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MINISTRY OF PUBLIC HEALTH
LEBANON

HEALTH SYSTEM AND REFORM IN LEBANON

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FOREWORD
FROM THE MINISTER OF HEALTH

When Dr. Walid Ammar took office as Director General in 1993, the Ministry of Public Health, like the whole public administration, was disorganized and unable to lead the health sector.

This situation could not be tolerated as health protection is a basic need which no legitimate government can ignore. Working under several ministers, Dr. Ammar has overseen the reactivation of the Ministry's services and the rehabilitation of its facilities.

In this book, he describes the structures of the health care system, with its characteristic partnership between the public and private sectors. Dr. Ammar clearly stresses the dilemma facing the Ministry: fulfilling the mandate for equity in health while maintaining financial efficiency at a time of economic constraints. This dilemma poses the challenge of continuous reform and evaluation of the quality and coverage of health care in Lebanon. A number of reform components are already being implemented and their present and future integration is also described in this book.

As a Minister of Health, I commend Dr. Ammar's work in undertaking this massive compilation which will very likely remain a reference book on the health care system in Lebanon for many years to come.

Suleiman Frangieh
Minister of Health
Lebanon

FOREWORD
FROM THE WHO-EM REGIONAL DIRECTOR

Health Sector Reform is a sustained process of fundamental change in policies and institutional arrangements of the health sector, usually guided by the government. Any meaningful reform process ought to be based on evidence and information about the current state of affairs, and potential effect of alternative policy choices. The idea of Health Sector Reform- increasing efficiency, equity and effectiveness in the health sector and thus in health care- has wide appeal. Despite large differences in income, social structure and health status, many countries in the world, as well as countries of the Eastern Mediterranean Region of the World Health Organization, are undertaking or considering programs of health sector reform. Lebanon is among the first countries in the Region that plans to embark on an extensive program of the much needed reforms in the health sector.

The book on "Health System and Reform in Lebanon", by Dr. Walid Ammar, Director General, Ministry of Health, Lebanon is a commendable effort that critically reviews and brings together in a single document, the evidence and information necessary for designing, implementing and monitoring a comprehensive health sector reform. Such a work was not only necessary, but is also extremely timely to guide the reform process in the country.

Given that Lebanon spends more than 12% of its Gross Domestic Product on Health, a substantial element of which is consumed through out-of pocket payment in the private sector that is largely unregulated, more than 50% of its population does not fall under any prepaid insurance coverage program, and a large component of the health expenditures is on pharmaceuticals, it stands to reason that the focus of this book is on reforms in the financing of health care in Lebanon.

This technical work has comprehensively "described" the existing situation and stakeholders in the health sector, undertaken a cogent "analysis" of the strengths and weaknesses of the programmatic and systemic aspects of the health sector in Lebanon, and has based its "prescriptions", which are presented in the book as options for reform of health care financing in the country, on sound evidence.

The Eastern Mediterranean Regional Office of the World Health Organization endorses this document and reiterates its commitment to continue to further lend support to the Ministry of Health in its effort to successfully implement Health Sector Reform in Lebanon that brings tangible benefits to the health of its population.

Dr. Hussein A Gezairy
Regional Director
Eastern Mediterranean Regional Office
World Health Organization
Cairo

ACKNOWLEDGEMENTS

This book combines personal experience and insights on the future, and an analysis of research studies undertaken in the past five years involving many colleagues. These studies are referred to in the text and names of participants are cited in the bibliography. I am thankful to all those colleagues who have participated in those studies.

I had the chance to work with dedicated people within the Ministry of Public Health and collaborating agencies. In particular, I am grateful for the support of Minister Suleiman Frangié and his committement to the reform.

My deepest recognition goes to the WHO-Eastern Mediterranean Regional Director Dr. Hussein Gezairy and his team, for their assistance and their offer to publish this book and translate it into Arabic.

I would like to thank Dr. Salim Adib for the editing work he has provided and Mrs. Haifa Kenaan for the secretarial support.

Finally, special thoughts go to my wife May for revising this work and providing valuable advice and most of all moral support. Without her support this book would not have been completed.

Health System and Reform

In Lebanon

PREFACE

Over the last decade, the health sector has witnessed meaningful, and sometimes paradoxical, changes. Health authorities have recognized the importance of strengthening the institutional capabilities of the Ministry of Public Health in parallel with improving its image, and allowing it to build a consensus among stakeholders on a transparent and evidence-based reform plan. Such a plan constituting a blue-print for reform is still lacking, eventhough some components have already been drawn.

A policy paper signed by Minister Marwan Hamadé in 1994, became the basic document for loan negotiations with the World Bank, which led to financing the "Health Sector Rehabilitation Project". That document clearly stated that physical rehabilitation and construction of public hospitals would be restricted to remote and underserved areas. Nevertheless the Lebanese government embarked on a massive public hospitals

construction plan, in almost every district including the oversupplied cities of Beirut, Saida, Tripoli and Zahlé. This showed the lack of political commitment and even contradicted the very principle of the Government privatization strategy!.

In 1997, a subsequent paper signed by Minister Suleiman Frangié, "Health Sector Reform, Draft for Discussion" was essentially a declaration of intentions rather than a policy document. It provided insights on the principles of reform and aimed at launching a public debate on that issue.

Lessons drawn from our experience revealed that the pace of reform is not only affected by the bureaucracy of the public administration, but depends also on the degree of political commitment and readiness. We believe that the present socio political context may not be favorable for the adoption of an official wide-ranging "White Paper" that commits the government to a comprehensive health reform plan.

The present work synthesizes information collected from multiple health studies undertaken in the period following the end of the civil wars (1975-1991). It assesses the current situation and analyzes reform attempts made during this period. It considers the progress made so far in many areas of reform and emphasizes the integration of its various components. It also stresses the importance of a stepwise approach where new alliances are needed according to stakeholder interests that vary along the course of change. A separate chapter is dedicated at the end of this work to the financing reform component, for its special importance and the vivid national debate that it usually provokes. Three reform options are proposed and a stakeholder analysis conducted, setting the ground for policies to be translated into legislative amendments and organizational changes.

Many countries in the Eastern Mediterranean region have embarked on privatization as part of their efforts to reform the health sector. For these countries, the pluralistic health system in Lebanon with a powerful private sector, and the struggle to regulate the health market by attempting to impose normative

measures and introducing incentives within the financing and delivery arrangements, are particularly inspiring.

This book constitutes a benchmark for the health system in Lebanon and contributes to filling the existing gap in the health care bibliography.

Chapter One

THE CHALLENGING CONTEXT

The Republic of Lebanon, a democratic parliamentarian state, is administratively divided into six provinces (the Mohafazats): Beirut, Mount Lebanon, the North, the Bekaa, the South and Nabatieh. These provinces are further divided into 25 districts (the Qadas). The central administrative power is devolved to the Governor (Mohafez) of each province. Municipalities that are elected by local communities, are the expression of decentralization.

Lebanon's population is estimated around 4 million inhabitants, 80% of which resides in urban areas. The country is witnessing a demographic transition: 28% of the population falls under 15 year of age, and 10% over 60. Demographic studies[1,2] show that the population's annual growth rate is 1.6%, and the total fertility rate is 2.5%. The infant mortality rate is about 28 per 1000 live births, with considerable regional disparities: the lowest (19.6) in Beirut and the highest (48.1) in North Lebanon. Life expectancy at birth is estimated at 71 years (72 for females and 69 for males).

The burden of dependent youth (46%) on the economically active population remains much higher than that of the elderly population (10%).

Table I-1: Demographic Indicators

	Value			Year	Source
Area (sq.km)	10,452				
Population	4,005,000			1997	Households Living Conditions Survey
Urban Pop (%)	80.8			1996	Housing and Population Data Base
Crude Birth Rate (‰)	25			1996	Housing and Population Data Base
Crude Death Rate (‰)	7			1996	Housing and Population Data Base
Pop <15 Y (%)	28			1997	Households Living Conditions Survey
Pop 65 + Y (%)	6.5			1997	Households Living Conditions Survey
Dependency Ratio (%)	62.8			1996	Housing and Population Data Base
TFR (%)	2.5			1996	Estimate from Housing and Population Data Base
Natural Increase Rate (%)	1.8			1996	Idem
Population Growth Rate(%)	1.5			1970-96	Idem
Gross Reproduction Rate	1.464			1996	Lebanon Maternal and Child Health Survey
Differential Mortality		Infant Mortality Rate	Life expectancy At birth	1986-96	IMR : Data from Lebanon Maternal and Child Health Survey
	Beirut	19.6	75		
	Mount Leb.	27.6	74		
	North	48.1	69		
	Bekaa	39.8	70		
	South	27.2	73		
	Nabatieh	17.2	71		
	Lebanon	**28**	71		

e_o : Indirect estimation from Housing and Population Data Base data

The outbreak of the destructive civil war in 1975 has put an end to the prosperity and economic growth witnessed in Lebanon during the fifties and sixties. This war had a catastrophic impact on both the private and the public sector.

With the end of the war in 1992, meaningful infrastructure rehabilitation was launched in different sectors: electricity, water supply, sanitation and waste disposal, roads, and telecommunications. Big investments were devoted as well, to the construction and rehabilitation of education and health facilities.

Table I-2: Financial Indicators

	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP (at market prices) billion L.P.	13,122	15,305	18,028	20,417	22,880	24,509	24,872	24,874	25,326
Exchange Rate, L.P./USD (period average)	1,741	1,680	1,621	1,571	1,539	1,516	1507.5	1507.5	1507.5
GDP (at market prices) million of USD	7,537	9,110	11,122	12,996	14,867	16,167	16,496	16,500	16,800
Growth Rate of Real GDP (%)	7.0	8.0	6.5	4.0	4.0	3.0	-0.5	0	1.8
Growth of Nominal GDP (%)	38.0	16.6	17.8	13.2	12.1	7.1	1.5	0	1.8
Budget Deficit (billion L.P.)	1,162	2,963	2,823	3,692	5,409	3,386	3,586	3,318*	
Deficit / GDP (%)	8.86	19.36	15.66	18.10	23.64	13.82	14.4	13.30*	
Net Public Debt / GDP (%)	37.84	52.16	63.07	78.15	95.54	105.13	120.0	127.00*	

Source: - *Lebanon Cooperation Development Report, UNDP 1999 and 2000*
- *Ministry of Finance*
* *Based on the first semester 2000*

Along with investing in construction, the Government had to maintain recurrent cost of the overstaffed public administration and military forces.

The high cost incurred with these achievements, along with the determination of the Government to maintain low inflation rates and stable currency, have led to important budget deficits and public debts' escalation. In 1998, the net public debt stood at 7.2 million Lebanese Pounds per capita, and debt servicing accounted for 13% of the Gross Domestic Product (GDP). In 2000, the net public debt amounted to 127% of GDP, and is currently estimated at 30 billion USD representing 7500 USD per capita, making the debt service almost equal to total public revenues. The GDP that increased from USD 7,537 million in 1993 to USD 16,167 million in 1998[3], has shown, in real terms, no significant increase since.

Table I-3: Budgetary Resources Indicators (1997)

MOH allocated budget (%)	4.9
MOH expenditure as % of GDP	1.04
Public expenditure on health as % of GDP	2.24
Public expenditure on health as % of total public expenditure	10.5
Annual MOH budget (USD per capita)	46
Total public expenditure on health (USD per capita)	**92**

Source: Ministry of Finance, Ministry of Health

Within this context of economic austerity, the health system should respond to the increasing demand for health services, resulting from the growing need of the growing and aging population, and should also deal with unnecessary demands induced by oversupply of manpower, hospital beds and sophisticated services.

The 1999 figures revealed that 20% of the population above 60 have been hospitalized at least once over a one-year period, and have used ambulatory care at a rate of 6.3 visits per person per year. This is compared to the population mean values of 10.2% for hospitalization and 3.6 visits for ambulatory care[4].

Table I-4: Health suppliers to population and utilization rates

	Value	Year	Source
Physicians (o/ooo)	22.4	1999	Order of physicians
Dentists (o/ooo)	10.1	1999	Order of dentists
Pharmacists (o/ooo)	7.8	1999	Order of pharmacists
Nursing and midwifery personnel (o/ooo)	10	1997	MOH
Hospital beds (o/ooo)	26	1999	MOH
PHC centers (o/ooo)	2.3	1997	MOH
Rate of ambulatory care (per month) (%)	28	1999	NHHEUS
Rate of dental care visits (per 6 months) (%)	16	1999	NHHEUS
Hospitalization rate (per year) (%)	12	1999	NHHEUS

The demographic transition is accompanied by an epidemiological transition: While infectious diseases are still a public health concern, the incidence of non-communicable diseases affecting more and more the poor is increasing. In 1997, the prevalence of diabetes was estimated at 13% of the adult population, and 17.7% of males and 23.1% of females between 30 and 64 years suffered from hypercholesterolemia ($\geq$ 240 mg/dl). In the same age-group, 26% had a systolic blood pressure of 140 mm Hg and above. This percentage exceeded 64% for those aged above 64[5].

The changing epidemiological profile is putting traditional health systems under stress. The double burden of disease requires additional resources and health services adapted to the emerging needs. Conventional curative and preventive ways and means are becoming out-dated in the world of globalization. Unhealthy lifestyles including dietary habits with excessive fatty, sugary and salty food intake, lack of physical activity and smoking, are common risk factors for obesity, diabetes, cardiovascular and cancer diseases. The issue at stake now is human behavior that is conditioned by sophisticated persuasive technologies. This trend can hardly be changed by traditional health programmes, making the integration of marketing techniques to promote healthy lifestyles necessary. This is one example, among many others, showing how the scope of health actions is becoming broader and requires additional expertise.

Providing universal and equitable access to health services with limited financial resources remains a major concern for health authorities. Assessing the burden of disease and the cost effectiveness of interventions has become unavoidable for priority setting, considering the scarcity of resources. Well designed, vertical programmes may achieve targeted objectives yet may lack sustainability, if the overall health system is inefficient.

More emphasis needs to be put on assessing the performance of the health system. The World Health Report 2000[6] could be considered as a starting point for the debate, despite our reservations on data collection, methodology, and cultural issues that are raised in this report[7]. Traditionally, health systems are assessed from two competing perspectives: efficiency and equity. Politicians and policy makers in our country are more concerned by the value of equity. New concepts are emerging and deserve particular attention. The system should be fairly financed and equity should not be considered only in its vertical dimension between different groups defined by age, sex, region or income, but also in its horizontal dimension, i.e. between individuals within the groups. This is a critical issue considering its implication on the design of the social security system. Nevertheless more attention should also be paid to efficiency, starting from the organization of the health system, passing through the different contractual approaches within the system, ending with incentives for quality improvement and cost containment. A health system could hardly be fair if it is not efficient.

The system should respond to the legitimate expectations of the population. This involves a cultural dimension where the patient and the user in general, should be considered as an adult with dignity who knows his/her needs, is able to claim his/her rights, and should be empowered as a consumer. This is a key element to improve quality, rationalize cost, and promote equity.

Facing emerging diseases represents another challenge for the health system. A world wide campaign to fight diseases that have a major human and financial impact has been launched by

WHO. A global fund to fight AIDS, Tuberculosis, and Malaria has been put in place. For countries with low prevalence of these diseases like Lebanon, its is also a challenge to maintain the situation under control.

Military conflicts had a great impact on the population health and on economic growth. Many cases of depression and post traumatic stress syndrome resulting from military violence are still under treatment. On the other hand, the never-ending bloody conflict in neighboring Palestine and threats of war against Iraq necessitate a high level of emergency preparedness.

Finally, globalization remains one of the biggest challenges. Major difficulties are encountered in accessing WTO and coping with its regulations. Those are related as we know to goods such as food, drugs and medical equipment, as well as, services including health and health related ones. The TRIPS agreement would have a great impact on the availability and cost of drugs, as well as on the development of the domestic pharmaceutical industry. Like other developing countries, Lebanon has problems meeting the Sanitary and Phytosanitary requirements set by developed countries, while lacking expertise to control imported products. Contamination by aflatoxin and dioxin and the mad cow disease are few recent examples, and similar events may constitute a threat to the health of our citizens in the future.

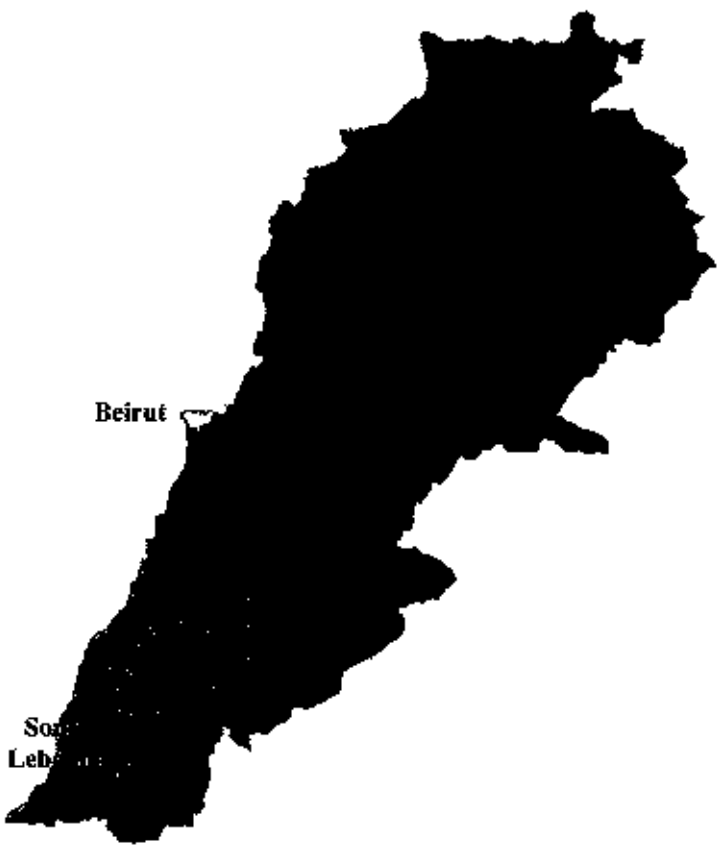
Most of these challenges are not specific to Lebanon and are shared internationally. This implies not only exchanging experiences with other countries but also assuming responsibility vis-à-vis those global partners.

The link between poverty and ill-health is arousing much interest and debate in the international community. The WHO Commission on Macroeconomics and Health provided evidence that this link is functioning in both directions. In its recent report, it stresses the importance of investing in health to promote economic development and reduce poverty. It states that the world should

initiate a partnership of rich and poor to prove that globalization can work to the benefit of all humankind[8].

Donors strategies should be revisited worldwide, and bilateral cooperation between countries should look beyond the projects of construction and physical rehabilitation. In some countries such as Lebanon, protection of individuals from impoverishment to which they are exposed in reimbursing health services, arises as a major challenge in this period of economic austerity. Reforming the health financing system from this perspective, is becoming a priority, along with strengthening primary health care (PHC) services.

ADMINISTRATIVE PROVINCES (MOHAFAZATS) IN LEBANON



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Chapter Two

PROVISION OF HEALTH SERVICES

1- HOSPITAL CARE

The provision of health services by the Government has witnessed a meaningful decline during the long years of civil strife and socioeconomic disturbances that have hit the financial and institutional capacities of the public sector. After the war, only half of the 24 public hospitals were left operational, with an average number of active beds not exceeding 20 per hospital.

On the other hand, the private sector had developed both in number and capacity, representing today 90% of the total number of hospital beds in the country.

A big number of the existing 147 private hospitals are owned by physicians that are considered most of the time as eminent figures in the community. Some of those hospitals belong to charitable and religious congregations, and have a determining role inside the powerful "Association of Private Hospitals".

A classification of private hospitals has been undertaken by a committee chaired by the Director General of Health and

includes representatives of physicians, hospitals, universities and public payers. The classification questionnaire is composed of two components: the first one tackles managerial and medical issues (personnel, equipment, organization of work) and ranks hospitals into categories indicated by an alphabetical letter A to E. The second one deals with hotel services, and hospitals are classified accordingly from one to five stars. The best class of hospitals therefore is A five stars. University hospitals are classified U five stars. The same committee is currently supervising the Hospital Accreditation process.

Table II-1: Classification of Private Hospitals (1998)

	U	A	B	C	D	E	Total
5*	2	26	10	1	0	0	39
4*	0	3	19	10	3	2	37
3*	0	1	5	11	10	1	28
2*	0	0	0	2	6	10	18
1*	0	0	0	0	0	4	4
Total	**2**	**30**	**34**	**24**	**19**	**17**	**126**

The health system in Lebanon operates in a market economy environment, in which regulatory measures remain ineffective and the private sector continues to grow in a chaotic manner, leading to oversupply (table II-2) and inducing an unnecessary demand[1].

Table II-2: Availability of "high-tech" services and heavy equipment (2002)

	Number	Units per million persons
Open heart surgery departments	20	5
Cardiac catheterization laboratories	30	7.5
Dialysis centers	45	11.25
Kidney transplant centers	4	1
Bone marrow transplant units	3	0.75
Specialized burns centers	5	1.25
In-Vitro Fertilization services	12	3
Linear accelerator radiotherapy machines	7	1.75
Lithotripsy machines	27	6.75
CT Scan machines	60	15
MRI machines	25	6.25

Health Care services are mostly curative, provided in over-equipped private hospitals. The only shortage in medical equipment was in radiotherapy till 1996, when 3 linear accelerators were simultaneously installed in Beirut. Mean while, the Primary Health Care system (PHC) remains relatively weak. Most PHC facilities are small poorly equipped and understaffed dispensaries with activities limited to irregular medical consultations and drug dispensing.

The same discrepancy exists in human resources, whereby a surplus of physicians is accompanied with a shortage of nurses. In 1998, 8250 physicians were registered in the two Orders of Physicians representing more than 2 physicians per 1000 inhabitants. In the same year, all categories of nurses amounted to only half of the physicians' number, representing one nurse per 1000 inhabitants[2]. These figures are striking for their impact on both cost and quality of care. Private providers have been investing in areas allowing to maximize profit. Consequently poor regions were not attractive, and remained relatively underserved, creating equity problems. The highest per capita availability of beds is found in Beirut and surrounding localities of Mount Lebanon (table II-3). Concerned by the equity issue, the MOH aims at providing equal accessibility for the uninsured by striking contracts with providers in all regions (table II-4). Nevertheless the MOH attempts at rationalizing the system by setting regulation tools and standards remain unavailing, with the lack of enforcement.

Table II-3: Distribution of hospitals and MOH contracted beds by mohafazat

	Total Lebanon		Contracts with MOH 2000-2001		Contracts with MOH 2002 (Decree 7363)	
	# hosp	# beds	# hosp	# beds	# hosp	# beds
Beirut	24	2201	22	285	8	298
Mount Lebanon	58	3981	50	748	23	482
North Lebanon	27	1924	22	358	17	245
South Lebanon	24	1659	19	254	11	235
Nabatieh	5	237	4	77	5	40
Bekaa	28	1531	23	304	12	243
Total	**166**	**11533**	**140**	**2026**	**76**	**1543**

Table II-4: Available and MOH contracted hospital beds per thousand population by mohafazat

	Population	Available beds (Total)	MOH contracted beds
Beirut and Mount Lebanon	1,910,896	3.2	0.41
North Lebanon	807,204	2.4	0.30
South and Nabatieh	747,477	2.5	0.37
Bekaa	539,448	2.8	0.45
Lebanon (total)	**4,005,025**	**2.9**	**0.38**

Private hospitals do not deliver the same quality of services to the rich and poor, and frequently impose extra fees on patients admitted under constracts with the MOH. The majority of private hospitals (124 out of 164) are general and multidisciplinary with less than a 100-bed capacity. They are incapable of either achieving economics of scale or offering acute care of appropriate quality, which leads to an obvious problem of efficiency[3].

Table II-5: Distribution of private hospitals according to bed capacity by mohafazat

	Less than 100 beds		100-200 beds		More than 200 beds		Total	
	# hosp	# beds	# hosp	# beds	# hosp	# beds	# hosp	# beds
Beirut	16	452	5	764	3	971	**24**	**2187**
Mount Lebanon	40	2180	17	1343	1	205	**58**	**3728**
North Lebanon	21	1005	6	647	0	0	**27**	**1652**
South Lebanon	18	928	3	347	1	268	**22**	**1543**
Nabatieh	5	237	0	0	0	0	**5**	**237**
Bekaa	24	1071	4	240	0	0	**28**	**1311**
Total	**124**	**5873**	**35**	**3341**	**5**	**1444**	**164**	**10658**

Traditional public hospitals are rather small, with less than 70 active beds for the larger ones, are poorly equipped and lack qualified personnel. Physicians with low salaries tend to refer patients to their own paying private clinics and hospitals.

Nevertheless, this negative reality did not prevent the Government from deciding on building 12 new public hospitals.

The recent law of autonomy offers to the public hospital a real opportunity for better equipment, staffing and management, allowing it to become, not only complementary, but also competitive with the private hospitals. Five public hospitals are currently functioning under this law with apparently better results at least in three of them.

Public hospitals could contribute, thus, to resolving both equity and cost problems. They could also play a gate-keeping role helping in controlling the demand through a well-defined referral system.

2-AMBULATORY CARE

Ambulatory health care is mainly delivered by the big number of private medical and dental clinics, pharmacies and diagnostic facilities. According to the 1999 NHHEUS, the average utilization rate of ambulatory care is 3.6 visits per resident per year. Most of these are sought from unregulated solo practice clinics.

Non Governmental Organizations (NGOs) are very active in this area through a wide network that embraces the majority of 110 PHC centers and 734 dispensaries spread all over the country[4].

These NGOs facilities vary from single room understaffed dispensaries with irregular working hours, to well staffed health centers with modern equipment, such as EKG, US and X-ray machines, and medical laboratories. Physicians, for the majority specialists, work mostly as part-timers in these centers. Few medical personnel are available on a full-time basis, and the presence of qualified licensed nurses remains wishful.

During the war years, NGOs invested mostly in primary health care, in order to fill the gap resulting from the withdrawal of the public sector, and to respond to the population needs. NGOs

PHC centers and dispensaries have been able to survive often by relying on the support of the Ministry of Social Affairs (MOSA) and international donors, and on the collection of fees for service. The decline in international donations and the lack of volunteers in the after-war period have forced many health centers to increase their charges on patients.

The MOH provides vaccines free-of-charge for almost all health centers and dispensaries in the country. It procures essential drugs for free to public and NGOs contracted centers. The MOH finances the procurement of drugs for chronic illnesses conducted by YMCA. Those drugs are distributed to more than 400 health centers. It also provides treatment and follow up for tuberculosis patients through its 8 specialized TB centers.

Twenty six per cent of households seek services from public and NGOs dispensaries, which represent the only affordable option for the most deprived[5].

The benefit package of the insured, 45.9% of the population, varies according to the insuring agency. Medical consultations and dental care are excluded for respectively 15.7% and 60.8% of the insured. Consequently totals of 59.5% and 80.2% of the population do not receive any reimbursement for medical consultation and dental care respectively[6].

3-HEALTH PROGRAMS

During the years civil strife, UN agencies played a major role in conducting essential health programs in joint coordination with NGOs. Activities of NGO's centers depended heavily on the availability of drugs. UNICEF used those donated drugs as incentives to encourage preventive programs among NGOs.

When the MOH took back the leadership of these programmes, new incentives were introduced through contractual agreements[7]. Programs are now run through, a network composed

of MOH, MOSA, and NGOs PHC centers, that covers the whole country.

NGOs contributed successfully to joint preventive programmes carried out by the MOH and UN Agencies, such as the Expanded Programme for Immunization (EPI), AIDS control and the control of diarrhea and respiratory infection. More than 400 centers are affiliated to the reproductive health programme, and undertake family planning activities and pre-natal care.

In addition to the provision of services, some NGOs play a meaningful supporting role in the health system by conducting surveys or training workshops, or by providing logistical support through purchasing, stocking and distributing essential drugs to a vast network of PHC centers, thus ensuring the follow-up of chronically ill patients[8].

3.1 Expanded Immunization Program

The Expanded Immunization Program (EPI) is totally financed and led by the MOH. UNICEF, MOSA and NGOs are active partners. Immunization is routinely conducted in almost all health centers and dispensaries operating in the country. The National Calendar includes vaccinations against poliomyelitis (OPV), diphtheria, tetanus, pertussis (DTP), measles, mumps, rubella (MMR) and hepatitis B. The number of centers involved has reached in 1998 a total of 110 public centers and 540 NGOs'. This partnership has successfully achieved the targeted objectives of the program, as shown in table II-6. Knowing that private for-profit physicians' clinics still cover more than 50% of the immunization activities.

In addition to routine vaccinations, the EPI program started implementing in 1995 National Immunization Days, undertaken twice a year for polio eradication. Table II-7 shows the extensive coverage achieved in 5 consecutive years. The last confirmed case of polio in Lebanon was reported in 1994.

Table: II-6: Immunization coverage (1999)

Vaccine	Target group[1]	Targeted numbers	Number of doses (Routine Vaccination)	Coverage
DTP (3rd dose)	< 1 year	66,245	62,471	94.30%
Polio (3rd dose)	< 1 year	66,245	62,471	94.30%
MCV [2]	< 1 year	66,245	53,661	81.00%
MMR [3]	1-2 year	66,245	65,505	98.88%
Hep B (3rd dose) [4]	< 1 year	66,245	56,843	85.81%

(1) : Target group corresponds to the denominator for calculating coverage.
(2) : MCV= measles containing vaccine
(3) : A second dose of MCV is part of the routine immunization schedule.
MMR (Mumps, Measles, Rubella) was introduced in 1995.
(4) Hepatitis B vaccine was introduced in 1998

In 1997, a measles outbreak occurred in North Lebanon, where 900 cases were reported, leaving 2 deaths. A mopping-up immunization campaign was conducted, involving 70,000 children under 15. No measles epidemics have been witnessed since. However, few sporadic cases are reported yearly (10 cases in 2001).

Table II-7: Achieved coverage through National Immunization Days (1995 to 1999)

Year	Target 0-59 months	Number reached	Percent coverage reached
1995	375,000	359,605	95%
1996	370,000	366,300	99%
1997	375,000	368,400	98%
1998	375,000	362,426	96%
1999	375,000	365,212	97%

3.2 Tuberculosis Control Program

The MOH takes full charge of tuberculosis patients including non-Lebanese residents. Services are provided through 8 TB centers and include diagnostic, therapeutic, close follow-up and prevention activities.

In 1998, the program started implementing the Directly Observed Treatment Strategy (DOTS). Inspite of the worldwide increasing prevalence of this disease in relation with the AIDS

pandemic, and the alarming increasing resistance to antibiotics, the National TB control program has been capable to a large extent, to control the disease. The average number of one thousand cases treated yearly in the early nineties, has been going down to 700 in 1998 to reach 570 active TB cases in 2001. The DOTS is currently widespread, and an active surveillance system is in place. The recovery rate has reached 90% of treated patients.

