Strategy for National Health Care Reform in Lebanon

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CONTENTS

ACRONYMS

AF	: Armed Forces
BL	: Banque du Liban (Bank of Lebanon)
BS	: Bachelor of Sciences
BT	: Baccalauréat Technique (Technical Baccalaureate)
CAS	: Central Administration of Statistics
CDF	: Customs Duties Fund
CDR	: Council for Development and Reconstruction
CSC	: Civil Servants Cooperative
CT	: Computerized Tomography
DALE	: Disability Adjusted Life Expectancy
DRG	: Diagnosis Related Group
EBS	: Employer Benefit Scheme
GDP	: Gross Domestic Product
GOL	: Government Of Lebanon
GSF	: General Security Forces
HC	: Health Care
HCE	: Health Care Expenditure
HCR	: Health Care Reform
HCS	: Health Care System
HE	: Health Expenditure
HI	: Health Insurance
HH	: House Hold
HHOOP	: House Hold Out Of Pocket
HRH	: Human Resources for Health
HTA	: Health Technology Assessment
IMF	: International Monetary Fund
IMR	: Infant Mortality Rate
INAHTA	: International Network of Agencies for Health Technology Assessment
ISF	: Internal Security Forces
LOD	: Lebanese Order of Dentists
LON	: Lebanese Order of Nurses
LOP	: Lebanese Order of Physicians
LOPh	: Lebanese Order of Pharmacists
MOA	: Ministry Of Agriculture
MENA	: Middle East(ern) and North Africa(n)
MDI	: Ministry of Displaced
MET	: Ministry of Economy and Trade
MIMRA	: Ministry of Interior, Municipalities and Rural Affairs
MF	: Mutual Fund
MOE	: Ministry Of Education
MOH	: Ministry Of Health
MOPH	: Ministry Of Public Health
MOD	: Ministry Of Defense
MOF	: Ministry Of Finance

MOSA : Ministry Of Social Affairs
MR : Mortality Rate
MRI : Magnetic Resonance Imaging
MMR : Maternal Mortality Rate
NDA : National Drug Agency
NGO : Non Government Organization
NHA : National Health Accounts
NHF : National Health Fund
NHHEUS : National Household Health Expenditure and Utilization Survey
NHI : National Health Insurance
NHIF : National Health Insurance Fund
NHCAQA : National Health Care Accreditation and Quality Agency
NHS : National Health Service
NHTAA : National Health Technology Assessment Agency
NSHR : National Statistics Health Report
NSSF : National Social Security Fund
OTC : Over The Counter
OECD : Organization for Economic Cooperation and Development
OOP : Out Of Pocket
OPCV : Overseas Projects Corporation of Victoria limited
PCM : Presidency of the Council of Ministers
PHC : Primary Health Care
PHFA : Public Health Facilities Authority.
PHI : Private Health Insurance
PPP : Parity Purchasing Power
QMU : Quality Management Unit
RN : Registered Nurse
SAL : Société Anonyme Libanaise
SHI : Social Health Insurance
SPH : Syndicate of Private Hospitals
SSF : State Security Forces
THE : Total Health Expenditure
TS : Technique Supérieure
UHRH : Unit for Human Resources for Health
UNICEF : United Nations Children's Fund
UNDP : United Nations Development Fund
UNRWA : United Nations Works and Relief Agency
USA : United States of America
USD : United States Dollar
USSR : Union of Soviet Socialist Republics
WBI : World Bank Institute
WE : Western Europe(an)
WHO : World Health Organization
YMCA : Young Men Christian Association

EXECUTIVE SUMMARY

The Lebanese health care system is pluralistic and unregulated with fragmented financing. The relatively high health expenditure in Lebanon is a testimony to the importance the Lebanese people place on their health and their willingness to spend money to improve it. However, they are not getting their money's worth due to the gross inequity and inefficiency of the system.

The main deficiencies in the present HCS are:

1 – The lack of a clear policy and strategy for health care on the part of the government.
2 – The overwhelming preponderance of an unregulated private sector in financing and provision of HC.
3 – The minimal pooling of resources with very high out-of-pocket expenditures leading to exposure of households to financial risks from ill health.
4 – The minimal public expenditure on primary health care compared to secondary and tertiary care.
5 – The lack of a systematic health data collection and the unavailability of such data to the stakeholders and the public.

For a restructuring of the present HCS to succeed, the most important factors are a political will to implement the proposed changes and a clear vision and policy framework advocated and promoted by the government. The principles of the restructuring are:

1 – National solidarity in health among all citizens.
2 – Individual choice and responsibility for one's own health.
3 – Equal availability and access of a basic package of benefits for all citizens.
4 – Adequate mix of public and private financing and provision of HC.
5 – The importance of public health, preventive medicine and primary health care.
6 – Up-to-date health information system for data acquisition, analysis and dissemination.
7 – Development of human resources for health.

The proposed restructuring will include the following elements:

1 – Redefinition of the **role of the Ministry of Public Health** as the steward and regulator of the HCS. The MOPH will not be involved in HC financing or provision. It will be reorganized to play its renewed role.
2 – The institution of a **mandatory social health insurance system** for all Lebanese citizens and legal residents. A basic package of benefits will be provided and a new **National Health Fund** which will collect and pool resources and will purchase HC services for all citizens.
3 – The creation of a new **Public Health Facilities Agency** which will own and manage all public hospitals, primary health care centers and dispensaries, in a competitive market environment.

4 – The creation of a new **National Drug Authority** which will be responsible for all issues related to drugs.
5 – The creation of a new **National Health Care Accreditation and Quality Agency** which will be responsible for the accreditation of all HC facilities and for the quality of care.
6 – The promotion of the creation of a **National Health Technology Assessment Agency** which will research, collect, analyze and report all necessary information about HC technologies.
7 – The reactivation of the **Higher Council for Health** and the redefinition of its role to include overseeing the quality of HC.

1 – INTRODUCTION

The 20th century has witnessed several health care system reforms. These reforms resulted not only because of perceived failures in HCS but also in response to a need for greater efficiency, fairness and responsiveness to the expectations of the people using the system. In fact, there has been three overlapping generations of HCR (1):

1. **1st generation**: it is characterized by "universalism", the founding of the national HCS and the extension of social insurance to middle income countries.
2. **2nd generation:** it saw the promotion of primary health care as an option to achieving affordable universal coverage. Its objective was to render the system more cost efficient, equitable and accessible.
3. **3rd generation**: it is currently underway in many countries. It is the "new universalism" and is concerned more with patient demand as opposed to the previous types of reforms which were more supply-oriented.

The ideas of responding more to demand, trying harder to assure access of the poor, emphasizing financing, and including subsidies are embodied in many of the current 3rd generation reforms. These efforts are more difficult to characterize than earlier reforms because they result from a variety of reasons. They also reflect the profound political and economic changes that have been taking place in the world (1). HCR are under way in Western Europe, Central and Eastern Europe, North America, and in Middle Eastern and North African countries. They differ in their objectives, processes and modalities, but they all seek to achieve equity, efficiency, cost containment, quality and sustainability.

2 – SITUATION ANALYSIS OF THE HEALTH CARE SYSTEM IN LEBANON

2.1 – LEBANON'S CURRENT HEALTH CARE SYSTEM

2.1.1 – Organizational Structure

2.1.1.1– Population, Health Status and Indicators

2.1.1.1.1 – Population

The exact number of the Lebanese population is unknown because of the lack of recent census (last complete census in 1932). The population is estimated at 2 993 305 by the 1994-1996 study of the MOSA and UNDP (2). The CAS estimates the number of residents in Lebanon at approximately 4 005 025 in 1977 and 4 073 110 in 1998 (2). The WHO estimates the Lebanese population at 3 596 000 in 2002 (3). The non-Lebanese permanent residents (mainly Palestinian refugees) are estimated at 7.6% by the NHA (4), 8.1% by the NHHEUS (5). The

Table 1 – Age Structure of the Population

AGE	%
0 - 4	8.0
5 – 14	20.0
14 - 24	20.1
24– 44	29.4
45 - 64	15.1
> 65	7.2

Source: NHHEUS- 1999 (5)

UNRWA estimates the number of Palestinian refugees in 2001 at 385000 i.e. 11.3 % of the resident population in Lebanon (6). The population annual growth rate is reported at 1.5% between 1970 and 1996 (7), 1.6% in 1998 (4), 1.7% by the NSHR and 2.3% between 1992 and 2002 (3). The population is young with 49.5% between the ages of 15 and 44 (Table 1) and the overall dependency ratio has been falling from 65% in 1992 to 56% in 2002 (3). The urban population is 81% of the total and the crude birth rate is 25 per thousand (8).

2.1.1.1.2 – Health Indicators and Health Status

Lebanon is in a demographic and epidemiological transition with double burden of disease. There is an increase in the incidence of non-communicable diseases at a time where infectious diseases remain a public health risk (8). Overall life expectancy at birth is 69.8 with 67.6 years for men and 72 years for women in 2002 (3). Table 2 shows the main health indicators of the country.

The NHHEUS shows that the most prevalent chronic diseases affect the musculoskeletal (11.5%) and cardiovascular (8.4%) systems and the most prevalent affection is back pain 6.9%) followed by hypertension (5.5%) (5).

Table 2 – Health Indicators

Indicator	Lebanon
Life Expectancy	M:(67.6), F(72)[1]
Perinatal Mortality	27/1000[2]
IMR (1 year)	27/1000[3]
Under 5 MR	35/1000[3]
MMR	1.04/1000[4]

[1]2002, WHO
[2] 99-2000, MOPH & UNICEF 99-2000
[3]2000, NHSR – [4]1996: Pap Child 96

No national collected data has been found on the causes of death in the Lebanese population. The Mednet third-party administrator reported that the leading causes of in-hospital deaths are cardiovascular diseases and tumors (2). The NHHEUS 1999, shows that smoking affects 25.8% of the population and is more prevalent in males than females (33.7% versus 18.3%). It is highest (44.8%) in the age group 45 to 49 years (57 % for males, 34.3% for females) (5). Smokers report more ill health than non-smokers.

The prevalence of an illness in one month is 30.2% with a calculated probability of 98.6% for each individual to have at least one health problem in one year. The number of hospital days per individual per year is 0.59 and the average length of stay is 4.9 days. Table 3 shows the rate and mean number of different HC functions (5). Medical consults account for 66% of ambulatory care and each 100 medical consults result in 23 laboratory tests and 12 radiology tests.

