and medical and pharmaceutical resources.

The Health Sector Reform Project (HSRP) of the World Bank was established in 1995 and had for role to assist the MOH in assuming its role in the planning of health resource and service development and in the regulation of the health sector. The main reforms in the last five years continuing to date are the following:

**1. Strengthening planning, monitoring and quality assurance capacity of MOH to meet the needs and priorities of health care in Lebanon:** Under this major heading lies, firstly, the health care infrastructure and resource planning under what is called the "Carte Sanitaire" project. For that purpose, a committee was established in 1999 having for one of its major activities the working on legalizing the Carte Sanitaire in the Council of Ministers as the main resource for planning and prioritizing the provision of health care services in the country. The second measure was the cost containment through rationalization of the MOH expenditures on health care in private and public autonomous hospitals. In that respect, the reimbursement of private hospitals for rendered services shifted from the fee-for-service mechanism to the more cost-contained and quality assuring mechanism of flat rate reimbursement, which was introduced gradually, and currently it involves all surgical procedures. In addition, the separation of physician fees in hospital bills was also enacted. The third measure was the establishment of the interconnecting database in what was known primarily as the Visa Billing project and its Interconnecting Data Base (IDB) counterpart. Under and around that goal lies, and at a national information level, a decision on establishing a beneficiaries database which was issued by the Council of Ministers in January 2001. This database would allow all public funding agencies to interconnect and be connected to the central portal set at the MOH. For this purpose, not only demographic and health information should be linked, but also the in-patient and out-patient authorization and billing forms are to be unified. In addition, An inter-ministerial committee and an associated technical committee was established in August 2003 to follow-up on the standardization of the medical procedures among all public funding agencies, including the MOH.

**2. Improving Service delivery:** The renaissance of the public sector has for major component the rehabilitation of the public hospitals as well as the strengthening of the Primary Health Care network. For that purpose, working on four front line referral public hospitals was completed as far as medical supplies and civil works are concerned. In addition, strengthening the Primary Health Care activities and improvement of the role of district health services was established with the help and support of the NGO community, resulting in achieving a proper management and initiation of a predefined package of PHC services. For that purpose, an NGO evaluation study was conducted to see for the fulfillment of that activity. Through the PHC network, programs such as the essential drugs program for the chronically ill funded by the YMCA, and the emergency transportation program implemented by the Red Cross proliferated.

**3. Quality Assurance:** As part of its quality assurance policy of hospital care, and in order to achieve a better control over the supply of hospital beds, the first national hospital accreditation survey was conducted, in 2001-2002; and currently a second round of accreditation is underway. At the level of controlling the supply of human resources, the MOH is currently subsidizing nursing training programs in two prominent universities in the country, to outweigh the oversupply of physicians since the former cannot be controlled in view of a highly proliferating private sector and foreign university graduates, pumping high number of MD graduates.

As part of the control over Health care financing, the first National Health Account survey was conducted in 1998. A second round of NHA is to be initiated for the year 2003 as soon as the administrative and resource measures are cleared.

To ensure the sustainability of the reform components after the HSRP ends, the institutionalization of the staff working on the components was achieved by two ministerial decrees considering the creation of two units within the MOH that should integrate the staff within the personnel of the Ministry after approval from the Civil Service Board, which is the official body responsible for employment in the public sector.

At a national level, the MOH has also participated in the General Data Dissemination System (GDDS), which is a World Bank initiative in collaboration with the Central bank of Lebanon. The mission that was sent in December 2002 had for purpose to assess the statistical system in the country and its capacities in order to establish a multi-sectoral database including population and health statistics.

### **Planned organizational reforms in the public system**

The completion of the development of the unified beneficiaries database at all public funds and the standardization of the procedures, codes and forms used by the funds, will prepare the grounds for the establishment of a TPA (Third Party Administrator) to manage the relation between the funds and the health providers. In that respect, a ministerial decree was issued in September 2003, allowing the MOH to contract a private firm to provide TPA services.

The main projects that the MOPH intends to realize are sited in the Ministry action plan 2003-2006:

#### **1. Strengthen MOH capacity in regulation and planning**

- Conduct an assessment of health care needs in the public sector
- Update the GIS (Geographic Information System) health care map under the Carte Sanitaire project initiation and make sure that it is equitably distributed in all regions. It is considered as an efficient mean for the organization of the hospitalization market, the outpatient services, the alternative services, in addition to all health care facilities.
- Redefine responsibilities, lines of authority and reporting mechanisms in all MOH units.
- Strengthen decentralization
- Review and update all legislation regarding the health sector.
- Develop and improve district health information system

#### **2. Improve quality of health care delivery**

- Conduction of a second national hospital survey for accreditation. In addition to institutionalizing the accreditation program at the Ministry through a decree.
- Create a quality management unit within the MOH through a decree.
- Improve the quality of PHC programs through preparation of medical protocols and development of an accreditation program for PHC.

#### **3. Provide universal access for basic health needs**

- Improve the PHC system through reviewing the basic health services package and adoption of protocols in health care centers as far as vaccines and essential drugs are concerned.

- Strengthen hospital autonomy through preparing annual budgets for autonomous hospitals and assessing the needs of beds in public hospitals
- Implementation of the Carte Sanitaire project after issuance of the law and its adoption.
- Implementation of the referral system between the PHC centers and referral hospitals.

#### **4. Improve health care financing and coverage for health services**

- Improve the relationship between health care providers and public funds, to reach the Adoption of the Interface Resource Body by the Council of Ministers, and the launching of the bidding procedure for adoption of a TPA body.
- Balance and rationalize the various sources of financing through conducting a NHA study and implementing the L-DRGs on hospital services.

#### **5. Provide cost-effective and safe drugs and rationalize their consumption and prescription**

- Review the current pricing system and promote the use of generic drugs.
- Regulate the promotion and marketing of drugs by pharmaceutical companies

#### **6. Strengthen the MOH preventive programs**

- Establishment of a National Strategy on injuries and Burden Of Diseases.
- Adoption of a unified Emergency Record sheet
- Adoption of the law of accident prevention by the parliament
- The National Strategy on oral health (2005-2010) through the reformation of the National committee in March 2004 for oral health education and promotion

In addition, the MOH will continue to assume its public funding agency role for the uninsured citizens.

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### **4.3 Private Health Care System**

#### **Modern, for-profit**

In the health sector, the principal providers of for-profit services are private hospitals, clinics and some health centers delivering outpatient services like radiology and laboratory tests. So far, establishing a private hospital is not based on the needs for medical services but rather for political considerations. The law that should govern the planning of health service provision and needs assessment, and hence the establishing of new hospitals, is not endorsed yet. This is the Health care mapping or the Carte Sanitaire project. Once established however, a new hospital has to follow certain guidelines for construction and operation. Previously, the classification of the hospitals as U, A, B, C or D followed certain guidelines as to their hostelry and medical services, and teaching facilities. Currently, though the common terminology used stands for classification, the accreditation system newly introduced in 2001-2002 has taken the lead. To be accredited, a hospital has to meet two categories of requirements, the basic standards and the accreditation standards. While the basic standards tackle conditions of administration laws, building and construction, in addition to the medical equipments and staffing; the accreditation standards, however, have for interest the quality of services offered in a sustainable and cost contained way. A hospital is usually headed by a Chief Executive Officer (CEO) who is the general manager, affiliated to him/her a

board of trustees, and beneath lay the different departments. The departments' terminology might differ from a hospital to another, but the basic structure of anesthesia, emergency services, pediatrics, surgery, obstetrics, laboratory, nursing, pharmacy, radiology and medical audit remains the universal. Basically, all hospitals render services to all citizens provided they pay the full fee for service rendered, or the remaining of the bill had there been a third party payer as a public or private funding agency. Relation of the private sector providers with public funding agencies occurs, for most services, through local authorities in the geographical area to which the hospital belongs. Certain services, like open heart surgeries and kidney dialysis, still need interference of authorities at the central level.

### **Modern, not-for-profit**

The majority of the not-for-profit health care institutions belongs to Non-Governmental Organizations; and are primarily, if not always, health care centers, though certain nursing homes and rehabilitation institutions might cross the line.

The work of NGOs in Lebanon started as early as the year 1860. In 1909, the law of formation of an NGO, or what was previously called Organizations for Public Benefits, stated that, "it is a group of individuals sharing information and efforts towards a common non profitable goal". Their primary interest was the orphans and the elderly, in view of their religious motives and affiliation. With the burst of the civil war in 1975, with all the social, political and economic recession, and the crippling of the governmental institutions, most NGOs assumed the role of the service provider and the local government, in some cases, with all what that role necessitates of creative solutions to the emerging problems. With the end of the war in 1990, NGOs were faced with new responsibilities, shifting their role to the social and economic development with the limited resources that prevailed after the long years of war.

Though no permission for foundation is required, the liability of an NGO stands for The Ministry of Interior, which is the sole governmental body that needs to be informed when a new NGO is established.

Even though, some NGOs have religious affiliations, but the financial aspect relies mainly on donations and grants, both local and international, giving the NGO the sole responsibility of management and fair distribution of resources, especially so for drugs and health services in general. In some health centers, some exemplar fees for drugs or certain services are taken to help for operational costs, without forming a burden on the beneficiaries, or for profitable money generation.

### **Traditional**

The only traditional services in Lebanon stand for traditional birth attendants (TBA). Though their status is illegal, and they receive no formal training, the National Perinatal Study showed that in remote and underserved areas (as in the Akkar sample) some 9.6% of deliveries are attended to by a "Matron" (more defined as an "old woman").

### **Key changes in private sector organization**

After the end of the civil war period, Lebanon has awakened to the fact that the private for-profit sector grew in both number and capacity. 90% of hospital beds are now offered through private hospitals, while ambulatory care is mostly provided through private clinics. Ever since, no major changes happened in the private sector sparing the shift of the system of hospital evaluation from the classification mode to the accreditation mode, and accordingly the criteria of contracting with the public sector<sup>5</sup>. At

the private insurance level, the ACAL (Association of Lebanese Insurers) figures state that, of the 70 insurance firms currently active, the top firms control about 70% of the market. In May 1999, an insurance reform law was passed through the Parliament to pave the way for the consolidation of the sector.