3.3 Reproductive Health Program

The Reproductive Health Program was launched by the MOH in September 1998, in collaboration with UNFPA and the MOSA. Its activities include providing supplies and drugs, medical equipment, as well as training and to some extent physical rehabilitation. By year 2000, 430 centers had been included in the program, of which 86 were equipped with adequate equipment, including 10 with ultrasound machines, and 42 were rehabilitated. Sixteen training workshops had been held where 420 health professionals and health workers had received training.

Table II-8: Distribution of centers benefiting from the Reproductive Health Program by mohafazat

Region	NGOs	MOH	MOSA	Total
Beirut	21	2	3	**26**
Mount Lebanon	50	10	29	**89**
North Lebanon	59	18	25	**102**
South Lebanon	69	18	45	**132**
Bekaa	49	13	19	**81**
TOTAL	**248**	**61**	**121**	**430**

3.4 AIDS Control Program

This program was launched by MOH and WHO in 1989. A yearly MOH budget of 700 million LP is devoted to this program, which has been undertaking preventive and educational campaigns

largely covered by the media. NGOs and especially youth associations are actively involved in anonymous testing and counseling activities. In 1998, the MOH embarked in providing multi-therapy drugs. The total number of declared cases amounted to 700 in 2001, while the WHO estimate is of 2000 HIV positive cases.

3.5 Medication for Chronic Illnesses Program

This program is financed and supervised by MOH, while, purchasing, storage, and distribution of drugs are delegated to YMCA. Drugs are dispensed by public and NGOs health centers to chronically ill indigent patients. The social and financial status of beneficiaries and their families is assessed by professional social assistants. By year 2000, 408 centers had been affiliated with the program, and 120,539 patients were benefiting from its services. The total budget of this program is over 10 billion L.P., including the 3.9 billion paid yearly by MOH for procurement of drugs.

Table II-9: Distribution of health centers and beneficiaries of chronic illnesses drugs program by mohafazat and involved parties

Region	NGOs Centers	MOH Centers	MOSA centers	Total number of centers	Number of beneficiaries
Beirut	57	4	2	63	22,660
Mount Lebanon	125	7	2	134	30,604
North Lebanon	69	5	1	75	27,323
South Lebanon	66	6	9	81	22,580
Bekaa	46	7	2	55	17,372
TOTAL	**363**	**29**	**16**	**408**	**120,539**

Source: YMCA 2000

4-HUMAN RESOURCES FOR HEALTH

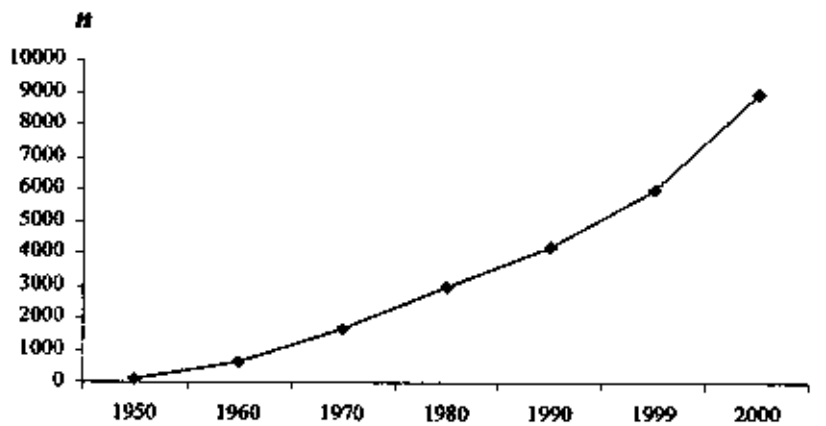
4.1 Physicians

During the nineteen nineties the number of physicians was growing by 8.3% per year, in comparison with a population growth

rate of 1.6%[9]. The number of registered physicians has exceeded 10,000 in 2002, of which more than 70% are specialists.

A discrepancy exists in the distribution of physicians across regions, with a higher proportion in Greater Beirut. The physician to population ratio is currently more than 6 MDs per thousand inhabitants in Beirut and less than 2 per thousand in the Bekaa. The ratio of hospital beds per physician is less than one hospital bed per physician in Lebanon, while this ratio is between 2 and 3 in most countries[10].

Fig II-1: Number of Registered Physicians from 1950 through 2000



Source: Order of Physicians

Medical graduates have to pass the Colloquium exam carried out by the MOH and the Ministry of Education (MOE) in order to get a license to practice. Medical practice is not allowed before registration in the Order of Physicians.

There exists two orders of physicians in Lebanon: the Order of Physicians of Lebanon in Beirut with 8800 registered physicians, and the Order of Physicians of the North with 1400 registered members.

The proportion of those registered physicians practicing abroad is ill-defined and was estimated by the National Provider Survey as falling somewhere between 15 and 20%.

Table II-10: Distribution of physicians by mohafazat and specialty (1999)

Mohafazat	Surgical Specialties	Medical Specialties	Pediatrics	General practice	Total	Percent
Beirut	835	878	257	847	**2817**	**32.4**
Mount Lebanon	998	886	294	1033	**3211**	**36.9**
North Lebanon	328	248	98	341	**1015**	**11.7**
South Lebanon	385	278	114	263	**1040**	**12.0**
Bekaa	229	126	58	204	**617**	**7.1**
Total	**2775**	**2416**	**821**	**2688**	**8700**	**100**

Source: Order of Physicians

Fellowships and grants to study medicine abroad especially in the former Soviet Union and Arab countries, have contributed in the tremendous increase in the number of physicians. Besides its effect on over supply, the multiplicity of graduating countries has an impact on quality of care, as common standards and clinical protocols could hardly be adopted.

Table II-11: Registered physicians in the Beirut Order of Physicians by country of graduation (2001)

Graduation	G.P. Graduation		Specialization	
Country / Region	Number	Percentage	Number	Percentage
Lebanon	3386	38.95	1565	24.91
Eastern Europe	2596	29.85	1558	24.80
Western Europe	1428	16.42	2185	34.78
Arab Countries	1027	11.80	204	3.25
North America	41	0.48	683	10.87
Others	216	2.50	87	1.39
Total	**8694**	**100%**	**6282**	**100%**

Source: Beirut Order of Physicians

4.2 Dentists

The Order of Dentists was established in 1949, but was split in 1966 into two Orders similar to the Orders of Physicians. There are currently 3,611 dentists registered in the Order of Dentists of Lebanon, and another 450 registered in the Order of Dentists of North Lebanon.

Table II-12: Distribution of dentists by mohafazat in 1985, 1994 and 2000

	1985	1994		2000	
	%	Number	%	Number	%
Beirut	35	828	28.7	1045	25.7
Mount Lebanon	24	1331	46.2	1798	44.3
North Lebanon	12	270	9.4	450	11.1
South Lebanon	5	233	8.1	347	8.5
Bekaa	4	43	1.5	233	5.7
Unspecified	20	178	6.2	188	4.6
Total	**100**	**2883**	**100**	**4061**	**100%**

In 1994, Doughan and Doumit[11], reported a high concentration of dentists in Beirut and Mount Lebanon. This regional discrepancy still prevails as of 2000. It reflects the financial interests of dentists to be established in the more affluent regions of the country, especially since dental care does not have as extensive a coverage by funding agencies as medical care.

Graduates from universities in Lebanon made up 41% of the pool of dentists in 1994. The Saint Joseph University and the Lebanese University graduate each some 40 new dentists yearly, while graduates from abroad (mainly Eastern Europe, France and Arab countries) return to Lebanon at the rate of almost 150 every year.

Dentists face a similar situation as physicians in terms of oversupply and multiplicity of educational backgrounds.

Table II-13: Distribution of dentists by country of graduation (1994)

	Number	Percent
Lebanon	1181	41.0
Romania	426	14.8
Ex-USSR	382	13.3
France	194	6.7
Syria	167	5.8
Egypt	150	5.2
Bulgaria	103	3.6
Other countries	280	9.7
Total	2883	100

4.3 Pharmacists

The current number of registered pharmacists is 3457, and 1575 pharmacies are licensed by MOH (2002). Numbers of pharmacists and pharmacies have grown by 34.4% and 59.1% respectively between 1995 and 1999, and only by 5% and 12.4% between 1999 and 2002.

Table II-14: Evolution of the number of pharmacists and pharmacies (1995-1999)

	1995	1996	1997	1998	1999	Increase 95-99	
						Number	Percent
Pharmacies	883	1008	1183	1315	1405	522	59.1
Pharmacists	2341	2577	2772	2979	3146	805	34.4

Source: Order of Pharmacists 2000

Pharmacies are better distributed by mohafazat than physicians and dentists clinics. This is due to the 1994 Pharmacy Practice Law, which specifies that a minimum distance between pharmacies should be respected for new licenses. The distance is 200 meters in crowded cities and 300 meters in rural areas. The regulation led to lesser discrepancy in the distribution of pharmacies compared to that of pharmacists.

There are still a few illegal retail pharmaceutical outlets operating in the country, in spite of several crackdowns by MOH,

which started in 1993 and have led to closing some 600 of those so far.

Table II-15: Pharmacists and pharmacies per 10000 inhabitants and distribution by mohafazat (October 2002)

	Pharmacists		Pharmacies		Drugstores	Agencies (importers)
	Number	‰	Number	‰		
Beirut	848	20.8	196	4.81	7	34
Mount Lebanon	1507	13.16	734	6.41	10	37
North Lebanon	364	5.41	239	3.56	6	4
South Lebanon	235	8.3	163	5.75	5	0
Nabatieh	101	4.91	83	4.04	0	0
Bekaa	249	6.22	164	4.10	2	0
Total	**3304**	**10.62**	**1579**	**5.07**	**30**	**75**

Source: - Pharmacy Department, MOH 2002 (Pharmacy data)
- Population and Housing Survey 1996 (Population distribution)

4.4 Nurses and Paramedical Personnel

In 1997, there were 754 nurses graduates with a university degree, 437 nurses with a TS degree (Technique Superieur), 757 nurses with a BT degree (Baccalaureat Technique), and 1,505 nurse-aids, a total of 3,444 nursing personnel[12]. The ratio of qualified nurses to population is one to 1600 persons. This is one of the lowest ratios in the world, and is approximately one tenth of that typically found in developed countries and some third to half of that found in developing countries. The ratio of hospital beds to nurses is 4.5 beds per nurse, which compares with a ratio of between less than 1 to 2.5 beds per nurse in most Western European countries[13]. As a result of the nurses shortage, hiring of non-registered nurse "aids" has become quite common in most hospitals.

Since 1997, 453 nurses graduated from the Lebanese University, let alone other educational institutions, thus increasing the overall number of nurses. Table II-16 shows the numbers of nurses and other paramedical who graduated from the Lebanese University between 1997 and 2001.

In addition to Schools of Nursing at AUB and USJ, and the Public Health Faculty of the Lebanese University, the Balamand University has established lately an undergraduate nursing program. Nursing institutes exist all over the country to prepare technical nurses at the BT and TS levels. Other nursing programs are hospital-based.

Table II-16: Lebanese University: Public Health Faculty graduates (1997-2001)

	97-98	98-99	99-00	00-01	Total
Nursing	64	107	113	169	**453**
Medical Laboratory	56	68	72	74	**270**
Physiotherapy	49	59	51	39	**198**
Midwifery	35	42	43	63	**183**
Social Assistance	16	21	18	21	**76**
Orthophony	0	12	12	11	**35**
Ergotherapy	0	0	0	10	**10**
Public Health & Hosp. Adm.	25	0	14	29	**68**
Total	**245**	**309**	**323**	**416**	**1293**

The shortage of nurses results from the unattractive professional status on the one hand, and the short life career of nurses on the other. Many single nurses quit the profession after getting married.

Upgrading the financial and social status of nurses is needed to encourage enrollment in nursing schools. The improvement of working conditions is very important as well for career stability. For this purpose, much effort has been put to pass a law for the formation of an Order of Nurses in Lebanon (2002).

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Chapter Three

FINANCING OF THE HEALTH SYSTEM

1- PUBLIC FUNDS COVERAGE AND EXPENDITURES

There are six employment based social insurance funds publicly managed in Lebanon, the largest one is the National Social Security Fund (NSSF) meant to cover all employees in the formal sector (private sector and government-owned corporations, in addition to contractuals and wage earners of the public administration). The Civil Servants Cooperative (CSC) covers the regular government staff. The remaining four funds cover the Military and Security Forces. CSC is under the tutelage of the presidency of the Council of Ministers and the others are overseen by three separate ministries other than MOH. It is worth noting that private insurances and privately-held Mutuality Funds are also under the tutelage of two separate ministries.

The Government allocates in the budget of the Ministry of Health special allotments for covering the uninsured population, with the aim of providing universal access to health services.

Table III-1: Tutelage, entitlement, coverage and sources of financing of funding agencies

Fund	Tutelage	Entitlement	Coverage	Financing
NSSF Maternity and sickness fund	Ministry of Labor	- Employees of the formal sector - Contractual and wage earners of the public sector - Employees of autonomous public establishments - Teachers in public schools, taxi drivers, newspaper sellers, university students (physicians starting Feb. 2001)	- Hospital care (90% direct payment to hospitals) - Ambulatory care (85% reimbursement to user) - Dental care (not implemented yet)	- Employer: 12% of salary (7% starting April 2001) - Employee: 3% of salary (2% starting April 2001) - Government: 25% of total expenditures + the employer share for government contractuals and wage-earners + Contributions for taxi drivers, students and newspaper sellers
CSC Health fund	Presidency of the Council of Ministers	Regular staff of the public sector and dependents	- Ambulatory and dental care (75% reimbursement for employee 50% for family members) - Hospital care (direct payment to hospitals 90% for the employee, 75% for family members)	Government budget (of which 1% deduction of the payroll)
ARMY Medical brigade	Ministry of Defense	Uniformed staff members and their dependents	- Ambulatory and hospital care (100% for the member, 75% for the spouse and children, 50% for dependent parents)	Government budget

ISF, SSF, GSF Health departments	Ministry of Interior	Same	Same	Same
MOH	Ministry of Health	Uncovered Lebanese (Upon request)	- Hospital care (85% direct payment to hospitals, 15% co-payment with some exemptions) - Dispensing expensive drugs for catastrophic illnesses - Providing vaccines and essential drugs to public and NGOs health centers	Government budget
Private Insurance	Ministry of Economy and Trade	Voluntary enrollment	Variable	- Households (risk-based premiums) - Employers and employees for complementary insurance
Mutual Funds	Ministry of Agriculture	Voluntary enrollment	Variable	- Households - Government subsidies; ear-marked taxes for the judges mutual fund

The present system of multiple public funds is saddled with major defects. Of those, the overlapping of coverage and the shifting of eligible on the MOH burden represent serious problems. A meaningful number of adherents to the NSSF or the CSC have been submitting yearly "certificates of ineligibility" signed by both agencies, enabling them to benefit fraudulently from MOH's coverage. The MOH's coverage of 100% for some expensive interventions, like open-heart surgery was preferred over the 90% coverage of the NSSF. This problem was worsening with the extension of fully covered procedures. The extensions are decided at the discretion of the Minister of Health. Similarly, obtaining chemotherapy drugs for free from the Ministry's drugstore is a preferred option by an insured patient, instead of purchasing them from a private pharmacy, and getting 85% reimbursement by the NSSF and less by the CSC, several months later.

On the other hand, workplace injuries and occupational health are not included in the NSSF medical plan, and are covered instead by the MOH. Moreover, in case of health emergencies such as natural disasters, Israeli military attacks, or epidemics' outbreak, the MOH has to call upon private hospitals to treat hardshipped citizens, on the full charge of the Ministry, and can do so without prior authorization.

The population covered by the NSSF is relatively young, mainly due to the fact that upon retirement the adherent is excluded after getting his/her indemnities. Thus, the NSSF relieves itself from its aging beneficiaries when their health needs become more important and costly to satisfy. In addition, the citizens uncovered by the NSSF belong in general to the most deprived segments of the population, such as seasonal workers, farmers, retired and unemployed persons. Consequently the MOH welfare fund covers on average an older and poorer population. This means that higher hospitalization rates and average length of stay, and more complicated and expensive interventions are to be expected.

According to the 1999 National Household Health Expenditure and Utilization Survey[1] (NHHEUS), 45.9% of the

population was covered by one or more public or private insurance. The insured were distributed as follows: 38.8% covered by the NSSF, 9% by the CSC, 17.6% by military schemes altogether, 18% by private insurance (of whom 5.4 % for complementary insurance), 4.1% by Mutuality Funds, and 12.5% by various other funds including UNRWA's fund for Palestinian refugees. In that survey, 52.3% of residents declared being uncovered. Uncovered Lebanese are entitled to MOH coverage regardless of their ability to pay.

The NSSF main sources of financing are contributions proportional to salaries. In 1992, these contributions were set for different NSSF plans in the following manner: 15% of the salary paid by the employer for family allowances, 8.5% paid also by the employer for end of service indemnities, and 15% for medical insurance shared between the employer (12%) and the employee (3%). The medical plan benefits also from state's subsidies by 25% of its accrual expenditures[2].

In March 2001[3], the contribution was lowered to 6% for family allowances. Medical insurance was lowered to 9%, shared respectively between the employer and the employee by 7% and 2%. The maximum deductible sum for these contributions, was set at 1,500,000 L.P. The contribution for end-of-service indemnities was kept at 8.5% with no maximal ceiling.

As a result the NSSF revenues have been reduced significantly. At the same time dental care was added to the benefits basket, but the related decree (# 5104), which was supposed to become effective as of July first 2001, is still not implemented at the time of publication of this book.

Up till March 2002, the Ministry of Public Health had been contracting for general coverage with almost all private hospitals operating in the country[4]. According to the contract, a predetermined number of beds are reserved for patients referred by MOH, with prior authorization. The limited number of beds

assigned to each contracted hospital was supposed to contain costs under a certain ceiling.

Table III-2: Distribution of residents by covering fund according to their eligibility

Agency	% of residents	Number of adherents	Total number of beneficiaries (Adherents + dependents) or eligible	Remarks
NSSF	17.8	252 798	712 890	
CSC	4.5	55 283	180 225	
Military schemes	8.1	103 976	324 405	
Private insurance only	8.3	332 415	332 415	0.7% have more than one private insurance (n=28035). The number of private insurance policies alone = 360450
(Private insurance complementary)	(2.5)	(100 125)	(100 125)	Total number of private insurance policies=460 575
Mutual Funds and municipalities	2.3	92 115	92 115	
Other schemes	5.1	204 255	204 255	Including Lebanese and foreigners
MOH	48.3	-	1934 415	Eligible to MOH coverage not necessary benefiting all from its services
Others	5.6	-	-	Uncovered non Lebanese 224 280
Total	100	1 140 967(1)	3880 845(2)	4005 000(3)

(1) Lebanese and non Lebanese enrolled in one or more public or private insurance.
(2) Insured or eligible for MOH coverage
(3) Total number of residents in Lebanon

The MOH drugstore dispenses expensive drugs free-of-charge directly to the uninsured citizens suffering from cancer, mental illness, multiple sclerosis, and other dread diseases.

The MOH provides also vaccines and essential drugs to public and NGOs health centers. In return those centers are required to provide vaccines free of charge while they are allowed the collection of nominal user fees for consultations and essential drugs.

In addition to being largely inclusive about eligibility, the MOH has been consistently expanding its coverage over a growing basket of services. As a consequence, the MOH expenditures on hospitals have more than doubled in nominal dollars during the last decade.

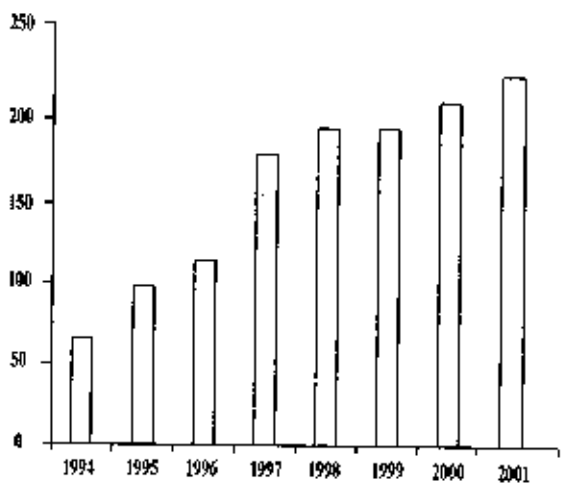

Fig III-1: MOH yearly disbursment for contracted hospitals 1994-2001

From MOH's expenditures on curative care, 30 % go to cover only three specific health problems: kidney dialysis and transplant, cancer treatment and open-heart surgery. These services were added in 1992 to the coverage basket and were until recently, reimbursed at 100%.

Consequently, 78% of the MOH budget is spent on the hospitalization of 3.2% of the population, of whom 0.2% benefits from 23% of the budget for the three health problems mentioned above[5].

Table III-3: Ministry of Public Health recurrent expenses[1]. Accrual Accounting (1994-2001)

Budget items (1000 L.P.)	1994	1995	1996	1997	1998	1999	2000	2001
Salaries and indemnities	11,623,465	13,141,246	15,521,042	14,252,340	15,600,000	18,504,000	18,465,000	26,248,000
Drugs	7,493,945	12,559,985	14,658,936	20,300,000	21,150,000	22,042,000	23,042,000	29,326,000
Contributions and support to NGOs	4,252,000	5,240,000	4,723,000	11,519,548	9,654,000	7,491,000	7,641,000	9,117,000
Hospital care (short and long stay)	106,133,000	131,767,000	162,360,000	195,413,512	187,000,000	186,258,000	205,335,000	226,000,000
Others	10,567,039	19,716,750	13,817,736	9,287,835	17,184,000	10,582,000	21,369,000	20,238,000
Total	**140,069,449**	**182,424,981**	**211,080,714**	**250,773,235**	**250,588,000**	**244,877,000**	**275,852,000**	**310,929,000**
Total (USD)	**83,374,672**	**112,538,540**	**134,360,730**	**162,945,570**	**165,295,000**	**162,439,000**	**179,669,000**	**206,254,000**

(1) Part I of the budget excluding the Central Laboratory budget

At the end of 1997, the MOH introduced a flat rate reimbursement method for some surgical procedures, and a co-payment of 15% for open-heart surgery and organ transplantation. The impact of these measures was remarkable on the 1998 and 1999 MOH expenditures as shown in figure III-1. Unfortunately, this effort was over-shadowed by the steep increase in the number of contracted beds in 2000, as will be explained later. It is worth mentioning that those unable to pay the 15% co-payment for any type of hospital care can apply for an exemption. Discretionary waivering is decided by the Minister.

All public agencies contract out with the private sector for hospital care. About 85 to 90% of the bill is charged to the concerned agency, and paid directly to the hospital. The billing is made according to a basic tarification, set by the MOH and the NSSF for 3rd class hospitalization. Officers and civil servants of the 2nd and 1st categories are entitled for special treatment at a higher fee. Outpatient services are paid by the patient who would be reimbursed after submission of required documents.

Table III-4: Public expenditures on health services provided by the private sector (1998) (1 USD = 1516 L.P.)

Financing agency[a]	Number of beneficiaries[c]	Expenditures[d] (1000 L.P.)	Expenses per beneficiary[e]	
			L.P.	USD
MOH[b]	1,934,415	208,150,000	108,000	71
NSSF	712,890	197,400,000	277,000	183
CSC	180,225	44,511,000	247,000	163
AF	260,000	58,467,000	225,000	148
ISF	53,000	37,000,000	698,000	460
GSF	9,000	5,600,000	622,000	410
SSF	2,405	2,288,000	951,000	627
TOTAL	***3,151,935***	***553,416,000***	***175,580***	***116***

Sources: Financing agencies for expenditures, NHHEUS for beneficiaries numbers.

a) Palestinian refugees and other non-Lebanese population are excluded as well as adherents to private insurance.
b) For the MOH: uncovered Lebanese are considered beneficiaries, expenditures include drugs and hospital care.
c) NHHEUS: The number of beneficiaries includes adherents and their dependents.
d) Covering hospital and ambulatory care except for MOH-paid coverage.
e) Administrative costs excluded.

The disbursement of MOH per uncovered citizen for hospital care was 71 USD in 1998. For all public funds, the average disbursement to private providers (including hospital and ambulatory care and excluding administrative costs) was 116 USD per beneficiary.

Mutuality Funds represent a small share of the market, covering 2.3% of the population in 1999. Some are complementary to other insurance schemes covering only the co-payment. Some others receive subsidies from the Government (table III-5). These amounted to 20.66 million USD in 1998, with more than 50% devoted to cover health services.

Table III-5: Government subsidies for Mutual Funds (in 1000 L.P.) (1998)

Source of Financing	Mutual Fund for Members of Parliament	Mutual Fund of the Parliament employees	Mutual Fund for judges	Mutual Fund for the Lebanese University professors
Regular Government Budget	9,100,000	1,820,000	6,550,000	13,000,000
Ear-marked taxes			848,392	

Source: Ministry of Finance

The separation between financing and provision of health care, the fragmentation and overlapping of sources of funding, in addition to weak institutional capacity, turn the control on cost and quality into a very complex task for financing agencies.

The average hospitalization rate of the population covered by public funds including the MOH welfare fund is 9.6%, and the average length of stay is 3.8 days. The cost per admission and per hospitalization day is highest for Civil Servants Cooperative and the General Security Fund. The average cost of hospitalization day is almost the same for MOH and the NSSF, and is around 170 USD per bed/day. The average cost per admission is less expensive for the latter because the length of stay is shorter. In comparison to other agencies, the MOH covers an older population, which explains partly the longer average length of stay.

Table III-6: Hospitalization rates and average costs by financing agency (1998)

Financing Agency	Hospitalization rate (% of eligible)	Average Length of Stay (days)	Average cost per admission (1000 L.P.)	Average cost of bed-day (1000 L.P.)
MOH	8.44	4.25	1111	261
NSSF	9.20	3.98	976	245
CSC	7.3	4.09	1319	323
AF	12.8	3.88	1132	292
ISF	29.49	3.91	1043	267
GSF	13.07	3.53	2059	583
SSF	30.95	3.08	1208	392
TOTAL	**9.65**	**3.82**	**1264**	**338**

Table III-7 : Accrual public expenditures breakdown (1998) (1 USD = 1516 L.P.)

	MOH	NSSF	CSC	Army	Security Forces
Private in-patient care (1000 L.P.)	187,000,000	107,700,000	24,200,000	50,094,000	28,950,000
Ambulatory services (1000 L.P.)	26,652,125[1]	89,700,000	19,800,000	18,747,000	15,938,000
Public hospitals total cost (1000 L.P.)	16,604,863	–	–	–[2]	–
Administrative costs for medical coverage (as insurer) (1000 L.P.)	3,877,493	40,403,000	2,300,000	17,780,000[3]	3,000,000
Total (1000 L.P.)	**234,134,481**	**237,803,000**	**46,300,000**	**86,621,000**	**47,888,000**
Total (US Dollars)	***154,442,269***	***156,862,137***	***30,540,897***	***57,137,862***	***31,588,390***
Cost per beneficiary (USD)	80 + 6[4]	224	176.5	220	464.5
Administrative Costs (%)	1.7	16.9	4.96	20.5	6.3

(1) Including drugs for dread disease.

(2) The Military Hospital was closed in 1998 for rehabilitation.

(3) Salaries and other administrative costs of the Military Hospital amounted to 7 billion L.P.., and are not included even though they have been disbursed.

(4) MOH public health activities (14,447,700) and administrative costs of general services (19,162,000) go to the benefit of all citizens, and cost 6 USD per person.

Being the insurer of last resort for the most disadvantaged, the MOH contributes to some extent to solving accessibility and equity problems, as confirmed by both the Health Expenditure Survey conducted in 1995[6], and more recently by the 1999 NHHEUS.

The MOH spent on private and public hospital care and ambulatory services, 234.13 billion L.P. (1998) including administrative costs. This went for ensuring medical coverage of 1.9 million eligible citizens, which represents an average of 80 USD per uncovered citizen. It is worth noting that although the uninsured are eligible for MOH coverage, many of them do not seek MOH services for different reasons. In addition, the MOH spent 33.6 billion on public health activities and general services, to the benefit of all the 3,720,645 Lebanese citizens[7]. This represents an additional 6 USD per citizen. Data collected showed great variations in administrative costs, a fact that requires more investigation. The lowest administrative cost was 1.7% for the MOH, followed by 4.96% for the CSC. This is due mainly to the meager salaries of civil servants. Apart from military schemes, the highest administrative cost was for the NSSF, (16.9%). The rather high administrative cost of the Army medical fund (20.5%) should be examined more thoroughly, as it may be due to over-staffing, of the entire Medical Brigade. The very high cost per beneficiary for the Security Forces Funds, 464.5 USD, should also be analyzed and may be largely attributed to inefficiency.

The mean cost per beneficiary for public funds is 220 USD, compared to 80 USD per eligible uninsured citizen for the MOH. The share of inpatient coverage (hospital bills) is 52.7% for the public funds, and 80% for MOH.

The NSSF's average cost for medical insurance is 224 USD per beneficiary. Should the Government consider a universal prepaid health coverage plan, this could be taken as a reference figure for public insurance. It compares favorably with the much higher cost of private insurance, where the 1998 average gross premium per person-year was 474 USD[8].

2-PRIVATE INSURANCE

Private insurance companies are taking full advantage of the system for selecting younger and better off clientele ("cream skimming"). The chronically ill patients (diabetes, heart diseases, renal failure, cancer, ...) are discouraged by prohibitive premiums to join the private insurance. Most of the times expensive interventions (open-heart surgery, chemo and radiotherapy, transplantation, dialysis,...) are excluded and their burden ends up being shifted on the MOH.

Figuring the private insurance market's share in Lebanon needs complicated calculations and a triangulation of information from different available sources. The household survey provides data on proportions of people holding a private insurance alone "CO-NIL" or in combination with an NSSF coverage "CO-NSSF" and gives an estimate on premiums paid, out-of-pocket (OOP) totally or partially. On the other hand, estimation of premiums averages for "CO-NIL" and "CO-NSSF" policies can be derived from data provided by a Third Party Administrator (TPA) known to have a large share in the private insurance market. From the same source, information can be sorted out on proportions and average premiums for covering hospitalization alone or in combination with ambulatory care. Cross-tabulation of these different types of data allows a fair estimation of the number of different types of coverages and their incurred cost. For the sake of consistency, a comparison should be done between total amounts obtained and global budgets provided by the Private Insurance Association and the Ministry of Economy and Trade. Under declaration of private insurance revenues should also be taken into account through a comparison with totals derived from the household survey.