Table 3 – Rate and Mean Number of Health Care Functions (5)

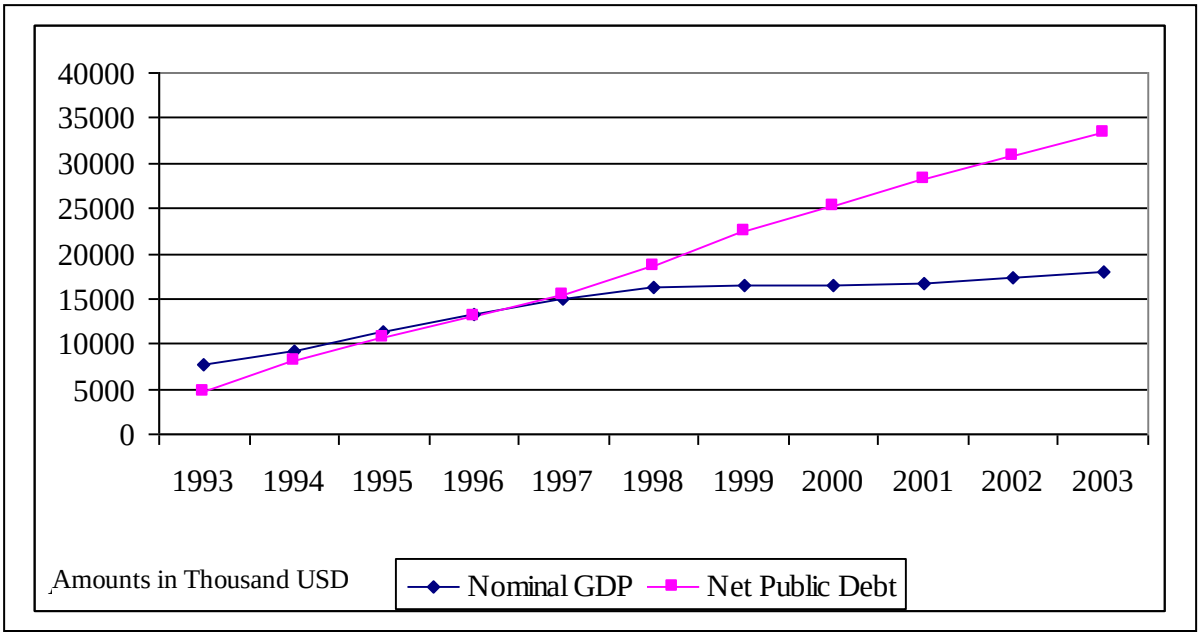
Outpatient Care		Hospital		One-day Surgery		Dental Care	
%/mo	Mean No./yr/ind.	%/year	Mean No./yr/ind.	%/ 6 mo	Mean No./yr/ind.	%/ 3mo	Mean No./yr/ind.
28.0	3.65	10.2	0.12	2.3	0.05	16.0	0.66

2.1.1.1.3 – Financial Indicators

The war of 1975-1990 had a catastrophic impact on the economy of the country. Large investments in reconstructing the infrastructure started in the early 90's after the end of the war. The result was an increasing budget deficit and public debt resulting in slowing of the growth

nationwide (Annex Table 1). Figure 1 shows the trends in national nominal GDP and net public debt over the past 10 years.

Figure 1– GDP and Net Public Debt Trends



Lebanon is a middle income country with rapidly increasing public debt, minimal growth since 1999, and increasing poverty. A comparison of HH income between 1997 and 1999 shows an increase in percentage of HH in the low income categories (Annex Table 2). The HH with monthly income less than 1 200 000 LL have increased from 60.9 % to 65.5% while the HH with monthly income more than 1 600 000 LL have decreased from 25.7% to 21.1% (5). There is also an increase in HH indebt from 30.6 % in 1997 to 43.5% in 1999.

2.1.1.2 – Historical Perspective

Before independence in 1943, Lebanon was under the French mandate and HC was provided mainly by charitable, religious and community groups with some assistance from the government (9). After independence in 1943, the GOL built a network of hospitals and PHC that were run on the Semashko system, centrally administered and free for the needy patients only. Parallel to that, private hospitals, profit and non-profit were built, provided better service and flourished. Payments were primarily OOP. After 1958, the GOL embarked on a series of reforms, including in HC, and instituted the NSSF which was a social HC system for employed people, copied from the French model, and based on the principles of pre-payment, pooling and solidarity. The NSSF was established in 1964 and the Maternity and sickness Fund implemented in 1971. In 1961, the decree regulating the MOPH, stipulated that its main functions are public health, the health regulatory authority, and HC for the poor. Until 1975, when the civil war erupted, the MOPH provided free HC in its public hospitals for the poor and paid for their care in private hospitals only for services not available in the public hospitals, for a budget less than 10% of its total budget. In 1975, the MOPH decided to cover the costs of dialysis for all the Lebanese population from its budget. During the civil war, 1975-1990, all the victims of the war could be treated in

the private hospitals at the expense of the MOPH. As the government hospitals could not be properly funded or administered, the MOPH extended its coverage of all HC services to all citizens in private hospitals and became the primary financing agency of these hospitals. It soon spent more than 80% of its budget on HC services in private hospitals which flourished. This resulted in a shift from PHC to secondary and tertiary HC. The MOPH also started to dispense expensive pharmaceuticals (ex. chemotherapeutic agents…) to all citizens, free of charge. The army, which used to provide care for their personnel in their own hospital, also started paying for these services in private hospitals, during and after the war. After the war was over, the MOPH continued to pay for HC services for the uninsured in private hospitals, while building new PHC facilities and public hospitals. Also, even insured patients (NSSF, army, privately insured) were frequently treated at the expense of the MOPH. The MOPH effectively lost power to regulate the system and a fragmented, chaotic, uncontrolled and unregulated system emerged.

2.1.1.3 –Coverage and Benefits

The present HCS is fragmented and pluralistic. It suffers from deregulation, uncontrolled expansion, and includes a variety of private and public organizations that finance and deliver HC. The government's policies are frequently contradictory, priorities are not set, the vision is not clear and the strategy is not spelled out.

The system is financed by seven public funds (two employment-based SHI schemes, four security forces schemes and the MOPH), 71 mutual funds, 56 private medical insurance companies, numerous NGO and OOP expenditure. Each fund has a different tutelage authority and a different package of benefits (Annex Table 3). Centrally-run public hospitals and PHC, autonomous public hospitals and PHC, private hospitals, NGO-run PHC, private clinics and private laboratories provide a variety of HC services. There is a wide variety of payment mechanisms, schedules of fees and co-payments.

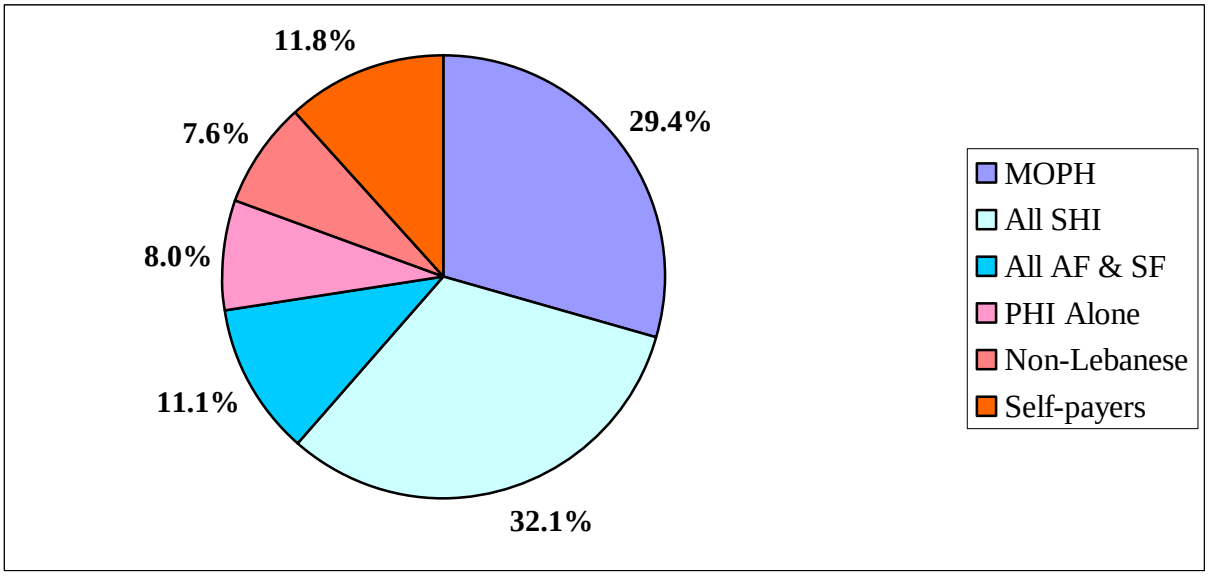
By law, the MOPH is the Planner, Supervisor, Regulator and Evaluator of health, HC and the health system. Yet, the scarcity of financial and human resources made it impossible for the MOPH to perform its role. More importantly, the proliferation of funds with different tutelage authorities has diversified their accountability with the MOPH has no legal authority on them.

The NHA 1998 was the first NHA in Lebanon and provided the most solid evidence of the HE in the country. The NHHEUS provided valuable information on the HH HE. Both studies gave information about which portions of the population are covered by which insurance, but some of the results are conflicting, probably because of the nature of the NHHEUS survey and the inherent errors to its methods as per its report (5). The discrepancies between the two are mainly in the number of individuals covered by the NSSF, and to a lesser extent the armed forces. The numbers obtained from sources in the NSSF and the armed forces and used in the NHA study, are superior to the NHHEUS survey. The overall figures are close, with 48.8% uncovered as per the NHA and 52.3% uncovered as per the NHHEUS (Annex Table 4).

Taking the NHA data, and considering that 7.6% of the population in non-Lebanese (42), the un-insured Lebanese will be 41.2%. To estimate the population who are un-insured and do not seek assistance from the MOPH, the self-payers, we can use the number of admissions in 1998 that were paid OOP (self-payers) of 96 000 divided by the total number of admissions of 494 000.

The ratio will be 19.4 % self-payers, which can be considered to include the Lebanese and non-Lebanese (7.6 % non-Lebanese and 11.8 % Lebanese self-payers). This leads to 29.4% actually covered by the MOPH. This is close to the MOPH admission rate of 27.3 % in 1998 (135 000 admission out of a total of 494 000), although the admission rate at MOPH expenses is an overestimation of the percentage of people covered because the MOPH covers more elderly people who have a higher admission rate than the general population (4.5% versus 1.5 % more than one admission per individual per year). Another way to calculate the population using the MOPH assistance is the NHHEUS which shows that 6.3 % of the un-insured or 3.3% of the population received such assistance, which is NOT all hospitalization. If we consider all the assistance is for hospitalization and since the overall hospitalization rate is 10%, the MOPH assistance for hospitalization would cover 33 % of the population. This is an over-estimation since the MOPH acts as a safety net and covers the elderly who loose their insurance after retirement. The hospitalization rate of people above the age of 60 is 28% instead of 10 % for the general population as per the NHHEUS. These reasons would bring the percentage using MOPH services less than 33%. The figure of 29.4% obtained above can be used, but may still be an overestimation especially that the NHHEUS shows that only 25.7% of hospitalizations and 10.2 % of one-day surgery had MOPH assistance (5). The public agencies including MOPH cover therefore 72.6 % of the population and the rest (27.4%) are self-payers or covered by PHI (excluding complementary PHI).