### **Public/private interactions (Institutional)**

At the institutional level, two major pictures of interaction between the public and the private sector prevail. From one part there is the public sector being the major financing agent for services rendered in the private sector. 64% of the income of private hospitals comes from the public financing, with 30% coming from the MOH alone. Nevertheless, the public sector has no access to complete data from the private sector due to the fragmentation of the system and the weak regulation capabilities of the sector, from one side, and the lack of transparency of the private sector from the other. But then again, the major aspirations put on the unification of the public systems of financing and the formation of a public TPA, might solve a big chunk of the problems between the two sectors.

The other picture stands for the services provided through the private sector under direct supervision and cooperation of the public sector, namely the Primary Health Care delivery centers. There exist now 81 PHC centers, 18 of which are public and run by the MOH (14) or the Ministry of Social Affairs (3); with 63 private centers (50 of which are for NGOs, and 13 run by the MOH in collaboration with local municipalities, with one run by municipality).

Governmental hospitals that were once fully owned and organized through the MOH are now still public but separate, administratively and financially, except for a lump sum of money allocated initially for operational costs.

### **Public/private interactions (Individual),**

Most medical doctors if not all of them have private clinics. And, whenever the specialty permits, all MDs have contracts with hospitals and/or health centers. Medical doctors and other paramedical staff that are employees in the public sector might contract with private facilities (Hospitals or health centers), provided they execute their activities outside their official employment time. Private doctors, though, will not choose to contract with public health facilities except for voluntary or charity purposes, whenever it applies; and that's because of the very minimal, sometimes absent, fees for consultation whenever a non-for-profit health care center is concerned.

### **Any planned changes to private sector organization**

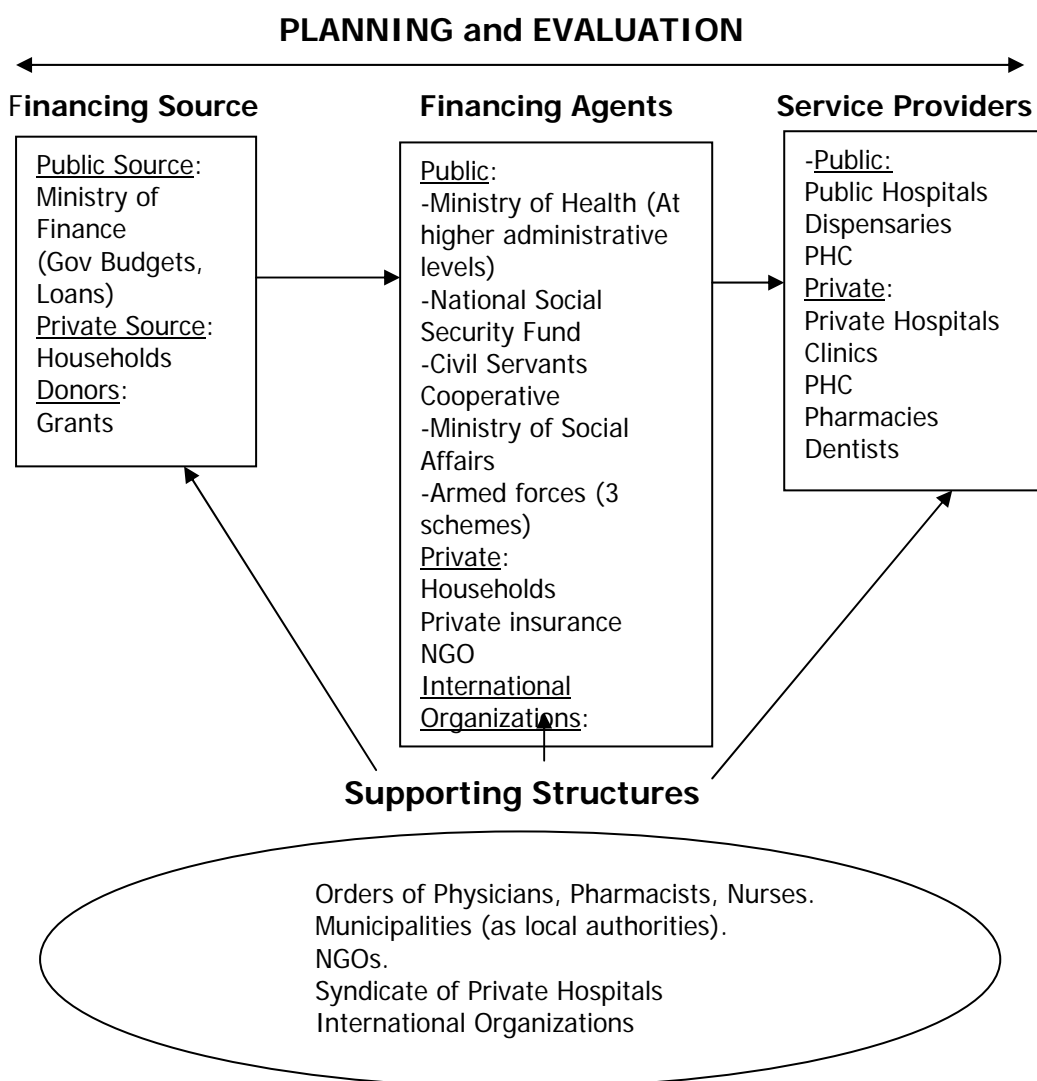
Regulation needs constraining laws. Attempts to issue such laws in a free market economy country such as Lebanon continue to fail. Nonetheless, In view of the current accreditation of hospitals and proposed accreditation of Primary Health Care facilities, many hospitals are undergoing structural and organizational changes to meet the standards. The possible application of the Law of "Carte Sanitaire" will definitely influence the licensing for establishing new health facilities affecting thus the oversupply of hospital beds. The shaping of the supply of medical doctors, though, needs the missing regulation over establishing new medical schools. In the hospitalization sector, proposed changes to the system by the MOH, stem from its role as a health regulator. Indicators of performance are being selected. Between the process indicators that need many details, and the impact indicators that are difficult to get, output indicators that are linked to quality, and based on product specifications are practical and more

relevant. In this context, the MOH started working with the Order of Physicians on the elaboration of clinical protocols that will possibly mark the changes in medical bodies and health provider institutions.

From the health system financing and insurance side, a proposed program for financing healthcare after retirement puts organizational changes of insurance bodies, both private and public, on stake. Since medical cost inflation is age related, and with the increased graying of the population, proposed schemes for private insurance companies to cover health benefits after retirement, together with decreasing the risk of the organization are being considered for approval (Muhanna, 2005).

## 4.4 Overall Health Care System

### Organization of health care structures



Players in the health care field are many in Lebanon. The roles range from regulating, to providing, passing through financing. The MOH acts as a sector regulator through



allocation of funds to cover hospital beds in the private sector in addition to managing and controlling appropriate quality of care. It is thus acting as a financing agent in the private sector. In addition, through regulating the accreditation, previously classification, system of private hospitals, it is now acting as the regulator for assuring basic and technology-based guidelines for quality services. On the other hand, and through PHC centers and dispensaries, the MOH acts as a direct service provider insuring primary and promotive care at a reasonable cost and increasingly covering additional territories in the country. The body that's playing the role of the financing source is the Ministry of Finance through setting governmental budgets. The provision of the healthcare in the country wouldn't have been possible without the continuous cooperation and support of the Orders of Specialties (Physicians, Pharmacists, Nurses, etc.), as well as the Syndicate of Private Hospitals and a wide network of Non Governmental Organizations, through the provision of quality services and allocation of resources; both financial and technical; as well as through insuring a sociopolitical environment for access to care.

## 5 GOVERNANCE/OVERSIGHT

### 5.1 Process of Policy, Planning and management

#### National health policy, and trends in stated priorities

The challenge that Lebanon faces can be mainly divided into two branches. The first branch follows the public-private partnership in health, and the second tackles the shift into the epidemiological transition era. Bearing in mind the long years of civil war, and the depression that all sectors have faced, the ability of resurrection was limited to a certain extent, though less so in the private sector. It was not until 1994 that the policy paper of former Minister of Public Health Mr. Marwan Hemade, became the basic document for negotiations with the World Bank for the "Health sector Rehabilitation Project" that was launched no later than 1995. The striking contradiction between the needs and the actual plans, especially in the construction of public hospitals, showed the lack of political commitment towards the government's privatization strategy, if there was one, and the fact that there was a missing link between the policies and their implementation, which was no doubt of a political nature. In 1997, the former Minister of Public Health, Mr. Suleiman Franjeh's paper, came to launch a new concept based on intentions and insights into reform, which opened the door to public debate over the issue.

Though political issues govern both the issuance of the laws and their implementation, there exist some evidence-based recommendations that cannot but capture the attention of some policy makers. The NHA 1998 study proposed a series of recommendations that were of concern in setting up goals and plans for cost containment, the strengthening of the PHC by both capacity and resources, rationalizing expenditures on pharmaceuticals, and controlling capital investment in medical technology. Most of these issues were tackled by the succeeding plans of action of the MOH.

The National Household Health Expenditure and Utilization Survey (NHHEUS) of 1999, showed that inequities in access to health care do not appear to exist, except with regard to dental care. But providing quality basic health services for the poor might solve the burden of higher out-of-pocket expenditure on health for the low-income households. Although the MOH is the insurer of last resort for all uninsured, including the poor, but it covers hospitalization costs rather than primary care services. The NGOs role, in collaboration with the public sector, might verse in that respect, as the health centers that provide basic package of PHC services are now distributed all over the Lebanese territories.

#### Formal policy and planning structures, and scope of responsibilities

Although the final plan of action is put by the MOH, integration of other international organizations plans into the main plan serves to strengthen its putting into action.