According to private insurance companies budgets published by the Ministry of Economy and Trade, subscriptions in 1996 amounted to a total of 244.3 million USD, representing a 10.26% increase compared to 1995. It is estimated that 25% of subscriptions are undeclared[9].

Based on fiscal records, private insurance revenues in 1997, excluding life insurance premiums that are exempted from taxation, amounted to 266,386,000 USD[10]. The total subscriptions estimate of the Private Insurance Association for 1997 amounted to 350 million USD.

The Household Living Conditions 1997 survey revealed that 14.8% of households were paying for private insurance. The average share by household amounted to 1,719,000 L.P. which adds up to a total of 228,155,994,000 L.P.[11]. This figure does not include the contribution of the employer to plans complementary to the NSSF coverage.

According to the 1999 NHHEUS, 8.3% of residents adhered only to private insurance; among them 0.7% held more than one policy, whereas 2.5% declared having a private insurance as complementary to the NSSF coverage. The calculation done for 1998 gives a number of private insurance policies of 360,450 for full coverage and 100,125 for complementary coverage.

In 1998, the NHHEUS revealed that households had paid 199,193,271 USD for private insurance. This amount includes contributions to Mutual Funds and excludes the employers share.

Considering the number of private insurance enrollees provided by the NHHEUS, and their distribution between complete and complementary coverage, the projection of total private insurance premiums for 1998, based on the average MedNet premium for these two categories, is 248,029,707 USD. This figure excludes contributions to Mutual Funds but includes the employer share's in premiums. MedNet is one of the largest TPA currently performing on the insurance market in Lebanon.

It is worth mentioning that this bottom-up method of calculation provides a different estimate of private insurance premiums than that of the published 1998 National Health Accounts where an estimation of 220,236,170 USD was obtained following a top-down approach.

Table III-8: 1998 Private Insurance Gross Premiums

	Private Insurance alone		Private Insurance complementary to NSSF		TOTAL	
	# Policies[1]	Gross Premium USD[3]	# Policies[2]	Gross Premium USD[3]	# Policies	Gross Premium USD
Covering hospitalization only	125,797	64,533,861	81,902	14,906,164	207,699	79,440,025
Covering hospital and ambulatory care	234,653	164,726,406	18,223	3,863,276	252,876	168,589,682
TOTAL	**360,450**	**229,260,267**	**100,125**	**18,769,440**	**460,575**	**248,029,707**

(1) Distribution of private insurance alone policies by type of coverage derive from the NHHEUS where 34.9% of private insurance policy holders declare covered for hospitalization only.
(2) Distribution of complementary private insurance by type of coverage is based on MedNet percentages.
(3) Based on the calculation of the average gross premium per "person-year" derived from 1998 MedNet statistics.

Table III-9: 1998 Private Insurance Expenditures (USD)

	Private Insurance alone		Private Insurance complementary to NSSF		TOTAL
	Average burning cost per "person-year"[1]	Amount[2]	Average burning cost per "person-year"[1]	Amount[2]	
Hospital Care	272	34,216,784	97	7,944,494	**42,161,278**
Hospital and ambulatory care	474	111,225,522	138	2,514,774	**113,740,296**
TOTAL		**145,442,306**		**10,459,268**	**155,901,574**

(1) MedNet Liban Health Insurance Portfolio, 1998.
(2) The amount calculation is based on the number of policies as estimated in table III-8.

Table III-10: Annual Household Expenditures (%) by spending item (last three months) and by mohafazat (1998-1999)

Items	Beirut	Beirut Suburbs	Mount Lebanon	North Lebanon	South Lebanon	Nabatieh	Bekaa	Total Lebanon	Annual (1000 LL)
Food	30.9	30.7	30.1	32.6	33.2	32.2	32.6	31.4	**5825**
Clothing	4.9	4.9	4.9	5.8	5.8	6.9	5.7	5.3	**985**
Personal care	5.3	4.8	4.5	5.6	5.8	6.2	6	5.2	**969**
Rent	3	2.8	1.1	1.2	1.5	0.6	1.2	1.8	**340**
Energy, Water, Telephone	9.6	8.7	10.1	9.3	8.4	7.1	9.5	9.2	**1699**
Maintenance/Repair	2.1	2.2	3.9	2.6	2.1	2.9	1.3	2.5	**468**
Assets	1.1	2.5	2.4	1.8	3.4	2.4	1.2	2.1	**395**
Transport	6.1	7.6	8.5	8.1	8.4	6.9	8.3	7.7	**1435**
Education	13.4	12.2	11.2	11.7	9.7	11.8	10.8	11.7	**2163**
Health care	**12.7**	**14**	**15.4**	**13.7**	**12.3**	**13.9**	**15.7**	**14.1**	**2609**
Leisure	5.6	5.6	4.6	4.4	6	5.1	4.2	5.1	**942**
Miscellaneous	5.4	4.1	3.4	3.2	3.5	3.9	3.5	3.9	**721**
Total	**100.1**	**100.1**	**100.1**	**100**	**100.1**	**99.9**	**100**	**100**	**18551**

3-HOUSEHOLDS SPENDING

The yearly total spending of households (1998-1999) amounted to an average of 18,550,000 L.P. by household, where 14.1% (2,609,000 L.P.) were spent on health. Spending on health is ranked second after food (31.4%). The average per capita out of pocket health expenditure amounted to 520,000 L.P. (343 USD) with the following distribution by age group: less than 5: 297,000 L.P., 5 to 14: 217,000 L.P., 15 to 59: 469,000 L.P. and for 60 years and above: 846,000 L.P.

15.2% of household spending on health goes for the direct purchasing of drugs. Considering that pharmaceuticals represent 20% of the hospital bill, and 11.6% of ambulatory expenses, their share would then be 21.5% of the household health expenditures.

Table III-11: Distribution of annual household spending on health by mohafazat and by health spending category (%)

Mohafazat	Insurance	Hosp. > 24h	One day hosp	Dental care	Ambulatory care	Pharma-ceuticals (direct purchasing)	Total
Beirut	22.9	6.9	1.5	16.6	35.3	16.8	100
Beirut Suburbs	18.5	10.6	1.1	22.5	32.6	14.7	100
Mount Lebanon	15.5	10	2	26	36	10.6	100
North Lebanon	11.6	7.7	1.4	19.8	43.1	16.3	100
South Lebanon	9.8	13.2	3.6	16.9	41.9	14.5	100
Nabatieh	4.5	10.4	2.2	22.5	39.2	21.2	100
Bekaa	6.7	13.6	1.4	23.8	35	19.5	100
Total	**14.5**	**10.1**	**1.7**	**21.8**	**36.7**	**15.2**	**100**

In the 1999 NHHEUS, the average yearly household spending on health was 520,000 L.P. per capita, representing a 40% increase from that of the 1997 Households Living Conditions. It is most unlikely for such an increase to occur over a

2-year period. In all likelihood, household spending on health may have been under-estimated by the 1997 Living Conditions survey, and over-estimated by the 1999 survey that focused on health.

4-GLOBAL EXPENDITURES ON HEALTH AND SOURCES OF FINANCING

The 1998 national expenditures on health in Lebanon was estimated at 1,987,808,565 USD, representing 12.4% of the GDP. This GDP share exceeds that of countries with a comparable socio-economic level. It is more likely similar to the OECD countries.

Table III-12: National Health Accounts: main findings (financial year 1998)

Total Population	4,005,000
Total Health Expenditure	3,013,517,785,000 L.P. (1,987,808,565 USD)
Per Capita Expenditure	752,438 L.P. (496 USD)
Total GDP	24,300,000,000,000 LL (16,200,000,000 USD)
Health Expenditure as Percent GDP	12.4%
Percent G.O.L. budget allocated to health	6.6%
Sources of Funds	
Public	18.22%
Private	
Households	70.65%
Employers	9.19%
Donations and Loans	1.94%
Distribution of Health Care Expenditures	
Public Hospitals	1.7%
Private Hospitals	22.8%
Private Non-Institutional Providers	41.0%
Pharmaceuticals	25.4%
Others	9.1%

Table III-12 summarizes the NHA main findings. Overall, public sources accounted for 18.22% and private sources for 81.78% of health care financing. International financing in loans and donations accounted for the remaining 1.94%.

The proportion of government budget allocated to the health sector was 6.6%. MOH spending on equipment and physical rehabilitation (part 2 of the MOH budget) is taken into

account (table III-13), whereas public investment in building and equipping new hospitals and health centers covered by loans and donations is not included. This extra budgetary financing does not constitute over years an important percentage of the total public spending. However, the public budget will certainly incur a tremendous operating cost, once they become functional.

In terms of total expenditures' distribution, public sector providers account for less than 2%, while private sector providers account for more than 60%. Spending on pharmaceuticals alone exceeds 25% of the total.

Out-of-pocket fee-for-service payment represents 59% of total health expenditures. Adding their contributions to public funds and premiums for private insurance, the total share of households reaches 70.65%. Employers contributions represent only 9.19% of the total.

Funding from tax sources are disbursed through various public agencies as follows: MOH 47.6%, NSSF 15.2%, Army 15.8%, CSC 9.7%, Security Forces 8.8% and Mutual Funds 2.9% (fig III-3).

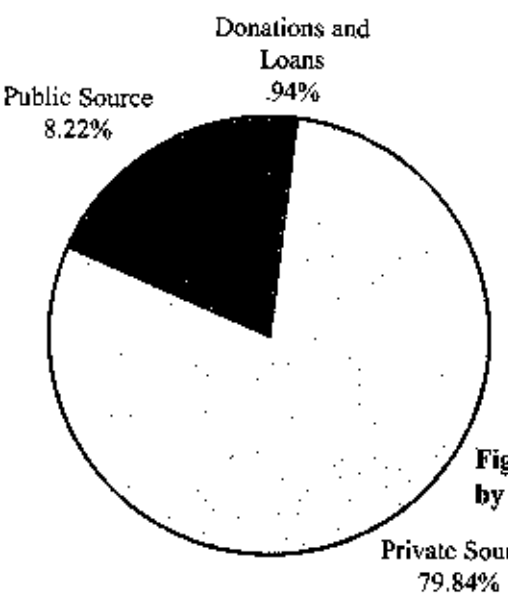

Fig III-2: Health Expenditures by source of financing.

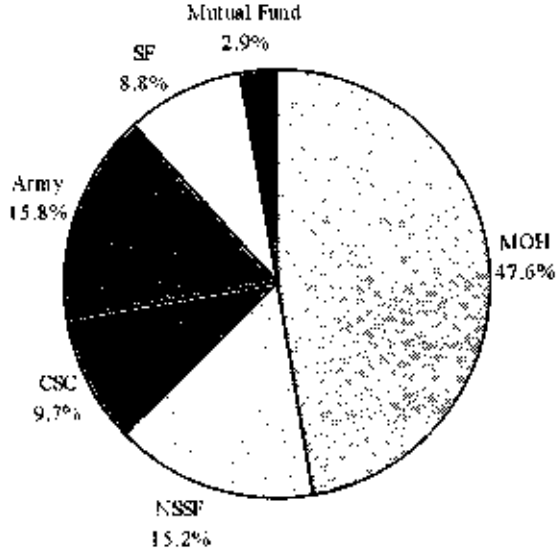

Fig III-3: Treasury sources of health financing.

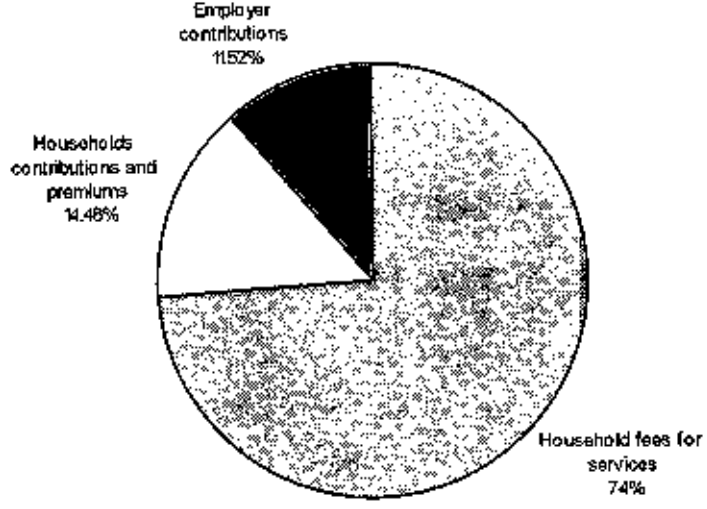

Fig III-4: Sources of private health financing.

On the other hand, the breakdown of private financing (fig III-4) shows the relatively small contribution of employers (11.52%), compared to households contributions (88.48%).

If we compare the total health expenditures of 1997, calculated based on the "Households Living Conditions Survey" data that gives an estimate of 2,553,708,455,000 L.P.[12], to those of 1998 based on the NHHEUS data of 3,013,517,785,000 L.P., the nominal increase would be of about 18%, which is 10.9 points higher than the GDP nominal growth (7.1%)[13] for the same period. However, this should be considered carefully, with the reservations made previously on the comparability of the two surveys estimates.

Finally, it is of relevance to make a reference to a recent note[14] of the "French National Institute for Statistics and Economic Studies" (INSEE), assigned by the G.O.L. for setting Lebanese National Accounts. In this note, INSEE considers that GDP figures set since 1997 have been underestimating the volume of the Lebanese economy by 20 to 25%. The INSEE considers that the service industries should be better represented, and that more pertinent aggregates, such as Gross National Income that integrates foreign transfers, should be calculated to reflect better the Lebanese economy. Accordingly, the 1998 GNP share of total health expenditures may become around 10%.

As shown in table III-14, in comparison with other Middle East and North Africa (MENA) countries where a National Health Accounts study was carried out, Lebanon lies in the higher end of the spectrum in terms of GDP and GDP per capita. Lebanon per capita health expenditures, are much higher than the MENA average. Moreover, the GDP share of health expenditures is even higher than the OECD average. In contrast, public expenditure as a percentage of total health spending in Lebanon is not high in comparison with other countries in the region.

Table III-13: Distribution of financing sources and health expenditures by funding agency and households (1000 L.P.)

AGENCY	INCOME BY SOURCE					ACCRUAL EXPENDITURES
	Households		Employer	Treasury	Extra budgetary	Disbursement (Adm.cost + surplus)
	Fees for Services	Contributions/ Premiums	Contributions/ Premiums		Donations / Loans	
MOH	—	—	—	261,279,802	49,639,500	287,880,419 (23,038,883)
MOSA+MOD	—	—	—	230,000	1,213,500	1,443,500
NSSF	—	46,358,000	185,432,000	83,734,000	—	237,740,000 (77,784,000)
CSC	—	—	—	53,091,642	—	50,791,642 (2,300,000)

Army	—	—	—	86,620,910	—	68,840,910 (17,780,000)
SF	—	—	—	48,502,970	—	45,502,970 (3,000,000)
Private Insurance	—	284,596,770	91,416,265	—	—	236,346,786 (139,666,249)
Mutual Funds	—	17,380,230	—	15,659,196	—	33,039,426
NGOs	—	—	—	—	7,740,000	7,740,000
Households	1,780,623,000	—	—	—	—	1,780,623,000
TOTAL	**1,780,623,000**	**348,335,000**	**276,848,265**	**549,118,520**	**58,593,000**	**3,013,517,785**

Table III-14: International comparison of health expenditures per capita and as a percentage of GDP

Country or Region	GDP per capita (USD)	Health Expenditure (per capita USD)	Health Expenditures as percentage of GDP		
			Total	Public Sources	Private Sources
Yemen (1997)	449	19	5.0	1.5	3.5
Egypt (1998)	1,016	38	3.7	1.6	2.1
Morocco	1,241	49	4.0	1.3	2.7
Jordan	1,475	136	9.1	5.2	3.8
Iran	1,776	101	5.7	2.4	3.3
Tunisia	2,001	105	5.9	3.0	2.9
Lebanon (1998)	**4,045**	**499**	**12.4**	**2.3**	**9.9**
Middle East & N. Africa (1994)	5,608	116	4.8	2.6	2.2
E. Asia & Pacific	970	28	3.5	1.5	2.0
OECD (1994)	24,930	1,827	8.3	6.5	1.8

Source: *World Development Indicators, World Bank*
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Chapter Four

CHARACTERISTICS OF THE MARKET

1-PRIVATE PREDOMINANCE AND SUPPLIER-INDUCED DEMAND

The seventeen years of civil unrest have damaged the physical, institutional and financial capacities of the public sector. Meanwhile, Non Governmental Organizations (NGOs) and the private for-profit sector grew in both numbers and capacity. As a result today, 90% of hospital beds are in the private sector, and the majority of the 845 PHC facilities belong to NGOs[1], whereas ambulatory care is provided mostly by private physicians' clinics. The flourishment of the private sector and the weakening of public services left the government with no other alternative than contracting out with the private sector for a yearly widening range of services. This predominance of private service delivery is defended by a powerful syndicate of private hospitals and professional associations.

The private sector continues to grow in a largely unregulated environment, allowing uncontrolled investment and generating a supplier-induced demand. The overuse of hospital services is aggravated by the absence of a functional referral and gate-keeping system. This leads to oversupply in hospital beds,

high technology equipment, such as scanners and MRI machines, and sophisticated services, such as open-heart surgery, bone marrow and organ transplantation and in-vitro fertilization (table III-2). This oversupply of services is closely linked to the oversupply of some manpower categories especially medical doctors, as explained in section II-4.

2-FINANCING FRAGMENTATION AND LACK OF ACCOUNTABILITY

Private hospitals depend heavily on public financing, which represents 64% of their income. Thirty percent of private hospitals' financial resources are derived from the MOH alone. This dependence is more meaningful for small hospitals[2].

The existence of six different public funds reporting to the Presidency of the Council of Ministers and to three different ministries other than the MOH, is responsible for financing fragmentation. This multiplicity in the absence of a unified database on beneficiaries, the lack of inter-agency coordination, the adoption of different tarification systems and control mechanisms, weakens the purchasing power and control capabilities of these agencies. Private insurance companies and mutuality funds that report to two additional ministries, further complicates the system and makes the MOH monitoring and regulatory mission even more difficult.

As a result of financing fragmentation, neither MOH nor any other public agency has access to complete data allowing the monitoring of utilization and cost of health services. This is aggravated by the lack of transparency in the private sector and the weak regulation capabilities of the public sector.

During and after the war period, abuse of the system by the private sector has been going unnoticed. Following attempts towards capacity building, fraudulent practices were discovered. However, the MOH was unable to take the appropriate sanctions because of political pressure. Attempts to breach contracts with

badly performing and fraudulent private hospitals were unavailing. The MOH continues to be a major financer of these hospitals, thus protecting in a way, mediocrity. On the other hand, public funds' administrative procedures are also not transparent, thus hiding malpractice. Accountability of employees in the public sector is hindered by procedural oriented bureaucratic control, whereas a framework for private sector accountability is completely lacking.

3-NON COMPLIANCE OF PUBLIC SERVICES WITH MARKET PRINCIPLES

Public services, especially public hospitals that are overstaffed and operating with rigid administrative rules, were not able to compete with the market. A performance management alternative was sought through the public hospitals' autonomy law. This law issued in 1996 was meant to create financial incentives for these hospitals to compete with the private sector, and for physicians to increase their productivity. This autonomy was supposed to relieve hospitals' administrators from political pressures mainly in terms of recruitment policies. Market mechanisms are introduced through contracts with financing agencies including MOH, and performance targets are set through the budget formulation.

It is too early to evaluate the impact of hospitals' autonomy on cost and quality of services. However, a substantial increase in public hospitals admission rates and a lessening in consumer's complaints are already noticed. Nevertheless, political interferences in staffing public hospitals are still prevailing and are periodically revealed by. the media. Favoritism is practiced by MOH by transforming advanced payments to public hospitals into donations, and by giving them priority over private hospitals in terms of reimbursement schedules. This preferential treatment goes against free market mechanisms and hinders the claimed free competition.

4-MARKET FAILURE

Many factors contribute to market failure: the lack of competitiveness in services' provision, institutional weaknesses, the fragmentation of public financing, and consumer perceptions in confusing quality with high technology and expensive pharmaceuticals.

The coverage of hospital care for all the uninsured by MOH, contributes in making people cost-unconscious. For advice and treatment, patients depend on their doctors. These are encouraged by the system to overuse hospital beds, and to over-prescribe diagnostic tests and drugs. This tendency is enhanced by the absence of practice guidelines, and the medical guild principle of free choice of treatment.

In addition to moral hazard, adverse selection and cream skimming are further aggravating market failure. Private insurers being selectively offering products attractive to the healthier thus, discouraging pooling arrangements. Only 8.2% of the elderly (60 and above) hold a private insurance policy compared to 12.2% of those between 15 and 59.

On the other hand, the selection of providers by public funds is not based on cost and quality criteria. Instead, political, regional and confessional interferences are to be considered. This lack of competitiveness is sustained by the social belief in the free choice of provider which weakens the bargaining power of insurers. The impediment to free competition is also a major reason for cost escalation which threats the sustainability of the system. One common aggravating factor relates to payment mechanisms. The fee for service reimbursement that encourages over consumption and the itemized bills' auditing generate a tremendous workload, preventing the MOH and other financers from evaluating the product being paid for.

5-PHARMACEUTICALS

The Pharmacy Department in MOH is the regulatory body for pharmaceuticals and drug dealers. It is assisted by a Technical Committee, which includes members from professional associations and universities.

The Technical Committee was created in accordance with the 1994 Pharmacy Practice Law, and is responsible for registration of new or imported drugs. Drug samples are tested at the Chemistry Branch in the Central Laboratory prior to registration. However, this laboratory has limited resources in terms of equipment and trained staff to perform the necessary analysis of all drugs.

The number of drugs currently registered exceeds 5000, of which less than 3000 are imported regularly by 75 agents and are widely available in the market. A total of 30 drugstores, 1579 pharmacies, and 3304 pharmacists are currently operating in the country (table II-15).

Nearly all drugs are imported or procured locally most often as highly priced brand-name drugs, rather than the cheaper generic equivalents. Imported drugs are produced by 380 firms in 21 countries of origin. Their share exceeds 90% of the market. Nine local manufacturers, all-operating below capacity, produce less than 10%.

There exists many difficult problems with the use of drugs in Lebanon. There is a wide practice of over-prescribing and reliance on expensive injections rather than on lower-cost tablets or capsules. There is also considerable public demand for drugs and until recently, the public was able to buy almost all drugs over the counter without prescriptions. The large number of physicians and pharmacists in the private sector contributes to the non-rational use of drugs and cost escalation.

According to the law, MOH sets a fixed price for marketed drugs that takes into consideration the ex-factory price, shipping

and other fees and the profit margins for importers and pharmacists. An incremental pricing formula is applied as follows:

Ex factory price (FOB)	100
+ 7.5 % shipping and insurance expenses	107.5
+ 11.5% customs clearing and commission	119.8
+ 10% importer profit	131.8
+ 30% pharmacist profit	171.4

Drugs retailers should stick to the set price. While MOH sanctions overpricing, the Order of Pharmacists is more concerned with underpricing to "prevent illegal competition".

Imported drugs prices in 1997 amounted to 226,552,267 USD, which corresponds to a retail official price of 294,518,000 USD. This represented, 20% of the 1997 total health expenditures, before adding the locally produced drugs.

In 1997, the MOH drug budget amounted to 20.3 billion L.P. (USD 13.5 million) or 8% of its budget. In addition, pharmaceutical products cost accounted for about one third of MOH reimbursements to private hospitals.

As revealed by the 1999 NHHEUS, 30.2% of respondents reported having incurred illness or injury in the previous month, 18.4% of them have consumed drugs without medical prescription. More than 90% of the national pharmaceutical bill derives from households out-of-pocket[3].

In 1998, pharmaceutical expenditures accounted for over 25% of total health expenditures. The annual per capita expenditure on drugs is estimated to be 120 USD, more than twice the amount paid for instance in neighboring Jordan.

Analyzing the consumption of pharmaceuticals by therapeutic class shows that antibiotics account for 18%, followed by anti-inflammatory drugs (14%), and cardiac-hypertension drugs (9%). Vitamins account for 6% of all drugs, steroids account for 5% and antacids for 4%[4].

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Chapter Five

EVALUATION OF THE HEALTH SYSTEM

The classic approach to evaluate a health system considers two competing values: Efficiency and Equity. The World Health Report 2000 introduced new concepts in assessing a health system's performance. It considered among the goals to be attained "Responsiveness" and "Fairness in Financing". Even though some concepts were traditionally seen as parts of the issues of quality (patient satisfaction) and equity (accessibility and equity in financing), quality was not targeted specifically in the Report. The Report introduces also a broad definition to two functions of the health system: "Resource-generation" that goes beyond the financial aspect and, "Stewardship" that is considered wider than the commonly used "Regulation" term.

Concepts of Equity, Efficiency and Quality are complex and very much interdependent. This section does not pretend to cover all the dimensions of these concepts. This applies particularly to the Quality of health care, which needs extensive investigation if a complete picture is ever to be attained. Only few studies on particular quality aspects of specific services are

available. They are irrelevant as far as the overall analysis of the system is concerned. However, some aspects, such as consumer satisfaction, that are tackled throughout this work are directly related to quality. It is worth mentioning that accessibility as addressed in this section, deals with utilization of health services and their distribution. Related data are derived from the "Household Health Utilization and Expenditure Survey" (HHUES) undertaken in Lebanon in 1999.

Access has been defined as the timely receipt of appropriate care (Institute of Medicine, 1993). As mentioned by H.K. Armenian, this definition states the objective of accessible health care. However, the measurement of "good" access is not well defined. There are no universally accepted measures of timeliness and the measurement of appropriateness is equally complex. "Appropriateness criteria tend to be applied by payers and MCOs with the objective of reducing the unnecessary use of services. As a result, they do not frequently address the question of whether some people who need care fail to receive appropriate services"[1].

As for Efficiency evaluation, it considers in general relating results obtained from a program to resources used to maintain that program[2]. We have adopted specifically the definition of William A. Reinke: "the ratio of output to input is a measure of efficiency"[3].

Efficiency in the provision of health care can generally be divided into two categories: allocative efficiency and technical efficiency. "Allocative efficiency deals with how to allocate limited resources to programs which will result in the highest benefit. In health care, allocative efficiency involves determining which inputs can achieve a particular improved level of output (health status) with the least cost". "Technical efficiency may be interpreted as the pursuit of maximum output for a given level of resources or minimum cost for a given level of output"[4].

1-EFFICIENCY ISSUES

1.1 Allocation of Resources

Despite the declared commitment of the government to reach the "Health for All" objective by adopting the strategy of Primary Health Care. PHC services remain weak and ill-organized. Moreover, in the absence of a referral system with gate-keeping role, financing is shifted towards less cost-effective hospital care. This shifting is enhanced by the reimbursement system, which is most generous and comprehensive for hospital care, and very limited for preventive and out patient care. *Allocative inefficiency* remains a major issue to address: Reimbursement of private hospitals represents the biggest share of the MOH budget; it has reached 78% in 1998. This while the budget of public hospitals, the front line providers of secondary care, represented only 5.8%, and primary health care cost, including national health programs and support to NGOs, represented less than 10%.

The MOH cost for curative care was 80 USD per eligible person per year, to be compared to only 6 USD per citizen per year for all public health programs and preventive care.

On the other hand, facing the very high cost of commissioning and operating the newly built public hospitals, the government is currently considering their privatization. In this case government investments would have contributed to the excessive supply in hospital beds and consequently to cost inflation, without getting any of the intended results discussed earlier in chapter II section 1[5].

1.2 Public Financing Inflation

After the war period, the Government faced a dilemma: to contain public expenditures on the one hand and to increase accessibility to a wide range of health services on the other. This dilemma had its impact on the MOH budget. Fig V-1 shows how narrowing the budget deficit necessitated from one side great efforts to rationalize expenses and from the other a meaningful increase in the 1998 budget.

MOH expenditures that are growing much faster than the average GDP growth rate, are hardly sustainable. The fact that 78% of the MOH budget is spent on the hospitalization of 3.2% of the population, of whom 0.2% benefits from 23% of the Ministry's budget through coverage of specific expensive problems, constitutes a typical example of *Pareto inefficiency*.

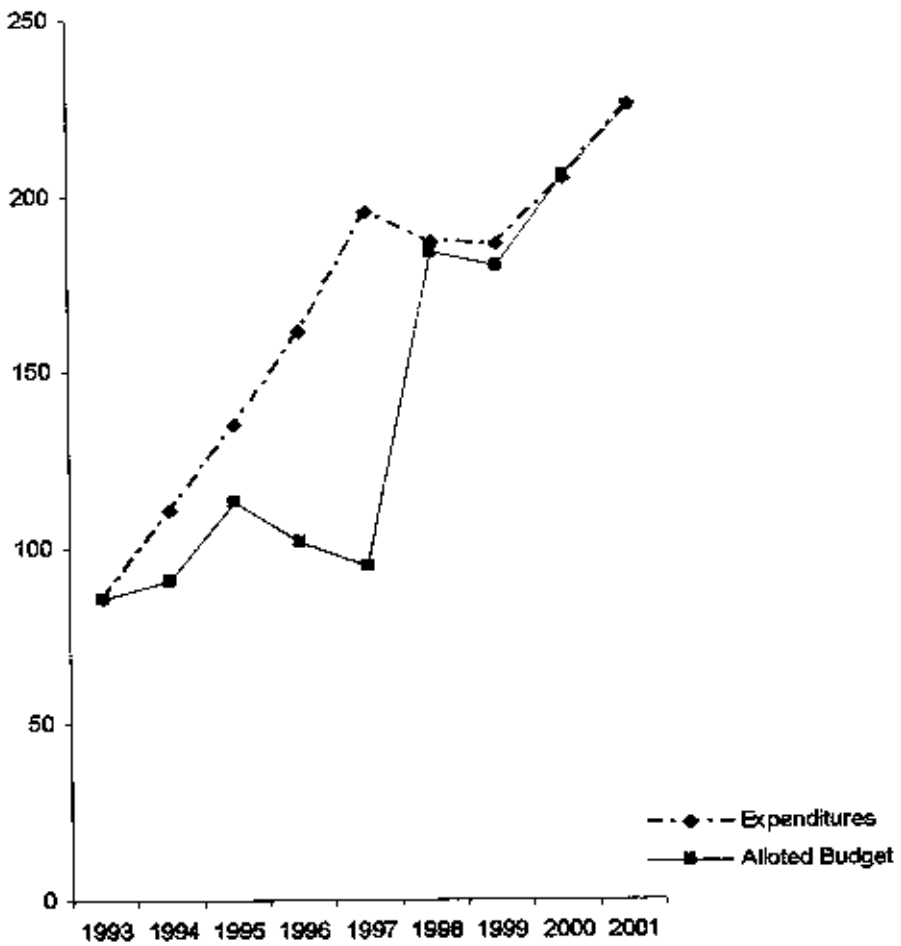

Fig V-1: MOH allotted budgets and accrual expenditures on private hospitals from 1993 to 2001 (in billion L.P.).