Figure 2 – Coverage According to NHA (4)



Since 1998, the number of individuals covered by the NSSF has been steadily increasing especially over the last few years with the introduction of more classes with mandatory or voluntary coverage. The number of subscribers and beneficiaries is difficult to ascertain but is reported to have increased from 341 330 in 1998 to 429 725 in April 2004 for an estimated total individuals covered including dependents increased from 1 194 000 in 1998 to 1 320 000 in April 2004 (NSSF sources). The number of individuals covered by PHI is reported to have decreased from 12% of the population in 1998 to 10% in 2004 (17% decrease) as reported by the President of the Syndicate of PHI Companies with the total premiums paid having decreased even further because the percentage of first class coverage has decreased form 30% in 1998 to 17% in 2004.

2.1.2 – Health Care Financing and Expenditure

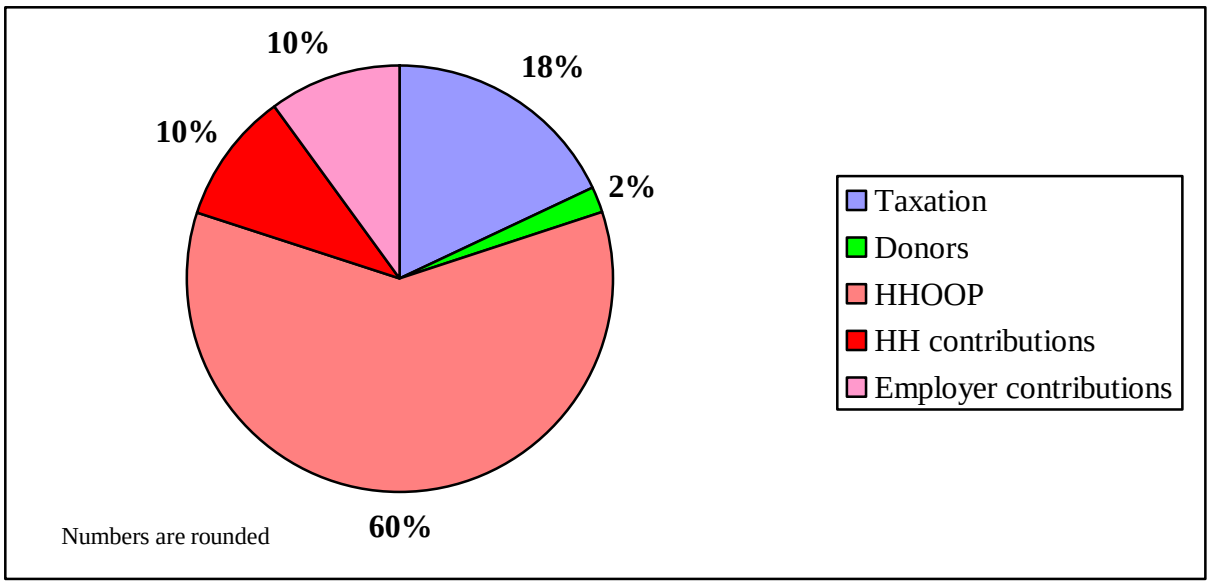
HE is defined as the expenditures or outlays for prevention, promotion, rehabilitation and care (4). They are classified into core functions of HC (personal health services, medical goods, collective health services, health program administration and health insurance) and health related functions (education, investment and research in health, environmental health). In Lebanon NHA, HE are measured and organized on the basis of three different entities:

a- Financing sources: entities which ultimately bear the expense of financing the HC system. They are: the Government (general taxation), Private bodies (private employers), Households, Donors on health.
b- Financial intermediaries: entities that pass funds from financing sources to other financial intermediaries or providers in order to pay for the provision of services ex. MOPH,, Army, ISF, GSF, SSF, MOSA, NSSF, CSC, MFs, PHI, Private Household OOP etc…
c- Providers: entities that produce and provide HC goods and services.
d- Using adequate terminology based on the above will ensure accurate understanding of the distribution of financing in HC.

2.1.2.1 – Financing Sources

The NHA 1998 provided matrices for the sources of funds, financing intermediaries and types of services which summarize THE (Annex Tables 5, 6, 7). These matrices clearly show that taxation represents only 18% of the financing sources, donors 2 % while the majority comes from the private sector, 80%. %. Private financing comes from HH (70%) and employers 10%. HH finances are 60% OOP direct expenditures and 10% contributions to SHI and PHI schemes (Annex Table 3.8). Employers finance employer benefits schemes and contributions to SHI and PHI schemes. The heavy reliance on OOP financing is quite inefficient and exposes the persons to significant financial risks.

Figure 3 Financing Sources and Financing Intermediaries

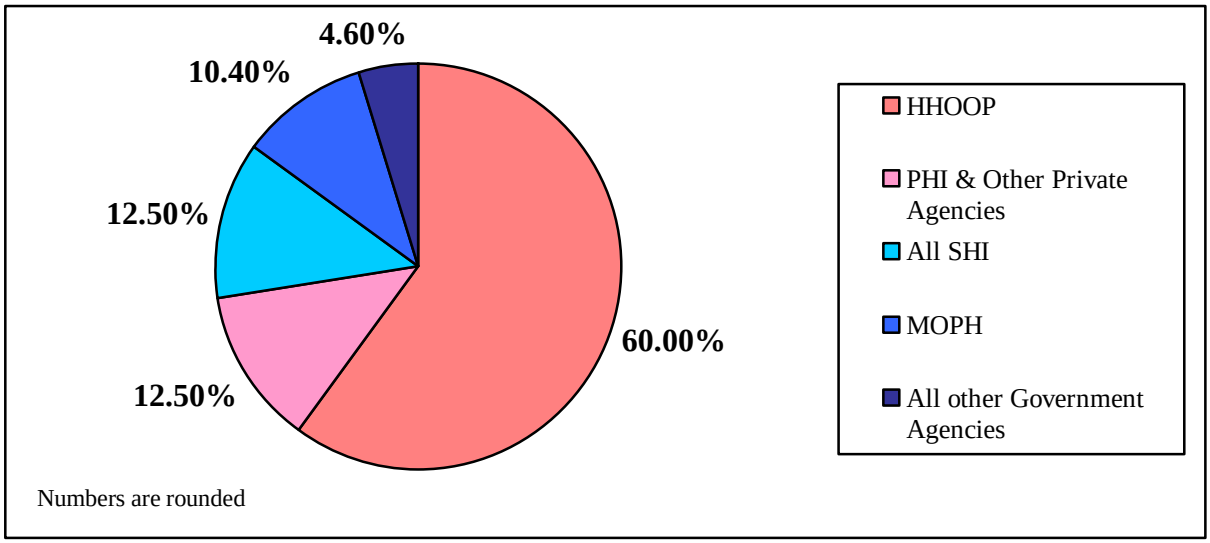


2.1.2.2 – Public and Private Funding Agencies

The various government ministries fund 15% of HC services, the MOPH having the largest share (10%); the various SHI plans 12.5 % for a total of public funding of only 27.5 %, the rest private funding (72.5 %). This underscores the need to address the private sector regulation if one attempts any HC finance reform. PHI fund 11 % and direct OOP payments are 60%. The high proportion of OOP payments raises questions about the sustainability and equity of the system.

Annex Table 9 details the funding by the different private and public funds. The low public funding of 27.5% and the high OOP payments (60%) speak for deficient mandatory payment schemes and lead to inequity, inefficiency and cost escalation. Public funding was 30% in 1994 (10) and decreased to 27.5% in 1998. WHO reports no significant change in the public/private ratio which remained around 27-28 public versus 72-73 private between 1995 and 2001 (3, 11). This is compared to the OECD median of 75 public, 25 private (12).

Figure 4 – Expenditure by Various Funding Agencies (4)



The sources of revenues differ for the different funding agencies. All government agencies are funded 100% from taxation and do not raise any money from subscribers (Table 4).

Table 4 – Sources of Revenues of Different Funding Agencies

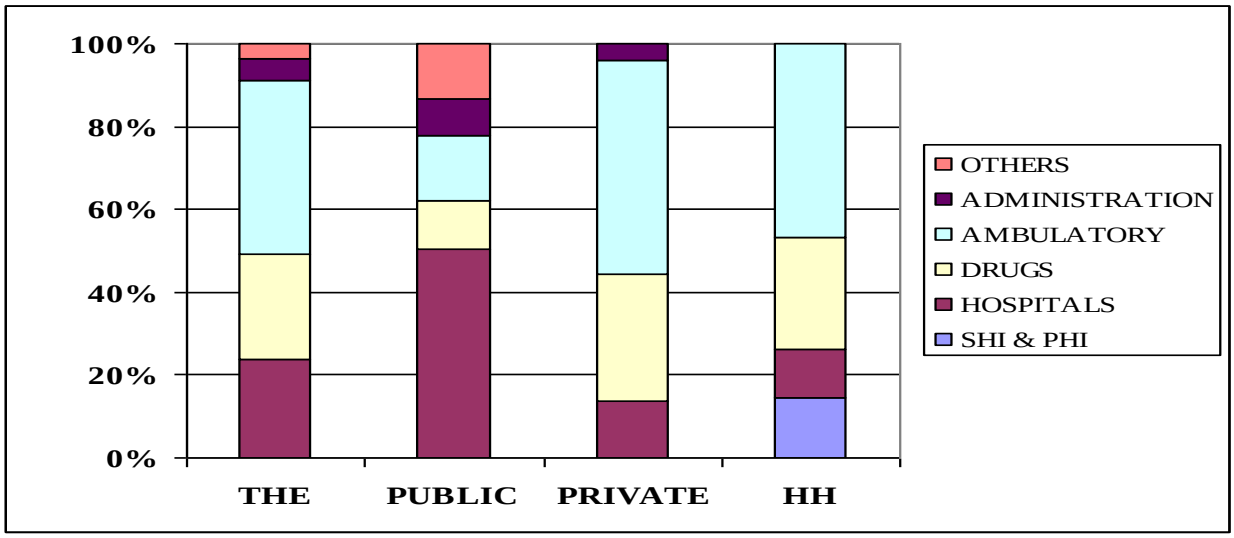
	TAXATION	EMPLOYERS	HOUSEHOLDS
MOPH, ARMY, CSS, ISF,GSF,SSF	100%		
NSSF	26.8%	58.5%	14.6%
MUTUAL FUNDS	48.6%		51.4%
PRIVATE HEALTH INSURANCE		27.3%	72.7%
EMPLOYER BENEFIT SCHEMES		100%	
HOUSEHOLD OOP			100%