Even though they claim that they tend to support government plans, some international agencies have their own agendas, and sometimes they tend to force, though gently, their programs into action through specific allocation of resources. The donor agencies' role might range from technical support to financial support, passing through training opportunities and capacity building. In planning and implementation the speed and efficiency might be impeded or well-timed depending on administrative horizontal and

vertical criteria. Some programs might depend on more than one governmental body, in addition to some private bodies, which would render the information cumbersome and the achievement delayed. The body that is formally responsible for generation of information and statistics in the country is the Central Administration of Statistics (CAS). The CAS is directly affiliated to the Council of Ministers. But, due to administrative conflicts and sometimes the lack of timely data, parallel generation of information might occur which renders the conflict between the CAS and other bodies, both private and public, inevitable. The highest fragmentation in the health sector exists at the level of financing. With six public funding agencies affiliated to five governmental bodies in the scene, the enhancement of the unified database will solve much of the issue of overlap in financing and management. In addition, the MOH, as part of its Four-year plan (2003-2006), will redefine responsibilities, lines of authority and reporting mechanisms in all MOH units to solve the issue of bureaucratic impediments.

### **Key legal and other regulatory instruments and bodies:**

It is true that the MOH is the main body responsible for health in the country, but regulation of the sector is not solely in the hands of the ministry. For example, political issues always govern the supply of hospital beds; but fortunately the accreditation system of hospitals came to partially solve that concern through decreasing the number of contracted hospitals due to the lack of required standards. The discrepancy that exists in human resources, though, needs further enforcement as to the limits that are put on the establishment of new medical schools and the bettering of employment conditions of nurses and community workers. So far, private providers have been investing in areas to maximize profit, which calls for the role of the MOH to provide equal accessibility of the uninsured through contracting with providers in all regions, thus insuring equity. The collaboration between the MOH from one part and the Order of Physicians and the Syndicate of Private Hospitals from the other part should be enhanced on a transparent basis for the support of an equitable and better quality health sector.

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## **5.2 Decentralization: Key characteristics of principal types**

### **Within the MOH:**

In the MOH, and at the central level, different departments have certain legal responsibilities as defined by law. In addition, the financial issues are tackled by the Accounting Department, which is part of the secretariat. Decisions of recruitment in the public sector as a whole are the responsibility of the Civil Service Board (CSB). Some recruitment is done at the level of the Minister, for short-term contracts covered by the special budget procured to the Minister. Delegation of powers range from the level of Head of Department, to the Director General, who is the top level employee, depending of the issue under decision.

Within the MOH central offices, there are four main bodies that have continuous relations to administrative authorities in the Mohafazat. Firstly, and in addition to their having a local representative, the PHC and Reproductive health team have routine contact with the centers as part of their administrative responsibilities; they also conduct training sessions whenever needed. Second, fall the inspector pharmacists and doctors that conduct rounds as per request of the Head of Department of Pharmacy and Head of Directorate of Curative Care, respectively, as a part of their control over local pharmacies and private hospitals. The third team consists of information technologists as part of the installation of the visa billing and database unification software at the district levels

where the visas for inpatient care are granted. And, finally comes the Epidemiology Surveillance Unit establishing links with Qada physicians, which is the second administrative local level, and local authorities as far as communicable disease reporting and as outbreak management teams. In addition, immunization campaigns are conducted at specific times of the year, and they are conducted by the central team at the Directorate of Prevention in collaboration with local authorities. Also, inspector doctors are assigned to private hospitals to grant first level permissions for treatment at the expense of the Ministry.

### **State or local governments**

There are three administrative levels in Lebanon, The Mohafaza, the Qada and the village. The MOH central administration, which is located in Beirut, is represented till the second administrative level with five Health Chiefs in the five Mohafazas, and 25 Qada physicians. The decentralization in Lebanon is partially active in terms of local activities, like inspection for food and water hygiene, the medical consultations in the dispensaries, as well as school health programs and inquires in collaboration with the Ministry of Education. But, although the responsibility is full regarding gate keeping role between the Qada and the central administration, the authority remains minimal, not to mention the financial inflexibility. Qada physicians report to the Directorate of Prevention at the central level. The Directorate of Prevention grants small financial lump sums after approval of the Accounting Department. A prior request by the Qada physician is required through the Health Chief of the Mohafaza based on a specific program of action for the year ahead. Monthly reports are routinely submitted by the Qada physician to the Directorate of Prevention through the Mohafaza chiefs, in which activities as well as recommendations for future actions are provided.

### **Greater public hospital autonomy**

The law of public hospital autonomy issued in 1996 is on its way for completion. There were 22 public hospitals actively working at the end of 2004. It is expected that at the end of 2005 there will be 32 active hospitals, in all six Mohafazat including Beirut, and all acting under the law of Public Hospitals Autonomy. The evaluation of the experience is currently to be launched as part of the Plan of Action of the MOH, which has for one of its goals the strengthening of public hospitals autonomy.

### **Private Service providers, through contracts**

Private hospitals distributed throughout the Lebanese territory have contracts with public providers to render services for the population under different schemes. The disbursement of beneficiaries for services rendered might vary between direct payment to the hospitals and reimbursement after full payment (e.g. in case of ambulatory care and drugs). Inspector doctors are present in each hospital to grant permission of entry through making sure that the occupancy rate for the day permits. This is relevant for all public financing schemes. Bills are submitted by hospitals at the end of each month to the public financing agency for auditing and performing quality checks. In addition, inspector doctors perform rounds on hospitals to make sure that quality is offered at a contained cost.

### **Main problems and benefits to date:**

Decentralization is not a strong feature of the system. Except for Primary Health Care, the experience with decentralization does not grant it a very strong position. Currently, a

new program was initiated concerning district (Qada) level information system. The program is at the pilot testing level.

### **Integration of Services**

For so long the preventive services as provided through the dispensaries were part of the public hospitals that provide curative services. Both the dispensaries and the public hospitals had for central point of reference the Department of Hospitals at the Directorate of Medical Care at the MOH. The hampering of the public system during the war period has weakened this integration due to weakness of the system as a whole. Though it was accidental, the resuscitation of the system was easier through working it into parts. Currently, with the strengthening of PHC through specific health centers that have evolved, with all the basic package of services they provide and under the patronage of the Directorate of Prevention; Together with the development of the law of Public Hospitals Autonomy, the integration of services are being blocked. But the establishment of referral hospitals at the peripheries, together with the provision of basic curative services, like drugs and small surgeries, at the level of Primary Health Care centers could be considered as one step ahead in integration although at the administrative level separate authorities for preventive and curative services are in charge.

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## **5.3 Health Information Systems**

### **Organization, reporting relationships, timeliness**

Maybe one of the factors that weaken the health care system is the lack of timely information and transparent dissemination of data. There are three major data categories flowing in the System. Preventive care data, Curative Care data and administrative data sets. Data collected by MOH ranges from demographic information about patients, to resource and quality management information, pharmaceutical and drug use, to very confidential information related to disease and epidemics reported by health care providers. The periodicity of reporting of information varies between reports, ranging from immediate reporting (in case of outbreaks, and certain communicable diseases), to on demand reporting, passing through weekly, monthly and yearly reports. Hospital bills of patients treated at the expense of the Ministry from private and public autonomous hospitals are to be reported monthly, as a hard copy and an electronic copy, for auditing and control before payment. The Epidemiological Surveillance Unit is responsible for the collection of information regarding communicable diseases from districts (Qada) and private hospitals and clinics, on an immediate and weekly basis, and insuring the timeliness of information. In addition, the Department of Statistics receives monthly reports of births and deaths, reported from local authorities of the Ministry of Interior, in addition to district reports through the Mohafaza health chiefs. Moreover, the Primary Health Care department receives monthly reports from district health centers regarding the administrative status, the medical consultations achieved and drugs dispensed; in addition to occasional drug requests upon need. With the diversity of information received, there exists no integration and full automation of data, not at the district level, nor at the central level. Currently, hospitalization data are under the attempt of full automation and a link exists between the districts and the central administration from one part, and the Ministry and other public funding agencies from the other. This Beneficiaries Connecting Database will be the first attempt towards a National Information System. The Preventive care data, though, is highly fragmented and should be unified to insure that no duplication of data exists and to improve the

connection between different departments at the ministry having data of common interests. At the MOH, still, the recent establishing of the Medical Human Resource management application will insure a human resource unified database in the country. By the fact that all medical personnel should get their license from the MOH before practice, all information about all personnel working in the health field can be accessed.

Health data generated outside the Ministry by other bodies, like those generated at the NSSF, CSC, Military forces schemes and private insurance; or those generated through research or compilation, cannot be accessed except through formal protocols.

### **Data availability and access**

All the above-mentioned activities relating to the information systems at MOH are done internally. Dissemination of data is another issue. Concerns of privacy and data exclusivity still prevail. Not only this, but data generated at certain departments cannot be accessed from another department inside the Ministry without passing through certain bureaucratic protocols.

Whenever international agencies are involved, either financially or technically, progress reports are due according to predefined terms of reference. So, it's actually easier to access the data reports from international donor agencies than from the Ministry, especially when development programs are concerned. The private sector, though, deems data as of private nature and should not be disseminated.

The Central Administration of Statistics (CAS) is the official body responsible for acquiring and disseminating of information in the country. Demographic, economic, health related data, can be accessed by visiting the CAS website at <http://www.cas.gov.lb>

### **Sources of information**

Although there exists a national body, the CAS that is responsible for collection of statistical data from different institutions, information should be gathered from different sources, including all Ministries. So far, sources of information consist of vital registration data as reported by the Ministry of Interior to the CAS and published on their website (<http://www.cas.gov.lb>) in addition to some studies and researches. Some studies constitute, currently, the basic sources of information in the health field. The Ministry of Social Affairs (MOSA) survey in 1996 managed to classify the estimated population of Lebanon as per Qada, while the "Conditions de vie des Menages" in 1997 and The National Household Health Expenditure and Utilization Survey in 1999 both done by CAS, constitute the sole sources for estimates of population statistics at the Mohafaza level, in addition to reported morbidity, utilization of health services and consumer satisfaction assessment among other things. The Pap Child survey, done in 1996 contains the sole Maternal Mortality ratio figure generated in the country as 104 per 100000 live births. The Health Sector and Reform in Lebanon, done by Dr. Walid Ammar, Director General of Health in collaboration with WHO, and published in 2003, constitutes the first source of information about the health profile of Lebanon after the war. The single source of information about National Health Accounts, is the NHA 1998, published in 2001 and will, hopefully be updated this year for accounts of 2003. Moreover, a new population-based survey was achieved by CAS, for which the data is about to be published. In addition, some small-scale studies exist which cannot be considered national. Hence, sources of information are fragmented and incomplete, in addition to the lack of timeliness and prompt research that is still missing at the national level.