The adoption of different tarification systems and control mechanisms weakens the purchasing power and control capabilities of public funds. The multiplicity of public funding and the impediment to free competition as detailed previously are responsible for *technical inefficiency* resulting in the poor value of services obtained for the money spent in the health sector.

1.3 Unregulated Service Delivery

The lack of regulation of private providers and incentives created by the fee-for-service reimbursement have led to an oversupply of high-cost, technology-driven hospital services and specialized physicians' care, generating an ever-increasing, at times unnecessary demand. For example, the current availability per million inhabitants of 5 open-heart centers, 6 MRI machines and 7 lithotreptors exceeds that of most of the OECD countries. The over-supply of health services is also linked to the tremendous increase in the number of physicians witnessed during the last decade of the 20th century.

Calculations derived from NHHEUS reveal clearly the under-usage of hospital beds resulting mainly from over-supply. The average occupancy rate is 62.3%, a proxy indicator for inefficient investments in hospitals and/or inefficiency in running most of hospital beds. Sophisticated services are particularly under operated. Most open heart centers are performing on average, less than 3 interventions per week, with probable negative consequences on both efficiency and quality of care.

The government has been dealing passively and retroactively with the situation by financing hospital services to the uncovered population, and by fully reimbursing expensive interventions and drugs that are beyond the financial capabilities of households thus, fueling the perverted system. This generous reimbursement system in the absence of a beneficiaries' database creates incentives for cost shifting to the MOH even among those already covered by other public funds or private insurance plans. This is aggravated by cream skimming and exclusion of high-cost services, largely practiced by private insurance companies.

Providers belong to a diverse set of political and religious influential groups. This was pushing the MOH to contract with almost all the existing private hospitals, including the low-classified ones[6]. Under group pressures, MOH has been continuously increasing the number of contracted beds, irrespective of real needs and financial reimbursement capabilities. Payment is delayed through bureaucratic channels, which further hinder the accountability to contributors. Consequently, the government has been protecting mediocrity and encouraging oversupply, leading to the explosive growth in the consumption of hospital and curative outpatient care, without any guarantee for quality.

In summary, the use of resources without flexibility or links to performance indicators and the absence of mechanisms aiming at shifting risks to providers that are operating in an uncompetitive environment, are the main drivers of *technical inefficiency*[7].

Under-utilization and supplier-induced demand apply also to ambulatory care, with an oversupply of physicians' cabinets and a big number of dispensaries that are not operating on a daily basis.

The absence of coverage for ambulatory care for the majority of the population increases its financial burden on households and weakens the primary health care system. Individual direct payment remains with no purchasing power in the absence of a Consumer Protection Association. Added to the existence of extreme asymmetry of information, this puts the consumer at the mercy of providers and leads to getting poor value for money.

1.4 Impact on the Population's Health

The large share of the GDP devoted to health and the rapidly increasing cost of health services do not seem to result in the expected impact in improving the health status of the population. *Ineffectiveness* can be revealed by comparing population health outcomes in Lebanon to those from other countries with relatively similar health resources.

Table V-1: Comparison of key health indicators: Lebanon and other MENA countries

Country	Life expectancy at birth	Infant Mortality Rate (per 1,000 live births)	Total Fertility Rate
Egypt	63	56	3.4
Greece	78	8	1.4
Jordan	70	30	4.8
Lebanon	71.3	28	2.5
Saudi Arabia	70	21	6.2
Syria	68	33	4.8
Turkey	67	48	2.5

Source: World Bank data (1998), for all except Lebanon.

Lebanon's health indicators are rather above average in comparison with other countries in the MENA region (table V-1). However, relative to many upper-middle income countries and other countries with comparable levels of health expenditures, health outcomes in Lebanon are actually below average[8] (table V-2).

Table V-2: Health Expenditures and Basic Health Status Indicators

Country	Health Expenditures (as % of GDP)	Infant Mortality Rate (per 1,000 live births)	Under-five Mortality Rate (per 1,000 live births)	Life expectancy at birth
Argentina	9.7	22	24	73
Canada	9.2	6	8	79
France	9.8	5	6	78
Germany	10.4	5	6	77
Lebanon	12.4	28	32	71
Switzerland	10.2	5	6	79

Source: World Bank data (1999), for all except Lebanon.

2- EQUITY ISSUES

Recent data provided by the 1999 Household Health Expenditures and Utilization Survey revealed that in terms of accessibility, regional disparities are minor. It indicated also the absence of gender inequality. It showed that the uninsured segment of the population had almost the same utilization rate for hospital and ambulatory care as the ensured one. Financial barriers

were attenuated by the coverage system, especially by the MOH safety net, even though a high cost is incurred by households.

2.1 Gender Equity

With regard to hospitalization, table V-3 shows that significant gender differences in utilizing hospital care is restricted to two age groups. For the 15-59 age group, more utilization of hospital care by females (10.7%) compared to males (6.7%) is clearly related to procreation (10.4% of hospital admissions are for delivery). For the under-five age group, once or more are hospitalization episodes of males (11.9%) higher than female (6.5%). This could be explained by the higher declared health problems and accidents rates among males than among females in the same age group.

Table V-3: Hospitalization rates by age group, sex and insurance status

%	Hospitalized Once	Hospitalized > once	Hosp. episodes per year (in %)
< 5 years both sexes	7.7	1.6	12
(Males, Females)	(M 9.9, F 5.5)	(M 2, F 1)	(M 14, F 9)
(Insured, Not insured)	(I 9.8, N 5.8)	(I 2.1, N 1.1)	
5-14 both sexes	4.1	0.3	5
(Males, Females)	(M 4.8, F 3.4)	(M 0.4, F 0.3)	(M 6, F 4)
(Insured, Not insured)	(I 4.3, N 4)	(I 0.5, N 0.3)	
15-59 both sexes	8.6	1.3	12
(Males, Females)	(M 6.7, F 10.7)	(M 1.3, F 1.5)	(M 9, F 14)
(Insured, Not insured)	(I 10.1, N 8)	(I 1.8, N 1.1)	
> 60 both sexes	17.6	4.5	28
(Males, Females)	(M 17.6, F 17.5)	(M 4.9, F 4.1)	(M 29, F 28)
(Insured, Not insured)	(I 19.4, N 16.6)	(I 5.8, 3.5)	
Total both sexes	**8.7**	**1.5**	**12**
(Males, Females)	**(M 7.7, F 9.6)**	**(M 1.5, F 1.5)**	**(M 11, F 12)**
(Insured, Not insured)	**(I 9.7, N 8)**	**(I 1.9, N 1.2)**	

Further investigation was done to elucidate potential gender inequity in the under-5 age-group, by analyzing data related to ambulatory and dental care. The higher utilization of ambulatory care for males under 5 (41.5%), compared to females

(38.1%), is concordant with the occurrence of health problems for both sexes.

A higher utilization of dental care by females under 5 (1.7) is noticed compared to males (0.8) of the same age group. Therefore, gender discrimination inherent to the health system or parents' preference for boys in terms of health services utilization is unlikely.

There are no other findings that could arise suspicion about gender inequality in accessing health services, not in favor of males anyway. As shown in tables V-3, V-5, V-9 and V-10, females are using more health services in all age groups above 5, in all provinces and all household income categories.

2.2 Regional Distribution

Utilization rates of hospital services are relatively higher in rural areas compared to urban ones. The relatively low availability of hospital beds in the Bekaa for example did not seem to hinder accessibility. The MOH policy probably plays a positive role in this respect, with a contracted bed to population ratio relatively higher in the Bekaa as shown in table II-4. MOH contracted beds are most utilized in Nabatieh and the Bekaa (table V-4). This further highlights the MOH role in enhancing accessibility to hospital services in relatively deprived areas.

Table V-5 shows clearly a higher utilization of hospital, ambulatory and dental care in all mohafazats compared to Beirut, with few insignificant exceptions.

Table V-4: Proportion of hospitalized cases benefiting from MOH assistance by mohafazat (in weighted%)

%	Beirut	Beirut Sub.	Mount Leb.	North Leb.	South Leb.	Nabatieh	Bekaa	Lebanon	n
Hosp >24 h	14.7	19.2	24.2	25.2	23.5	30.5	38.5	**25.7**	3959
Hosp < 24 h	7.3	7.9	7.9	11.4	7.7	15.4	14.4	**10.2**	813

Table V-5: Utilization of health services by mohafazat and by sex

	Total Lebanon	Beirut	Beirut Suburbs	Mount Leb.	North Leb.	South Leb.	Nabatieh	Bekaa
% Hospitalized once or more in one year period (over 24 H stay)	10.2 (M 9.2) (F 11)	7.6 (M 7.7) (F 7.7)	9.4 (M 7.9) (F 11)	9.8 (M 9) (F 10.8)	9.3 (M 8.7) (F 10)	10.8 (M 9.8) (F 12.2)	9.9 (M 8.6) (F 11.2)	14.3 (M 13.2) (F 15.4)
% Hospitalized once or more in one year period (below 24 H stay)	4.6 (M 4.2) (F 4.8)	4.2 (M 4.4) (F 4.4)	2.8 (M 2.6) (F 2.8)	6 (M 5.2) (F 6.4)	3 (M 2.8) (F 3.6)	6.8 (M 6) (F 7.4)	8 (M 8) (F 8.2)	4.8 (M 4.4) (F 5.8)
Ambulatory care: % Used ambulatory care once or more during the last month	28.1 (M 24.8) (F 31.2)	27.6 (M 23.6) (F 31.4)	27.5 (M 24.5) (F 30.2)	30.2 (M 27.6) (F 32.6)	25.1 (M 21.9) (F 28.3)	28.3 (M 24.3) (F 32.4)	22.4 (M 19.8) (F 25.2)	33.8 (M 30.4) (F 38.4)
Dental care: % Use of dental care during the last 3 months	16 (M 15.3) (F 16.7)	12.5 (M 10.7) (F 14.1)	15.7 (M 14.6) (F 16.7)	22.7 (M 23.1) (F 22.3)	14.2 (M 13.9) (F 14.5)	12 (M 11.4) (F 12.8)	16.4 (M 15.3) (F 17.3)	17.6 (M 16.8) (F 18.4)

It is worth noting that the highest utilization rate of dental care was found in Mount Lebanon, where 22.7% of the sample population visited dental clinics during the last three months, compared to 12% only in the South (table V-5). This utilization pattern is not only related to ability to pay, but also to the availability of dentists, who are more concentrated in Mount Lebanon (46.2%), compared to the South (8.1%) (Table V-6). In contrast, a 1994 study showed that dental problems were the most prevalent in the South for all age groups[9] (table V-7). Regional disparities discordant with the needs are therefore underlined in terms of accessibility to dental care, which is not covered by most public funds including the MOH.

Table V-6: Distribution of dentists by mohafazat

Mohafazat	n	%
Beirut	828	28.7
Mount Lebanon	1331	46.2
North Lebanon	270	9.4
South Lebanon	233	8.1
Nabatieh	43	1.5
Bekaa	178	6.1
Total	**2883**	**100**

Source: Oral Health in Lebanon: a situation analysis, Doughan and Doumit 1994.

Table V-7: Mean DMF-T according to age and geographic location

Age	Beirut	Mount Lebanon	North Lebanon	Bekaa	South Lebanon	Southern Suburb	General DMF-T
6	1.00	1.29	1.59	1.55	2.67	1.71	2.03
12	5.22	4.74	4.56	6.79	9.26	5.91	5.72
15	7.43	6.37	7.00	9.82	12.02	8.37	8.09
35-44	13.48	13.03	12.36	16.70	18.39	13.60	14.68
65-74	25.10	21.33	22.58	21.33	27.10	32.00	24.31

Source: Idem *DMF-T: Number of decayed, missing and filled permanent teeth.*

2.3 Financial Barriers

For ambulatory and conventional hospital care, the utilization rate almost increases as the household income decreases

(table V-8 and V-10). This indicates that the utilization of these services is rather related to the need, and does not very much depend on the ability to pay.

The coverage system in general and the role of the MOH in particular have contributed to a large extent in mitigating the financial barriers to accessibility. Nevertheless, the poor are still facing financial obstacles to access uncovered services. This argument is strongly supported by findings on utilization of dental care that is not covered by most insurers, nor by the MOH. Tables V-8 and V-11 show that high income categories have a much higher utilization of dental services than the lowest ones.

Besides dental care, figures that might suggest inequal accessibility are those of regular follow-up among the chronically ill. These come lower for the uninsured compared to the insured (table V-9).

It is worth mentioning that, under current circumstances, equal accessibility could have been reached mainly by using important out of pocket disbursement. This represented 54% of total health expenditures in 1997 and 74% in 1998.

Table V-8: Mean number of episodes per person per year by type of service and household income category

Income Category (USD per month)	Out-patient care	Dental care	Over night hospitalization	Same-day hospitalization
1 less than 150	4.9	0.50	0.18	0.06
2 150-333	4	0.60	0.14	0.05
3 334-533	3.9	0.60	0.12	0.05
4 534-800	3.9	0.70	0.12	0.05
5 801-1067	3.7	0.80	0.10	0.05
6 1068-1600	3.7	0.90	0.11	0.04
7 1601-2133	3.4	0.80	0.12	0.04
8 2134-3333	3.5	1.00	0.10	0.06
9 more than 3333	3.4	0.80	0.13	0.06
Total	**3.6**	**0.70**	**0.12**	**0.05**

Table V-9: Distribution of individuals with health problems and needing regular follow-up, by regularity of visits and presence of insurance plan

Follow-up	Non insured	Insured	Total
Yes, regularly	36.6	52.8	43.8
Yes, occasionally	31.4	32.2	31.8
No	31.7	14.7	24.2
N	**3421**	**2689**	**6110**

Table V-10: Hospitalization rates by income category

	Hospitalization > 24h (per year)		Hospitalization < 24 h (last 6 months)	
	Once	> Once	Once	> Once
< 300 both sexes (Males, Females)	10.5 (M 9.9, F 10.9)	3.1 (M 3.4, F 2.8)	2.8 (M 2.7, F 2.9)	0.1 (M , F 0.1)
300-500 both sexes (Males, Females)	9.6 (M 9.3, F 10)	1.7 (M 1.5, F 2)	2.2 (M 1.8, F 2.5)	0.1 (M 0.0, F 0.2)
501-800 both sexes (Males, Females)	8.6 (7.2, 9.9)	1.5 (M 1.4, F 1.6)	2.0 (M 1.9, F 2.2)	0.1 (M 0.1, F 0.1)
801-1200 both sexes (Males, Females)	9.1 (M 8.6, F 9.6)	1.5 (M 1.6, F 1.3)	2.4 (M 2.3, F 2.6)	0.1 (M0.1, F 0.1)
1201-1600 both sexes (Males, Females)	7.6 (M 6.7, F 8.6)	1.3 (M 1.6, 0.9)	2.2 (M 1.8, F 2.6)	0.1 (M 0.0, F 0.1)
1601-2400 both sexes (Males, Females)	8.1 (M 7.1, F 9)	1.2 (M 1, F 1.5)	1.8 (M 2.0, F 1.7)	0.0 (M 0.0, F)
2401-3200 both sexes (Males, Females)	8.8 (M 6.7, F 10.9)	1.3 (M 1.2, F 1.5)	2.0 (M 2.3, F 1.8)	0.1 (M , F 0.1)
3201-5000 both sexes (Males, Females)	7.1 (M 6.5, F 7.6)	1.3 (M 1.2, F 1.5)	2.3 (M 1.7, F 2.9)	0.2 (M 0.2, F 0.2)
> 5000 both sexes (Males, Females)	7.8 (M 4.4, F 10.8)	2.2 (M 2.5, F 1.9)	2.4 (M 2.3, F 2.5)	0.1 (M 0.3, F)
Unknown both sexes (Males, Females)	10.3 (M 11.1, F 9.6)	2.6 (M 5.9)	2.6 (M 5.9, F)	
Lebanon both sexes (Males, Females)	**8.7 (M 7.7, F 9..6)**	**1.5 (M 1.5, F 1.5)**	**2.2 (M 2.0, F 2.3)**	**0.1 (M 0.1, F 0.1)**

Table V-11: Ambulatory visits and dental care, by income category and sex

Income category (L.P. per month)	Ambulatory Care (per month)		Dental Care (last three months)	
	Received Care x 1	Received Care > 1	Once	> Once
< 300 (Males, Females)	27.9 (M 24.5, F 30.6)	6.3 (M 3.5, F 8.5)	11.3 (M 10.8, F 11.6)	0.8 (M 0.9, F0.8)
300-500 (Males, Females)	26.4 (M 23.9 , F 28.9)	3.2 (M 2.7, F 3.8)	12.7 (M 12.3, F 13.1)	0.9 (M 0.7, F 1.2)
501-800 (Males, Females)	25.1 (M 23, F 27.2)	3.5 (M 2.8, F 4.2)	13.3 (M 12.9, F 13.6)	1 (M 1, F 1)
801-1200 (Males, Females)	24.6 (M 22.6, F 26.6)	3.7 (M 3.2, F 4.1)	14.9 (M 14.8, F 15)	1.1 (M 1, F 1.3)
1201-1600 (Males, Females)	23.6 (M 20.4, F 26.8)	3.1 (M 2.6, F 3.8)	15.6 (14.5, F 16.7)	1.3 (1.4, F 1.1)
1601-2400 (Males, Females)	24 (M 21.5, F 26.5)	3.3 (M 2.1, F 4.5)	17.1 (M 16, F 18.1)	1.3 (M 1.2, F 1.5)
2401-3200 (Males, Females)	21.6 (M 19.3, F 23.9)	3.2 (M 2.6, F 3.8)	16 (M 14.6, F 17.5)	1 (M 1, F 1.1)
3201-5000 (Males, Females)	24.7 (M 23.7, F 25.6)	2.2 (M 1.8, F 2.5)	21.5 (M 20.1, F 22.8)	1.3 (M 1.1, F 1.5)
> 5000 (Males, Females)	19.8 (M 13.8, F 25)	3.7 (M 3.4, F 3)	15.4 (M 15.8, F 15.1)	1.1 (M 1, F 1.1)
Unknown (Males, Females)	20.4 (M 19.7, F 20.9)	3.9 (M 3.1, F 4.6)	28.3 (M 21.5, F 33.7)	
Lebanon (Males, Females)	**24.6 (M 22.1, F 27)**	**3.5 (M 2.7, F 4.2)**	**14.8 (M 14.2, F 15.3)**	**1.1 (M 1, F 1.2)**

The mere comparison of utilization rates between household income categories, cannot give a clear picture on, whether or not, accessibility to health services is hindered by financial barriers. On the one hand, expenditure could reflect, better than income, the ability to pay[10]. On the other, for the same income or expenditure, a household's ability to pay depends on the number of its members. Therefore, it could be more informative, to group households by individual spending categories.

Surveyed households are reranked by increasing order of individual spending, and grouped into five equal categories[11]. The lowest of less than 1281 USD per person per year and the highest of more than 3885 USD (table V-12).

Table V-13 exhibits the average number of ambulatory visits per person by age group and by individual spending category as by the grouping showed in table V-12.

The relatively low utilization rate of the lowest category, when it comes to ambulatory care, becomes striking!.

Table V-14 shows that the accessibility of the poorest is in fact hindered, regardless of their residence distribution by mohafazat.

The inequitable accessibility to dental care is reconfirmed and differences between spending categories are more accentuated in all mohafazats (table V-15).

Differences between spending categories with regard to hospitalization may be explained by the under-hospitalization of the poor or the over-hospitalization of the well-off, or probably both (table V-16). The higher hospitalization rate in the Bekaa confirm field observations of abuse, where unnecessary admissions are a common provider practice (table V-17).

Table V-12: Households grouping by individual spending category

Individual spending per year (thousands L.P.)	Spending Category				
	1	2	3	4	5
Upper Value	1922	2798	3903	5828	----
Mean	1365	2344	3312	4719	9219

Table: V-13: Ambulatory visits per person per year by age group and spending category (in%)

Age group	Spending Category					Total
	1	2	3	4	5	
<5	4.5	6.3	6.5	7.5	6.1	**5.8**
5 – 14	2.0	2.6	2.8	3.5	3.7	**2.6**
15 – 59	2.5	3.2	3.3	3.9	4.1	**3.3**
60 plus	4.0	5.5	5.5	6.8	7.7	**6.0**
Total	**2.7**	**3.6**	**3.7**	**4.4**	**4.7**	**3.7**

Table: V-14: Ambulatory visits per person per year by mohafazat and spending category (in%)

Mohafazat	Spending Category					Total
	1	2	3	4	5	
Beirut	2.7	2.9	3.7	4.6	4.6	3.9
Beirut Suburb	2.5	3.3	3.7	4.7	4.8	3.8
Mount Lebanon	2.5	3.6	3.6	4.8	5.2	4.2
North Lebanon	2.7	4.1	3.8	4.0	3.7	3.4
South Lebanon	3.4	4.6	3.8	4.6	5.1	4.0
Nabatieh	2.2	2.8	3.4	3.5	5.0	3.0
Bekaa	2.5	3.4	3.5	3.1	3.0	3.0
Total Lebanon	**2.7**	**3.6**	**3.7**	**4.4**	**4.7**	**3.7**

Table: V-15: Dental care visits per person per year by mohafazat and spending category (in%)

Mohafazat	Spending Category					Total
	1	2	3	4	5	
Beirut	0.34	0.41	0.49	0.56	0.66	0.52
Beirut Suburb	0.33	0.39	0.68	0.77	1.04	0.65
Mount Lebanon	0.41	0.74	0.73	1.08	1.25	0.93
North Lebanon	0.40	0.64	0.80	0.71	0.86	0.58
South Lebanon	0.40	0.58	0.47	0.61	0.69	0.51
Nabatieh	0.44	0.60	0.75	1.00	1.04	0.67
Bekaa	0.53	0.79	0.86	0.98	0.93	0.72
Total Lebanon	**0.41**	**0.60**	**0.70**	**0.82**	**0.99**	**0.66**

Table: V-16: Hospitalization episodes per person per year by age group and spending category (in%)

Age group	Spending Category					Total
	1	2	3	4	5	
<5	0.13	0.13	0.14	0.17	0.18	0.14
5 - 14	0.05	0.10	0.07	0.08	0.07	0.07
15 - 59	0.16	0.19	0.17	0.19	0.18	0.17
60 plus	0.35	0.37	0.35	0.39	0.41	0.37
Total	**0.14**	**0.18**	**0.17**	**0.20**	**0.20**	**0.17**

Table: V-17: Hospitalization episodes per person per year by mohafazat and spending category (in%)

Mohafazat	Spending Category					Total
	1	2	3	4	5	
Beirut	0.10	0.12	0.15	0.13	0.17	0.14
Beirut Suburb	0.11	0.13	0.14	0.18	0.16	0.14
Mount Lebanon	0.14	0.15	0.14	0.21	0.20	0.18
North Lebanon	0.11	0.18	0.16	0.16	0.23	0.15
South Lebanon	0.16	0.23	0.18	0.29	0.38	0.21
Nabatieh	0.14	0.16	0.24	0.26	0.31	0.20
Bekaa	0.20	0.27	0.21	0.23	0.25	0.23
Total Lebanon	**0.14**	**0.18**	**0.17**	**0.20**	**0.20**	**0.17**

2.4 Health Outcomes Discrepancy

Equality in access is one of the health system's objectives. It contributes partially to achieving the broader goal of health equity. The distribution of child mortality is most often used, as a proxy for health equity. However, this indicator is directly influenced by many factors extrinsic to the health system, such as mothers' education, hygiene and sanitation, and socioeconomic status[12].

Table: V-18: Child mortality rate (per thousand) by mohafazat for the years 1985, 1990 and 1994

	1985	1990	1994
Beirut	26.7	23.5	15.9
Mount Lebanon	35.6	38.1	22.4
North Lebanon	61.1	55.4	51.5
South Lebanon	40.5	29.4	35.2
Bekaa	45.1	44.2	35.9
Total	**41.0**	**35.0**	**27.9**

The Mother and Child Health Survey published in 1996, provided the child mortality rates from 1985 through 1994. More recent data reflecting the expansion of the MOH coverage and the activation of health programs that took place after 1994, are not yet available. Table V-18 shows the significant improvement in child mortality rates in Lebanon between 1985 (41 ‰) and 1994 (27.9 ‰). It shows also significant regional discrepancies ranging between 15.9 ‰ for Beirut and 51.5 ‰ for the North in 1994. Whether these differences are lower at present or not, and whether these are attributed totally or partially to the health system, health inequity should remain a concern for policy-makers.

2.5 Equity in Financing

2.5.1 Distribution of the Financial Burden among Households

Households spend a big share of their budget (14.1%) on health. This share is relatively much higher for the very poor (19.9%) compared to the richest (8.1%) as shown in table V-19.

Of household expenditures on health, 51.9% are paid for ambulatory care and pharmaceuticals (68.7% and 30.7% for low and high income groups respectively), whereas only 11.8% are paid for inpatient care. It is worth mentioning that the middle-income category (1201-1600) paid the least share of their spending for hospital care (8.2%), compared to 16.5% for the lowest and 12.5% for the highest income categories (table V-20). Knowing that the highest percentages of insured are in middle-income categories, these figures reflect the impact of MOH and other funds policies in covering hospital care versus ambulatory care. Within this context, the big share of health spending of the middle income, paid for uncovered dental care (25.5%) is relevant. It is important to highlight the insurance premiums' share of health spending (14.5%), even though the difference between high (38.3%) and low (2.7%) income categories is striking (table V-20).

Table V-19: Annual household expenditures (%) per spending item by income category

Monthly household income	<300	300-500	501-800	801-1200	1201-1600	1601-2400	2401-3200	3201-5000	>5000	Unknown	Average	Annual 1000 L.P.
Food	38.2	36.5	34.1	33.4	31.8	31.5	28.6	25.3	20.6	26.5	31.4	**5825**
Clothing	3.1	4	4.4	4.8	5.4	5.6	5.7	7.2	7.7	6.5	5.3	**985**
Personal care	6.3	6.1	5.7	5.3	5.2	5	4.7	4.5	4.7	4	5.2	**969**
Rent	2	2.5	2.6	2.2	1.5	1.4	1.5	0.9	1.1	0.3	1.8	**340**
Energy, Water, Telephone	10.4	8.9	9.1	9	9.5	9.4	9.5	8.4	8.8	9.8	9.2	**1699**
Maintenance/Repair	1.3	2.9	1.7	2.3	2.7	2.2	2.4	3	5.2	4.5	2.5	**468**
Assets	1.9	0.9	2.1	2	2	2	2.3	3.2	3.5	2.7	2.1	**395**
Transport	5.3	6.5	7.9	8.2	8.3	8.2	8	7	5.7	7.7	7.7	**1435**
Education	5.7	7.6	10.2	11.5	12	11.9	14.8	14.1	13.8	6.8	11.7	**2163**
Health care	**19.9**	**18**	**16.1**	**14.8**	**14**	**14.1**	**11.4**	**10.7**	**8.1**	**18.2**	**14.1**	**2609**
Leisure	3.3	3.3	3.6	3.6	4.1	4.7	5.9	7.7	14.9	7.8	5.1	**942**
Miscellaneous	2.6	2.9	2.7	2.9	3.5	4.1	5.1	8.1	5.9	5.1	3.9	**721**
Totals	100	100	**100**	**100**	100	100	100	**100**	**100**	**100**	**100**	**18551**

Table V-20: Distribution of annual household spending on health by lowest, middle and highest income categories

Monthly income (1000 L.P.)	< 300	1200-1600	≥ 5000	Global
Insurance	38	436	2,142	379
(%)	(2.7)	(14.7)	(38.3)	(14.5)
Hospitalization > 24h	210	202	590	264
(%)	(15)	(6.8)	(10.5)	(10.1)
Hospitalization < 24h	21	42	110	44
(%)	(1.5)	(1.4)	(2)	(1.7)
Dental care	168	758	1,030	570
(%)	(12)	(25.5)	(18.4)	(21.8)
Ambulatory care	644	1,113	1,366	956
(%)	(46.1)	(37.4)	(24.4)	(36.7)
Pharmaceuticals	316	421	307	396
(%)	(22.6)	(14.2)	(6.3)	(15.2)
Total spending on health care	**1,396**	**2,973**	**4,221**	**2,609**
(%)	**(100)**	**(100)**	**(100)**	**(100)**

2.5.2 Distribution of the Health Coverage

About 46% of the population is covered by at least one of the existing public or private insurance agencies. The percentage of the insured in the lowest income category (24%) is much lower than that of the insured in the highest income category (75.1%) (table V-21).

Inequity in access has been significantly reduced by financing through the MOH budget, expensive health services for the uninsured mostly the poor. The MOH aims at establishing a safety net by covering the uninsured. However, an important percentage of those (29.3%) declared not being aware of their eligibility for MOH coverage. This percentage becomes undoubtedly lower when hospitalization is really needed (table V-22).

The non-insured in low-income categories (<1,200,000 L.P.) have used MOH services more often (7%), than those of highest income categories (> 5,000,000L.P.) whose use was less than 1% (table V-23). Almost 40% of the two lowest income

categories hospitalization cases were covered by the MOH. More than half of the hospitalized uninsured (all income categories included) were covered by the MOH (table V-24).

Using taxes as a source of financing is essential for the health system, in order to ensure equity in both access to and financing of health care. However, the fiscal system by itself is not equitable, since most of the tax money comes from indirect taxes that are rather regressive[13].