2.1.2.3 – Providers

The money spent on HC is divided into various categories detailed in Annex Table 5. Overall, 24% of THE is on hospital care, 42% on ambulatory care, 25% on outpatient pharmaceuticals, and 5% administrative costs. The public HE is mainly on acute care hospitalizations (50.39%),

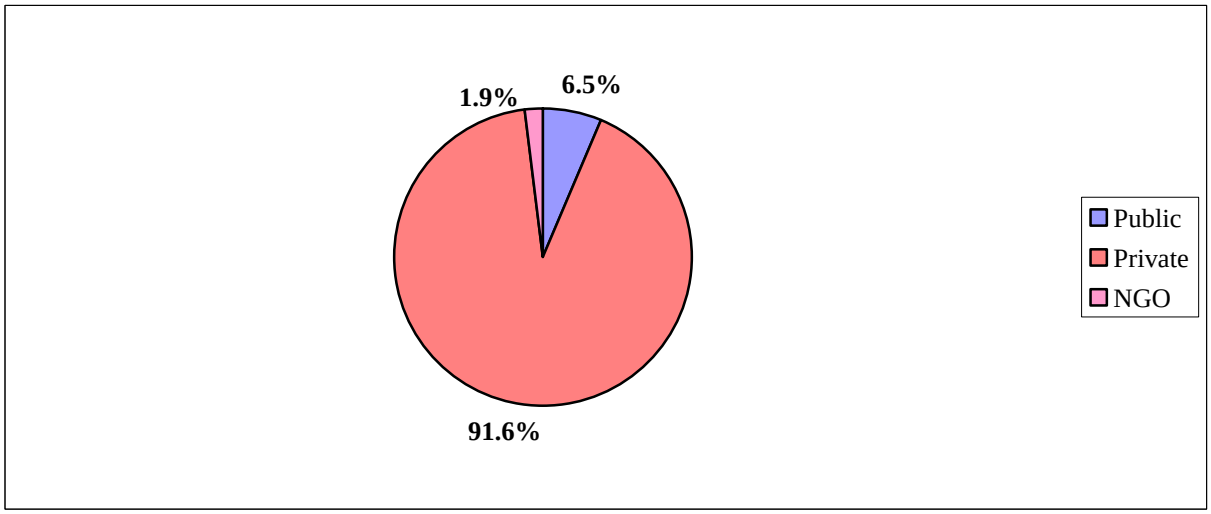
while the private HE is mainly on ambulatory care (51.85%) and drugs (30.57%). HH HE which amounts to 69.73% of THE is spent mainly on ambulatory care (46.86 %) and drugs (26.82%) (Annex Table 10). Physicians' fees accounted for only 8 % of government agencies payments to hospitals, 30% of PHI payments and 16% of THE as payments at private physicians clinics (4). Estimating that 15-20% of hospital bills that are paid by PHI or OOP are for physicians' fees, the total physician fees will be about 20% of THE. The dentists' fees amount to 15.52 % of THE (4).

Figure 5 – HE Distribution



The NHHEUS shows that nearly 86% of hospitalizations and 77% of one-day surgery occur in private hospitals, as well as 78% of ambulatory clinic consultations. The public sector provides 8% of ambulatory consultations and the NGOs 12 %. However, the NHA shows that private facilities receive 91.6% of THE, the rest going to the public sector (6.5%) and to NGOs (1.9%).

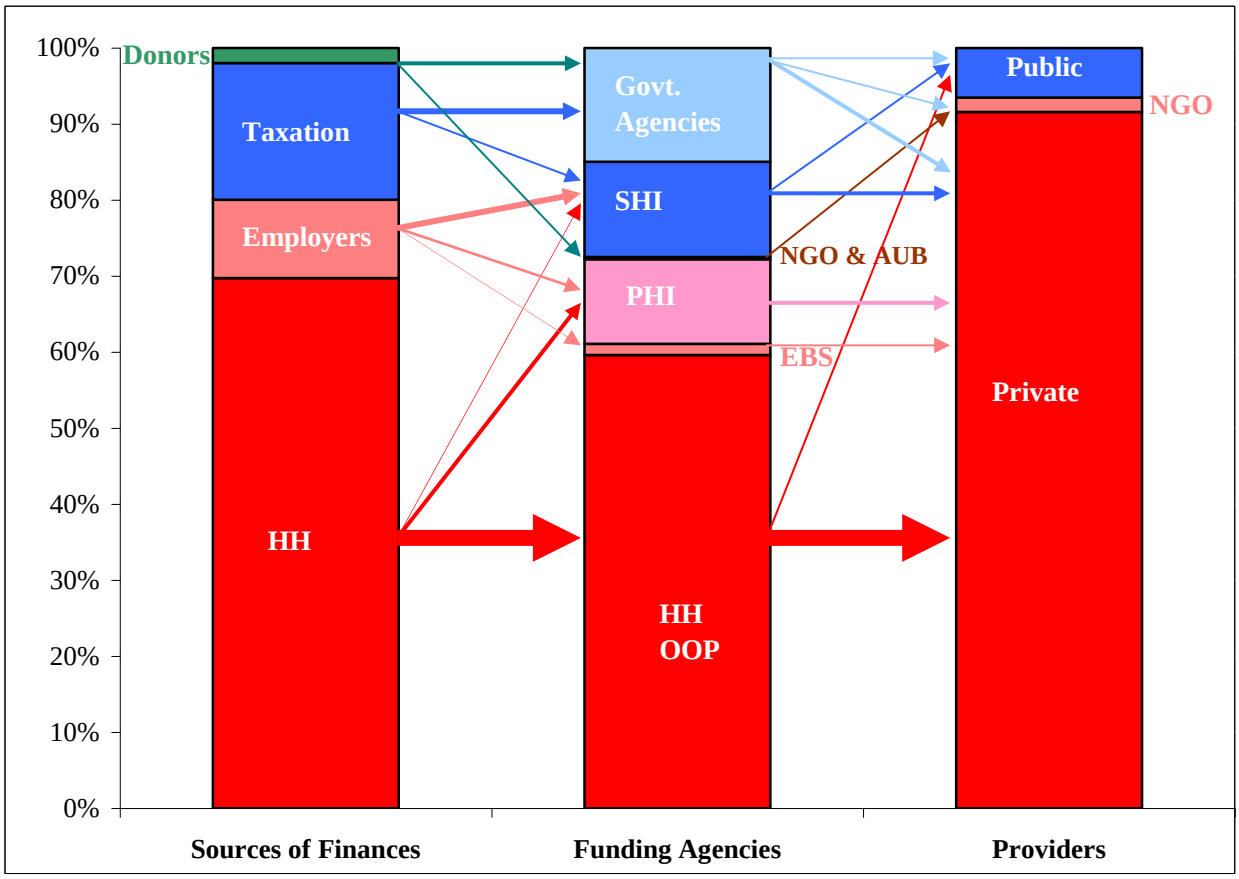
Figure 6 – Distribution of HE to Public, Private and NGO Providers



It is worthwhile noting that drugs account for 32% of THE (25 % as outpatient and 7% as inpatient), equivalent to 3.9% of GDP. This is much higher than all OECD countries where the

median is 1.2 %of GDP, and the maximum is 1.9 % for France (12). This high expenditure is due to lack of adequate regulation.

Figure 7 – Flow of Money: Sources of Finances to Funding Agencies to Providers



3.1.2.4 – Total Health Expenditure

The NHA 1998 reveal a THE of 2 billion USD and a THE/GDP of 12.32%. This is the next second ratio in the world, after the USA. THE/GDP ratio has been steadily increasing: from 10.5% in 1994 (48) to 12.32 % in 1998 (4). WHO reports a steady increase from 10.8% in 1995 to 12.2% in 2001 (3, 11).

The NHHEUS 1999 findings show household HE at 14.1% of total household expenditure, amounting to 2 609 000 LL per HH per year or 522 000 LL per capita per year (346 USD). This is much higher than the 9% share of HE out of total expenditure reported in the 1997

Table 5 – HE Parameters NHA 1998

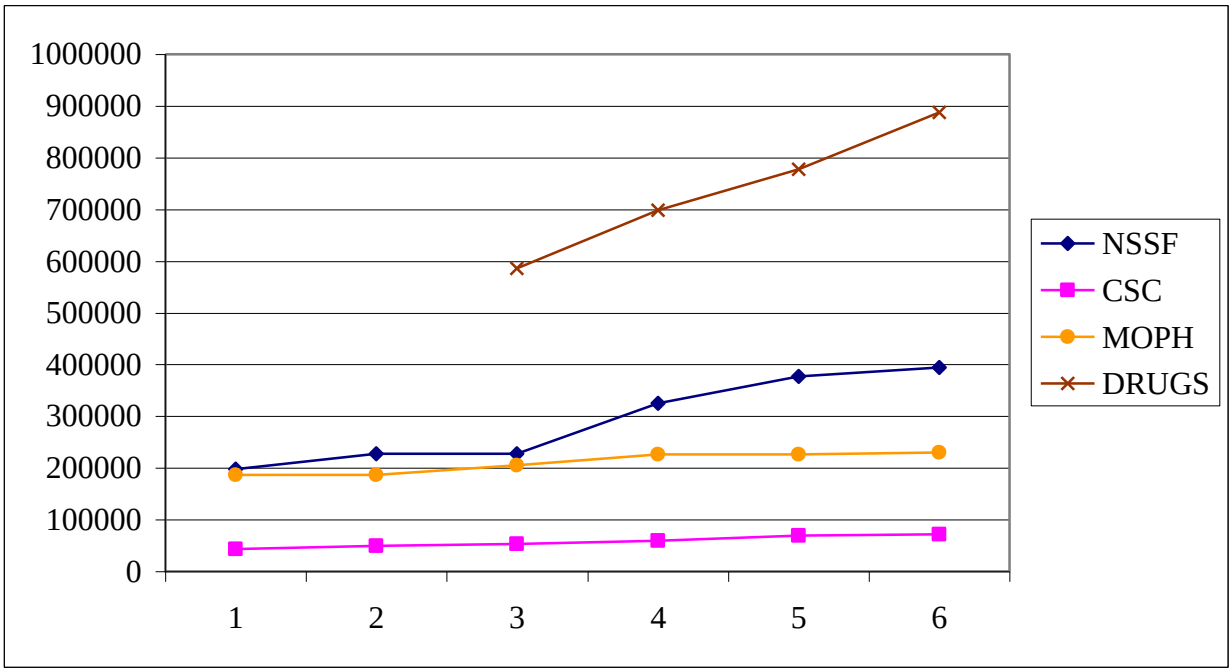
THE in million USD	1 996
THE / GDP	12.32 %
THE / CAPITA	499 USD
GOVT HE / CAPITA	90 USD
PRIVATE HE /' CAPITA	399 USD
DONOR HE / CAPITA	10 USD
PUBLIC / PRIVATE HE	27.5 / 72.5
GOVT HE / GDP	2.22 %
GOVT HE / TOTAL GOVT EXP	6.6 %
AMBULATORY DRUGS / THE	25 %
INPATIENT DRUGS / THE	7 %
SHI HE / THE	12.5 %
PHI HE / THE	11.1 %
HH OOP HE / THE	59.6%

Government (Govt) HE means from Taxation
Public means Taxation plus SHI.
Population: 4 005 025 – GDP = 16 258 million USD
GDP / CAPITA = 4 059 USD
Exp = Expenditure

Households Living Conditions. The reason for the marked difference is thought to be an underestimation in the 1997 study and an overestimation in the 1999 study (5, 8), putting in question the validity of the financial results of these surveys.