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## 5.4 Health Systems Research

Institutions conducting research in the health field range from academic institutions to governmental bodies. Research is usually conducted based on private sector needs and needs assessment strategies rather than policy oriented. But, even though the initiation of research is not policy oriented, once completed it is sometimes used by policy makers to strengthen their viewpoint, whenever relevant. National policies are usually of political nature.

The funding for research comes either from University Research Boards, whenever academic institutions are involved, or from small private, local or international funds. The National Council for Scientific Research (NCSR) funds some research proposals, which are more of a clinical nature rather than public health per se. Currently, the NCSR is undergoing some administrative changes and re-budgeting to involve more public health research on its agenda. Research funded by the NCSR has to follow certain criteria of selection by a technical committee, and a final report has to be submitted. In the Ministry of Health, there exists a very small fund for research that is usually prone to constraints of ministerial budgeting.

Publications in national and international journals are not scarce, though the constraints of quality, publishable papers might hinder the submission for publication. In addition to local journals, like the Lebanese Medical Journal, there exist some local bulletins done by academic institutions whereby they disseminate all the research articles written by researchers in that institution. Nevertheless, if the research done is not of a certain quality, its dissemination is not of importance from a public health viewpoint.

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## 5.5 Accountability Mechanisms

In the public sector, employees are held accountable through the Civil Service Board and the Central Inspection Administration. Employees who commit administrative or practice errors or misconduct, are subject to scrutiny by the Central Inspection Board (CIB) whereby their employment status might be challenged.

Recruitment is very rare and subject to many considerations, the political and religious being the most prominent. Employees are sometimes transferred from one position to the other in the same Ministry or from a Ministry to the other, based on administrative and technical needs.

Recently the OMSAR, in collaboration with the CIB, is initiating the Sectoral Key Performance Indicators project, from which not only selected health indicators are to be generated and controlled, but also the personnel responsible for the generation and the evaluation of those indicators will be evaluated s per achievement.

In the private sector, the accountability of the employees is easier, because they have specified terms of reference and more administrative constraints. The medical bodies, like the Order of Physicians and recently, the Order of Nurses, have profession-related ethical accountability, rather than sector-related, but they still are under the constraints of the law when misconduct is at stake.

## 6 HEALTH CARE FINANCE AND EXPENDITURE

### 6.1 Health Expenditure Data and Trends

**Table 6-1 Health Expenditure**

Indicators	1998	1999	2000	2001	2002
Total health expenditure/capita	499	476	577	583	568
Total health expenditure as % of GDP	12.32	11.30	12.0	11.9	11.5
Investment Expenditure on Health (\$million)	-	-	30.5	-	-
Public sector % of total health expenditure	27.5	27.5	30.1	29.9	30.1

*Sources:* National Health Accounts, 1998, 1999; NHA estimates for 2000-2002, WHO, Geneva (Per capita figures differ because of difference in population estimates) EMRO Database; reports from member states; and estimates, WHO, Geneva

**Table 6-2 Sources of finance, by percent**

Source	1990	1998	1999	2004
<b>Public</b>	-	17.98	18.18	-
<b>Private</b>	-	-	-	-
Private-Households	-	69.74	70.82	-
Private-Employers	-	10.32	8.98	-
<b>Donors</b>	-	1.96	2.02	-

Source: National Health Accounts, 1998, 1999

#### The 1998 Lebanon National Health Accounts Study, Dec 2000

Health Expenditure as Percent GDP:	12.3 %
Percent GOL budget allocated to health:	06.6 %
Sources of Funds:	
<u>Public:</u>	17.98 %
<u>Private:</u>	
Households	69.74%
Employers	10.32 %
<u>Donors:</u>	01.96%
Distribution of Health Care Expenditures	
Public Hospitals	01.7%
Private Hospitals	22.8%
Private Non- Institutional Providers	41.0%
Pharmaceuticals	25.4%
Others	09.1%



## Trends in financing sources

Since only one NHA study was conducted, no factual trends can be observed. However, the budget of the MOH as percent of the GOL total budget, including the debt, might serve to comment on.

**Table 6-3 MOH Budget as Percent of GOL budget**

Year	2001	2002	2003	2004
Percent	3.08	3.08	3.32	3.67

*Source:* Ministry of Finance, GOL Budget.

Although it is a very rough estimate, but government expenditure on health is almost stable, which might reflect that any increase in expenditure might result from an increase in private expenditure, mainly in Out-of-pocket, which is yet to be determined. On the other hand, the per capita expenditure that seemed to rise after 1999 as per the WHO estimates might not be accurate considering the difference in population estimates between the local figure and the UN-generated figure. Low population figures as used by the WHO tend to stretch per capita expenditures higher than locally estimated.

## Health expenditures by category

**Table 6-4 Public Health Expenditures of Public Financing Agencies by Category 1998**

Category	MOH	Army	ISF	GS	SS	CSC	NSSF	Total 1998
Hospitals	71	59	74	100	100	54	52	62%
Non-institutional Health care providers	10	4	3	0	0	42	6	10%
Administration	5	19	6	0	0	4	19	11%
Retail Sale and other providers of goods	8	16	17	0	0	0	23	13%
Capital investment	7	1	0	0	0	0	0	3%
Total Public Health Expenditure	100	100	100	100	100	100	100	100%

*Source:* NHA 1998

## Trends in health expenditures by category:

Overall, expenditures on hospitalization strike as high as 62%, with expenditures on ambulatory care reaching 10% and pharmaceuticals 13%. Expenditures on Primary Health Care constitute only 5% of total public expenditure and are part of the non-institutional services.

As there is no diversity of data sources to view the trends, but it is clear that expenditure on hospital care still gets the biggest share. As far as the Ministry of Health is concerned, some amounts which are allotted to PHC and which were not disbursed are diverted to curative services.

As one of the public financing agents, and as insurer of last resort for hospital care, trends in the MOH accrual accounting expenditures might serve as a sample of the trend

in total public health expenditure. It is worth mentioning that the PHC successful strategies, in addition to cost containment strategies in curative care, should lead to an increased budgeting for primary care.

**Table 6-5 Accrual Expenditures of the Ministry of Health between 1999 and 2001 (percent)**

Category as Budget item	1999	2000	2001
Hospital care (short and long stay)	76	74.4	72.7
Drugs	9	8.4	9.4
Contributions and support to NGOs	3.1	2.8	2.9
Salaries and indemnities	7.6	6.7	8.5
Others	4.3	7.7	6.5
Total MOH Expenditure	100	100	100

*Source:* Health System and reform in Lebanon, Ammar W., 2003

## 6.2 Tax-based Financing

Using taxes as a source of financing is essential for the health system. Disbursement of tax sources through various public agencies comes as follows: MOH 47.6%, NSSF 15.2%, Army 15.8%, Civil Servants Cooperative 9.7%, Security Forces 8.8%, and mutual funds 2.9%. The schemes related to the four arms of security apparatus (Army, ISF, GS, SS) are funded by general tax revenues and cover all ambulatory and hospitalization services for staff members and their dependents at different rates

### Levels of contribution, trends, population coverage, entitlement

The main body for collecting taxes is the Ministry of Finance. Taxes are collected at all administrative levels and compliance is high as the laws of taxation are well implemented.

Although studies as to the tax rates and contributions are proposed by the Ministry of Economy, but at the end rates are set and collected by the Ministry of Finance. Tax on salaries, wages and benefits, has a standard progressive structure where the rate increases with taxable income. Taxable income of non-residents is considered to be 15% of total revenues generated in Lebanon, or 50% if the revenues arise from rendering services in Lebanon.

### Key issues and concerns

The law provides tax breaks to non-profit groups. This has led to the proliferation of mutual funds. Mutuality funds (MF) cover a small share of the population. Some MF cover only co-payment as a complementary to private insurance, still others receive subsidies from the government. The judges' mutual fund is financed in part by earmarked taxes in addition to the provided regular government budget. More than 50% of MF financing is devoted to health care. Private insurance companies view the negative side of differential tax treatment as hampering the competitiveness of the insurance market. As shown by the NHHEUS 1999 study, taxes are wage-based and progressive. And according to the income tax law, the taxes increase with the taxable income. They progress from 2% to 20%.

## 6.3 Insurance

**Table 6-6 Population coverage by source 1**

Source of Fund	% Population covered
National Social Security Fund (NSSF)	26.1
Civil Servants Cooperative (CSC)	4.4
Army	8.8
Internal Security Forces (ISF)	1.9
GS+SS	0.4
Private Insurance: Complete	8.0
Gap	4.6
Mutual Funds	1.6
<b>Uninsured/Uncovered Government</b>	<b>42.7</b>

Source: NHA 1998

**Table 6-7 Population coverage by source 2**

Funding Scheme	% pop covered by Scheme alone	% pop covered by Scheme with another insurance	Total
National Social Security Fund (NSSF)	14.6	3.2	17.8
Civil Servants Cooperative (CSC)	4.3	0.3	4.6
Army	8.1	0.0	8.1
Complementary insurance	2.5	-	2.5
Group insurance	1.8	0.1	1.9
Private Insurance: Complete	7.6	0.7	8.3
Insurance at work	0.8	-	0.8
Other types of insurance	4.8	0.3	5.1
<b>Total</b>	<b>44.9</b>	<b>-</b>	<b>49.5</b>
<b>Uninsured/Uncovered Government</b>	<b>55.1</b>	<b>-</b>	<b>50.5</b>

Source: NHHEUS 1999

### Trends in insurance coverage

In Lebanon, there are several different public, private not-for-profit, and private for profit financing schemes. These are:

- Out of pocket expenditures
- Private Insurance (as alone, or complementary to NSSF or mutual funds)
- Mutual funds
- Two employment based social insurance schemes (NSSF and CSC)

- Four different schemes covering security forces
- The MOH as insurer of last resort covering the uninsured.

The discrepancy between the two sources of information in Tables 6-6 and 6-7, is due to the fact that the NHHEUS study covers all resident population, including the non-Lebanese residents which form almost 7.6% of the sample. Resulting in a proportion of uninsured to be almost the same as in the NHA 1998 study.