Table V-21: Distribution of individuals by insurance status, income category and sex

Household monthly income category (1000 L.P.)	Insured	Non-insured	Not determined	n
Less than 300	24.0	74.1	1.9	1,078
300-500	28.8	69.7	1.4	4,256
501-800	34.0	64.8	1.2	7,462
801-1200	49.3	49.3	1.4	7,637
1201-1600	52.6	45.3	2.1	4,790
1601-2400	56.1	42.0	1.9	3,917
2401-3200	68.9	27.8	3.3	1,927
3201-5000	70.2	27.8	2.0	886
5000 and above	75.1	16.4	8.5	619
Missing	68.9	23.0	8.0	76
Total	**45.9**	**52.3**	**1.8**	**32,648**

Table V-22: Non-insured population knowledge of the existence of MOH services by type of services (N=17049)

Services offered by the MOH	Not applicable (<15 years)	Yes, I know	No, I do not know	Not sure	Missing	Total
Hosp. for any non-insured ind.	28.0	39.5	29.3	2.8	0.4	**100**
Cardiac surgery	28.0	37.6	31.4	2.6	0.4	**100**
Kidney dialysis	28.0	35.0	33.8	2.9	0.4	**100**
Medications for specific diseases	28.0	31.4	36.3	4.0	0.4	**100**

Table V-23: Distribution of the non-insured population by usage of MOH services during the last 12 months and by income category

Household monthly income category (in 1000 L.L)	Services offered by the MOH (%)		n
	Used	Did not use	
Less than 300	9.5	90.5	810
300-500	7.3	92.7	2973
501-800	6.7	93.3	4828
801-1200	6.4	93.6	3733
1201-1600	5.0	95.0	2158
1601-2400	4.0	96.0	1653
2401-3200	4.8	95.2	536
3201-5000	7.6	92.4	237
5000 and above	0.9	99.1	103
Total	**6.3**	**93.7**	**17049**

Table V-24: Proportion of hospitalization cases covered by the MOH, by household income category and insurance status

MOH Coverage	< 300	300-500	501-800	801-1200	1201-1600	1601-2400	2401-3200	3201-5000	> 5000	In-sured	Non in-sured	Total	n
Hosp > 24h	39.4	38.4	30.7	23.9	20.3	13.9	13.2	28.0	1.1	3.0	51.7	25.7	3959
Hosp < 24h	20.5	15.2	14.4	9.3	5.6	5.4	4.5	7.8		1.9	18.3	10.2	813

2.5.3 Fairness of Financial Contribution

It is of relevance to comment on the unsatisfactory ranking of Lebanon regarding the issue of fairness of financial contribution as presented in the World Health Report 2000 on Health Systems Performance Assessment (WHR 2000)[14]. Health Financing Contribution (HFC) of a household is defined in the WHR 2000 as the ratio of total household spending on health (prepayment + out of pocket) over its total capacity to pay, i.e. the permanent income above subsistence, defined as the total expenditure of a household plus its tax contribution minus expenditure on basic food items.

$$HFC_h = \frac{prepay_h + oop_h}{(EXP - Food + aTax)_h}$$

The Inequality Index (II) is based on the mean of the cubed absolute difference between a household's contribution and the mean contribution of all households, and normalized by its maximum value 0.125.

$$II = \Sigma \frac{|HFC_h - \text{Mean } HFC_h|^3}{N * 0.125}$$

The cubing is meant to give a high weight for the right hand tail of the distribution, i.e. to those who pay a larger share of their income for health services.

The Fairness of Financial Contribution index (FFC) is defined by adjusting the Inequality Index: FFC = 1-4 * II

$$FFC = 1-4 \frac{\sum_{h=1}^{n} |HFC_h - \overline{HFC}|^3}{0.125\,n}$$

FFC = fairness of financial contribution
HFC_h = health financing contribution of a household
n = total number of households

The FFC score ranges theoretically between 0 and 1, and countries with scores tending to 1 have fairer health financing systems. Based on that estimate, Colombia with an FFC of 0.992 ranks first globally-Lebanon with an FFC of 0.929 ranks 101-102

globally. Least well ranked (191) is Sierra Leone with an FFC of 0.468.

However, the NHHEUS (tables V-9 and V-10) revealed that the utilization of health services is almost the same for different groups of the population defined by sex, region or income. The mere fact that these services are actually utilized implies that they are accessible and probably affordable (otherwise they wouldn't be utilized). This gives the impression that there are no financial barriers hindering the access of the poor, as a group, to health services.

Examining the FFC index, two remarks are raised: First, the formula considers individual households (not groups of households), making it more sensitive to horizontal equity*. Second, this formula considers households that have utilized health services and have paid for that. It does not capture households that have not utilized needed health services because unaffordable[15].

If we are to measure the contribution (relative to ability to pay) of the rich versus that of the poor i.e. vertical equity*, we should eliminate random deviations of individual households. This can be done by grouping households into spending categories and considering the mean contribution of households within each category.

$$FFC = 1 - 4 \frac{\sum_{i=1}^{k} |\overline{HFC}_i - \overline{HFC}|^3}{0.125\,k}$$

$\overline{HFC}i$ = the mean contribution of households in each spending category

$\overline{HFC}$ = the mean contribution Of all households

k= number of household spending categories

The calculation done for Lebanon according to this formula gives a score of 0.999!

* *Vertical equity is the extent to which the rich pays more for the health system than the poor. Horizontal equity is the extent to which households with the same income pay the same amount to the health system*[16].

3-CONSUMER SATISFACTION ISSUES

With the availability of modern hospitals, sophisticated medical services and qualified medical and paramedical personnel, good quality of health services should be expected in Lebanon, especially that a big share of the GDP is spent on health. However, as discussed previously, resources are not used efficiently in the sector, and good return for money remains wishful. Quality indicators measures for medical services are lacking. Nevertheless, consumer satisfaction remains an important aspect to be tackled. Data obtained from the NHHEUS can be analyzed to that end. The consumers' position is considered with relation to both providers and financing agencies. The self-perception of consumer's own health status is also a pertinent dimension to examine.

3.1 Satisfaction with Providers

Almost 75% of patients seeking ambulatory and hospital care declared that physicians spent enough time with them, and provided sufficient information on their health conditions, the treatment and its side effects.Less than 50% however declared obtaining enough information about the entailed cost (table V-25).

Table V-25: Relationship with physician

	During out-patient care			
	Not applicable	**Sufficient**	**Fair**	**Insufficient**
Time spent by physician with the patient %	12.8	74.9	10.8	1.5
Explaining treatment and side effects %	12.9	73.2	12.0	1.9
Explaining cost %	24.7	47.3		28.0
	While being hospitalized			
	Not applicable	**Physician did explain**	**Physician did not explain**	**Explained to a family member**
Information on health status %	0.6	75.4	3.3	20.6
Information about treatment %	0.6	75.5	3.4	20.3
Information on side-effects of treatment %	0.6	74.2	4.8	20.3

Table V-26 shows that consumers have a rather good impression about the cleanliness of health facilities and about health care provided by physicians and paramedical staff, in both health centers and hospitals.

More than 92% of hospitalized patients declared having had no difficulty to be admitted to hospitals, while 6.4% declared having had to wait a long time before being admitted. Only 0.8% declared that they had to go to many hospitals before finding an available bed (table V-27).

Table V-26: Consumer's impression about health facilities

	Not applicable	Excellent	Good	Fair	Bad	Missing
Cleanliness of health centers	5.6	31.6	48.9	12.8	0.4	0.7
Cleanliness of hospitals rooms	0.2	30.6	46.2	18.8	2.8	1.5
Care in Health centers	5.6	32.4	48.8	11.8	0.6	0.8
Hospitals physicians care	0.2	37.0	44.2	15.1	2.1	1.5
Hospitals nursing and support staff care	0.2	34.4	43.9	16.9	3.1	1.5

Table V-27: Difficulty in being admitted for hospitalization

	Public	Private	NGO	Total
Has no difficulty	92.0	92.2	91.3	92.1
Waited a long time before being admitted	6.3	6.3	8.7	6.4
I had to go to many hospitals to find a bed	0.3	0.9		0.8
Missing	1.4	0.6		0.6
n	343	3394	222	3959

3.2 Satisfaction with Funding Agencies

The NHHEUS revealed an important degree of dissatisfaction with services offered by funding agencies. Almost one third of the interviewed adults adhering to the NSSF declared being not satisfied. Satisfaction was much higher among those having a complementary private insurance. Most of the unsatisfied respondents remain adherent to the NSSF because of they have no choice. An even lower percentage of satisfaction (45%) was noticed among the interviewed CSC adult adherents. It is important to report that only 62.6% of those holding a private insurance policy declared being satisfied with it (table V-28).

For the non-insured seeking MOH services, only 11% find those to be unsatisfactory. Thus, surprisingly as a covering agency, the MOH services are much better perceived by beneficiaries than those of other public funds and private insurance! (table V-29).

This can hardly be considered as an argument in favor of a better quality of MOH services. It may rather indicate that the interviewed are more demanding towards an insurance they have paid for, compared to the MOH coverage obtained without any prepaid contribution.

Most of the interviewed that sought the MOH coverage declared not waiting long to get the Ministry's approval (84.7% for overnights hospitalization and 92.4% for some day hospitalization). This percentage is even higher in case of injuries or accidents (table V-30).

Most of the hospitalized who were not covered by the MOH (66.6%) declared having not needed the Ministry's assistance because they were insured or well-off. Only for 4.1% was the request rejected, whereas 15.9% did not apply because they thought the administrative procedures would be too complicated (table V-31).

Table V-28: Distribution of the insured population by type of insurance and degree of satisfaction with the insurance services (weighted)

Type of insurance plan	Degree of satisfaction					n
	Non applicable (< 14 years)	Satisfied	I will change insurance	I have no choice	No comments	
NSSF	29.9	49.7	1.1	13.3	6.0	**5,595**
CSC	24.1	45.2	1.1	20.7	8.8	**1,501**
Military schemes	27.0	55.9	1.0	10.4	5.6	**2,685**
Private insurance	25.1	62.6	1.4	5.3	5.6	**2,543**
Complementary private insurance	17.1	75.7		7.2		**56**
Mutual Funds	30.8	52.3	0.7	12.2	4.0	**599**
Municipalities	18.0	55.4	2.4	17.6	6.6	**125**
Ins. during work or school hours.	54.7	23.2	1.5	9.9	10.7	**278**
Other	30.0	21.4	2.3	40.2	6.1	**1,634**
Total	**28.4**	**49.3**	**1.3**	**14.9**	**6.1**	**15,016**

Table V-29: Evaluation of the MOH services used by the non-insured population during the last 12 months (in %)

Evaluation of MOH Services	%
Very good	17.8
Good	42.7
Satisfactory	28.4
Poor	9.1
Bad	1.9
Total	**100.0**

Table V-30: Hospitalization cases covered by the MOH by waiting time to get the Ministry's approval (in %)

Reason for treatment	Waited long time	Did not wait	n
Hospitalization > 24 h (100%)	15.3	84.7	1011
Acute medical problem	12.6	87.4	429
Chronic disease	18.7	81.3	380
Injury or accident	6.9	93.1	56
General check-up	8.5	91.5	15
Delivery	11.2	88.8	84
Others	29.4	70.6	47
Hospitalization < 24 h (100%)	7.6	92.4	84
Acute medical problem	10.7	89.3	22
Chronic disease		100.0	37
Injury or accident		100.0	5
Others	20.0	80.0	20

Table V-31: Reasons behind MOH coverage rejections by household income category

Household monthly income category (in 1000 L.L.)	Reason for not obtaining the MOH coverage					n
	Did not have approval	Did not need it	Difficulty in application measures	Difficulty in finding a bed	Others	
Hospitalization > 24 h						
< 300	5.3	41.1	21.9	1.7	30.0	115
300-500	5.8	43.9	20.9	4.2	25.3	342
501-800	5.5	61.1	18.0	3.1	12.3	635
801-1200	3.0	74.5	13.7	2.2	6.6	718
1201-1600	4.3	69.1	15.9	3.0	7.7	405
1601-2400	3.9	70.4	17.1	4.5	4.1	379
2401-3200	1.5	81.5	10.5	1.9	4.5	196
3201-5000		88.6	8.3	3.1		66
> 5000	3.6	90.4	3.6	0.0	2.3	82
Missing		61.2	9.0	0.0	29.8	10
Total	**4.1**	**66.6**	**15.9**	**3.0**	**10.5**	**2948**
Hospitalization < 24 h (All categories)	**2.6**	**52.7**	**31.7**	**4.1**	**9.0**	**729**

3.3 Self-Perception of Health Status and Incurred Spending

People's perception of their own health and preferences in household budget allocations provide indirect information on the consumers' positions toward the health system.

A meaningful proportion of consumers in the lowest income category perceive their health status as poor. This represents 18.4% compared to an average of 6.7%. The overall trend reflected in table V-32, shows that the higher the income the better the perception of one's own health.

Table V-32: Distribution of individuals by self-assessment of health status and by household income category (in %)

	Perception of health status					
Household monthly income category (in 1000 L.L.)	Poor	Fair	Good	Very good	Excellent	n
< 300	18.4	22.1	25.0	18.8	13.8	1078
300-500	9.2	20.0	31.5	23.2	14.6	4256
501-800	7.4	17.1	32.4	24.3	17.5	7462
801-1200	6.5	15.7	34.4	26.1	15.8	7637
1201-1600	4.7	15.1	33.0	25.9	19.1	4790
1601-2400	5.4	13.8	36.6	25.0	17.2	3917
2401-3200	3.7	11.2	33.9	28.8	19.0	1927
3201-5000	1.8	12.7	34.1	32.7	16.6	886
> 5000	3.1	8.4	23.5	31.6	25.0	619
Missing	7.5	14.3	22.6	32.6	14.9	76
Total	**6.7**	**16.0**	**33.0**	**25.4**	**17.0**	**32648**

With regard to out-of-pocket spending, the 1999 household survey reveals clearly the important contribution of households, where the average per capita annual spending on health is 2,609,000 L.P. equivalent to 1,720 USD (5,592,000 L.P. for high and 1,396,000 L.P. for low income category). It is important to highlight that the burden of health expenditures represents for the poor 19.9% of total household expenditures, rated in the second

position after food. This is compared with 8.1% and 5th position for high-income households.

The 1997 household survey had previously shown that health spending represented 13.2% and 4.8% of total household expenditures for lowest and highest income categories respectively. Spending on health was rated in the third position for the poor, and in the 9th position for the well-off. Health was considered then of high priority by the poor, in response to a question on their preferences for budget reallocation, should their income improve. They placed health in the second position, which was probably an indication for a low level of satisfaction with health services actually obtained.

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Chapter Six

HEALTH SECTOR REFORM

1-THE CHANGING ROLE OF GOVERNMENT

The 1990s witnessed a reconsideration of policies and paradigms adopted by international organizations. The World Bank, the "advocate of privatization", reconsidered its position towards the role that governments should play in different sectors especially the social ones. The government's intervention in the health sector regained importance, and the rationale for such an intervention was rediscussed[1]. Elements of the rationale were:

- *Provision of public goods* considered as services provided to the population at large or to the environment, in addition to some services that carry substantial externalities.
- *Reduction of poverty* by providing essential services highly cost-effective that would greatly improve the health of the poor.
- *Market failure* where governments can further improve how markets function by providing information about the cost, quality and outcome of health care. Simply by defining an essential clinical package, the public sector provides valuable guidance on what is and what is not cost-effective.

Assisted by a World Bank loan in the mid-nineties, the Government of Lebanon aimed at enhancing its role in the planning of health resources and services development, and in the

regulation of the health sector. Before dwelling on this issue of reform, it is important to briefly highlight the historical evolution in the role of government in providing, financing and regulating health services.

International tenets historically developed in Germany under Bismarck (1883) and Lord Beveridge in the UK after WWII (1948) had a significant impact on the Lebanese health system. The role of health authorities has been evolving, along with the occurrence of political and administrative changes. The only public role that has been maintained since the Ottoman Empire is the one related to the protection of the environment and public hygiene. This role has increasingly developed in parallel to scientific progress and the rising public awareness. Regulatory tasks have been introduced progressively, whereas the financing role has been gaining more importance with the weakening of the government's direct providing role.

1.1 The Providing Role

The first three public hospitals in Lebanon were established in Baabda, Beiteddine and Beirut under the Ottoman Empire during the eighteen sixties. The public authority that was till then responsible of hygiene measures, food and water safety and waste disposal, started providing medical services to security forces members, the prisoners and the indigent.

During the First World War, three new public hospitals and two dispensaries came into existence, as Lebanon faced new epidemics, mainly of smallpox and typhus.

By 1920, under the French Mandate, a health directorate was established as part of the Ministry of Interior. Five additional hospitals were built. One of them was dedicated to leprosy, another to tuberculosis. With Lebanon independence in 1943, the Government started building regional hospitals (Baabda, Zahleh, Tripoli, Saida). This came within the context of decentralization efforts. The number of public hospitals beds increased from 160 to

570 beds. Tuberculosis centers were also built as well as dispensaries in remote areas.

Public hospitals reached their climax in the early nineteen seventies in terms of capacity, occupancy rate, performance standards, and even in provision of medical training fellowships.

During the civil strife (1975-1991), public facilities were degraded, while the private sector was blossoming. In 1994, the Government engaged in rehabilitating public hospitals and building 12 new ones, including a University hospital of 500-bed capacity in Beirut. Twenty modern health centers were also built. This was part of the huge physical reconstruction plans, launched by the Hariri cabinets (1992-1998). The Government was criticized for favoring the rehabilitation of the physical infrastructure mostly in Beirut, with the hope of inducing a financial and economic boom, while neglecting health and social affairs and rural development. The Government needed to improve its image in response to critics, by investing in the social sector. It therefore started building public facilities such as hospitals, health centers and schools in all regions. Thus, the main reason lying behind the massive construction of medical public facilities was political. There were doubts that the public administration would be capable of handling these facilities properly once they became functional. However, the declared official strategy was to contain cost, to enhance the bargaining power of public funds and to lessen their dependence on private providers. This strategy clashed profoundly with the Government's declared goal of privatization.

The MOH had to find ways for better managing public hospitals. A law on public hospitals' autonomy was issued in 1996. This law gives more managerial and financial flexibility to hospital managers, especially in terms of recruitment, procurement and contractual arrangements with insurers. According to this law, no government budget is allocated to autonomous public hospitals. These are instead allowed to contract with financing agencies including the MOH[2]. Consequently, their revenues depend on their productivity. Similarly to private hospitals, public hospitals are

now being subjected to a selection policy based on cost and quality standards, and to regulation measures including the control of supply and demand.

1.2 The Financing Role

The beginning of health financing schemes goes back to 1920, when the French governor of Lebanon issued the decision 220 on the treatment of the indigent in public hospitals. The municipality had to bear the financial cost of this care. In 1928, when the MOH was created, treatment of indigent and mentally ill-patients became part of its paternalistic mission. The requirement of a certificate of indigence to receive care was confirmed by the decree 16661 in 1964, but was later abolished in 1971[3]. Conditions for MOH contracts with private hospitals were established in 1963 (Decree 12788, modified in 1964 by Decree 15206).

Under the influence of European social policy development, which started in the UK after WWII, the Lebanese health system moved slowly from the paternalistic ethos to that of health as a human right. In the nineteen sixties, a government budget was allocated for public hospitals and for covering services provided by private hospitals under contracts with MOH.

The law establishing the National Social Security Fund was issued in 1963 and partly enforced in 1964. Rules related to the Sickness and Maternity Fund were put in application only in 1971.

The Ministry of Health has been contracting with almost all private hospitals operating in the country. According to the contract, a predetermined number of beds are reserved for patients referred by the MOH with prior authorization. The MOH has been taking part in financing health services in the private sector for the sole purpose of equity. However, cost containment and quality assurance are becoming concomitant issues to be fully integrated in MOH's financing role.

In 1998, along with the declared strategy of the Government to lessen the dependence on private hospitals, Minister Frangieh decided not to renew contracts with almost one third of private hospitals. However, under political pressure, all contracts were subsequently renewed, though the number of contracted beds was decreased by 30%[4].

End of 1999, Minister Karam took the decision of contracting with autonomous public hospitals for additional 287 beds. Instead of reducing private beds by the same number, he chose to also increase the share of private hospitals by 225 beds. As a result, the MOH-contracted beds increased by 34%[5], together with a 30% increase in the number of contracted open-heart centers. This led to clear financial consequences as shown in figures III-1, VI-1, VI-3 and VI-4.

Reducing contracted beds number through a quality-control selection process, is currently taking place, and will be discussed in the following sections.

The MOH is trying to make proper use of its power as the major financer for most hospitals, in order to strengthen its regulatory role. The reform plan presumes taking full advantage of the MOH financing power to rationalize spending on health care and contain cost[6].

1.3 The Regulating Role

The Government intervention in regulating the health care market has become more imperative as privatization expanded. Lebanon illustrates best, how inefficient the private care sector could be in the absence of regulation, and the subsequent negative effect on both cost and quality.

It is worth emphasizing at this stage the worldwide debate regarding Government's intervention in regulating the health sector. In developing countries, the private sector including NGOs, has been encouraged to intervene more in health care, while Governments were being advised to minimize their intervention in

providing health services. This has been the recommendation of the World Bank for example, as well as other international agencies. Consequently, and especially because of an inherent market failure Government's regulation role has become imperative. This role becomes more and more important as the government intervenes less and less in direct provision. The solution to the dilemma of minimizing provision by the public sector because of its weak capabilities while maximizing its regulation role, which necessitates more sophisticated skills and manpower categories, remains enigmatic.

Regulation needs constraining laws. Attempts to issue such laws have failed repeatedly in Lebanon, being considered incompatible with the free market economy[7]. Liberalism not withstanding, pertinent laws can be legislated, and applied especially in licensing, controlling supply and demand, monitoring and taking appropriate coercive measures.

The MOH is considering currently more "institution-light" options. Contracts between financer and provider present an available potentially effective mean for regulation. It has the advantage of being based on a common understanding of concerned parties, and of being more flexible than laws, and easier to modify and adapt to changing circumstances.

It is generally said that the one who has the money can set the rules. This puts a financer such as the MOH in a privileged bargaining position when negotiating contracts. However, money ownership is not enough to monitor and implement regulation policies. i.e, to detect poor and good performers and to take necessary sanctioning or rewarding actions. For that, the provider who possesses the information has a greater advantage over MOH.

Based on our experience, countries like Lebanon where information systems are not well structured and sophisticated enough, need rather simple indicators on what has been done that are easy to obtain and analyze. The more regulations depend on details on how things are done, the more powerful the provider becomes, and consequently the lesser the regulation's

effectiveness. A thorough work is being done to determine these indicators that could be generated by on-going activities. The MOH is not betting on major changes in the system for getting sophisticated indicators.

Process indicators need many details and are cumbersome, while outcome or impact indicators are difficult to get and cannot easily be attributed to only one activity of interest. Therefore, output indicators linked to quality and based on product specifications are practical, easy to get, better defined and more relevant.

In order for regulatory interventions to be manageable within institutional constraints, the MOH considers sacrifying some degree of precision for the sake of practicality. The procedural monitoring is left to self-regulation by peer-groups which is encouraged to be developed at two levels: internally by colleagues from the same institution, and externally by professional associations.

In this context, the MOH started working with the order of physicians on consensus-building for the elaboration of clinical protocols, but this is a long process that requires a certain level of maturity.

In conclusion, maintaining an important role for MOH in the financing of health services is not only necessary for equity purposes, but is also a powerful leverage for regulating the sector.

2-OPPORTUNITY FOR REFORM

The important deficit in government budget, and restraints on other public funds, do not bear anymore the rapidly increasing health expenditures. Likewise, households that are already bearing a big share of health spending can hardly afford a heavier burden. Consequently, available and projected financial resources will not be sufficient to feed the cost-increasing trend of the current system. On the other hand, diminishing returns and delays in reimbursement are pushing private providers to considering new

alternatives. The Private Hospitals Association and the Order of Physicians are now more receptive to ideas of change. Big hospitals capable of delivering efficiently services of good quality are in an unfair competition with mediocre hospitals who invest in high technology they are incapable of handling, providing poor quality services to an uninformed clientele.

Moreover, general practitioners and specialists practicing outside hospitals are marginalized by this system, as hospital doctors form "clans" inaccessible to new comers. This situation has started creating tension within the medical guild. The traditional struggle between the AUB clan and that of the USJ during elections in the Order of Physicians, is progressively gaining a different dimension. Beirut big hospitals' physicians on one side are increasingly in opposition to practitioners of the periphery. This new struggle is still mitigated by the conflict between physicians and hospital owners, and by confessional rivalries.

From the consumer perspective, medical services are very expensive. Complaints from providers are frequently reported by the media. The 1999 Household Survey revealed a meaningful degree of dissatisfaction with funding agencies, especially with the NSSF (table V-28). Reforming the health system is becoming a very popular concept often mentioned in political speeches.

Considering that private hospitals depend heavily on public funds reimbursement, which is expected to become more important with decreasing households' ability to pay, public financing authorities are well placed to lead the change.

3- PROGRESS UPDATE AND REFORM PERSPECTIVES

In 1997, the Ministry of Health made public a working paper on health sector reform. Known as the "Frangieh Paper for Reform", this paper summarized principles and guidelines, agreed upon with the Order of Physicians and the Syndicate of Private

Hospitals, and set main objectives to be achieved. A national strategy for health reform and a plan of action were to be elaborated, following a consensus building process that had stopped with the changing of government in October 1998.

Although no blue print on reform was formally adopted, the MOH working paper of Minister Frangieh was considered as an official reference.

A health financing assessment was launched early in 1998 under the Health Sector Rehabilitation Project with the support from WHO. It consisted of a National Household Health Expenditures and Utilization survey, the National Health Accounts, and the Burden of Disease study. The project aimed at providing evidence and technical support for health sector reform efforts.

A meaningful step was made by the creation of the "Inter-ministerial Committee for Health Reform" in 1999. This committee, chaired by the Prime Minister, reflects the high level of political commitment. It consists of all Ministers concerned with health financing and human development: Finance, Social Affairs, Economy, Labor, Higher Education and Health.

Three health financing reform options were developed and a stakeholder analysis was conducted. This will be covered thoroughly in chapter VII.

Whereas the MOH failed to reach some objectives, such as controlling the supply side and setting a well-defined benefits package, important achievements have been made in other areas. Various components of the health system reform were actually planned and/or implemented since the return of civil peace. In the following sections, these components will be described and analyzed. The chapter will conclude on a comprehensive model which will integrate those different components and show their interaction towards overall reform.

3.1 Empowerment of the Ministry of Public Health

A meaningful progress has been achieved in modernizing the institutional machinery of the MOH. Information technology has been introduced in various departments and necessary staff training has been carried out. The automation of MOH financing functions, especially those related to managing contracts with providers, enhanced the regulation capabilities of the Ministry. With available results of important studies made in the after-war period and improved performance, the MOH steadily regained its leading role.

In its efforts towards decentralization, the MOH has engaged in a long-term process of empowerment of health district officers, allowing them to coordinate health activities between stakeholders and leading health programmes in their areas.

The law of public hospitals autonomy[8] issued in 1996, represents also an important progress in devolving authority. Five hospitals are operating currently under this law with a remarkable improvement of their performance. Two of these were included in the accreditation survey and met standards to score relatively well.

The MOH role in health prevention and promotion was enhanced through the activation of the horizontal PHC network and the vertical preventive programs. This bidimentional approach together with the creation of the "Epidemiological Surveillance Unit" (ESU) have promoted the MOH image as a public health authority.

The ESU is one example of the organizational reform of the MOH. Created in 1995, the ESU is responsible of the surveillance of communicable diseases, and of field interventions for disease control. The ESU conducts epidemiological studies, provides feedback to health professionals, and trains them on surveillance tools.

The surveillance system relies on the collaboration of hospitals, health centers, dispensaries, laboratories and private clinics. District officers are directly involved and coordination takes place with different ministries: Social Affairs, Interior, Defense, National Education and others.

The national epidemiological information system consists of the universal reporting system on communicable diseases, the hospital-based weekly zero reporting (150 hospitals), and the dispensary-based monthly zero reporting (almost 600 dispensaries). The ESU conducts as well a weekly active surveillance for acute flaccid paralysis (AFP) in 25 sentinel hospitals, supervises the animal bites reporting system from the 6 anti-rabies centers, and implements the water surveillance program in collaboration with WHO.

Disease control includes AFP surveillance for polio eradication and rash and fever surveillance for measles elimination. Other Entities under control are: food poisoning, meningitis, neonatal tetanus, rabies typhoid fever, viral hepatitis A, dysentery, brucellosis and others.

The Epidemiological Surveillance Unit conducted in 1999 the perinatal national study in collaboration with UNICEF, and in 2001, the salt iodization and the iodine deficiency disorders with WHO. It publishes a biyearly bulletin (Epinews), circulates the weekly report on communicable diseases, and disposes of a webpage: www.public-health.gov.lb.

The timeliness and completeness of reporting has been improving gradually. Within the framework of polio eradication, the number of reported AFP cases that has reached 14 in 2001, exceeding thus the barrier of 12 (one case per 100000 children under 15) considered an indicator of the completeness of the surveillance system. The last case of endogenous poliomyelitis was declared in 1994. The National Certification Committee has

submitted its final report on polio eradication in April 2002, and Lebanon is expected to be declared polio free early in 2003.

3.2 Strengthening Primary Health Care

Expanding and strengthening Primary Health Care remains one of the main important strategic goals of the health sector reform. Public and NGOs health centers operating within the PHC program led by the MOH have proven their capability to involve local communities and to provide, in a sustainable manner, affordable services, in accordance with WHO comprehensive PHC package.

The Ministry of Health has started formalizing its traditional relation with NGO's, through contractual agreements for establishing a Primary Health Care network. These contracts provide for the first time an official framework of accountability. The MOH assistance is directly linked to proper implementation of programmes, and their impact on community health, rather than on the increase in patients' number as in the traditional evaluation approach. This may be considered as a first step towards the regulation of ambulatory care and the reorientation of these services to meet population needs. It shows the willingness of the MOH to reallocate funds towards more cost effective means.

Clinical protocols for physicians and manuals for health workers were developed, and training for medical, paramedical and managerial manpower were carried out. An information system is now operational and covers administrative and medical activities. Developing quality standards and strengthening the monitoring system are underway. Special efforts are put to develop measurable outcome indicators reflecting changes in the health status of the community. Which could be attributed to health centers activities, in order to assess the performance of those centers.

The MOH encourages municipalities to manage public dispensaries and health centers especially the newly built ones. Some contracts have been signed whereby the MOH delegates the

management of a public health center to a municipality. This contractual relationship similar to that with NGOs is under evaluation and review.

Initially, 40 health centers were involved in the PHC network that expanded gradually to reach now over one hundred center. It is estimated that the number of PHC centers necessary to cover national needs varies between 130 and 150. In the past the MOH lacked the capacity to expand PHC centers to this number. Currently, it is the lack of minimum requirements of existing health centers that constitutes the limiting factor for additional contracting.

Improving the affordability, accessibility, and quality of PHC services, is not enough to get a significant increase in the utilization of these services. Important lessons could be drawn in this regard from our experience with the Expanded Immunization Program (EIP). Considerable resources and efforts were put to purchase good quality vaccines, ensure an operational and safe cold chain, train health workers, mobilize professional associations and NGOs, along with intensive awareness campaigns. The EIP program provides vaccination free of charge in all dispensaries and health centers operating in the country, in addition to mobile units for remote villages. However, the highest immunization rate ever reached by the program on its own was no more than 50% of the target population. Almost half of parents still prefer to vaccinate their children in private clinics despite the cost and doubts regarding the integrity of cold chain in the private sector. Therefore, it becomes crucial to build a new image for NGOs and public PHC centers, socially market their services and work seriously on consumer satisfaction issues. Wide information campaigns are needed on the comprehensiveness and good standards of PHC services including the good quality of vaccines and essential drugs purchased through UNICEF.