There has not been any further NHA done since 2000, when the 1998 accounts were reported. Since then, minor changes in the HC system have occurred ex. better negotiation of contracts by the MOPH, partial implementation of flat rate payments by MOPH to hospitals, increase in the NSSF coverage to new segments of the population… However, there has not been any systemic change, and therefore there is no expectation that THE has decreased either in absolute numbers or as % of GDP. In fact there are some indications that the THE/GDP ratio might have increased. Annex table 11 shows the change in the cost of drugs and in payments to HC providers for some services (i.e. excluding administrative costs and capital investments), by different funds from 1998 to 2003. Each shows an increase in expenditure more than the increase in GDP. Although all these funds accounted for a small percentage of THE in 1998, these results could be extrapolated as evidence of an increase in THE/GDP from 1998 to 2003.

Figure 8 – Increase Payments on HC Services, 1998-2003



2.1.3 – Health Care Provision

2.1.3.1 – Public Health

The MOPH is responsible for public health including water and food sanitation, health education, school health, prevention and monitoring of communicable diseases. Yet, many other ministries have jurisdiction over public health issues such as the Ministry of Interior (through the Municipalities) for the collection and treatment of solid wastes and for the licensing of restaurants, the Ministry of Economy and Trade for the Protection of the Consumer, the Ministry of Environment for air, water and soil pollution.

2.1.3.2 – Ambulatory Care

86% of OOP spending is spent on outpatient services and drugs (NHA, 2000). The total outpatient spending is 2 017 billion LL (67% of THE), of which 1 538 billions (76%) are OOP. Total spending on outpatient drugs is 759 billions LL (25% of THE), of which 560 billions (74%) are OOP.

Outpatient care is provided in private physicians' clinics, private medical and diagnostic laboratories and health centers - public or owned by NGOs. The mean number of ambulatory medical consultations per individual per year is 3.3% (5).

2.1.3.2.1 – Public.

There are a total of 915 dispensaries and health centers in Lebanon. 225 are public, owned by the MOPH, the MOSA and municipalities. These provide primary and preventive HC services, vaccinations and reproductive health services.

The MOH pays the YMCA, a NGO, to purchase and distribute chronic diseases drugs to a network of approximately 398 public and NGO health centers. In 2002, it paid the YMCA 3.9 million USD and 144 714 individuals benefited from the program (2). The MOPH also provides free essential drugs, equipment and training to a network of 70 public and NGO centers in return of a providing primary curative care to the population they serve. The MOPH buys these drugs and distributes them to the centers with no reference to actual needs or to priorities.

Despite all of these programs, the number of patients soliciting the services of these centers remains limited (10%) mainly because of a lack of confidence in the quality of services offered. Some private physicians use their visiting hours in those centers to divert patients to their private clinics.

2.1.3.2.2 – Private

Private sector physicians provide approximately 80% of ambulatory care while hospital outpatient departments accounted for 8% of outpatient visits. Only 20% of HH have a family physician to take care of their health on a continuous basis (9).

All public schemes, except for the MOH, reimburse private ambulatory care fees to a varying degree. However, since the patient has to pay first and get reimbursed afterwards, and due to long waiting time, most eligible citizens renounce their right to be reimbursed.

2.1.3.3 – Inpatient Care

Inpatient services are provided primarily by few large and many smaller private hospitals. These hospitals were classified into five categories A to E with a star system for hotel services. This system is being replaced by the Hospital Accreditation System.

2.1.3.3.1 – Public

Public hospitals provide around 10 per cent of hospital capacity. The MOPH owns a network of 28 hospitals that were, until recently, very limited in services offered and quality. Public hospitals used to provide mainly acute general inpatient care free of charge. They were managed as budgetary units of the MOPH and were not allocated a budget: planning, recruitment, remuneration and purchasing were done centrally by the Directorate of Care at the MOPH; drugs and consumables were distributed by the Central Pharmacy and the Central Store. Resources were allocated to each hospital according to historical estimations with no assessment of the real needs.

As a result of the war, only a dozen of these hospitals have succeeded to remain open and functional by relying on community support and funding. In the absence of civil service reform, these hospitals were handicapped by low public sector salaries, low and unpredictable budget disbursement, low maintenance, poor equipment and inadequate supplies.

In 1997, the Government of Lebanon has sought to address these problems by enacting a new Law of Autonomy (Law No. 544 of 24 July 1996). This Law allowed public hospitals to function as autonomous public institutions, accountable to a Board of Directors appointed by the Council of Ministers. They are financed for the services they provide like private hospitals, i.e. by payments from the MOPH and other public and private insurers. Autonomy was meant to improve efficiency of public hospitals as well as the quality of services rendered especially by creating competition between the private and the public sectors. The underlying hope was that this law would give the public sector more flexibility and improve their administration and consequently their image.

Most of the public hospitals are less than 100 beds capacity. To date, seven hospitals and one small clinic have been granted the status of autonomous hospitals. Five have recently begun operation under the new law and three others have had boards appointed but are not yet operational.

2.1.3.3.2 – Private

The private hospital system as a whole suffers from excess capacity, excessive investment in heavy technology and dominance of small, less than 100 beds (75%). The small hospitals are unable to achieve economies of scale leading to inefficiency.

The private hospital sector flourished during the war due to the collapse of the public hospital system. It grew in a chaotic and unregulated manner and new expensive and unproven high-technology equipment was bought even by small hospitals. This uncontrolled investment has lead to supplier-induced demand. The level of sophisticated medical technology available in Lebanon compares with the high-income countries per million population (MRI machines: 6.25, versus 4.7 OECD median; CT scanners: 15 versus 12.2 OECD median).

There are approximately 11 533 beds in private hospitals with an occupancy rate of around 55% only (8). In principle, any Lebanese with no medical insurance can be treated in private facilities at the expense of the MOPH. However, in practice, due to very slow reimbursement procedures by the MOPH, providers often deny admissions or demand significant illegal co-payments from

the patients they accept to admit. Moreover, poor monitoring on consumption by the MOPH has led to opportunistic behavior from the part of the consumers and the providers.

2.1.3.4 – Pharmaceuticals

Pharmaceuticals are produced in Lebanon or imported from abroad. The national production of drugs corresponds to about 4 % of the total drug market as per the LOPh. Each drug needs to be registered in the MOPH before it can be imported or dispensed. The number of registered drugs exceeds 5 000 (8) and most are highly priced brand-names rather than generics which account for only 2% of the market (9). The importation, distribution and dispensing of drugs is the monopoly of pharmacists. The establishment of a pharmacy is regulated by the MOPH with a required distance between pharmacies, by Law. Each hospital has to have a pharmacy run by a pharmacist.

By Law, the MOPH sets the price for each drug adding a mark-up on the ex-factory price for shipping, customs, importer profit and pharmacist profit. The sales price becomes 169% of the ex-factory price. Pharmacists were not allowed, to make any discounts on the sales price in order to prevent competition. The law was recently changed to allow for discount of any amount the pharmacist chooses. Except for narcotics, most drugs can be purchased in pharmacies without medical prescription, despite the Law that requires a prescription for dispensing any drug (except OTC drugs).

2.1.4 – Resources

2.1.4.1 – Human Resources

The level of medical and paramedical education in Lebanon compares to highly rated education of high-income countries. It is characterized by its diversity since these professionals are graduates of different education systems: American, English, Canadian French, Russian etc… Most are graduates of Lebanese schools, but many physicians, pharmacists and dentists are graduates of the USA, Western Europe, Latin America and Eastern Europe. Health professionals are licensed by the MOPH and should be registered in their respective Orders before they can practice.

The total number of physicians registered in the Order of Physicians of Lebanon is 9 029 and 1 136 in the Order of Physicians of North Lebanon, at the end of 2003. The total number 10 165 does not represent the number of practicing physicians as a significant number are registered but do not practicing in Lebanon: the estimates are about 10%-15% by Ammar (46), 12 % by the National Provider Survey 1999 (9). The total number of pharmacists is 3696 at the end of 2003, with only 2 793 active and the rest non-practicing (24%). The total number of dentists, in the Order of Dentists of Lebanon is 3744 with only 3 285 practicing at the end of 2003; and 510 in the Order of dentists of North Lebanon at the end of 2002 (40). The total number of dentists is 4 254 with only 3 795 practicing (Table 6). The ratio of physicians per 1000 population, 2.54% is the highest of all MENA countries, and higher than many OECD countries, but less than the OECD mean of 3.1 (10,12). The rate of increase of physicians has slowed starting 2002 when the number of new registrants to the Order of physicians in Beirut was 279 compared to 543 in 1998. This is probably due to the decrease in grants to study medicine in the former Soviet Union and

Arab countries after the end of the war in 1990. Physicians of all specialties are available and are concentrated in Beirut and Mount Lebanon areas. 60% are specialists and 40% general practitioners (including pediatricians) for a ratio of 1 GP per 1000 population, close to France (1.1) and Australia (1.1) and higher than the UK (0.6).