Recently, an on-line TPA solution is being marketed by GlobeMed in support of managing social insurance health care benefits programs having for goal the sustainability of social health care programs through cost containment and control.

### **Social insurance programs: trends, eligibility, benefits, contributions**

The two employment based social insurance schemes are The National Social Security fund (NSSF) and the Civil Servants Cooperative (CSC). Covered population for NSSF constitutes of all employees of the private sector and their families, in addition to wage earners and contractual employees of the public sector. The main sources of financing for the NSSF are contributions proportional to salaries where premiums to healthcare benefits amount to 15% of the salary, 12% paid by the employer and 3% by the employee. The medical plan of NSSF also benefits from state's subsidies by 25% of its accrual expenditures. The NSSF revenues have been reduced significantly as a result of the decree number 5101 and 5102 in March 2001, whereby medical insurance was lowered to 9%, as 7% and 2% sharing contributions between the employer and employee, respectively; with a maximum deductible sum of 1,500,000 LBP. The NSSF covers the beneficiaries for 90% of hospital bill as a direct payment and 85% reimbursement on ambulatory services. If an employer offers his employees another form of insurance, for the gap in NSSF coverage or for full coverage, he still has to pay for the NSSF. So coverage and deductibles are not optional and cease only when the employee retires.

The CSC covers regular government employees and their families. Though the NHA 1998 study shows that 26% and 8.8% of the population are covered under NSSF and CSC schemes, respectively; but the real number of beneficiaries is not always available and agencies tend to draw their estimates based on primary enrollees. The CSC does not require any contribution from employees, except for 1% deduction of the payroll as a part of the government budget, and it covers all ambulatory services at a rate of 75% for employees and 50% for their family members, and hospitalization services at a rate of 90% for employees and 75% for their families.

The four schemes covering security forces and their dependents (summing up to 11.1% of the population) are funded by general tax revenues and offer full coverage for all ambulatory and hospitalization services without neither co-payment nor deductibles.<sup>5</sup>

Although it is not by itself a social insurance regime, the insurer of the uninsured under any other scheme, and which has for potential beneficiaries the majority of the population (42.7%), is the MOH financing scheme. Funded by the government budget, it covers 85% of the hospital bill as direct payment, with full coverage for expensive interventions, like open-heart surgeries, and catastrophic illnesses drugs.

### **Private insurance programs: trends, eligibility, benefits, contributions**

Regulated by the Ministry of Economy and Trade, private insurance has witnessed a rapid expansion with full coverage policies or filling gaps in social insurance coverage. There are 70 insurance companies that provide health insurance, with 20 companies

controlling over 70% of the market. Nearly, 85% of the policies are purchased by employers to cover their employees in full or in part. Insurance policies in Lebanon cover In-patient care with extension to outpatient services with additional premiums of around 20%. Nearly 8% of premiums are supplementing NSSF coverage for inpatient and outpatient care, with majority for inpatient care. Private insurers select the young and better off clients, hence indulging in ruling out all the disadvantaged chronically ill through discouraging conditions and steep premiums. Private insurance companies are required by law to set aside 40% of premiums as reserves. Total premiums for 1998 amounted for 450 million dollars. In May 1999, an insurance reform law was passed in the Parliament that is expected to further regulate the sector. MedNet is the only HMO (Health Management Organization) and PPO (Preferred Provider Organization). MedNet has one third of the companies associated with it and it buys reinsurance from MunichRe.<sup>9</sup>

## 6.4 Out-of-Pocket Payments

### **(Direct Payments) Public and Private sector formal user fees: scope, scale, issues and concerns**

The difference between public and private providers in terms of user fees, is in the co-payment of 15% in private hospitals and 5 % in the public hospitals for MOH-covered patients. With the diversity of social and private insurance schemes, still direct Out-of-Pocket (OOP) expenditures account for 70% of all health expenditures in 1998. A steep increase was observed when comparing to previous estimates of 53%.<sup>9</sup> The NHHEUS 1999 shows that the average household annual expenditure on health amounts to 2,609,000 LBP. Per capita expenditure on health is distributed as 15% on insurance, 10% on hospitalization, 2% on one-day-surgery, 22% for dental care, 25% for outpatient care (excluding drugs) and 27% on drugs. Of the household expenditure, 97% is spent in the private sector, 2% in the NGO sector and only 1% in the public sector. There exists disparity in OOP by geographical region. In addition, low income households spend less on health care than high income households. For hospitalization, direct OOP account for 36% of the hospital bill, of which 85% are spent in private hospitals. Currently, a new household survey is conducted which preliminary data are treated with strict confidentiality, but official results will be published shortly.

### **Public sector informal payments: scope, scale, issues and concerns**

There are some payments done at some private NGO run health centers in return of some services, like some drugs or lab tests that are expensive, but they only consider a minimal contribution rather than user fees. In addition, the informal payments are very minimal to be considered as a threat for access or compliance.

These fees are supposed to cover some maintenance and operational costs when time is consumed by bureaucratic arrangement. Recently, though, this action was penalized and forbidden by law which caused some maintenance needs to be compiled waiting for financial assistance.

Usually payments are made ex-post. Revenues are pooled to pay administrative costs or maintenance. In the public sector, professionals are volunteers unless they have fixed salaries from the governmental body concerned, which is either the MOH or the MOSA, in which case they are considered employees in the public sector.

## Cost Sharing

As was mentioned before, there is no public financing body that offers complete coverage. Hence, there is some cost sharing that is to be considered in each case. It is worth mentioning that no inter-country regional variations exist in cost sharing and all citizens are subject to the same law. In general, the most common method of cost sharing is co-payment.

In case of the NSSF, cost sharing amounts to a 10% co-payment of the hospital bill paid at discharge. For ambulatory care, there is extra billing in which a maximum reimbursement of 85% is provided for the insured. For MOH, no ambulatory care is provided and the hospital bill co-payment amount is 15% subject to exemption as decided by the Minister. In the case of the CSC health fund, the same system of NSSF is applicable with varying rates for employees and their dependents. The employee pays 10% as cost sharing upon discharge from the hospital, and 25% extra billing for ambulatory care, while the dependents pay 25% and 50%, for hospital care and ambulatory services, respectively. In the Military schemes, no cost sharing exists for ambulatory and hospital care of members, and extra billing for ambulatory care of 25% for spouse and children, and 50% for parents.

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## 6.5 External Sources of Finance

### Levels, forms, channels, use and trends

According to NHA 1998 study, donor assistance amounted to 1.96% of total health care financing in 1998. The Ministry of Health and other government agencies were the primary beneficiaries of donor assistance. Capital assistance stands for the majority of donor assistance. The five-year development plan, 2000-2004, of the Council for Development and Reconstruction (CDR), allocated 52% of total expenditure for social infrastructure and basic services, of which 2.4% are dedicated for public health. Available foreign financing amounted to US\$1,443,842 at the beginning of the year 2000 (LDCR, 2000). In earlier years, investment project assistance mainly benefited the health sector (19%). Several bilateral and multilateral donors have made available funds for project preparation and related needs, to mention as an example Spain, Germany, Sweden and France. For example, in 1999, the very large majority of external assistance originated from bilateral donors (55.4%) and non-UN system multilateral donors (32.1%). Disbursements of external assistance for health care ranged for the 1995-1999 period from 10.6% in 1995 to 19.0 in 1998, to drop back to 16.2 in 1999. 81% of disbursements in the health sector were for infrastructure, mainly the construction and equipment for hospitals and health centers. It is worth mentioning that delays in project implementation, (e.g. the Beirut Governmental Hospital) has affected donor resources.

From the UN system, disbursement for health accounted for 16% of total and were contributed mainly by WHO, UNFPA, UNICEF, UNIFEM and AGFUND. A main area of cooperation was support for health managerial processes, in addition to support for preventive and primary health care. In addition, WHO provided support for the control of non-communicable diseases and drugs management and control.

## 6.6 Provider Payment Mechanisms

### Hospital payment: methods, recent changes; consequences and current key issues/concerns

Reimbursement of providers by the MOH involves five types of payment:

- Fee-for-service based on detailed bills for non-interventional hospitalization
- Capitation payment for pregnant women
- Case-based payment for surgical procedures (flat rate)
- Budgetary transfers for non-autonomous public hospitals
- In-kind payment for comprehensive PHC services delivered by NGO centers

The billing is made according to basic tariffs set jointly by the MOH and NSSF for 3rd class hospitalization. It is worth mentioning, that provider payment mechanisms have undergone many changes. The major reason behind this evolution was cost containment. Originally, the fee-for-service method was used whereby payment was made following detailed bills reception, which did not include any medical information. This caused unnecessary hospitalizations and treatment procedures. The introduction of flat rate reimbursement first in May 1998, then in October 2000 has contributed to lowering the MOH total bill in 1999 and the average cost per admission in the following years. The introduction of co-payment, though, was necessary as a measure in the absence of mechanisms to control supply. Open heart surgeries coverage shifted from complete in 1992-1997 to co-payment in 1998 where the patient co-pay an out-of-pocket maximum of 1 million LBP out of the 9 million LBP, which is the total cost of the operation. But, still the increase in number of open-heart centers has pinned down the beneficial effect of cost sharing introduction.

Incentives to providers range from payment on time and provision of extra contractual beds. At the NGO level, an example of incentives would be given by the pilot project initiated by MOH to reduce maternal and child mortality in a remote area of Lebanon. It is introducing new incentives through capitation-based payment mechanism. The Health center is responsible for providing prenatal care services and performs normal deliveries. In return the MOH provides the health center with free essential drugs and vaccines and assigns a global budget based on a flat rate per delivery.<sup>5</sup>

### Payment to health care personnel: methods, recent changes; consequences and current issues/concerns

Personnel working in the health field might be classified as public or private. Health personnel that used to work in previously called public hospitals, are regular employees of the MOH and are paid monthly salaries following predefined tariffs according to their professional status.

In the private for profit sector, such as hospital private clinics, both capitation and fee-for-service methods are used. The fees are negotiated according to laws of free market economy and supported by the Orders of Physicians. As a joint effort between the MOH and the Syndicate of Private Hospitals and the Orders of Physicians, the reimbursement mechanisms for private hospitals for services rendered to patients covered by the public financing schemes, were reviewed. Now the bills are separated into doctors' fees and hospitals fees. The auditing deductibles are now applied to hospital fees so that the physicians are paid separately and in full.