Along with improving the management of PHC centers and upgrading the MOH contractual relationship with NGOs and municipalities, existing vertical programs are to be sustained.

Nevertheless, new health programs should be more focused on reducing disparities in terms of health outcomes, by targeting poorer and underserved districts. In this perspective, the MOH is undertaking a pilot project aiming at reducing maternal and child mortality in Wadi Khaled, a remote area of the Akkar district. For this purpose, the MOH contracted with the Makassed NGO, a well-established "health care provider", to run the new public health center and to provide PHC services with particular emphasis on safe pregnancy and delivery in Wadi Khaled. The NGO is responsible for identifying all pregnant women, about 500, in a catchment area of 25000 people where 400 deliveries per year are expected. In accordance with the contract the NGO provides prenatal services following established guidelines, performs normal deliveries in the PHC center and ensures regular follow-ups for mothers and children. Cesarean sections when needed are performed in a hospital at the expense and under the oversight of the contracted NGO, that is held responsible for the continuum of care. In return the MOH provides for free essential drugs and vaccines, and assigns a global budget for the project based on a flat rate per pregnant woman and per delivery. The global budget would be subjected to reevaluation at the end of the financial year. This financing and delivery arrangement involves shifting funds from the MOH budget item for hospitals to that for PHC. It introduces new incentives through a capitation-based payment mechanism. The success of this project that targets a remote area while focusing on delivery, ante-natal and post partum care would have an important impact on the MOH strategy.

On the other hand, the MOH financing of nation-wide services and programs conducted by some NGOs should be maintained and upgraded. The most vital programs now are: the Essential Drugs Program for chronically ill patients managed by the YMCA, and the emergency transportation program implemented by the Lebanese Red Cross.

3.3 Reimbursement Mechanisms

The MOH has been reimbursing private hospitals upon reception of detailed bills based on an itemized tarification,

which did not include any kind of medical information on the patients status. This fee-for-service reimbursement is believed to have resulted in unnecessary hospitalizations and over-prescription of diagnostic and treatment procedures. Therefore, the MOH has introduced a new payment mechanism in order to reverse incentives. This mechanism is based on a flat rate reimbursement introduced gradually starting May 1998 and applied presently on all surgical procedures.

As a result today, reimbursement of providers by the MOH involves 5 types of payment methods:

- Budgetary transfers for non-autonomous public hospitals.
- Fee-for-service based on detailed bills, for non-interventional hospitalization.
- Case-based payment for surgical procedures.
- In-kind payment for comprehensive PHC services delivered by NGOs centers.
- Capitation payment introduced recently for delivery and follow-up of pregnant women.

The flat rate mode of payment had a significant impact on utilization and costs of hospital services as shown in figure VI-1.

The number of contracted beds was 1514 in 1998 and 1999, and increased to 2020 beds in 2000. The 2001 contracts did not set a ceiling in terms of bed numbers. This has led to a steep increase in numbers of admissions in 2000 and 2001 (fig VI-1a).

The introduction of flat rate reimbursement related to 658 procedures (Same Day Surgery) in May 1998, and then for additional 483 procedures (Most Common Surgeries) in October 2000, has contributed in lowering the MOH total bill in 1999 (fig VI-1a), and the average cost per admission in the following years (fig VI-1b).

Fig VI-1: The impact of (over) supply and payment methods on utilization and cost of hospital services

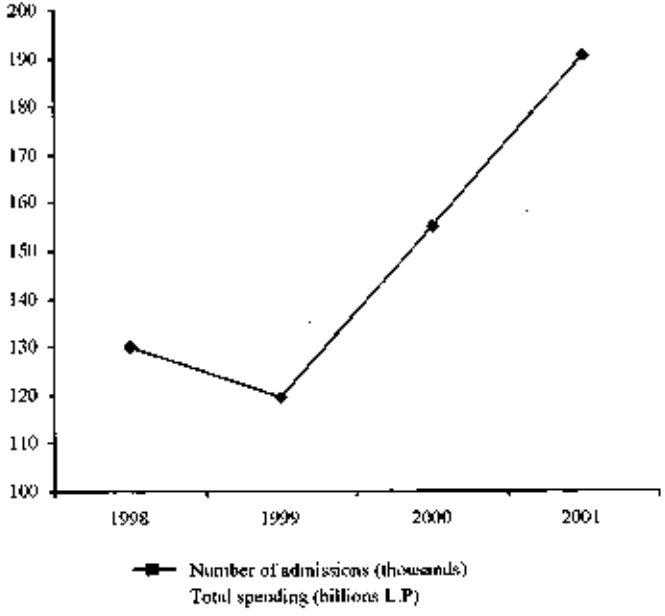


Fig VI-1a Number of admissions in MOH contracted hospitals and incurred spending from 1998 to 2001

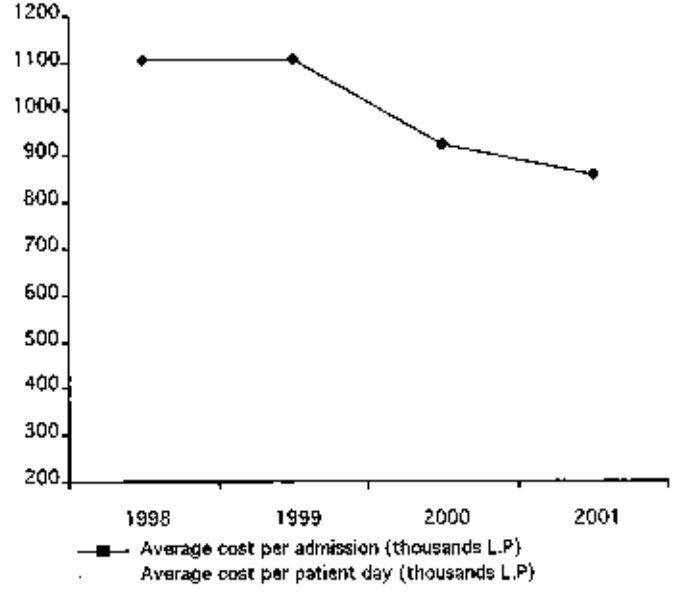


Fig VI-1b Average cost per admission and per patient day from 1998 to 2001

Fig VI-2: Supplier induced demand and the impact of cutting down surgical fees and introducing co-payment

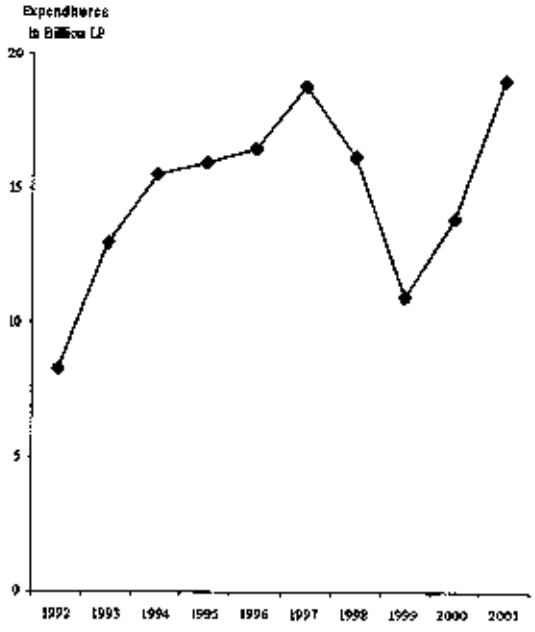


Fig VI-2a: Spending on Open Heart Surgery between 1992 and 2001

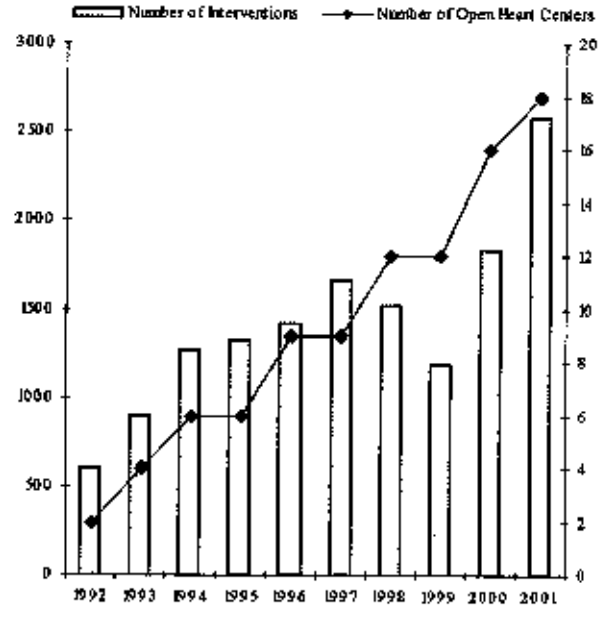


Fig VI-2b: Number of open Heart interventions in relation with the number of Centers between 1992 and 2001

While reconsidering payment mechanisms, tarification and co-payment revealed to be effective means for reducing (supplier-induced) demand. However, this effect cannot be sustained in the absence of supply control mechanisms.

A good example of an incomplete success can be seen with open-heart surgery that was fully covered by the MOH between 1992 and 1997, at a flat rate of 12.75 million L.P.

Fig VI-2a shows how open-heart surgery expenses has been steadily increasing from 1992 till 1997. No waiting lists have been needed since 1994, indicating that the number of centers since then had become sufficient enough to meet the needs. This is revealed by the insignificant increase in expenditures in 1995, where the number of centers (6) remained the same as in 1994.

The Fig VI-2b illustrates clearly the strong direct relationship existing between the number of operations performed and the number of existing centers, between 1992 and 1997. The three new centers that were opened in 1996 became fully operational beginning 1997, leading to the sharp increase, noticed that same year.

In 1998, the MOH decided to cut down the flat rate, and to introduce a copayment. The decided total fee per intervention was set at 9 million L.P., 8 to be covered by the Ministry and 1 to be paid by the patient. This change explains the sharp sloping down in both, expenditures and number of interventions in 1998 and 1999, inspite of the rising number of centers, as shown in both figures VI-2a and VI-2b.

The reduction of the provider's profit margin resulted in adopting more conservative indications for surgery. The co-payment had probably an additional effect on the patient's attitude, who started questioning physicians on alternatives to costly surgery. Patient renouncement to undergo cardiac surgery for financial reasons is unlikely to have occurred with the existing system of fee waiver for the needy.

Therefore, the decrease in number and cost of open-heart surgery in 1998 and 1999 could be attributed mainly to the modification of the payment mechanism. However, the rebounding number of operations in 2000 and 2001 along with the increase in the number of contracted centers confirm that control of supply should be a concomitant measure to get a sustained effect.

3.4 Control of Supply

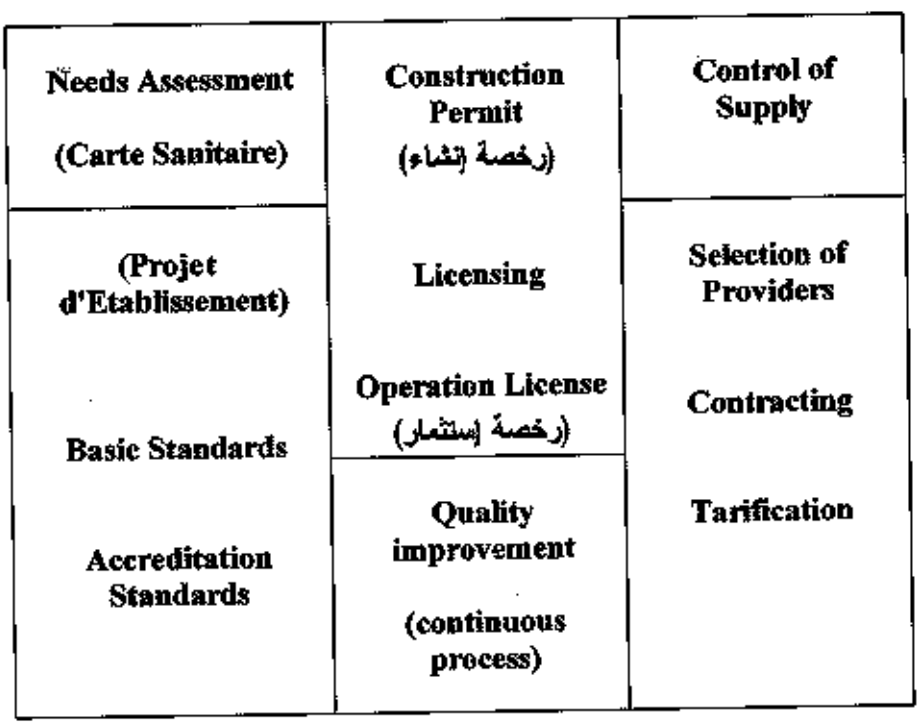
The Carte Sanitaire has been made available as a technical tool to regulate the supply side through licensing based on needs assessment. The issuance of a Decree on the implementation of the Carte Sanitaire, considered as contradicting the free market principles, was initially rejected by the Council of State (Decision no. 16/93-94, 1993). Therefore, in the absence of an up-stream control of supply, a downstream approach is sought by contracting with a smaller number of selected hospitals. The 1998 attempt not to renew contracts with small inefficient hospitals failed for political reasons. Instead, the total number of contracted beds was reduced by 30% and contracts with providers were reviewed to include budget ceilings and penalty clauses. The management of these contracts has been improving with the upgrading of the monitoring capabilities of the MOH.

All regulatory measures, mentioned previously have shown to be insufficient for controlling over-consumption. Enforcement of the Carte Sanitaire seems to be indispensable for controlling supplier-induced demand and cost escalation. It is worth mentioning that the control of supply is not only quantitative. It rationalizes the distribution as well. The regulation of pharmacies' licenses in accordance with the Pharmacy Practice Law had a significant impact on the regional distribution of pharmacies, as explained in chapter II section 4 and clearly shown in table II-15. The MOH is following up with the Council of State on enacting an acceptable Carte Sanitaire Law. Legislative amendments would be needed whereby a hospital's "Construction Permit" and "Operation License" are granted based on the Carte Sanitaire, the hospital master plan (Projet d'Etablissement) and the compliance with Basic Standards.

The Basic Standards set within the framework of hospitals accreditation are in fact requirements for licensing which represent an additional tool for controlling the supply of hospital beds and sophisticated services.

On the other hand, the selection of hospitals for contracts by MOH and other public funds can be based on the Basic Standards and the hospital's accreditation score. The decree number 7363 issued in February 2002 requested the MOH to contract only with 80 selected hospitals out of 140. This would enhance competitiveness and deprive below standard hospitals from important financial resources. Consequently, a significant impact on supply of hospital services is expected.

Fig VI-3 Control of Supply: Normative (Up-stream) versus Incentive (Downstream) approach



The same problematic of controlling the supply of hospital services applies to the issue of human resources. An up-stream

control of MD graduations is absurd in a country where the private sector prevails in higher education, and considering the large number of graduates from foreign universities and the meaningful proportion of Lebanese residing abroad. At most, the MOH could promote health professions that are in shortage, as it does currently by subsidizing nursing training in the Lebanese and the USJ Universities, and by establishing training units in 30 collaborating hospitals and health centers.

3.5 Pharmaceuticals Cost Containment

Despite the limited capacity for drug analysis at the Central Laboratory, the strict regulation of drug registration guaranties to a large extent the quality of imported and domestic pharmaceuticals. The exceptions are the relatively small quantities of drugs donated to NGOs that bypass the system and reach dispensaries after obtaining a special permit from the Minister of Health. An increasing awareness about the safety of donated drugs is taking place, and the problem should be dealt with at a political level.

With regard to pharmaceuticals cost, a price index that takes into consideration currency exchange rates is issued regularly. The MOH watches over price decreases in the countries of origin and lowers the market price accordingly. Sanctions are taken against pharmacies practicing over-pricing. The MOH cost containment policy had its impact on consumption prices as shown in the 2002 report of the Central Administration of Statistics. The consumer price index between 1998 and 2001 marked an increase in transportation and communication (11.6%), education (10.3%), clothing (8.4%) and housing (4.9%), while a decrease was noticed by 5.9% for health (including drugs, hospital and ambulatory services), followed by food products (5.5%), furniture and equipment (2.1%), and house maintenance (1.8%)[9].

However, the high cost of drugs that represents 25% of the total health expenditures remains a major concern. Three areas of intervention can be identified for cost containment:

1- Enhancing competitiveness: The 1994 Pharmacy Practice Law requires pharmacists to adhere to prices set by the Ministry of Health. An amendment was subsequently approved by the Council of Ministers and sent to Parliament for ratification. It stipulated that the price set by the MOH is considered a ceiling that could not be exceeded, but that could be lowered. This would enhance competitiveness and would probably lower market prices.

2- Modifying the price structure: According to the price structure, the imported drug price is set at 1.7 times of its FOB price (chapter IV section 5). Even though profit margins for importers and pharmacists are relatively high, any reduction would face great opposition and is unlikely to happen.

The price-dependent profit margin is thought to encourage importation and dispensing of expensive drugs. A degressive scale was proposed starting with a higher profit percentage for cheaper drugs. However this proposal would have had an adverse effect on the total bill, since the market share of cheaper drugs is much higher than that of expensive ones. Considering the sale value for the year 2000, drugs with a unit price less than 5 USD represented 37% of the total bill, and those less than 10 USD 60%. Drugs with a unit price exceeding 20 USD accounted for less than 15% of the total expenditure on pharmaceuticals (IMS Health 2000).

The 11.5% margin allocated in the price structure for clearance and commission is exaggerated considering customs exemption on imported drugs. On the other hand, shipping and insurance expenses are uniformly calculated for both far and close countries. The freight percentage was set at 7.5% as an average for USA, Canada, Australia, European and other countries. It may be over-estimated for most pharmaceuticals imported from the nearby European countries. On the other hand, the freight is calculated as a percentage of the price, not in relation to shipment fees which are based on volume. This means that expensive drugs with small volume and high price generate more profit than less expensive ones. This phenomenon is further magnified by the cumulative price structure.

Therefore, expenses and profit margins as well as the incremental calculation method should be revisited. Scheduling this item in the reform agenda needs to be considered carefully.

3- Promoting generic drugs: The current price structure does not encourage the importation of inexpensive generics. In addition to that, physicians prefer not to prescribe generic drugs for perhaps a lack of confidence in their quality, but most importantly because their university education and hype promotion campaigns that constitute the main source of pharmaceutical information for many of them. Manufacturers and their agents use aggressive and persuasive techniques that are sometimes ill-founded scientifically and even unethical.

Changing prescribing habits may have to include reconsidering medical curricula and conducting training through a continuing education program, in collaboration with universities and Physicians Orders. New incentives should be created through a new price structure to encourage the importation of cheaper drugs. Rationalizing the prescribing habits should be sought by adopting a list of MOH and NSSF reimbursed drugs, biased towards generic drugs including licensed and labeled ones.

3.6 Quality Assurance

The Quality Assurance framework considers three levels of interventions: structure, process and output. It implies the active involvement of all players especially those involved operationally in health services provision. The MOH adopts two different approaches for hospital and ambulatory care, and its intervention is restricted to tasks that are clearly defined and undertaken in an explicit manner. The MOH supervises also the overall quality improvement process and makes sure that each party is playing properly its role.

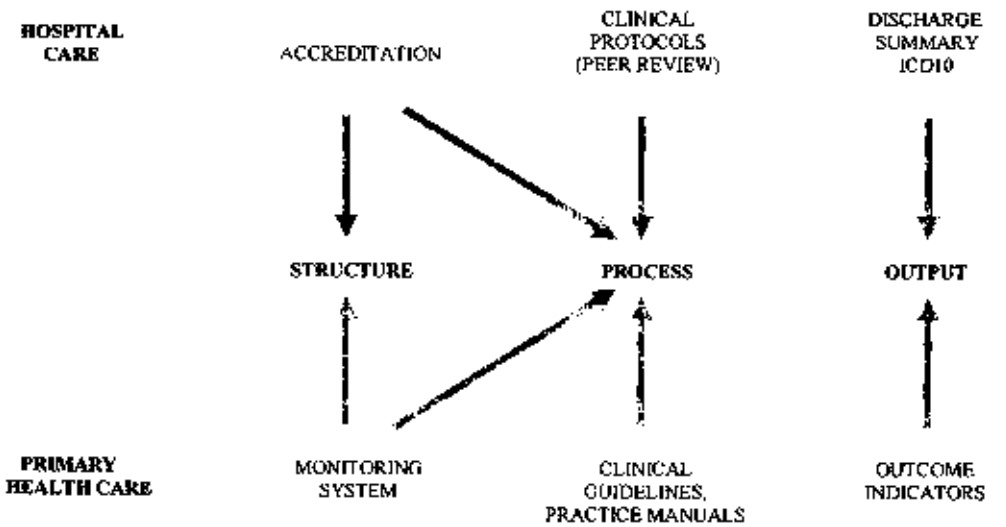
With regard to hospital care, the MOH conducted recently the first national hospitals accreditation survey as explained in the following section. Accreditation focuses on structural and organizational matters and pays particular attention to the adoption

and implementation of explicit policies and procedures. It scores the existence of managerial tools, clinical protocols, technical committees such as infection control committee, record-keeping and other quality-related systems. Examining documents such as medical files, meeting minutes, etc. indicates whether these systems are or are not functioning in accordance with established norms, which also impacts the score. Therefore, and in addition to focusing on the structure, accreditation tackles also the process level. However, the main work on the process has to be done internally through peer review. This falls clearly under the responsibility of the medical and paramedical professions, overseen jointly by the MOH, the Order of Physicians and other professional associations.

As for output evaluation, the MOH requested that a Standardized Discharge Summary (SDS) should be joined to the bill of every hospitalization case, otherwise it would not be reimbursed. The SDS provides information about the medical history, the diagnosis, therapeutic interventions, as well as pertinent laboratory, radiology, and pathology results, in addition to treatment and follow-ups. Almost all hospitals are now more or less complying with the system that is generalized to all financing agencies. The MOH has been for the last six years upgrading the quality of the SDS information, and has conducted training sessions on coding according to the International Classification Disease (ICD10). The automation of this system is currently underway. However, much more efforts are still needed to be put in this area, and a fully computerized system is not expected to be operational before 2004. The MOH is working now on integrating simple quality indicators in order to link reimbursement to product specifications. This quality-related payment system (QRP) will make the contractual relationship with private providers easier to manage, and will allow incentive-based regulation and quality assurance. On the other hand, the flat rate payment would relieve the administration from the heavy burden of detailed bills auditing, and enable it to evaluate the output once codification and automation are accomplished.

With regard to quality assurance of ambulatory care, attention is currently focused on PHC centers that are expected to play a more important role in the future. Private clinics quality

Fig VI-4: Hospital and Primary Health Care Quality Assurance



assurance requires human and financial resources, tools, and skills that may not be available in the foreseen future. Therefore, private for profit solo practice will not be included in the quality assurance program for the time being.

As for PHC, a different approach is required than for hospital care. Basic standards related to amenities and human resources as well as the adoption of a defined package of services are a prerequisite for a center to join the network. Policies and procedures are set jointly by MOH, concerned NGOs and professional associations, and are standardized for all health centers. Hence, clinical protocols for physicians, and guidelines and manuals for health workers were developed, and managerial as well as clinical trainings were conducted. Since the MOH supervises directly PHC activities, the monitoring system becomes a crucial component of quality assurance. Finally, outcome indicators that go beyond the output of PHC centers to assess the

health status improvement of the community, reflect better the quality and the effectiveness of interventions.

3.7 Accreditation of hospitals

The First National Hospital Accreditation Survey[10] is a landmark project that represents an important achievement on the way to improving the quality of health care services.

In May 2000, a consultant was contracted to set Basic and Accreditation Standards for acute care hospitals, as part of a Total Quality Program. The main requirement of the project was to develop, test, adapt and finalize a Hospital Accreditation Manual, suitable to local circumstances, while taking in account the international experience in this field.

A consultative process, including key stakeholder groups, took place during the development of standards. Those were tested in a group of 6 pilot hospitals, chosen to be representative of the acute care hospital system in Lebanon.

The two-tiered approach was meant to delineate Basic Standards that should have been required for hospital licensing, and higher level Accreditation Standards that are based on Quality Assurance. Guidelines were set to explain the Standards and provide hospitals with additional information and examples, for the purpose of achieving those Standards.

The Survey based upon the Manual was conducted between September 2001 and June 2002. Surveyors were hospital administrators, nuurses and physicians with clinical and administrative experience.

The scoring system used for Basic Standards was: one point for "Yes" and zero points for "No". For the Accreditation Standards 0.5 points were given for items which "Need improvement". In both Standards and Accreditation scores, the items "Not applicable" were excluded from calculation.

Following the 1- to 3-day onsite visits to each hospital, detailed survey assessment reports were completed and forwarded to concerned hospitals and the MOH. Each report included an assessment of all standards that were applicable to the surveyed hospital at the Basic and Accreditation levels, and the score obtained. A number of Strengths and Opportunities for Improvement were documented for each applicable standard, and customized recommendations for each hospital were set.

The Strengths indicated areas where the hospital is performing well, and should continue to work to maintain the standard. Opportunities for Improvement and Recommendations suggested areas where the hospital needs to review the situation and implement changes, or continue to work on a current plan for improvement. These opportunities are a valuable source of information for the hospital's planning process, particularly the Quality Assurance Plan. It may not be possible to implement all of the opportunities immediately. The hospital will need to prioritize the most important ones and the easiest to implement, and incorporate these into the budgeting and planning processes. The information in the report provides each hospital with a valuable tool for continuous quality improvement.

Among the 128 surveyed hospitals, only 47 met the requirements of 80% for the Basic Standards score and 60% for the Accreditation Standards score.

Most importantly, 32 hospitals were found not meeting minimum safety requirements.

As expected, small hospitals with 100 beds and less, accounting for the majority of hospital beds in Lebanon were on average operating below standards. Hospitals with 101 to 200-bed capacity got a somewhat better average score than larger hospitals with more than 200 beds (figure VI-7).

Fig VI-5: Basic Scores for all hospitals – bar chart

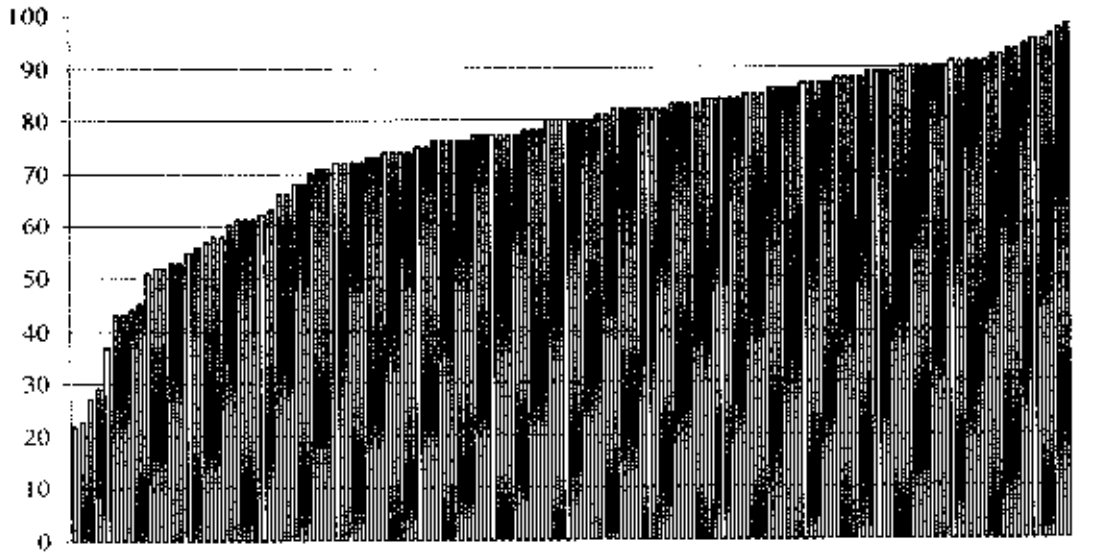


Fig VI-6: Accreditation Scores for all hospitals – bar chart

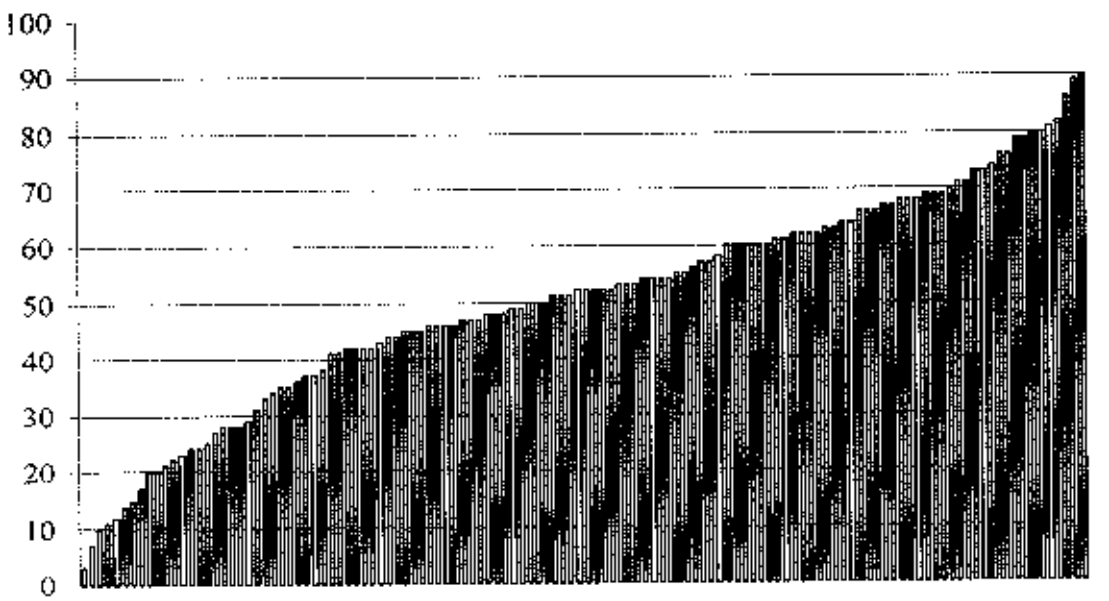
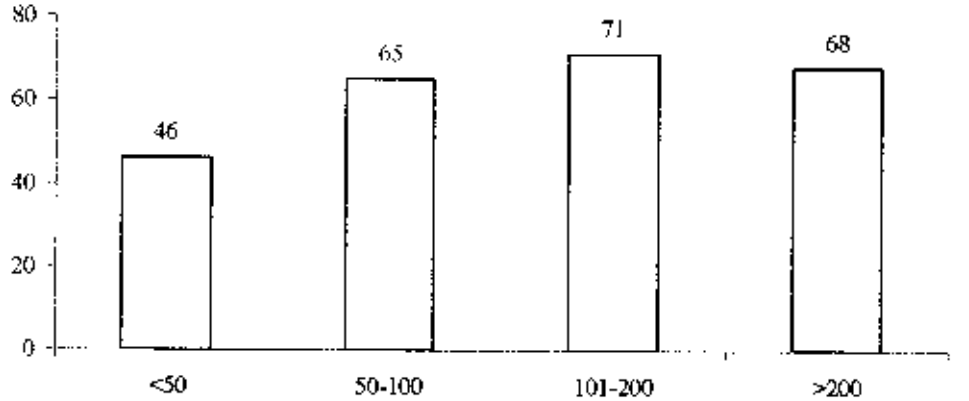
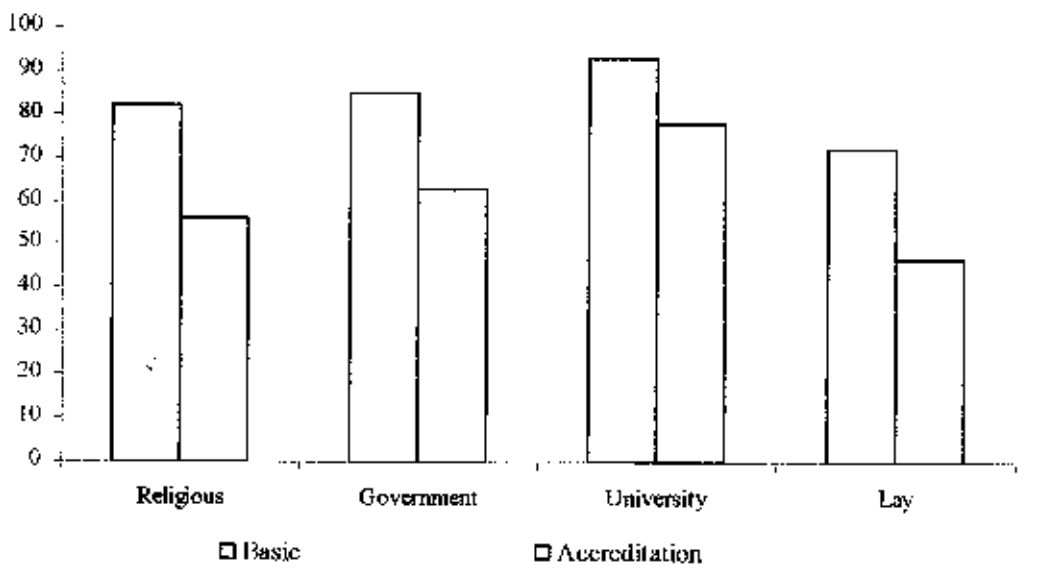


Fig VI-7: Score Average by hospital capacity



The ownership type has an impact on how well the hospital management is able to meet requirements, as shown in figure VI-8. It is worth mentioning that the 2 autonomous public hospitals included in the survey realized a relatively good score.