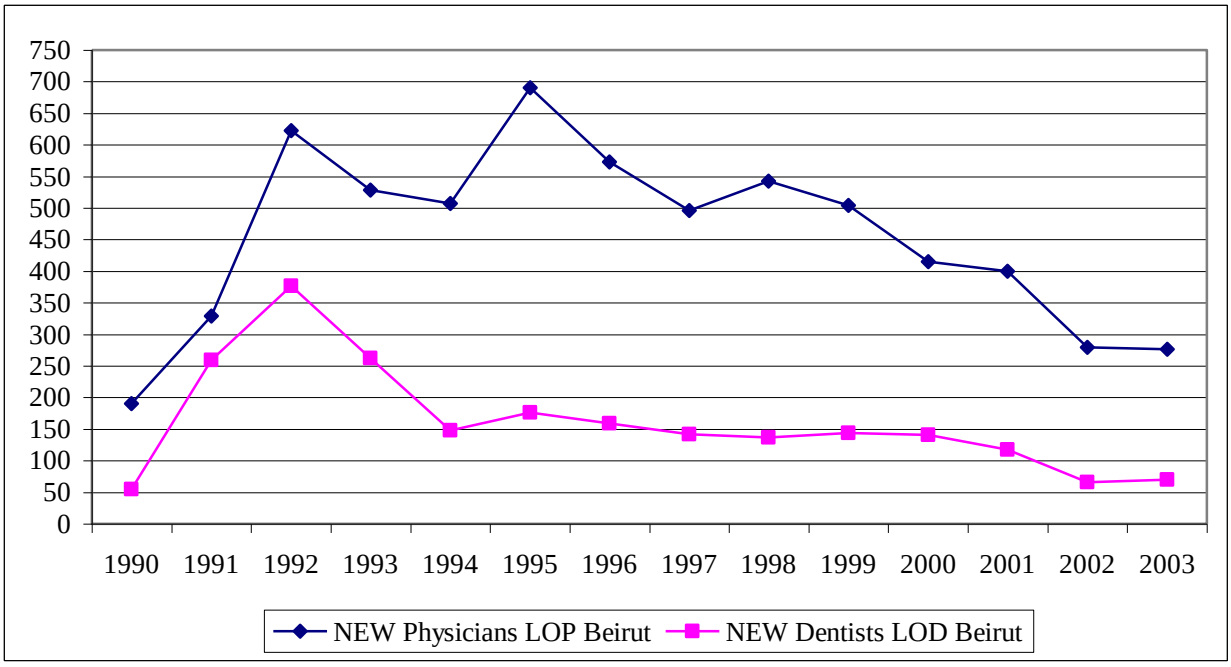
The number of qualified nurses in 1997 was 1 948 (including BS, TS, BT), a ratio of 0.49 per 1000 population, very low compared to OECD median of 7.6 (8, 12). Major efforts have been made by the MOPH to address this shortage of qualified nurses including the passage of the Law to create an Order of Nurses in February 2003. The estimated number of qualified nurses as per the LON is 4 022 in 2003, for a ratio of 1.0, still well short of what is needed. Thus the number of nurses to doctors is about 1 to 2.5 instead of being the reverse as is the case in many countries. This leads to delegation of nursing jobs to unqualified nurse-aids with resultant negative impact on quality of care.

Table 6 – Number of Registered Professionals to their Orders

Profession	Number registered	Registered /1000 population[1]	Number practicing	Practicing /1000 population
Physicians	10165	2.54	9148[2]	2.28
Dentists	4254	1.06	3795	0.95
Pharmacists	3696	0.92	2793	0.70
Nurses	4022	1.00	4022	1.00

[1]Population estimated at 4 005 025.
[2]Estimate based on 90% practicing in Lebanon.
Source: the respective Professional Orders

Figure 9 – New Registrants to the Order of Physicians and Dentists in Beirut



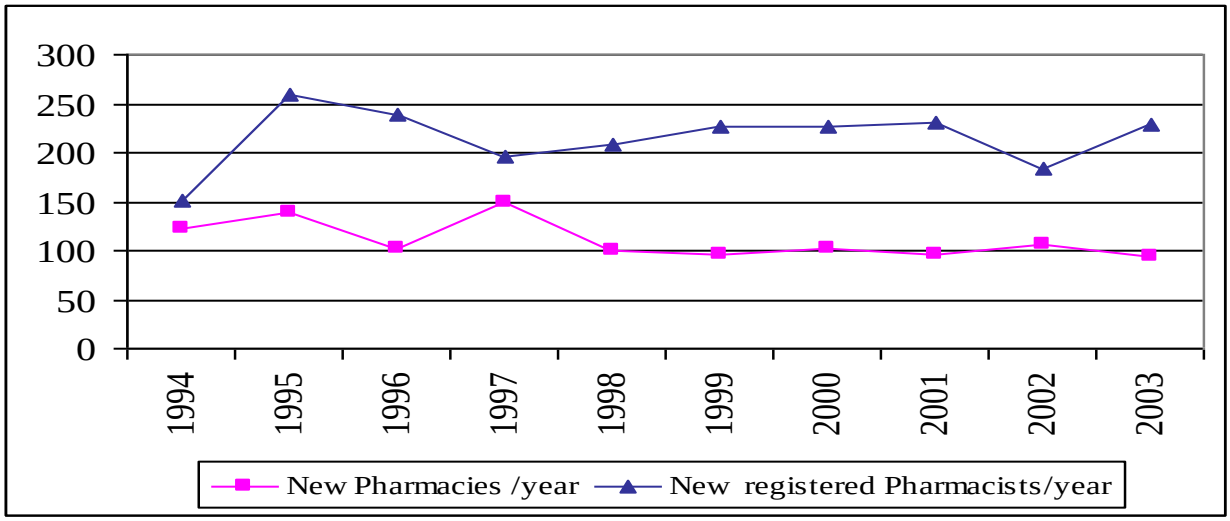
Source: Lebanese Orders of Physicians and Dentists in Beirut

2.1.4.2 – Physical Resources

In 2002, the total number of hospitals was 192, 164 private and 29 public (28 for MOPH and 1 for NSSF). The total acute care bed capacity in these hospitals is 14 416, 11 533 (80%) private and 2 883 (20%) public (8). However, nearly only half of the available public hospital beds are operational for an 11% of the total effective bed capacity. The ratio per 1000 population is 3.61, higher than all MENA countries except Libya and close to the OECD median of 3.8 acute care beds per thousand (10, 11). There was an increase of 16% in private hospitals and 70% in hospital beds from 1996 to 2002 as per the SPH. The hospital occupancy rate is low at 55% (9).

There are 18 private chronic care centers with a total bed capacity of 3 403 beds for a ratio of 0.85/1000 population while OECD median is 4.4/1000. There are 915 dispensaries, 225 of which are public owned by the MOPH, the MOSA and the municipalities. The rest are owned and by NGOs. There are 67 hospital laboratories and 119 private non-hospital laboratories for a total of 186 (2). The number of pharmacies at the end of 2003 was 1 588 with an increase of 93-106 pharmacies per year over the last 5 years.

Figure 10 – Yearly Increase in the Number of Pharmacies and Registered Pharmacists



Source Lebanese Order of Pharmacists

2.2 – ASSESSMENT OF THE LEBANESE HEALTH CARE SYSTEM PERFORMANCE

Despite that no two HC systems are exactly alike, we can analyze and compare the performance of a country's current HC system using certain universal measures that have been developed by health economists and were adopted by the WHO and the World Bank Institute (WBI).

We provide a brief definition of these measures since we will use them in this report to assess the performance of the Lebanese current HCS and to design reform options.

Equity: Universal and equal access to reasonable HC and fair distribution of the financial burden in financing HC among different income classes.

Allocative efficiency: The extent to which the use of resources results in greatest benefits.

Technical efficiency: The choice of a combination of input resources that can produce a specific service at the lowest cost.

*Sustainability***:** The availability of financial and capital resources as well as political support for long-term provision of HC.

*Quality***:** The provision of a reasonable high standard of technical services, with adequate access, and doctor-patient relations satisfying to the patients.

2.2.1 – Equity

Equity can be measured in terms of financial access, physical access, utilization and resource allocation.

Equity in access is defined as equal access to adequate services across different income groups, and can be measured by (i) the distribution of financial burden paid at the point of service by income group (financial access); and (ii) the distribution of travel and waiting time by income group (physical access).

2.2.1.1. – Equity in Financial Access

One of the most apparent weaknesses of the Lebanese HCS is the financial access to HC services. As portrayed in the financing section of this chapter, almost 70% of THE is supported by HH. The WHO report, 2000 (1) ranks Lebanon 101-102 out of 191 countries in relation to fairness in financial distribution.

The NHHEUS 1999 reports more evidence on the financial burden born by HH. In this survey, out of the total HH expenditures, HE rank 2nd (14.1%), after food (31.4%) and before education (11.7%). HE are taking resources from production and saving. Besides having less to spend and more health needs, poor families give priorities to health rather than education and leisure. The lack of education and leisure are the main cause of keeping future generation in increasing destitution and in poor health.

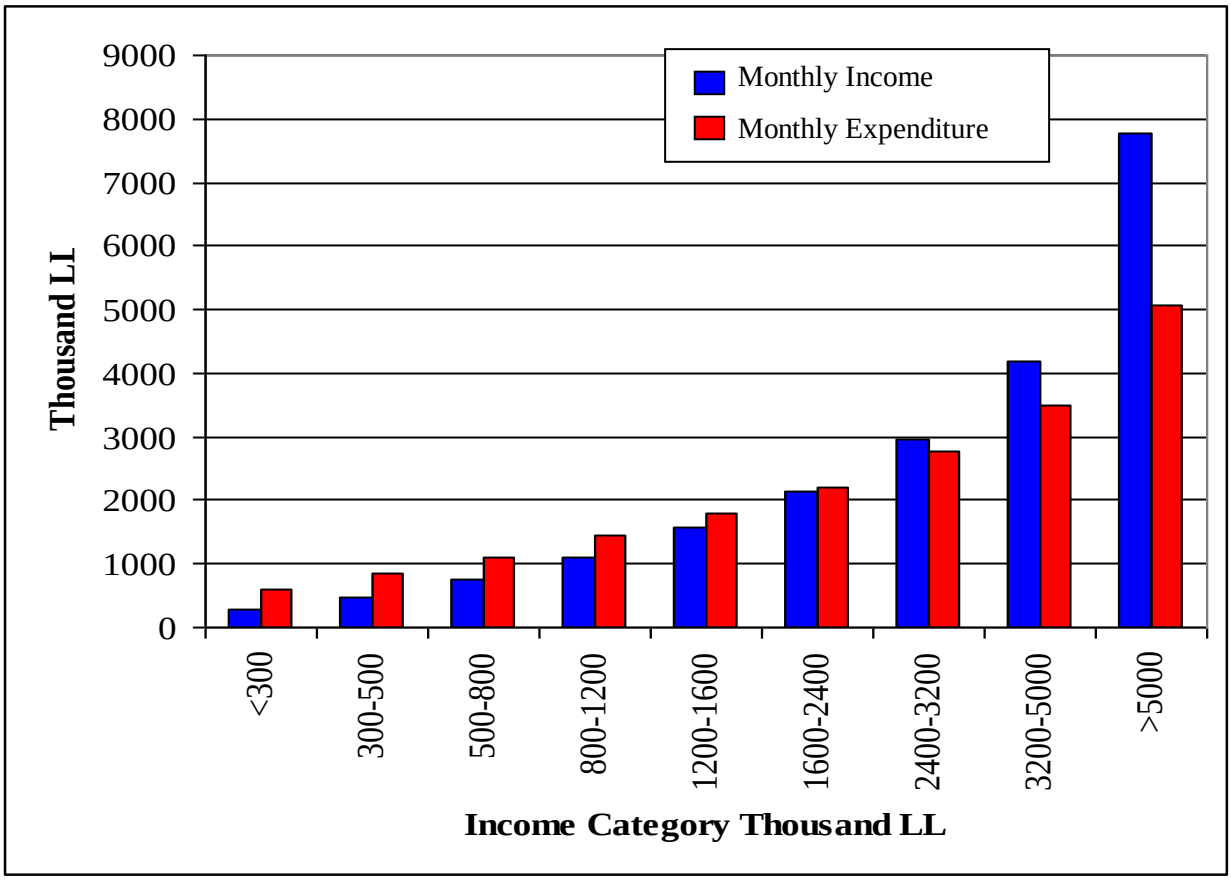
Lack of money is the main reason for not seeking first visit or follow-up ambulatory care as well as hospitalization. The MOPH, supposedly provider of a safety net, is unable to provide adequate ambulatory care and 53.6 % of the un-insured population are not aware that they can benefit from the MOPH for the services it offers (hospitalization, kidney dialysis, cardiac surgery and drugs for specific diseases) (5).