## 7 HUMAN RESOURCES

### 7.1 Human resources availability and creation

**Table 7-1 Health care personnel**

<b>Personnel per 100,000 population</b>	<b>1995</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>
Physicians	1.91(94)	2.92	2.81	2.36
Dentists	0.880(94)	0.104	0.105	0.881
Pharmacists	0.87(96)	0.65	0.86	0.814
Nursing and midwifery	1.22(94)	1.19	3.0	1.15
Paramedical staff	-	-	-	-
Community Health Workers	-	-	-	-
Others	-	-	-	-

*Source:* Eastern Mediterranean Regional Office Database: reports from member states  
Order of Physicians, Order of Dentists, Order of Pharmacists, 2004

In Lebanon, there exists a national health human resource policy for education, training, and licensing, but not in staffing needs and deployment. All medical and paramedical personnel need to be granted a Permit of Practice from the MOH before they can register in their Orders of specialty. But once registered, the MOH loses track of them and hence the cumulative number and the turnover cannot be monitored except at the Orders of specialty through the annual registration fees. Recently, a new program was introduced at the MOH to monitor the human resources in the country in collaboration with the Orders of specialty. That way, all active personnel in medical and paramedical specialties can be tracked as to their place and status of practice.

In the public sector, health personnel are at a higher disadvantage than in the private sector because of the low wages though medical personnel and paramedical staff in the private sector faces more strict conditions of the job in terms of working hours and quality of work management.

Personnel of the public sector are subject to the law of employment of the government as set and controlled by the Civil Service Board (CSB)

### Trends in skill mix, turnover and distribution and key current human resource issues and concerns

**Table 7-2 Human Resources Training Institutions For Health**

<b>Type of institution</b>	<b>Number of institutions</b>	<b>Capacity</b>
Medical Schools	4	1500
Schools of Dentistry	3	500
Schools of Pharmacy	4	1000



Type of institution	Number of institutions	Capacity
Nursing and midwifery Schools	10	1500

*Source:* Centre de Recherche et Development Pedagogique (CRDP) website:  
[http://:www.crdp.gov.lb](http://www.crdp.gov.lb)

Oversupply of medical doctors coupled with undersupply of qualified nurses, and other paramedics, is an issue of concern in Lebanon. The number of registered physicians increased rapidly in relation to population growth with high percentage of specialists reaching 70% in 2002. The ratio of hospital beds per physician is less than one compared to a range of 2 to 3 in most countries. This was caused in part by the high number of fellowships and grants to study medicine abroad, which led to the tremendous increase in the number of physicians. Besides, very high discrepancy of distribution exists between regions. Currently, the ratio ranges from 6 Medical Doctors per thousand population in Beirut to 2 in the Beqaa5 . With no incentives existing to encourage medical personnel to serve in remote areas, the service there is almost confined to medics resident in the area. The current number of registered and active physicians reached 10327 at the end of 2004. The same situation stands for dentists with the regional discrepancy, the oversupply and multiplicity of educational background. Dental care is not an extensive coverage as other medical care, which tends to make dentists more concentrated in the more affluent regions of the country. Dentists graduating outside Lebanon are three times higher in number than those graduating from the local institutions.

For pharmacists, though, the 1994 Pharmacy Practice Law had regulated the field by defining a distance between two pharmacies to be established, thus controlling the supply of pharmacies. 66.7% of pharmacists work in pharmacies and 10.3% in drug companies with the rest working in hospital pharmacies and health centers and few in laboratories. Pharmacists graduating from Lebanon form the majority of registered pharmacists (61.5%) in the Order of Pharmacists, which was established in 1970. The rest come from Europe and the Arab countries.

Nurses, which are an important actor in the medical field, are in shortage in Lebanon. The ratio of qualified nurses to population is 1 to 1600 population, which is one of the lowest in the world. The shortage results from the unattractive professional status and the high turnover resulting from quitting the job after getting married, since it is largely a female career.

### **Accreditation, Registration Mechanisms for HR Institutions**

Universities granting degrees in higher education are subject to the Ministry of Higher Education laws for establishing a new institution. All degrees granted by private institutions have to be accredited through the Committee of Accreditation of higher education to be a formal degree. Only degrees from The Lebanese University and its affiliated institutions are considered to be official with no need to be accredited. Accreditation of the institutions and affiliation with higher education bodies outside the country is done based on their programs of education in specific areas of expertise.

The market and experience largely control the quality of the degrees obtained. Each institution in Lebanon has got some profile of education. While the Lebanese University and the Saint Joseph University use largely the French system of education, The Beirut Arab University is largely affected by the Egyptian and English systems. Still other institutions adopt the system of the country that they are affiliated to. In general these

are, France, England, and the USA. Needless to mention that the American University of Beirut teaches, trains, and grants licenses for the medical and paramedical personnel according to the American system. This fact, in addition to having a large number of medical professionals who are granted degrees from abroad, makes the issue of adopting a unified clinical protocols in the medical sector, a very difficult, if not impossible, task to be achieved.

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## **7.2 Human resources policy and reforms over last 10 years**

Unlike the Orders of Physicians and Dentists that were established long ago, it was not until 2002 that the establishment of the Order of Nurses has been launched. In February 2003, they had their first elections, which brought up a council of 12 members, 9 of whom are university graduates and 3 have technical degrees. In addition, to over counter the oversupply of physicians, the establishment of new schools of nursing continues to date. We have two orders of physicians and two orders of dentists, one of each is in Beirut and the other in the North.

Recently, a new program was introduced at the MOH to monitor the human resources in the country in collaboration with the Orders of specialty. This will insure that all active personnel in medical and paramedical specialties can be tracked as to their place and status of practice and hence the exact turnover can be assessed. Training for medical doctors working in Primary Health Care centers is continuous as to the proper case diagnosis and management with the use of new technologies. And a clinical protocol was established, in collaboration with the World Bank to standardize medical protocols in primary health care.

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## **7.3 Planned reforms**

Reforms in human resources are largely based on adoption of information technology, because without proper registering and enumeration of resident and active health care personnel, minimal effort can be made that achieves a progress as to the control of supply and capacity building. The new Human Resource system that was established early this year at the MOH is one step on the way. In addition, a new database for the Order of Nurses is being formed together with the establishment of a mutual fund to cover nurse retirees and handicapped.

## 8 HEALTH SERVICE DELIVERY

### 8.1 Service Delivery Data for Health services

**Table 8-1 Service Delivery Data and Trends**

<b>TOTAL (percentages)</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2003</b>
Population with access to health services	96 (92)	95	98	-
Married women (15-49) using contraceptives	-	61 (96)	63	-
Pregnant women attended by trained personnel	-	-	-	-
Deliveries attended by trained personnel	88	88	93	-
Infants attended by trained personnel	-	88 (96)	-	-
Infants immunized with BCG	-	0	-	-
Infants immunized with DPT3	82	92	94	92
Infants immunized with Hepatitis B3	-		86	89
Infants fully immunized (measles)	39	88	81	96
Population with access to safe drinking water	95	94	94	-
Population with adequate excreta disposal facilities	-	75	79 (99)	-

*Source:* Multiple Indicator Cluster Survey, 2000  
 PAPchild, 1996  
 EPI, 2000-2003

Planning in the construction of public health facilities is not currently following a specific policy plan. Nevertheless, the MOH, and in its 4-year plan, is following up with the Council of Ministers and the Parliament on enacting an acceptable Carte Sanitaire law. Later, legislation would be needed whereby "construction permits" and "operation license" would be needed based on this master plan and upon conforming to the accreditation standards.<sup>5</sup> The Carte Sanitaire project, when adopted, will take into consideration the establishment of new health delivery institutions on a needs basis and according to specific criteria.

The water and excreta infrastructure are the responsibility of the Ministry of Public Works and Transports and the Mohafez in each region. Only recommendation for improvement can be addressed through other public or private bodies based on data and studies.

#### Access and coverage

##### Access to primary care:

The MOH has strengthened access to primary care through a large network of primary care centers established in collaboration with the NGOs and with the municipalities providing a package of health services. The limiting factor for additional contracting lies in the lack of minimum requirements for establishing such centers. Clinical protocols for physicians and manuals for health workers were developed ensuring better quality of

services. However, the image of public health centers needs to be improved, and consumer satisfaction issues need to be addressed.

#### **Access to secondary care:**

Access to secondary care in Lebanon has no limits. Any citizen can choose to use the services at any level of care without any referral except for some high technology services and operations. One can choose to go to a specialty doctor without passing through a GP, and choose to perform certain lab tests according to his own request as long as he pays for the services immediately. However, referrals are required in health centers and in case a third party guarantor is involved. So, in fact the limiting factor is the presence or absence of insurance coverage, rather than medical need.

## **8.2 Package of Services for Health Care**

There is a minimum package of services for PHC and will be discussed in the relevant section below. For secondary and tertiary care, though, there are no explicit criteria although there seems to be a consensus basic diagnostic and clinical steps to be followed, such as certain laboratory tests, vital signs, and X-rays.

## **8.3 Primary Health Care**

The first point of contact of the Lebanese population with the health system is with the health centers. There are two types of primary care centers; the health centers, currently called also Primary Health Care centers, and the dispensaries. While PHC are being continuously elaborated, the role of dispensaries is getting weaker. Dispensaries do not cover a package of services, and they function with minimal capacities, both in personnel and equipment.

### **Infrastructure for Primary Health Care**

Currently, there are 81 PHC centers distributed all over the Lebanese territories as such: 10 in Beirut, 20 in Mount Lebanon, 15 in the South, 17 in the North, and 19 in the Beqaa. PHC providers are paid from the budget of the center. Some of them, in the public sector, are permanent employees; others are contracted annually<sup>13</sup>

### **Public/private, modern/traditional balance of provision**

#### **Public-private ownership mix;**

Among the 81 PHC centers, 17 are for the public sector consisting of 14, which are owned and run by the MOH, and 3 owned and run by the Ministry of Social Affairs (MOSA). In addition, there are 13 that are owned by the MOH but run by NGOs or local authorities, 50 are owned and run by NGOs, and only one by a municipality. As far as PHC services are involved, no difference exists between the 81 centers belonging to the network. The difference might exist, though, in some technology issues.