Fig VI-8: Basic and Accreditation scores by type of ownership



3.8 Interconnecting the Database of Public Funds Beneficiaries

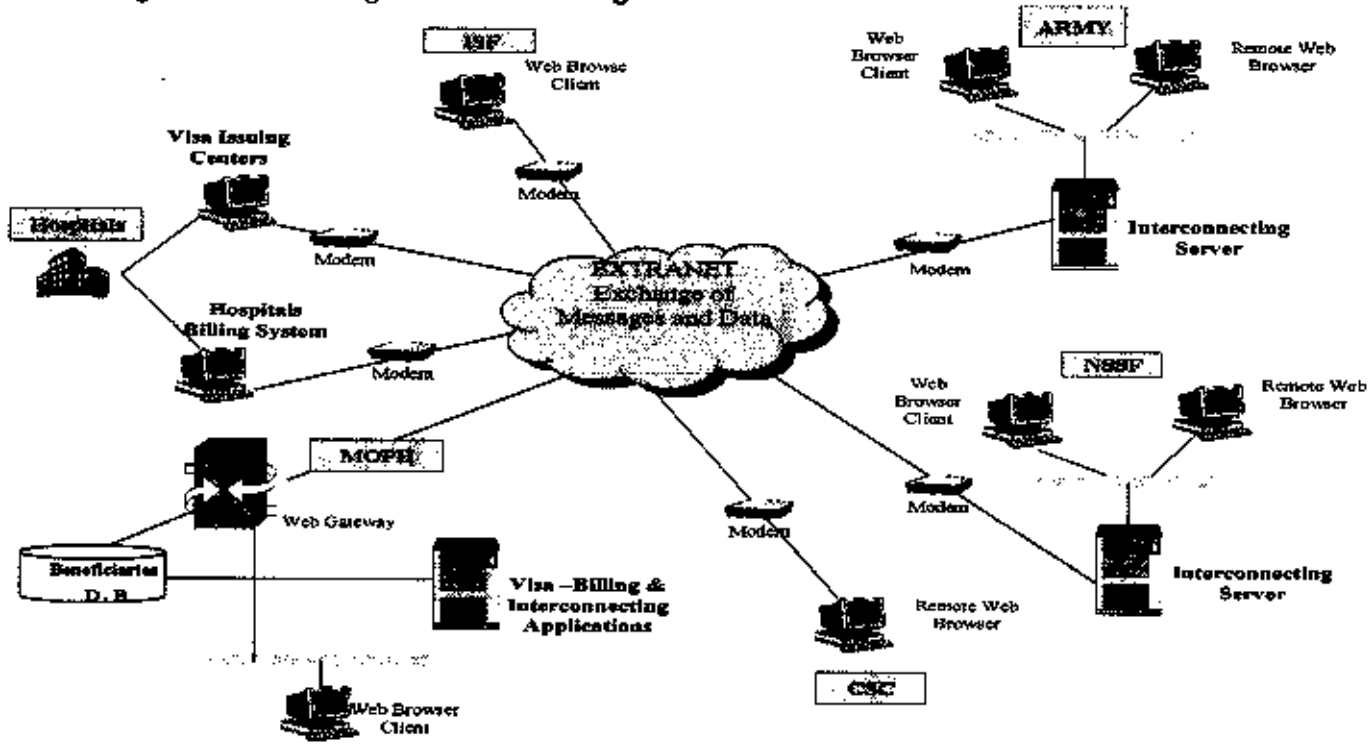
The Council of Ministers issued a decision in January 2001 on setting up beneficiaries databases in different public funds, to be linked electronically to the Ministry of Health.

This interconnecting database would allow the MOH and other public funds namely the Army, the Internal Security Forces (ISF), the National Social Security Fund (NSSF), and the Civil Servants Cooperative (CSC), to share information about eligibility. The primary objective is to avoid overlapping and double coverage, to relief funding agencies from cumbersome administrative procedures of issuing non-eligibility certificates, and the citizens from the burden of obtaining them. This database could be integrated to the VISA/Billing System and could serve at a later stage for assessing utilization patterns of different population categories, and for evaluating the financial burden and the performance of each fund.

The database stores beneficiaries' demographic and eligibility information. Each fund updates on a daily basis information related to its own pool by adding new adherents, updating dependents' status, and removing outgoing members, whose burden is in practice shifted to the MOH. The Central Information System located at the Ministry of Health collects automatically these files from different funds and updates the consolidated beneficiaries database.

The MOH assisted other public funds in collecting and processing the missing beneficiary information. It has equipped funding agencies with interconnecting PCs, modems, dedicated phone lines, and the necessary communication software and configuration. This set-up allows the Central System at the MOH to automatically establish a connection and download files containing the updated beneficiaries information. Public funds can access remotely the centralized MOH database for searching purposes.

Fig VI-9: VISA Billing and Interconnecting Database



The MOH is equipped with a dedicated access server and 60 phone lines available for remote users and eventually contracted hospitals. This network allows the establishing of a connection with the database using special search forms designed to be used from a WEB browser.

This Interconnecting system provides a platform for the development of new applications for utilization of services and incurred spending. For this purpose, the MOH and public funds are working on the standardization of the application, and the coding system and on unifying authorization and billing forms.

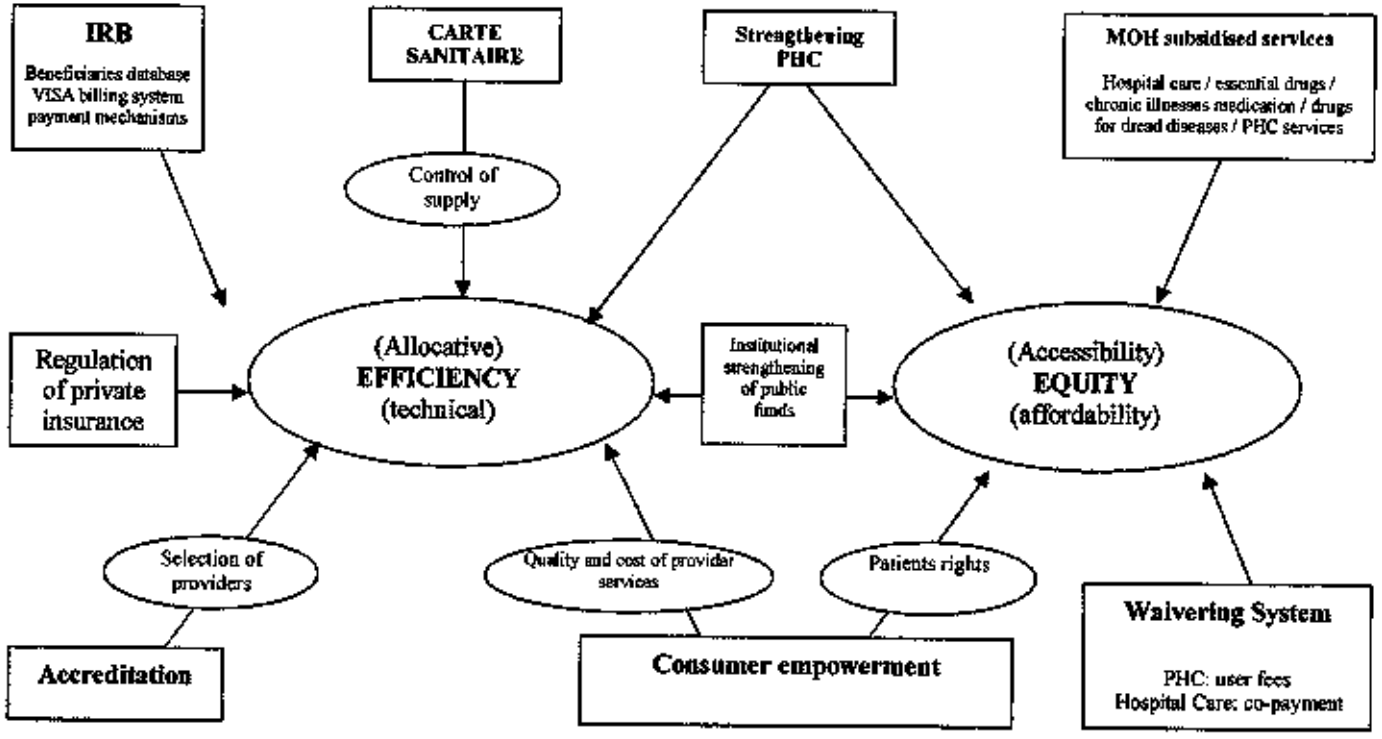
3.9 Reform Components Integration

Health reform is a continuous process, it involves multidirectional activities that should be coordinated and objective-oriented. The agenda should consider the institutional capabilities of funding agencies and providers, as well as stakeholders interests that vary with the topic and in the course of change. Therefore, a stepwise approach should be adopted, where alliances adapt in a dynamic way to interests at stake.

Figure VI-10 shows the articulation of different components of reform aiming at addressing efficiency and equity issues.

The Financing reform is the most important component of the health reform and deserves a chapter by itself (chapter VII), whereas the creation of an Interface and Resource Body (IRB option) is addressed in details in the annex. Creating a unified database of public funds beneficiaries, establishing a VISA/Billing system in the MOH and working on payment mechanisms, are important steps towards the IRB reform option. This allows avoiding eligibility overlapping, controlling demand, and redressing provider incentives. Altogether these would have an important impact on the efficiency of health services provision. On the other hand, regulation of private insurance, selection of providers based on accreditation scores and controlling the supply side would also have a positive effect on efficiency.

Fig VI-10: Integration of reform components targeting efficiency and equity



Expanding and upgrading PHC services represents a cost effective use of resources, and at the same time contributes to ensuring equity by improving accessibility to affordable basic services. Consumer empowerment by providing information on cost and quality of providers services and on patients rights, would also have an impact on both efficiency and equity. Finally, for the sake of equity, the MOH should continue to be an insurer of last resort, and modernize its contractual relationship with hospitals and NGOs. The waivering system should be rationalized and transparent where the poor, properly identified, would be exempted from user fees. A large information campaign about subsidized services and waivering policies should target, poor and remote population, among which the percentage of the uninformed is the higher.

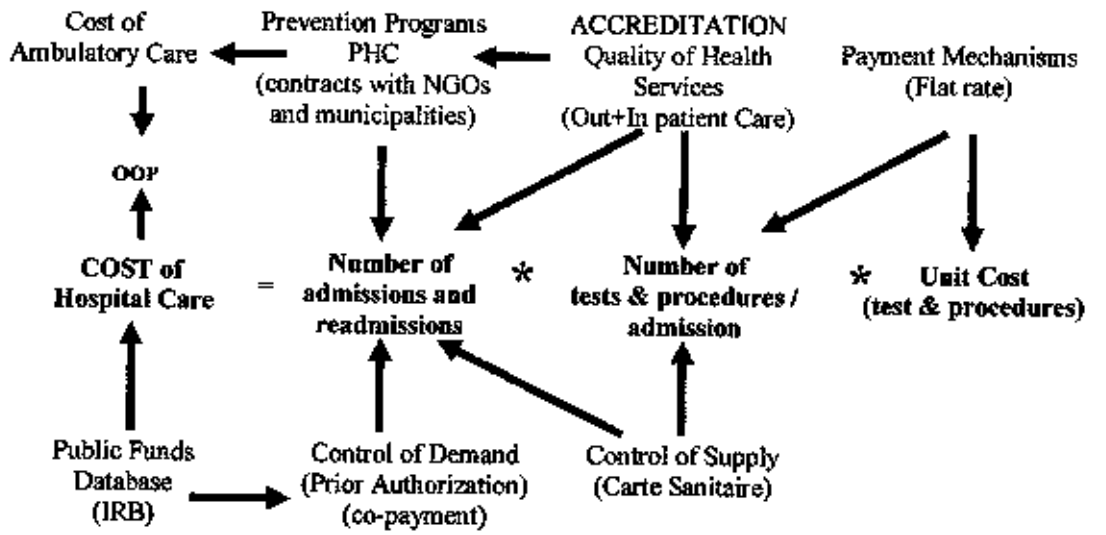
Figure VI-11 shows reform components that deal with high cost of health services and the heavy burden on households. These are of course related directly to issues of efficiency and equity of the previous diagram.

Enhancing accessibility to PHC would on the short term reduce the dependence on private for profit clinics, lowering thus the households out-of-pocket payment especially that of the poor, and would, on a longer term, improve the health status of the population, and consequently lessen the need for hospitalization.

On the one hand, avoiding unnecessary admissions and interventions is an integral part of quality assurance. On the other, the case-based payment rationalizes unit costing and discourages over-utilization.

The public funds beneficiaries database would prevent double billing and allow for a better control of demand. And finally, the Carte Sanitaire would minimize provider-induced demand.

Fig VI-11: Integration of reform components targeting cost containment of ambulatory and hospital care, and households out-of-pocket.



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Chapter Seven

HEALTH FINANCING REFORM AND STAKEHOLDER ANALYSIS

I-HISTORICAL OVERVIEW

When it was established in 1963, the NSSF[1] was intended to cover progressively all the Lebanese population in all its social and occupational categories (employees, civil servants, agricultural workers, self-employed, etc...) according to a three-stage plan. This staging was designed to allow assessing the demographic and epidemiological status, and evaluating the ability to pay of the concerned population category at each stage, in order to define benefit packages and set fair contribution rates. It was supposed to give enough time to recruit and train qualified personnel, and to build administrative capacities[2].

Four decades later the fourth phase of the first stage, which implies the coverage of work place injuries and occupational diseases, has not achieved yet. What is even more peculiar is that, one month after the creation of the NSSF, and before allowing for the enrollment of the civil servants, the CSC was created by the

decree # 14273[3]. The fourth article of this decree stated that the CSC has to perform its duties "until the NSSF becomes capable of covering the civil servants". This provided a legal cover to the political, social and perhaps confessional reasons lying behind the creation of this separate fund. These same reasons are still prevailing presently. Similarly, the same questions that are arising now about unifying public funds into one agency have always been raised[4].

Historically, to be eligible for the MOH coverage, a certificate of indigence was requested[5]. The decision of issuing an insurance card for eligibility to MOH coverage was made in 1967 by Minister Nassib Barbir[6]. In 1971, Minister Emile Bitar took the decision of issuing a health card based on a system of identification of the poor among the uncovered population[7]. None of these decisions were put into practice, and overlapping of the MOH coverage with other funds persisted. Over and above, the certificate of indigence, considered as violating human dignity, was abolished later in 1971[8]. This decision opened widely the door to all citizens including the well off, to benefit from the MOH coverage.

Many experts' reports have been written on the Lebanese health sector financing, always recommending the merging of all public funds. The most well-known, dating back to 1983, are the reports of WHO and USAID missions, which recommended that "Public sector reimbursement should be consolidated within a single public sector agency: The National Health Security System; NHSS"[9].

Based on these reports, a serious and pragmatic plan was proposed[10] consisting of covering all beneficiaries of the NSSF, and the CSC, as well as the dependents of military forces' members, by a single public agency. Enhancing the political feasibility of this proposal was sought by acknowledging the specificities of military forces as deserving a special scheme. It was suggested to set contributions proportional to electricity consumption, considered as a proxy for the financial status. It was

proposed, to integrate contributions collection with the electricity bills collection system.

The aim was to overcome major technical and administrative bottlenecks hindering the expansion of the NSSF coverage. These are related mainly to the difficulty of identifying the poor, and of setting contribution rates compatible with beneficiaries' financial abilities, in addition to the major collection problem. Unfortunately, citizens' ability to pay their electricity bills is decreasing, and the Electricity of Lebanon itself has always been encountering serious collection problems[11].

Since the Jeffers report (USAID, 1983), the NSSF has not been able to expand its coverage, the financing system is getting more and more complicated and fragmented with all the repercussions explained earlier in chapters III, IV and V. Many financing reform scenarios have been developed. Besides the expansion of the NSSF that is still a serious option to consider, many variants of the public funds merger model have been proposed. Recently, the success of the Third Party Administration in the private insurance industry has been an inspiration to develop TPA model options. Redesigning the financing system remains the cornerstone of reforming the health sector, for the impact it has on all other components of the health system.

2-HEALTH FINANCING SCENARIOS: ADMINISTRATIVE, FINANCIAL AND LEGAL IMPLICATIONS

Three main scenarios are identified: the first consists of expanding the coverage of the existing National Social Security Fund to all the population. The second proposes a Third Party Administrator, the so-called Interface and Resource Body (IRB) to undertake operational functions on behalf of all public financing agencies. The third relates to establishing a National Health Authority (NHA) managing all the public money, to ultimately replace all existing public funds.

The elaboration of the 3 main reform options was made by a team under the Health Sector Rehabilitation Project (HSRP). The financial impact of each option was estimated[12], based on available information with the HSRP team, and legal implications were developed[13] following a thorough review of related legislation.

2.1 Major Characteristics of the Current System

2.1.1 Administrative and Organizational Aspect

- Six public funds, each with its own regulations, covering hospital care (direct payment to hospitals), and ambulatory care (reimbursement of users).
- Unregulated private insurance.
- Mutuality funds with ill-defined mission.
- The uninsured (52.3% of the population) are eligible to the MOH coverage for hospital care and catastrophic illnesses.
- Ill-organized primary health care in both NGOs and public centers.

2.1.2 Financial Aspects

Total Health Expenditures represent 12.46% of the GDP, with a heavy burden on households (out-of-pocket fee for service makes up 60% of the total).

Table VII-1: 1998 National Health Accounts for the entire population (billions L.P.)

	Total	Hospitals	Non-Institutional	Pharmaceuticals	Other	Admin
OOP	**1,199**	146	786	250	17	0
MOH	**311**	227	28	21	22	13
NSSF	**296**	108	42	48	59	40
Other Public Funds	**189**	105	42	18	3	21
Private Insurance	**392**	54	127	110	7	94
Total	**2,387**	**639**	**1,025**	**447**	**108**	**168**

2.2 Option 1/NSSF Proposal

2.2.1 Administrative and Organizational Aspects

The NSSF will extend its coverage incrementally until it covers all Lebanese residents, in accordance with existing legislation. In parallel, the role of the MOH as an insurer of last resort would be phased out progressively.

In the first step, the NSSF would expand its coverage to persons 65 and older.

2.2.2 Financial impact

Out of pocket expenditures would decrease, whereas overall national expenditures would increase by 8% (190 billion L.P.).

Table VII-2: Profile Matrix for covering the population 65 and older (billions L.P.)

	Total	Hospitals	Non-Institutional	Pharmaceuticals	Other	Admin
OOP	1,008	100	686	201	20	0
MOH	215	159	19	16	13	9
NSSF	296	108	42	48	59	40
Other Public Funds	189	105	42	18	3	21
Private Insurance	235	32	76	66	4	57
New Plan	634	123	261	155	9	86
Total	**2,577**	**626**	**1,126**	**504**	**109**	**212**

2.2.3 Legal Implications

The implementation of this NSSF reform option will not require any new laws. However, some new decrees ought to be developed by the Council of Ministers to detail the procedural steps needed.

Table VII-3: Legislative texts to be canceled, amended or issued for the implementation of Option 1

Legislative texts to be canceled	Legislative texts to be amended	Legislative texts to be issued
None - The execution of some texts, such as law articles on public health assistance or drugs would be halted progressively, as a consequence of the progressive extension of the NSSF coverage to new segments of the population.	- Amend the first alinea of article 4 of the decree 14272 dated 29/10/63 (establishment of the civil servants cooperative) to transfer the coverage of civil servants to the National Social Security Fund	- Promulgate necessary decrees, to include new segments of the population in the National Social Security Fund - Issue a decree setting contributions, and allowing their collection from people that are not governed by the Labor Law or the Public Sector legislations. - Promulgate decrees to transfer necessary credits from the Ministry of Finance (or the Ministry of Public Health) to the National Social Security Fund.

2.3 Option 2/IRB Alternative

2.3.1 Administrative and Organizational Aspects

Under this proposal, current public funds would remain and preserve their autonomy. All of them however would deal with consumers and providers through one Interface and Resource Body within a common framework (multiple funds/one system).

The MOH will continue to finance hospital care and catastrophic illnesses of the uninsured, and will ensure universal accessibility to Primary Health Care, through a national network of PHC centers, in collaboration with NGOs and municipalities. More details on this option are provided in the annex.

2.3.2 Financial impact

Out-of-pocket expenditures would slightly decrease, whereas, the overall national expenditures would increase by 5.7% (137 billion L.P.). These estimates do not include however, the effect of increasing the accessibility to PHC services, on both the OOP and the overall spending.

Table VII- 4: The IRB Profile Matrix (billions L.P.)

	Total	Hospitals	Non-Institutional	Pharmaceuticals	Other	Admin
OOP	**1,130**	146	717	250	17	0
MOH	**84**	78	0	2	1	3
NSSF	**288**	106	41	47	58	37
Other Public Funds	**184**	102	41	18	3	18
Private Insurances	**382**	53	124	108	7	89
New Plan	457	143	233	19	21	42
Total	**2,524**	**628**	**1,157**	**444**	**107**	**190**

2.3.3 Legal implications

There would be a need for administrative decrees allowing public bodies to subcontract management services. This can be done at the level of the Council of Ministers. No new laws would be needed.

Table VII-5: Legislative texts to be canceled, amended or issued for the implementation of Option 2

Legislative texts to be canceled	Legislative texts to be amended	Legislative texts to be issued
None	None Financial by-laws of the Civil Servants Cooperative and the National Social Security Fund should be amended to cope with unified procurement procedures and establish a unified tender document	Get the approval of the Council of Minister on the unified tender document

2.4 Option 3/The Social Health Insurance Program (SHIP)

2.4.1 Administrative and Organizational Aspects[14]

This option proposes a universal and mandatory insurance to be managed by a National Authority with a high degree of autonomy. All citizens will be covered for hospital, ambulatory care including dental care and catastrophic illnesses. There will be a standard minimum coverage with individually-purchased supplementation for all except for low-income population.

Four categories would be eligible for SHIP based on Social and occupational status:

1-Employers, professionals, self-employed and employees in the informal sector.

2-Employees currently covered by the NSSF, military, civil servants, municipalities

3-Retirees from category 2.

4-Unemployed, poor, institutionalized, handicapped, welfare program participants.

The population of category 4, defined according to strict eligibility criteria, would continue to be entitled to the MOH coverage for a basic benefit package. Each beneficiary of this category has to register with a PHC accredited center that constitutes for him/her the entry point to the health system, and from where referral to higher levels of care can take place.

Public funds would continue to collect contributions from adherents and continue to cover their currently defined eligible even after retirement

(categories 2 and 3). The population of category one pays premiums to the insurance of their own choice.

Whereas people in category 4 can only obtain the basic benefit package, those of categories 1, 2 and 3 may choose a wider coverage in return for additional contributions.

The long-term objective of SHIP is the merger of all public funds devoted to health.

2.4.2 Financial impact

Out-of-pocket expenditures would significantly decrease, whereas the overall national expenditures would increase by 13% (314 billion L.P.).

Table VII-6: The SHIP Profile Matrix (billions L.P.)

	Total	Hospitals	Non-Institutional	Pharmaceuticals	Other	Admin
OOP	768	92	496	169	12	0
MOH	35	24	4	3	3	1
NSSF	237	86	34	38	47	32
Other Public Funds	151	84	34	15	3	16
Private Insurance	314	43	102	88	6	75
New Plan	1,195	267	552	211	36	130
Total	**2,701**	**596**	**1,220**	**524**	**106**	**255**

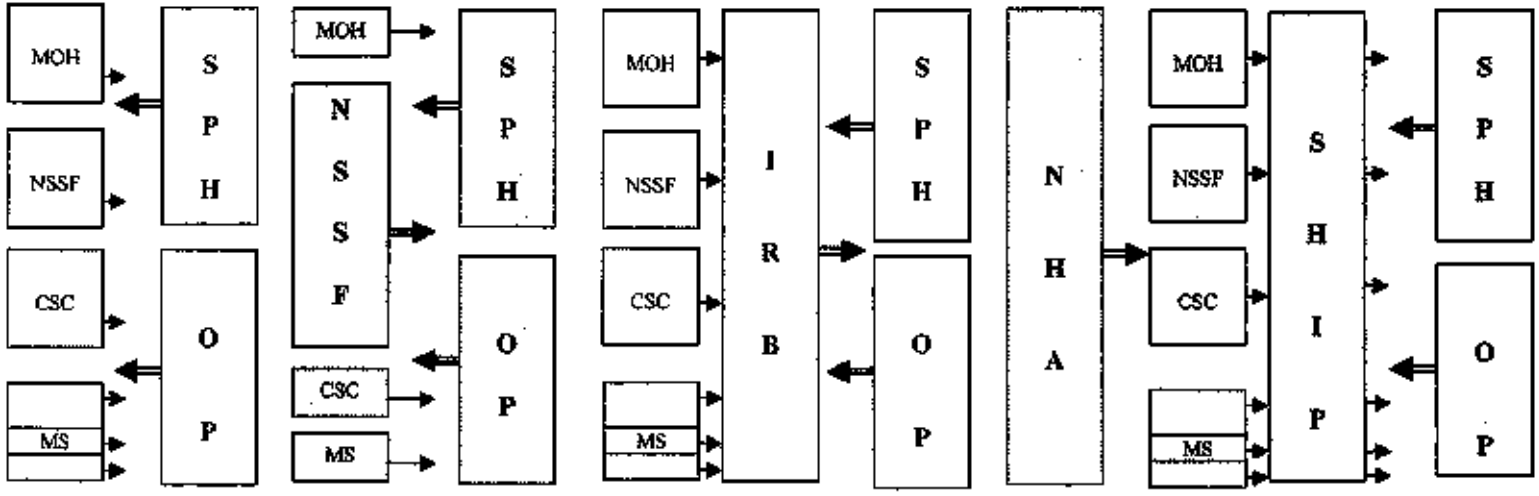
2.4.3 Legal implications

New legislation need to be enacted by the Parliament to allow for the establishment of the National Authority.

Table VII-7: Legislative texts to be canceled, amended or issued for the implementation of Option 3

Legislative texts to be canceled/(no amendment is proposed)	Legislative texts to be issued
The NSSF code (law of 26/9/1963): • Cancel the first part in the second book of the code. • Remove other texts that are not relevant to the new system. • Modify accordingly the financial by-laws. The Civil Servants Mutuality (decree of 29/10/1963): • Cancel alinea one of article 4 related to health coverage. • Cancel related financial by laws. The Ministry of Public Health (decree 8377 of 30/1/1961): • Cancel alinea 4 of article 2, related to Public Assistance. The National Defense (law decree 102 of 16/9/1983): • Cancel article 68 related to the medical care of the armed forces. Internal Security Forces (Law 17 of 6/9/1990): • Cancel articles 146 to 158 related to the medical care of ISF members. General Directorate of the General Security: (law decree 139 of 12/6/1959): • Cancel article 33 related to the medical care of General Security members. General Directorate of the State Security (decree 2661 of 3/9/1985) • Cancel article 21 related to medical care of State Security members.	- A law establishing the "National Health Care Authority" should be enacted. - Application decrees setting organizational and financial rules for the NHA and the appointment of the Board of Directors and other necessary decrees to include different segments of the population in the new system under the NHA, need to be issued.

Fig VII-1: Health Financing Reform Options: Bargaining power of different stakeholders



CURRENT SYSTEM | **NATIONAL SOCIAL SECURITY FUND (NSSF) OPTION** | **INTERFACE AND RESOURCE BODY (IRB) OPTION** | **SOCIAL HEALTH INSURANCE PROGRAM (SHIP) OPTION**

MOH	Ministry of Public Health	**CSC**	Civil Servants Cooperative	**MS**	Military Schemes
SPH	Syndicate of Private Hospitals	**OP**	Orders of Physicians	**NHA**	National Health Authority

3-STAKEHOLDER ANALYSIS

A stakeholder analysis[15] was conducted aiming at identifying the position of different stakeholders in the Lebanese health care system towards health financing reform options.