The lower the income, the higher is the HE share of total expenditure varying from 19.6% for the lowest income group to 8.1% for the highest income group (with an elasticity of 0.466). At the same time, the lower the income group, the lower the percentage of insured people, leading to a higher OOP spending and ensuing debt (Annex Table 12). The income-elasticity of medical insurance HH expenditure is 1.55 while the income-elasticity of HH ambulatory and drug expenditure is 0.09. There is also significant regional difference in the rate of insured people, with the Beka'a and Nabatiyeh having the lowest rate (37%). The un-employed and agriculture

workers have the lowest rate of insurance (17.5% and 18.7% respectively), leaving them exposed to OOP spending. The main reason for non-insurance in all categories is financial.

43.5 % of HH are in debt and the equilibrium between income and expenditure is reached after the income category of 1 660 000 - 2 400 000 LL of monthly income (5). The poor are keeping their spending beyond their income capacity, leading them to being in more debt than higher income categories (Figure 11).

Figure 11 – Households in Debt



Source: Household Living Conditions (1997)

2.2.1.2 – Equity in Physical Access

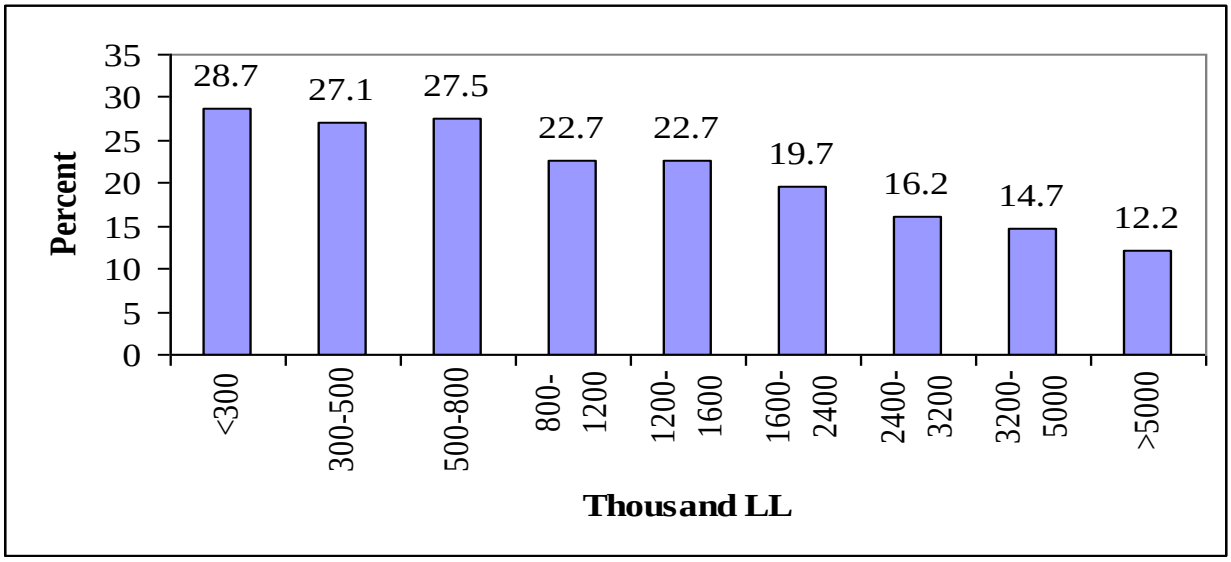
Physical access to care in terms of traveling and queuing times, doesn't seem to cause any problem for all income groups across the territory (Annex Table 13).

2.2.1.3 – Equity in Utilization

Data from the NHHEUS 1999 reveals significant differences in both inpatient and outpatient visits by income categories. 24.2 % of all individuals suffering from a health problem do not seek care and 40 % of individuals needing hospitalizations do not get hospitalized. The absence of insurance caused an increase in not seeking HC (20.0% versus 27.5 % for any kind of

treatment and 27.6% versus 49.6% for hospitalization). The lower the income, the higher the percentage that report not seeking any kind of treatment or hospitalization (Annex Table 14).

Figure 12 – Proportion of Individuals with Health Problem Not Seeking Any Treatment (5)



Among the given reasons for not seeking care and not getting hospitalized when needed, is the financial reason, especially for low income groups. Financial reasons are the cause of not seeking out-patient care in 34.7% (47 % for individuals in low income groups versus 14-19% for high income groups). Financial reasons are the cause of not being hospitalized in 69% of cases. An intriguing finding is the absence of correlation between the socio-economic strata of each Mohafaza and financial reasons for not seeking HC (Annex Table 13).

2.2.1.4 – Equity in Resource Allocation

The MOPH has built hospitals and PHC centers in the rural areas with the aim of providing HC services to the population residing in the poor areas of the country. However, the MOPH pays for hospitalizations and expensive drugs to all the population irrespective of income. Even insured patients and insurers sometimes abuse the system and utilize the MOPH for payment of these services. This results in depriving the needy from available resources that should go only to them as the MOPH is supposed to provide a safety net for the needy and un-insured.

2.2.2 – Quality

While Lebanon has some of the best medical practitioners and facilities by international standards, there is evidence to indicate that sub-standard medical practice is widespread compromising the quality of HC, and in some instances the health of the Lebanese citizens. In Lebanon, there is no standard information that is regularly collected and few standard measures are available to assess quality. Quality is commonly assessed in terms of Technical Quality and Patient Satisfaction. Using the framework proposed by Donabedian (1980), technical quality can be measured in terms of three categories: Outcome, Structure/Input and Process.

2.2.2.1 – Outcomes

Outcomes refer to the changes in patients' current and future health status that can be attributed to antecedent medical care. Lebanon rarely has adequate outcome measures, such as complication rates, disease-specific mortality rates by hospital or functional states of patients after treatment to assess quality of care. Availability of information is the major concern in measuring outcomes of care. Without systematic collection and reporting of certain outcome information to central review bodies, it is difficult to monitor and improve this aspect of quality of care. Instead, structure and process measures have to be used to measure quality of care. The structure and process measures can be important in assessing quality even independent of their direct influence on outcome because they reflect how the patient was cared for.

2.2.2.2 – Structure/Input

For medical professionals, licensing and registration is the quality control at the point of entry into service. Once in practice, continuing medical education, practice standards and guidelines, peer review and regulation become the levers for maintaining and improving the quality of medical practice. For hospitals and facilities, an accreditation process can fulfill both functions if it is performed regularly.

2.2.2.2.1 – Licensing/Registration and Medical Education

Lebanon's licensing and registration requirements adhere to international standards. It is performed by the MOPH. Entry into Lebanon's medical schools is based upon academic excellence, and the medical and scientific knowledge possessed by medical students in these institutions compares very well with international standards. Moreover, most of medical students seek specialization in renowned medical schools abroad.

2.2.2.2.2 – Continuing Medical Education, Practice Standards, Peer Review and Clinical Audits

Unfortunately, after the point of entry, there is little in place to ensure that practice quality is maintained and enhanced. Physicians are not subject to continuing medical education requirements. In private hospitals, clinical audits or risk management are not conducted. Because each hospital is free to establish its own policies and procedures, there is considerable variation in how and by whom adverse situations and incompetence are handled.

Regulation and control of the medical practice fall under the jurisdiction of the LOP. Because the knowledge of medical care is highly technical and the physician/patient relationship is hierarchical, the role of quality assurance must be placed with the medical professions. Lebanon, like many other countries, relies on professional self-regulation to assure the proper conduct of the medical profession. However, what Lebanon lacks is internal checks and balances among the health professionals, and external accountability to assure that the interests of patients are adequately protected. In Lebanon, while the public depends on the medical profession to self-regulate, medical professionals have been reluctant to criticize or judge one another professionally.

2.2.2.2.3 – Accreditation of Facilities

In the year 2000, the MOPH developed standards for the accreditation of hospitals. Two sets of standards were developed: Basic standards represent minimal requisites that a hospital should respect; Accreditation standards represent criteria necessary to ensure hospital quality.

128 hospitals were assessed and only 36.7% achieved total accreditation (an index superior to 80% for basic standards and superior to 60% for accreditation standards); 38.3% achieved intermediary status and 25% did not achieve accreditation standards and lacked requirements for basic standards.

2.2.2.3 – Process

The rationale for examining the process of care is that there are certain essential steps involved in appropriate diagnosis, and that good quality care depends on these being completed.

Measures used to assess the process of care may be Drug Prescribing Behavior, Duration of Clinical Encounter, Queuing and Waiting. No national data is available pertaining to any of these measures.

2.2.2.4 – Patient Satisfaction

The NHHEUS reveals that patients are in general satisfied with their relation with the physicians in ambulatory care as well as inpatient care. They are also satisfied with the in-hospital nursing care. They are satisfied with the cleanliness of the hospitals and ambulatory care centers as well as the food quality. However, the satisfaction is significantly less in the public providers compared to the private providers. Overall, 68.8% of insured individuals above the age of 14 are satisfied with their insurer, their satisfaction varying from 60% for the CSC, 71% for the NSSF, 68% for the Army and 83.6% for private insurance. 88% of non-insured individuals who used the MOPH services were satisfied (5).

2.2.3 – Efficiency

To measure efficiency, data on the cost of HC services are compared to data in health outcomes. Cost-effectiveness, cost containment, cost benefit are all measures of technical and allocative efficiency. As we have witnessed earlier, very little data is available to measure quality. This applies to cost data as well. Very punctual cost studies have been conducted in very limited areas that can not be really used. The NHA present expenditures data with no real correlation to outcomes and cost of services.