### **Primary care delivery settings and principal providers of services; new models of provision over last 10 years**

In 1996, the establishment of the nucleus of the PHC network following the PHC strategy adopted by the MOH then and supported by the NGOs. In 2004, the national strategy for PHC was revised and renewed, and a five-year plan (2006-2010) was put to expand the

coverage still further, by increasing the number of PHC centers and insuring better quality of services at an affordable cost that is accessible to the public.

### **Public/private sectors: Package of Services at PHC facilities**

The basic package of services includes both preventive and curative care in the following departments: general medical care, pediatrics, dental and oral health, reproductive health, and cardiovascular medical care. In addition, the basic package includes the dispensing of essential drugs following a defined list that is currently under revision. Wherever the health centers are distributed all over the country, and when they meet the criteria to be called a PHC center, the basic package needs to be delivered. So, there exists no differential between geographic areas in provision of services, but the utilization might differ from region to another following some social aspects.

### **Referral systems and their performance**

There is, currently, no active referral system adjunct with primary care. Lots of administrative issues are concerned, in that respect. Admission to hospitals at the expense of public financing schemes should follow a certain process by which control of bed supply is done at the hospital level and the visa center granting the permission. To refer directly from the PHC center to the hospital will lead to a parallel line of authority that might lead to costing problems, not to mention, the administrative conflicts that might arise. Nevertheless, the Department of Health Center Administration is working on solving the issue in an appropriate way in collaboration with the parties concerned.

### **Utilization: patterns and trends**

The number of patients visiting a health care center for chronic disease consultations was 90255 in 2004 performing 256217 chronic care visits with an average of 2.8 visits per person. The total number of beneficiaries in the PHC network is 400864 for 2004 with a number of visits of 476356, with an increase of 125% as compared to 2001. It is worth mentioning that the utilization of PHC services by pregnant women has increased by 92% as compared to 2001 due to the reproductive health program activities. In addition, the highest utilization rate was for general medical care with 18.7% of the visits, followed by pediatrics (11.6%) and oral and dental health (11.4%).

### **Current issues/concerns with primary care services**

At present, the most important issue lies in budgeting and expansion of the PHC network under the current budget. Also, the PHC administration is considering the establishment of shortcuts to de-pass some bureaucratic steps in cases of emergencies, like the provision of vaccines and the maintenance and repair in public centers.

### **Planned reforms to delivery of primary care services**

The planned reforms stem from the new PHC strategy for 2006-2010, whose primary goal lies in improving the quality of life through removal of inequities in the provision of quality care services at an affordable cost. This would be translated into three priority issues:

1. The expansion of the network of PHC to cover 150 centers by 2010
2. The sustainability of continuous quality improvement through enhancing the physical structure

3. To build a positive image of the health centers to increase the utilization rate still further

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## **8.4 Non personal Services: Preventive/Promotive Care**

### **Availability, accessibility, and affordability:**

The only available figure concerning access to adequate water and sanitation refers back to the year 2000 to be 94%. It seems that the only barrier to access is the unavailability of water due to polluted water source or cracking of the pipes or some political issues inhibiting the provision of water to some areas, which makes buying water tanks from a freelance provider with a questionable quality sometimes unaffordable. Promotive services, such as health education, as well as prevention campaigns are accessible and a very important role is being played by the media in that respect.

### **Organization of preventive care services for individuals**

In the past 10 years to date, many prevention campaigns were undergone. Heart problems, smoking prevention, accidents and injury prevention, breast cancer, prostate cancer and cervical cancer took place. In addition to prevention campaigns, programs hosted at the health centers covering reproductive health, as well as, other programs like dental caries prevention, having a wide coverage and out-reach activities, have achieved a tremendous progress so far.

### **Environmental health**

The main responsibility for environmental health stands for the Ministry of Environment. Some aspects, however, involve three other ministries, The Ministry of Economy and Trade (MOET) the Ministry of Health, and the Ministry of Agriculture (MOA). The MOET insures that the product reaches the consumer in perfect condition for consumption. products include water, juices, and some food brands and additives The MOA tackles issues relating to pesticides, in addition to sanitation and food technology. In that aspect, it collaborates with the Departments of Nutrition and Sanitary engineering at the MOH. The MOH, on the other hand, and through its sanitary engineering department, grants permission for importing food supplements and foreign juice and water brands, as well as controlling and certifying local brands.

### **Health education/promotion**

Health education as to the proper use of sanitation and personal and food hygiene is a joint responsibility of the MOH and the Ministry of Education. In health centers, however, cadres of the MOH specialized in health education with the help of some staff from the health centers are responsible for carrying out education sessions and health promotion activities. So far, education and training activities are performed both routinely and upon need. During 2004, and under the responsibility of the Health Education Department the MOH, training sessions for babysitters on children's health were conducted. In addition, training of health workers on prevention of domestic accidents and disabilities were done. Moreover, pamphlets and brochures were prepared and distributed concerning, osteoporosis, Chronic Obstructive Pulmonary Disease, breast cancer, stroke, smoking, prostate cancer, accidents and injuries prevention and Diarrhea The evaluation of such activities is done by the participants, from one hand, and by the administrative levels, on the other hand, to monitor and plan future activities.<sup>16</sup>

## **Changes in delivery approaches over last 10 years**

With the proliferation of the media and media campaigns, it is not strange that the promotive activities are increasing and reaching a wide range of services, including pharmaceuticals, prevention programs, education and use of preventive services.

In addition, prevention campaigns have increased both in number and geographic distribution, covering, with the help of NGOs a wider territory. Pamphlets, posters and leaflets, are increasingly used in schools, private clinics, and public places. Accidents prevention snapshots, which are both the responsibility of the Ministry of Interior and NGOs, are increasingly used with the increase in road accidents. Anti drug addiction campaigns and TV advertisements have also taken greater importance; and with the establishment of an NGO (Jeunesse Center Drogues) in 1994 that has for mandate to sensitize the public on the dangers of drugs, as well as to help in the rehabilitation process, together with another NGO (Oum EInour) that was established in 1985, greater attention is being granted to drug issues.

## **Current key issues and concerns**

Currently, as a joint effort of the MOH, the Non-Communicable Disease Program and the WHO office-Lebanon, a proposal for the National Strategy for the Prevention and Control of Cardiovascular and Metabolic Diseases (CVMD) in Lebanon, is in its preparatory stage. The project involves the promotion of lifestyles to prevent CVD risk factors. Early detection and control of hypertension, dyslipidemia, and diabetes; in addition to weight control and stress management, as well as the role of chemoprophylaxis in the prevention of CVMD, constitute the interest of the current strategy. In the recent five years, emphasis was put on Non-communicable diseases in addition to immunization preventable diseases. Immunization coverage in the public sector has increased recently, but due to the lack of data from the private sector, and the leaning on population estimation to determine coverage, limited comparative assessment exists as to the trend in coverage for the whole country. In addition, the ongoing activities of the Cancer registry form a basic database, not only for further improvement of early detection, but also effective management and better orientation of prevention campaigns.

## **Planned changes**

In the 4-year plan of the MOH (2003-2006), promotion of the incidence and accidents prevention programs through the establishment of national data information system on injuries and burden of disease, as well as awareness campaigns for accidents prevention among high-risk groups. Moreover, the establishment of the oral health promotion strategy (2005-2010), supports health education programs to modify oral health behavior.

The PHC strategy (2006-2010) included, among other activities, the initiation of a program for proper disposal of wastes from the health centers, in addition to continuing training sessions for health care personnel and out-reach prevention and promotion activities.

## 8.5 Secondary/Tertiary Care

**Table 8-2 Inpatient use and performance**

	1990	1995	2000	2003
Hospital Beds/1,000	2.22	4.0 (96)	3.07	3.0 (02)
Admissions/100	-	-	-	-
Average LOS (days)	-	-	3.3 (02)	3.2
Occupancy Rate (%)	-	-	-	-

*Source:* Report of the Department of Hospitals and Dispensaries, 2002-2003(MOH)  
Unit of Planning and Programs, 2002(MOH)

### Public/private distribution of hospital beds

According to the planning unit at the MOH, there are now around 3,000 beds in the public sector and 12,000 in the private sector, though some of the public beds are not active, which decreases the percent supply of active beds from the public sector. Private hospitals do not deliver the same quality of services to the rich and poor. The majority of private hospitals are general and multidisciplinary with less than 100-bed capacity. Traditional public hospitals are rather small with the largest ones having 70 active beds. In addition, they are poorly equipped and lack qualified personnel. With the new law of public hospital autonomy, chances are that the public hospitals not only will be able to complement the private sector, but will be its primary competitor.

### Key issues and concerns in Secondary/Tertiary care

The over utilization of services coupled with a free market and self-prescribing of drugs, constitute major concerns in secondary and tertiary care. These are currently to be controlled through proper management of the hospital and pharmaceutical sectors. Ambulatory care is being offered by a wide range of private clinics, dental clinics and pharmacies, which causes a burden on control and management. The NHHEUS showed that the utilization rate for ambulatory care is 3.6 visits per resident per year. PHC centers offer ambulatory care through pharmaceuticals and diagnostics, and if referral systems are to be adopted, tremendous administrative efforts are to be exerted.

### Reforms introduced over last 10 years, and effects

The financing reform was the most important component of health sector reform. One of the major issues was the separation of the hospital bill from the physicians' bill. In addition, the introduction of flat rate and case-based payment to hospitals was introduced as of 2000. Moreover, to step into the planned reforms, the visa billing system was introduced in the MOH. So far, this step has helped in cost containment as well as eliminating possible overlap in the benefit from more than one public funding agency.

### Planned reforms

Merging of the Public funding agencies into what is called as the Interface and Resource Body (IRB) is one alternative of the planned reforms. Many financial reform scenarios have been developed and recommended, each having its own implications on the system. Expansion of the NSSF is an option to cover all the Lebanese population. In addition, the Third Party Administrator model that succeeded in the private insurance



industry has inspired the public sector into the formation of what is called a public TPA. Also, a proposition of forming a National Health Authority that will ultimately be the only public funding agency was made. All of these scenarios were elaborately discussed in the book "Health System and Reform in Lebanon, that was written by Dr Walid Ammar, the Director General of health in 2003.