Six groups of stakeholders were identified: public funds, physicians, private hospitals, mutuality funds, NGOs involved in the health sector, and private insurance offering medical schemes.

Target groups' members were identified on the basis of formally elected representatives wherever applicable. Those are: board members of the Order of Physicians, board members of the Syndicate of Private Hospitals, board members of the Health Mutual Funds Technical Union. The public funds group gathered the Directors General of the MOH, the NSSF and the CSC and Heads of the Army Medical Scheme and the Internal Security Forces Health Department. NGOs representatives were those delegated for follow up with the MOH, and the private insurance group included CEOs of major companies offering health insurance.

Options for reform were introduced in a general meeting held in Rotana Hotel on October 10, 2000. All stakeholders, as well as former Ministers of Health were invited by the Minister of Health. International and national health and finance experts attended the meeting as well, and participated in the discussion.

Available results of the NHHEUS and the NHA, were exposed as well as organizational, financial and legal implications of the proposed reform options. A round table discussion followed the presentation. A first questionnaire intended to identify issues of revelance for the reform and to rank them by priority order was distributed and completed in this meeting. The administration of this questionnaire did not take into consideration respondents' membership in various interest groups. Therefore, the analysis of

this questionnaire was based on individuals' perceptions, opinions and positions, irrespectively of their adherence as stakeholders.

A second questionnaire was distributed, aimed at assessing the position of stakeholders towards financing reform, considering separately the feasibility and the sustainability of each option. Feasibility is tackled from different perspectives: political interests, legislative amendments, organizational changes, availability of resources and the public reaction. Whereas, sustainability considers administrative and political dimensions, affordability on the long run and compliance of providers. Questionnaire 2 was introduced to each group separately and was administered by stakeholder's groups.

Stakeholders were given a brief presentation about the purpose and the methodology of the study and were asked to complete the data collection tool on the spot. Completed questionnaires were collected immediately.

Results of the first questionnaire (part I) indicated that 30 issues were considered of high priority by more than 50% of the respondents. These are exposed in the table VII-8.

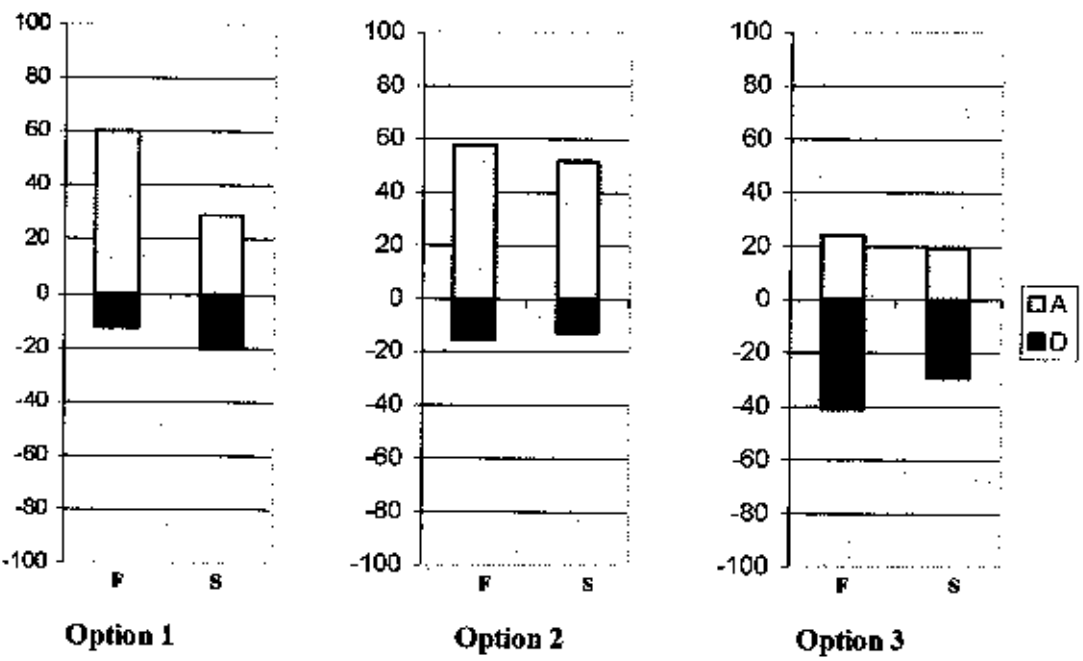
Results of Part II are presented with different stakeholders given the same weight. Considering the overall ranking of stakeholders' positions, fig VII-2 shows that options (1) and (2) were perceived as relatively more feasible and sustainable than option (3). About 60% of participants agreed on the feasibility of option (1) compared to 57.5% and 24.2% for options (2) and (3) respectively. Only 29.4% agree on the sustainability of option (1), compared to 51.6% and 19.4% for option (2) and (3) respectively. Disagreement responses were the highest for option (3) (41.1% for feasibility and 29.3% for sustainability).

Table VII-8: Issues identified by more than 50% of respondents as being of high priority to be addressed by the reform

	Health Reform should address in priority:	High Priority Answers (%)
1	Aim to limit the cost of pharmaceuticals	90.3
2	Attend to the quality of pharmaceuticals	87.1
3	Attend to the quality of inpatient services provided by government hospitals	85.2
4	Emphasize preventive / promotive health services	83.6
5	Emphasize emergency medical services	81.6
6	Commit to consolidation of the multiple funding bodies for health services owned and / or controlled by the public sector	79.6
7	Attend to the issue of accountability of government owned and controlled health financing funds	77.8
8	Attend to the issue of accountability of public hospitals and dispensaries	77.8
9	Attend to the issue of accountability of physicians	75
10	Expand the sense and feeling of security among patients	74.5
11	Attend to the issue of accountability of pharmacists	74
12	Attend to the cost of medical services in government hospitals	72.7
13	Expand the sense of satisfaction among patients/clients	70.4
14	Attend to the cost of medical services in large hospitals	69.8
15	Attend to the issue of accountability of private hospitals	68.5
16	Attend to out of pocket expenditures on medical services in large hospitals	68
17	Attend to the cost of medical services in the private sector	67.9
18	Attend to the issue of accountability of nurses	67.3
19	Attend to the issue of accountability of insurance companies and related cooperatives	65.4
20	Attend to the quality of inpatient services provided by large hospitals	61.8
21	Attend to the issue of accountability of paramedical staff	61.5
22	Attend to out of pocket expenditures on medical services in the private sector	60.8
23	Enclose the use of generic medications where possible	60
24	Expand the sense of satisfaction among physicians	59.3
25	Expand the sense and feeling of fairness in financing of health services among all concerned	58.8
26	Attend to the quality of inpatient services provided by small hospitals	58.2
27	Attend to the issue of accountability of non-governmental dispensaries	56.9
28	Attend to the quality of outpatient/ambulatory care services by governmental dispensaries	54.7
29	Attend to the issue of accountability of privately owned diagnostic facilities	53.7
30	Expand the sense and feeling of security among physicians and other providers	52.7

Most of those who did not agree, with the IRB (option 2 for reform), were rather not sure (fig VII-3 and 4). "Disagree" responses were spread in the lower half of each feasibility and sustainability diagram (fig VII-3b and 4b). The absence of aggregation in the "disagree" responses indicates that, in case IRB is adopted, a strong coalition of opponents is unlikely to happen.

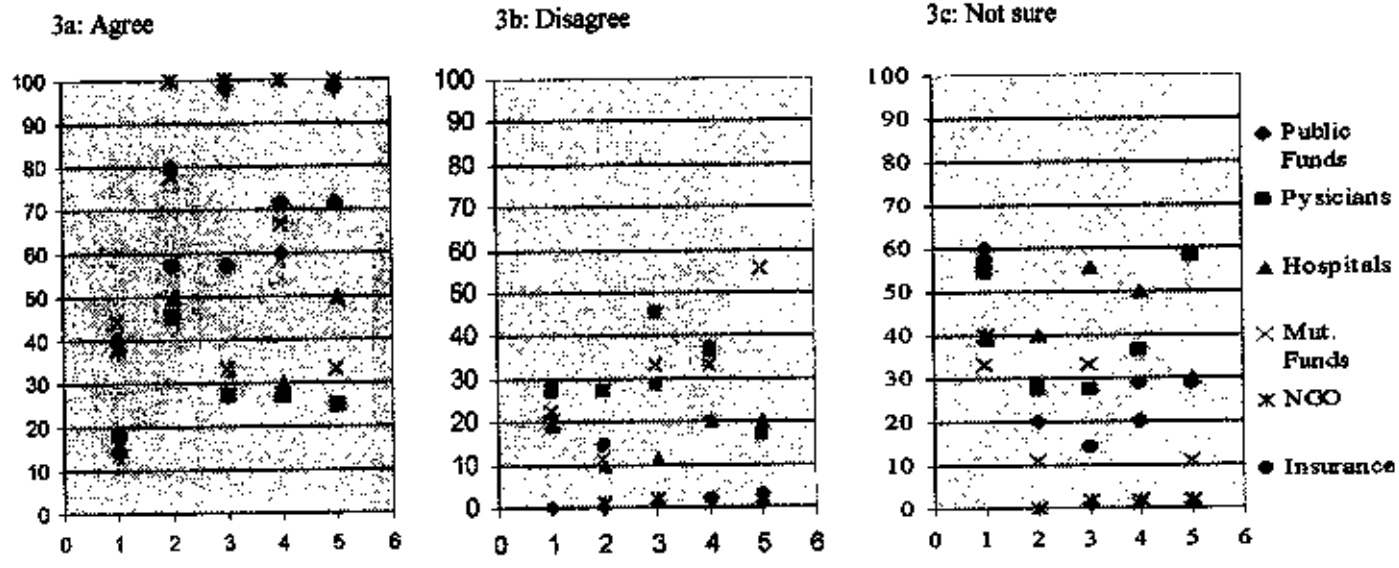
Fig VII-2: Assessment of the feasibility and sustainability of reform options (all stakeholders)



F: Feasibility S: Sustainability A: Agree D: Disagree

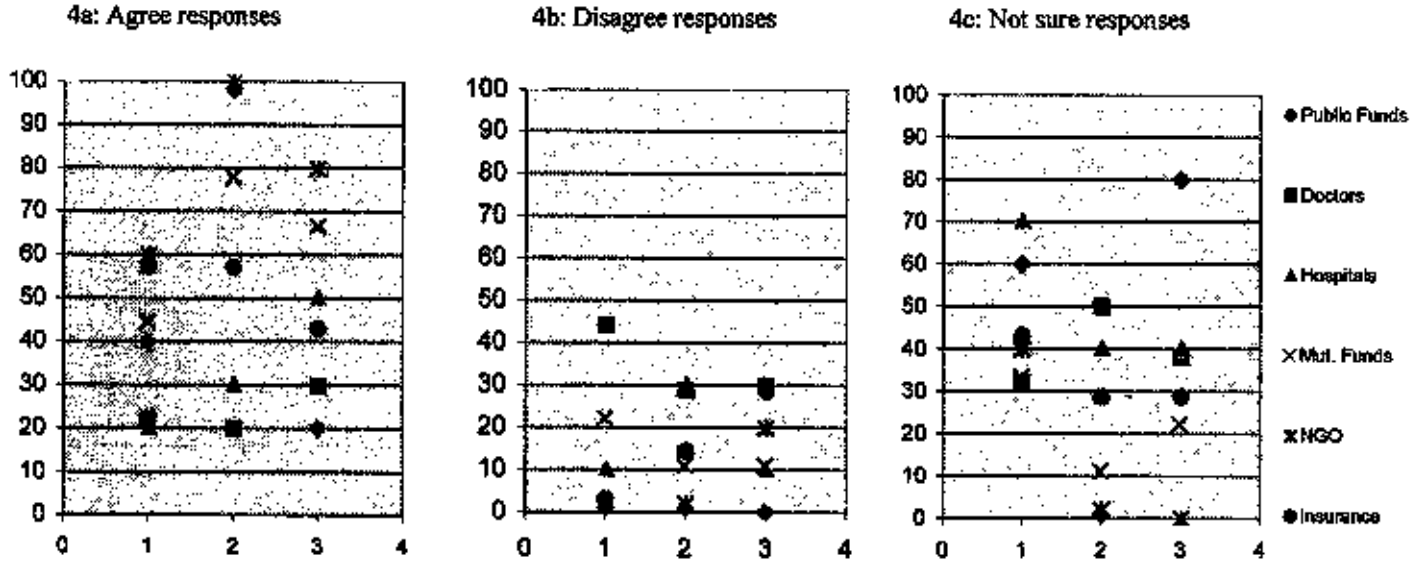
Figures VII-3a and 4a show the lay out of agree responses, that suggest possible future supportive coalitions, whereas the analysis of "not sure" responses revealed the elements that are arousing suspicion, to be considered in the reform strategy (fig VII-3c and 4c). It indicates also the indecisive stakeholder groups that could be targeted if a promotion campaign is decided for persuasion.

Fig VII-3: Stakeholders positions towards option 2 feasibility elements



1: Political interest would be supportive
2: Legal changes are doable and applicable
3: Organizational changes are doable and applicable
4: Financial resources to launch this option are affordable
5: The public would welcome this option

FigVII-4: Stakeholders positions towards option 2 sustainability elements



1: The new organizational structure would be administratively and politically viable
2: The country would be able to afford the new system on the long run
3: Physicians and hospitals would support the new system and comply with rules and regulations

More detailed results are available through MOH including tables, bar charts, and scatter diagrams reflecting "agree", "disagree" and "not sure" responses of stakeholders, regarding each option's feasibility and sustainability. The overall result was in favor of both options (1) and (2) with a relative advantage of the latter (IRB).

Consumers were not included as such in this stakeholders analysis, which represents a serious limitation of the study. In the absence of a formal Consumer Association at that time, the Socio-Economic Council's position was sought. This council includes representatives of civil society organizations, including professional associations and trade unions. A brainstorming session was held with the Health Committee of the Council. Following deliberation within the Council, Committee members sent an official letter to the MOH giving support to the IRB option.

4-THE POSITION OF POLITICAL DECISION-MAKERS

For a long time, ambiguity has surrounded the political decision-makers' positions. Merging of public funds became a political slogan for successive Ministers of Health since the 1960s. The political support for the NSSF has been always explicit, while implicit criticism and suspicions prevailed on many occasions. The IRB proposal was formulated under the direction of Minister Frangieh in 1997. This option was welcomed by the Interministerial Committee for Reform in its meeting on April 14, 2000. Minutes of this meeting (Registered on May 18, 2000 # 4090/7945 C)[16] signed by the Prime Minister (President of the Committee) and Minister of Health (vice-president) stipulates that after a thorough discussion, agreement was reached on 4 issues. The first was "Establishing a public funds' beneficiaries database within the MOH in collaboration with all concerned ministries, to be updated electronically by an automated system through a network that involves all the public funds". This constitutes a first step towards the implementation of the IRB option. The fourth

point stipulates "Investigating further the possibility of delegating to the private sector, through a bidding procedure, specialized functions contributing to establishing a unified system". This includes: "conditions of contracting with hospitals, tarification, bills auditing and quality assurance".

These decisions indicate clearly a high level of political willingness to adopt the IRB option, through investigating further its feasibility, and at the same time starting the implementation of the very important first step of establishing a unified beneficiaries database for all public funds. This step is also a prerequisite for the bidding. It is worth mentioning, that for some political leaders, the IRB option is considered as an important and necessary step by itself for the implementation of option 1, and they gave their support with this perspective.

When Minister Frangieh took office again in the MOH in October 2000, he declared his commitment to the IRB option, and assigned to the Director General the follow-up on the issue with the new Ministers of Economy and Finance. By December 18, 2000, both Ministers endorsed the IRB proposal considering it feasible, sustainable, and compatible with the Government plan.

Following political endorsement, marketing of option 2 is conceivable, aiming at enhancing the support of all stakeholders and neutralizing opponents. In order to be better targeted, the marketing strategy should be based on a thorough analysis of stakeholders' positions as revealed by the up-mentioned study.

5-CONCLUSION

Reforming the health financing system in Lebanon has already gone beyond declaring intentions and raising political slogans. A pragmatic approach has been sought, and a scientific sound process initiated. Three main scenarios were identified, and for the first time, a stakeholders' analysis was conducted aiming at determining pros and cons vis-à-vis each scenario from the feasibility and sustainability perspectives.

This allowed excluding the third option (SHIP) that was perceived as not feasible for launching, and unsustainable on the long run, by the majority of respondents.

Stakeholders' opinions were mainly divided between supporting option 1 (NSSF) and option 2 (IRB), with a relative advance of the latter.

The IRB alternative is strongly supported by main political decision makers involved in the Health Sector in general and in Health Financing in particular.

The analysis of study results revealed that no major opposition would face an eventual government plan for implementing option 2. Stakeholders' analysis allows the Ministry of Public Health to promote such a plan by targeting specific topics among identified indecisive or conservative stakeholders. Engaging in option 2 could be considered as setting the ground for expanding the NSSF coverage, should the Government decide in the future to reach this objective.

Finally, despite declared positions and good intentions, one should not underestimate the momentum of the current system and its inertia potential. The lesson drawn by Kahn and Pollack[17] from the history of health financing reform failures in the USA, is that "proposed changes to health care financing can easily alarm stakeholders, who may then erect roadblocks". The authors underlined that "the players came to the political process with strong convictions in support of their first-choice proposal. For each of these groups, their second-favorite choice was the status quo. And indeed, the ultimate result of those efforts was the status quo ...".

In our case, option 2 got a slightly higher score than option 1 which represents an optimistic expectation about the evolution of the current system. Eventhough option 1 states that the NSSF would cover all the population, it could be easily reduced to maintaining the status quo. Hence, the status quo remains the major competitor of the IRB option.

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ANNEX

INTERFACE AND RESOURCE BODIES (IRB)

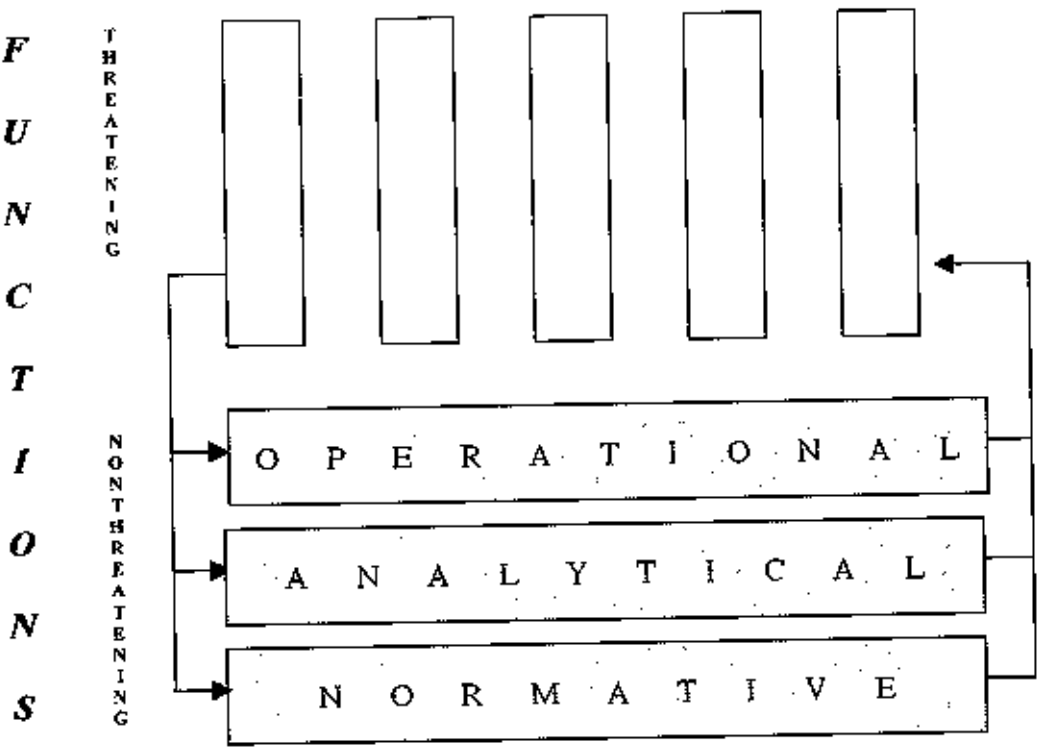
The IRB option is a variant of the Third Party Administrator (TPA) model. It bets on upgrading the performance of public funds by providing them with pertinent information, credible technical assistance and a common approach in dealing with providers.

MISSION

This option considers that for any solution to be implemented, it has to be administratively and politically feasible and thus has to carefully respect the autonomy of each fund. Therefore, creating interface and resource bodies (IRB) assisting these public funds and executing on their behalf some technical tasks would be a feasible alternative, on condition that IRBs prerogatives do not englobe functions which might threaten the identity of the existing funding agencies.

Accordingly public financing functions were split into two important groups: *"threatening"* and *"non-threatening"* functions.

Fig 1: IRB alternative: vertical integration of threatening functions and horizontal integration of non-threatening functions



Threatening functions include policy making, conceptional and major decisions on: entitlement, benefits package, contribution rates, waivering policies, and contracting with providers. These issues that are critical for the identity and autonomy of the funding agency will be kept in its hand, but related decisions would be based on pertinent information, unavailable for them under the existing conditions. Providing the same accurate and timely information by the IRB for all concerned agencies is crucial to guide their policies, and to enable them for making evidence-based and most likely similar decisions.

Non threatening functions are of 3 types:

1- *Operational tasks* such as: establishing a unified database on beneficiaries, issuing a standardized health card, providing prior authorization, ensuring control at the point of service delivery and processing claims.

2- *Analytical work* such as: cost analysis and actuarial studies.

3- *Normative functions* such as: accreditation of providers and case management protocols.

The same type of functions could be delegated by all public funds to one independent body (IRB), in order to overcome fragmentation, ensure technical support, generate needed

Table 1: Comparison between the classical TPA model & IRB mission and functions

	TPA	*IRB*
Deciding on entitlement	Risk selection (underwriting processing)	-
Deciding on benefits package	Limitations & exclusions	Provide evidence and recommend
Setting contribution rates	Risk based premiums	Provide evidence and recommend
Collection of contributions	-	+/-
Conducting actuarial studies	+	+
Selecting providers & services	+	Provide evidence and recommend
Contracting out	+	-
Contract termination	+	Provide evidence and recommend
Client services	-	+
Issuing prior authorizations	+	+
Tarification and payment mechanisms	+	+
Reimbursement of providers	+	+
Claims processing & auditing	+	+
Bills deductions	+	+
Utilization patterns assessment	+/-	+
Case management	-	+
Quality assurance	-	+
Accreditation	-	+

information, and increase the efficiency of public financing. The nature and the legal status of the IRB may vary for each type. For example, operational and analytical functions could be executed by a private firm, whereas normative functions would better be delegated to a body that includes representatives of both providers and financers as consensus building should be sought.

This option intends mostly to rationalize health care financing, increase the efficiency of funding and provision of health services, and allow better regulation, quality assurance and consumer empowerment.

Entitlement, coverage and benefit packages may remain the same, for each funding agency. However, in order to increase accessibility to health services especially of the poor, the MOH should strengthen the primary health care system. This would compensate for not covering ambulatory care for the uninsured and would allow shifting money for more cost effective means.

National Health Programs and Primary Health Care Services would be delivered in collaboration with NGOs and municipalities nation-wide. This would be based on the MOH-NGOs experience starting from the network of already contracted health centers.

An adequate referral system would help rationalizing services utilization; whereby the PHC centers constitute an entry point into the system, public hospitals function as "frontline hospitals", while reliance for tertiary care will remain essentially on the private sector.

DISCUSSION

This IRB option developed in 1997[1,2] is found to be in accordance with the "guidelines for developing a viable proposal" brought out later on by Kahn CN 3rd and Pollack RF[3], particularly in maintaining current coverage levels, building on existing structures and maximizing public funds.

The fragmentation of health financing has its negative impact on both cost and quality of health services. The weak bargaining position of public funds that are dealing separately with providers is responsible for the existing imbalanced relation with the powerful Private Hospitals Syndicate and Physicians Orders. Managing contracts with providers by institutionally weak public funds in the absence of pertinent information, leads to abuse and uncontrolled over-consumption of below average quality of services. On the other hand, the inexistence of a database on beneficiaries and ill-defined eligibilities, together with the multiplicity of benefit packages, are leading to overlapping and duplications of coverage.

Equal accessibility to health care, and regaining balance in financing by using tax money to cover the poor are strengths that might be compromised by a drastic change.

Regarding the SHIP proposal (option III), and besides overcoming financing fragmentation, the purpose of creating one compulsory public insurance, is to ensure equity in risk protection by having every citizen contributing in generating necessary funds. This is too ambitious considering the ill-organized administrative and fiscal system. It will raise an endless debate around contributions setting, and would require a cumbersome collection system.

On the other hand, financing health services that are unaffordable by the poor by using taxes (MOH budget) remains essential for ensuring fairness in financing and equitable access. The MOH contribution counterbalances the inequity in risk protection, resulting from having more than half of the population uninsured. Being not enrolled with an insurance scheme necessitates complicated administrative authorization procedures in the MOH. This should not necessarily hinder the accessibility to expensive services that are worth the effort. Those complicated procedures unexpectedly resulted in reducing (over) utilization of the services, as is demonstrated by the much lower hospitalization rate (8.4%) among those eligible to the MOH coverage, compared

to other public funds. Nevertheless, the MOH hospitalization rate should be interpreted with caution. It is calculated by dividing the number of MOH-covered admissions over the total number of eligible. This total includes eligible persons who are not aware of their rights or who choose not to seek Ministry's coverage.

Table 2: Strengths and weaknesses of the fragmented system model, the merger of funds model and the third party administrator model (IRB).

	Fragmented System	Merger of Funds	IRB
Sources of Funding:	(Balanced)	(Not Clear)	(Balanced)
Contributions Vs	++	+++	++
Taxes	++	+?	++
Risk Pooling	+	+++	++
Economies of Scale	+	+++	++
Evidence-Based Decisions	-	+?	+++
Efficiency	+	+?	+++
EQUITY			
In financing	++	+?	+++
In access	++	+++	+++
In risk protection	+	+++	++
Competitiveness	+	- (Monopoly)	+++
Bargaining Power	-	+++	++
Impact on Quality	-	+	+++
Political Feasibility	++	+	+++
Position of Stakeholders	++	+	+++
Consumer Protection	+	++	+++
Identification of Eligibility	-	+++	+++
Legislative Reform Needed for Implementation	-	+++	+
Power	Powerless	Great Power	Decentralized Power
Systems' Ability to Adapt with Financial Crisis	Flexible but passive	Rigid	Flexible and alert

Besides the doubtful feasibility of merging public funds, merger would lead to the creation of a great monopoly preventing competition among financers. It also necessitates a major legislative reform and leads to a heavy bureaucracy. However, the merger model allows avoiding duplications and overlapping, provides a powerful bargaining position and insures an optimal

risk pooling. Many important issues such as setting and collecting contributions and benefiting from government's subsidies remain undefined. Most importantly, there is no guarantee that once merged, the arising public fund would be better managed and more efficient than the average public administration.

Merger of funds is the rational choice to achieve economies of scale. Yet, the very low administrative cost (1.6%) for the MOH, makes this issue less important. The same argument is valid when considering the bargaining power with regard to getting better prices, where the cost per eligible person per year for the MOH (80 USD) seems difficult to lower. However, the issue of bargaining power becomes more relevant when talking of cost effectiveness in a large sense i.e. improving the value for money disbursed, especially in terms of quality of services provided. This seems to be the major deficiency in the current system, yet the IRB alternative remains the best choice.

The IRB model maintains balanced sources of funding and respects the independent entity of each fund allowing competitiveness. It strengthens each fund while the resulting power remains decentralized, provides technical assistance, enhances evidence-based decisions, and creates a framework for regulation and quality assurance.

With regard to risk pooling, the issue should be looked at from the source of financing standpoint. The NSSF, which is financed mainly by contributions, is pooling 713,000 beneficiaries. The other public funds are mainly financed by taxes and are pooling 505,000 beneficiaries, whereas the MOH budget covers 1.9 million entitled persons. Grouping similar functions of all public funds including the MOH, and delegating them to one agency would allow achieving economies of scale.

In conclusion, the IRB alternative seems to preserve best the acquired benefits mainly in terms of maintaining universal access. It allows for enhancing efficiency and assuring quality

without overloading the system. And most importantly, this option seems politically, socially and administratively quite feasible.

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ACRONYMS

AF	Armed Forces
AFP	Acute Flaccid Paralysis
AUB	American University of Beirut
CEOs	Chief Executive Officers
CSC	Civil Servants Cooperative
DOTS	Directly Observed Treatment Strategy
DTP	Diphtheria Tetanus Pertussis
EPI	Expanded Program for Immunization
ESU	Epidemiological Surveillance Unit
FFC	Fairness of Financial Contribution
GDP	Gross Domestic Product
GOL	Government of Lebanon
GSF	General Security Forces
HFC	Health Financing Contribution
HHUES	Household Health Utilization and Expenditure Survey
HIV	Human Immune Deficiency Virus
HSRP	Health Sector Rehabilitation Project
ICD10	International Classification Disease

INSEE	Institut National des Statistiques et des Etudes Economiques
IRB	Interface and Resource Bodies
ISF	Internal Security Forces
L.P.	Lebanese Pounds
MCOs	Managed Care Organizations
MCV	Measles Containing Vaccine
MENA	Middle East and North Africa
MOD	Ministry of Defense
MOH	Ministry of Public Health
MOSA	Ministry of Social Affairs
MS	Military Schemes
NGOs	Non Governmental Organizations
NHA	National Health Accounts
NHHEUS	National Households Health Expenditure and Utilization Survey
NSSF	National Social Security Fund
OECD	Organization for Economic Cooperation and Development
OP	Orders of Physicians
OPV	Oral Polio Vaccine
PHC	Primary Health Care
QRP	Quality Related Payment System

SDS	Standardized Discharge Summary
SHIP	Social Health Insurance Program
SPH	Syndicate of Private Hospitals
SSF	State Security Forces
UNFPA	United Nations Fund for Population Assistance
UNICEF	United Nations Children's Fund
UNRWA	United Nations for Refugees Welfare Agency
USD	US Dollars
USJ	Université Saint Joseph
WB	World Bank
WHO	World Health Organization
WHR2000	World Health Report 2000
WWII	World War Two
YMCA	Young Men Christians Association

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