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## 8.6 Long-Term Care

Long term care is divided principally into rehabilitative, mental and chronic care and nursing homes there are around 20 institutions that deliver chronic care for the elderly and mentally ill, as well as rehabilitation for drug addicts, with 4000 bed capacity. They are all private institutions, and principally belong to religious or charity NGOs. The MOH pays around 20 billion LBP to cover the institutionalized patients. Payment is directly delivered to the institutions.

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## 8.7 Pharmaceuticals

Nearly all public financing agencies reimburse pharmaceuticals at different rates. They don't have the same reimbursed products and same price lists. While the two employee-based schemes, namely the NSSF and the CSC reimburse the employee with 85% and 75% of the price, respectively; they reimburse the dependents with 50%. The MOH, though, does not reimburse drugs, but rather provides full coverage through dispensing of drugs for catastrophic illnesses which are expensive by nature, for the uncovered population under any scheme.

### Essential drugs list: by level of care

At the PHC level, the chronic drug list is provided by an NGO, the Young Male Christian Association (YMCA), at a budget of 3,900 million LBP for the year 2004. The list provides 60 drugs of which 11 are of different dosages to cover the different cases.

In general, the number of drugs currently registered in the market exceeds 5000 of which 3000 are imported regularly by 75 agents and are widely available in the market. Imported drugs cover 90% of the pharmaceutical market.

### Manufacture of Medicines and Vaccines

There are 9 manufacturers of drugs in the country all operating below capacity and achieving a share of only 10% of the local market. A fixed price for marketed drugs is set according to the law and reaches 1.7 times the original price. The price structure is broken down as such: The ex-factory price (100), the shipping and insurer expenses (7.5%), custom clearing and commission (11.5%), as well as the profit margins for importers (10%) and pharmacists (30%).

### Regulatory Authority: Systems for Registration, Licensing, Surveillance, quality control, pricing

The Service of Pharmacy, which is a three-subunit department, Inspection, Importation and Exports, and Narcotics, handles all drug regulatory control matters, including licensing of premises and pharmacies. Decision-making is centralized with the head of the service. In 1994, a technical committee was established including members from professional and academic bodies, which has for role to assist the Service of Pharmacy in technical drug matters.

Drug retailers should stick to the set price and it is the role of the Inspection subunit to control this. However, conflicting interests between MOH and the Order of Pharmacists. While the first exerts sanctions on overpricing, the Order of Pharmacists interest remains the prevention of illegal competition through under-pricing, in an almost generics-free market. In addition to the Inspection subunit, quality control is complemented through the role of the Central Public Health Laboratory, which performs, with limited resources and capacities, quality checks on some imported drugs and insures that the market is free of spurious drugs.

Alternative medicines fall under the authority of the Sanitary Engineering Department and are considered food supplements and widely available in the market as over the counter without prescription.

### **Systems for procurement, supply, distribution**

Nearly all drugs are imported or procured locally most often as high-priced brand-name drugs. Till now, the market does not encourage the importation and the procurement of generics. High-priced pharmaceutical specialties are imported mostly from multinationals in Europe and the USA. Importers, wholesale distributors and pharmacy owners have a reasonable mark up on the landed costs of the imported drugs and on the wholesaler's price, respectively. They, therefore, have an interest in maintaining the status quo, i.e, buying imported and locally manufactured high-priced pharmaceutical specialties and selling them, instead of multi-source generic products.

### **Reforms over the last 10 years**

After the Pharmacy Practice Law in 1994, the closing of many illegal pharmacies all over the country, has occurred. In addition, the licensing of new pharmacies and pharmacists is now under the strict control of the MOH. The essential drug list that was formed, and is now under revision, has somehow controlled the prescription choice in a part of the providing sector. But, the recent, and most important reform on the drugs front, was the current Minister of Public Health, Dr. Mohammad Khalife's role in decreasing the price of drugs by 20-30% by using the method of segment pricing, in addition to exerting a quality control. It is in the multidisciplinary responsibility of the Ministry of Health in addition to the pharmaceutical sector and the Orders of Physicians and Pharmacists, that this initiative is to be successful. As far as generic drugs, the new policy of price reduction will encourage the importing of inexpensive generics.

### **Current issues and concerns**

There exist many difficulties in the use and control of drugs in Lebanon. Over prescribing and reliance on expensive drugs is widely used by physicians, originating in the medical education they receive. In addition, the Lebanese population tends to use and self prescribe high amounts of drugs. It is the responsibility of the medical education curricula, the physicians and pharmacists, and finally the public's awareness, to control drug prescription and usage. In addition, the quality concern relies on the limited resources of the Central Laboratory in terms of timely equipment and trained staff.

### **Planned reforms**

In addition to modifying the price structure, the promotion of generic drugs strategy needs to be tackled. On that line, the issue of medical curricula and continuing medical education should encourage the prescription of generic drugs. Rationalizing the

prescription habits of doctors should be possible by adopting an NSSF and CSC reimbursed drugs list that promote the use of generic drugs.

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## **8.8 Technology**

Information technology is increasingly gaining important interest in the health sector. At the PHC level, there are currently 32 health centers linked to an information network system, and the other centers in the PHC network, whether public or private, are underway for being automated. It is the initiation of the high technology in the private sector, especially in hospitals, that triggered that booming of technology, both in equipments and in information systems.

### **Trends in supply, and distribution of essential equipment**

Since the health system in Lebanon operates under a free market economy, the private sector continues to grow in a chaotic manner leading to oversupply, which induces an unnecessary demand of high technology services. In 2002, there were 20 open heart surgery departments, 25 MRI machines and 60 CT scanners in use. As an example on the sudden surge of high tech equipments would be the radiotherapy experience, whereby there occurred a simultaneous installation of 3 linear accelerators in a localized area of Beirut in 1996.

### **Effectiveness of controls on new technology**

No regulation for acquisition of new technologies is present at the moment. But, third party payers, and public funding agencies limit the supply and use through controlling reimbursement of unnecessary procedures, hence cutting down on the demand.

### **Reforms in the last 10 years, and results**

At the PHC level, automation and technology reforms are continuous. After the automation of all forms and reports used at the health centers, and the link that was established, a 6-month contract of the MOH with Microsoft was established in October 2004, to revise and update the networking system, in collaboration with the Ministry of Reform. In hospital care, the interconnecting database that is newly established between public funding agencies permits the networking of information regarding socio-demographic and medical data of beneficiaries of the different schemes. At the Information technology also, the formation of the Ministry of Health website (<http://www.public-health.gov.lb>), which is continuously being updated, forms an important step into reform.

### **Current issues and concerns**

Since no control over acquisition of technologies is present, this will continue on inducing unnecessary demand. The over-prescribing of physicians of high diagnostic technologies should be controlled, as well as monitoring the reimbursement of unnecessary high tech services, are to be strengthened.

### **Planned reforms**

Automation of the system in PHC will introduce the ICD 10 coding to further allow quality control and generation of statistics. In addition, the introduction of the new database SQL server 2000 will make it easier to access the information through a web browser.

## 9 HEALTH SYSTEM REFORMS

### 9.1 Summary of Recent and planned reforms

Please refer to sections 4.2

#### Determinants and Objectives

The Main determinants are:

- Deterioration of the public socioeconomic structure during the war and proliferation of the costly private sector
- Construction of facilities after the war added to the burden of cost
- Epidemiological transition and the introduction of new diseases that need risk management and control

All of these reasons led to the main objective behind reform: Cost containment and provision of quality and timely health care that is equitable and affordable.

#### Chronology and main features of key reforms

Control of the private sector through reforms in medical auditing:

- The elaboration of the system of payment into case-based payment to facilitate and accelerate auditing and payment
- The introduction of the Discharge Summary form into the medical bill that provides summary medical and clinical information based on which the case was managed
- The separation of hospital fees from doctors' fees into two bills for payment.
- Visa billing system: the automation and link of the central visa issuance center with the local centers in the Mohafazats, from one part, and with the other public funding agencies from another part, to insure control of overlap and simplify the process of getting permission visas for hospitalization.
- The health care mapping (Carte sanitaire) proposal for health care delivery services
- The survey of hospitals accreditation in 2001-2002, was mainly undergone to control the supply of hospital beds and insure quality basic services
- At the PHC level, there was the PHC national strategy in 1994 and its revised form in 2004 to expand and elaborate the basic health services.

#### Process of implementation: approaches, issues, concerns

Please refer to sections 4.2.2 and 4.2.3

#### Progress with implementation

Nearly all reforms have a political component adjunct to them, either as hindering, or as a promoting factor. While the supply of hospital beds is highly political enhancing the increase, the Carte sanitaire project's framing is extremely political and managerial. The PHC strategy needs further financial support through equipment and supplies, from one part; and managerial for recruitment and control of health manpower. The visa billing

and interconnecting database is running smoothly but needs political commitment and managerial collaboration between different parties concerned.

### **Process of monitoring and evaluation of reforms**

Progress in reforms is generally followed through progress reports at the end of each fiscal year in which achievements and recommendation for further actions are mentioned.

### **Future reforms**

Please refer to Plan of action of MOH for 2003-2006 mentioned in sections 4.2.2 and 4.2.3

To mention briefly some important steps forward:

- Widening the PHC network to 150 centers by 2010
- Continue the work on modifying the price structure of drugs
- Promoting the use of generic drugs
- Enhancing and supporting the Interconnecting System Database of public funds to unify the application, the coding system and authorization, as well as the billing forms.
- Controlling the human resources field in the country in terms of supply and organization of licensing

### **Results/effects**

Health reform is a continuous process that should always be evaluated and control measures be adjusted. So far, all reforms that were adopted were successful which explains the continuous support of donor organizations such as the World Bank despite all the political and financial constraints that the country is passing through. Though it is too early to evaluate the results of the newly adopted drug policy, the hospital sector has gone too far a step in modification as to control of supply of hospital beds, and the quality of care as well as cost containment. On another front, the PHC in the country is being continuously launched ahead through continuous successes of its programs throughout despite the lack of resources. The decentralization remains an issue to be discussed if further managerial efforts and strict political commitment are to be put forth.

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