The WHO report of 2000 (1) presented for the first time an index of national Health System's performance of 191 nations using five basic measures: the overall health level in the population (by using DALE), the distribution of health in the population (by using the index of equality of child survival), the overall level of responsiveness, the distribution of responsiveness, and the fairness or distribution of financial contribution. The rating of Lebanon based on these indices was quite low, considering the high level of expenditure on HC compared to other nations including MENA region (Annex Table 15). Lebanon is high ranking in THE/Capita in international USD (46/191) and has the second highest THE/GDP after the USA. Despite this

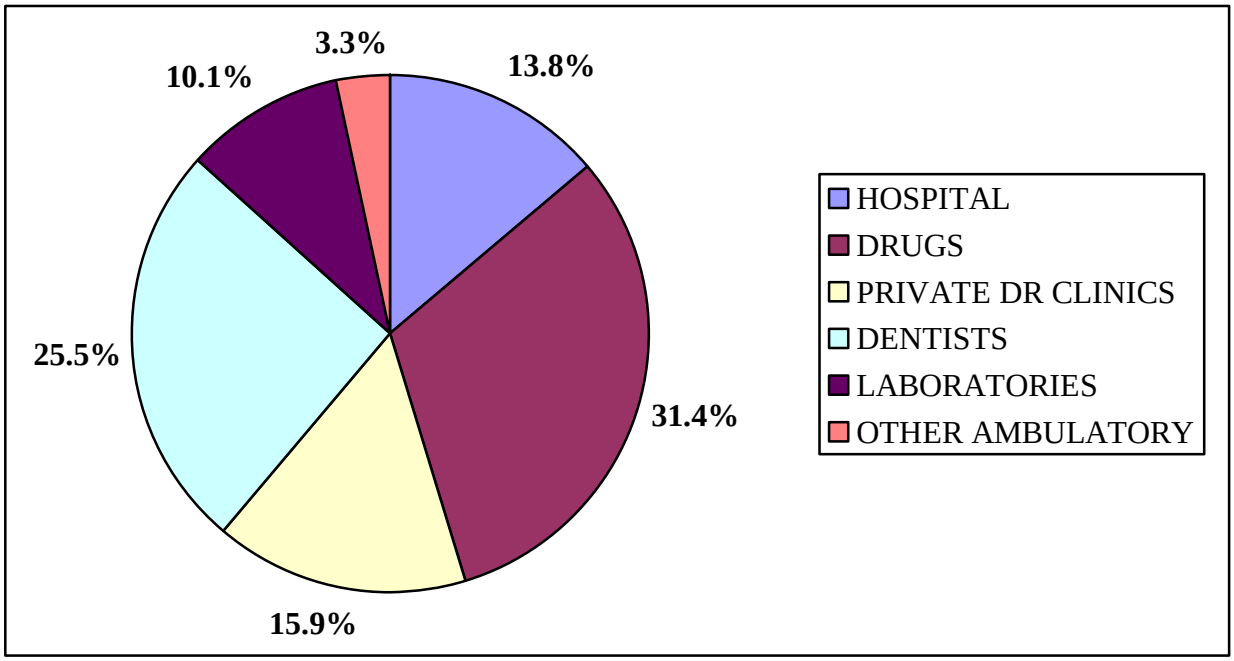
high expenditure, Lebanon's ranking in all indicators is well below what could be expected (Table 7).

Table 7 – Lebanon Ranking in Health System Attainment and Performance (1)

Attainment of Goals						Performance		HE/Cap
Health		Responsiveness		Fairness financing	Overall attainm.	Health Level	Overall perform.	Inter USD
95	88	55	79-81	101-102	93	97	91	46

Annex Table 15 shows a comparison between Lebanon and some MENA and OECD countries in health system attainment of goals and performance (1). Furthermore, one measure of allocative efficiency may be the distribution of expenditures by type of services where public funds are mainly (50.39%) spent on hospitalizations (65% for MOPH, 59% for the army, 45% for the NSSF) (4). Whereas the distribution of HHOOP expenditures shows that the highest percentage is spent on ambulatory services (54.8%), 31.4% on ambulatory pharmaceuticals while only 13.8 % is spent on hospitalizations (4). An example of the inefficient allocation of resources is that 70% of the MOPH expenditures (excluding capital investment) go to cover acute care hospital bills, 7% for expensive drugs and only 10% for PHC (4). From the MOPH expenditures on curative care, 30% cover only three specialties: kidney dialysis and transplantation, cancer treatment and open heart surgery. This results in gross inefficiency and inequity with 0.2% of the population benefiting from 23% of the MOPH budget (8).

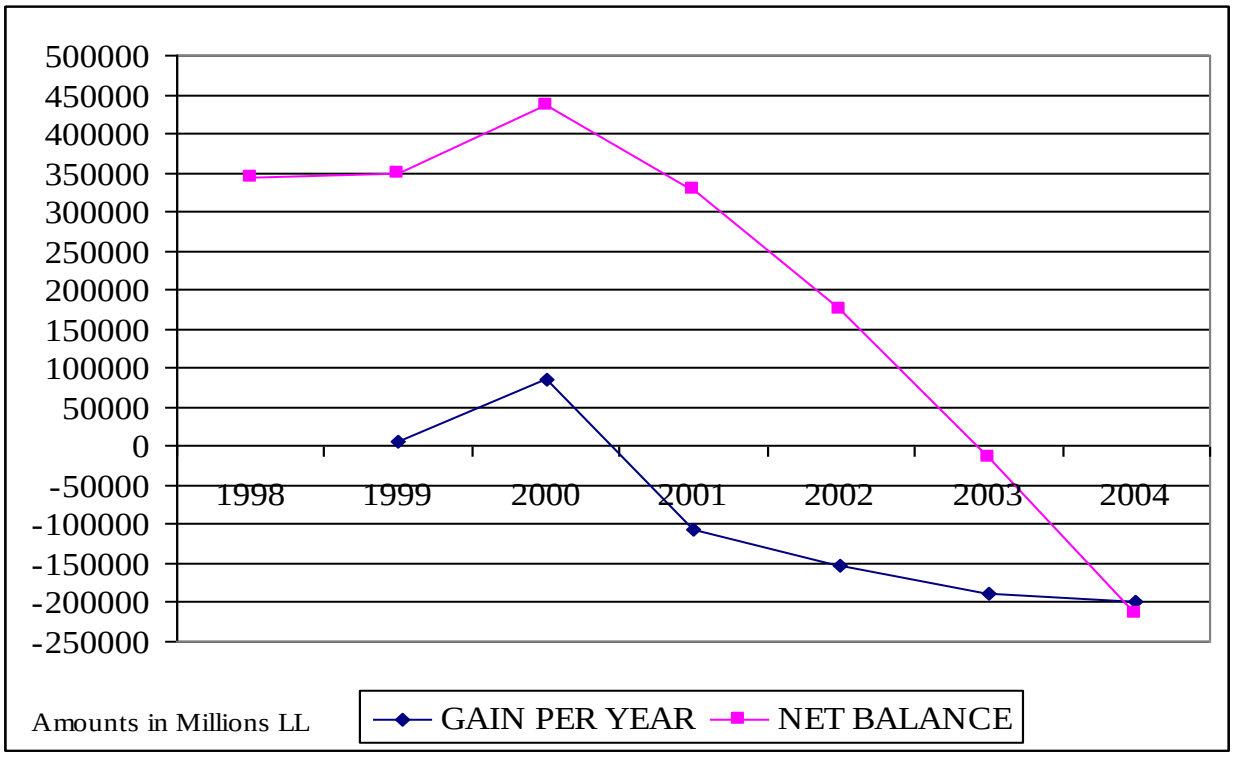
Figure 13 – Distribution of HH OOP Expenditures



2.2 4 – Sustainability

Another major concern of the Lebanese HCS is the questionable sustainability of its current financing system. THE represent a growing share of GDP as it increased markedly over the past decade. Assuming status quo in terms of accessibility and equity in the current system providing the same level and quality of services, this trend will have to continue, given the increase of chronic diseases, technology adoption and increased specialization in medicine. In opposite to that, the GDP growth has been slowing down thus posing a major challenge to the sustainability of the public systems in particular and the whole system in general. The financial difficulties of the Maternity and Sickness Fund of the NSSF which collects and disburses all the money related to HC of its adherents is a vivid example of the un-sustainability of the present financing system. Figure 10 shows the increasing deficit of this fund which few years ago had a substantial net surplus of 435 billion LL (288 653 million USD) in 2000.

Figure 14 – Finances of the Maternity and Sickness Fund of the NSSF



3 – REFORM OF THE HEATH CARE SYSTEM

In order to be able to introduce a serious reform in the Lebanese HCS, the vision as well as a clear HC policy framework have to elaborated by the GOL. Such vision and policy framework are presented followed by a reform proposition that involves a new structure of the HCS.

3.1 – MISSION / VISION

The mission of the State is the well-being of its citizens. The GOL considers health as a fundamental human right and its mission is for all its citizens to enjoy the highest attainable standard of health. To achieve this, the GOL will implement a series of controlled changes to the present HCS over the next few years. These changes will be based on:

a- the principle of national solidarity,
b- the proper allocation of resources,
c- a synergistic mix of public and private provision and finance,
d- a transparent regulation of the HC sector,
e- equal access to all citizens to preventive and therapeutic HC interventions.

The resultant HCS will integrate the public and private resources, will utilize up-to-date scientific methods and information technology, will involve all sectors of society, and will be sustainable and affordable to the nation.

3.2 – NATIONAL HEALTH CARE POLICY FRAMEWORK

Reallocation of resources to the three determinants of health other than HC (environment, life-style, genetic make-up), is an important aspect of the planned change; of particular importance is the promotion and protection of a healthy environment as an integral component of sustainable development (12). This document will however, discuss only the detailed changes of the HCS.

The policy framework for the implementation of the aforementioned controlled changes in the HCS is based on the following principles:

3.2.1 – **National solidarity** in health among citizens. Nurturing the idea of solidarity among citizens by informing them about its meaning and its long term merits for a sustainable provision of HC, is a duty the GOL has to assume.

3.2.2 – **Individual choice and responsibility**: the public should be instructed that the role of the State is not to provide free HC for its citizens, but to put in place a system that will allow each citizen to achieve the highest attainable level of health. Emphasis is to be put on the individual choice and personal responsibility for his/her health.

3.2.3 – Public health activities in society should be strengthened under the leadership of the MOPH. The MOPH will coordinate the public health activities of all the involved institutions with special attention to initiatives that improve health protection, and health promotion for children and the youth.

3.2.4 – Primary health care should be given a priority with full participation of the community. It should serve as gate-keeping with adequate referral mechanisms for secondary and tertiary HC services.

3.2.5 – Equal availability and access for all citizens to a basic package of benefits, primary, secondary and tertiary. For insured citizens, financial coverage of these benefits will come from the NHF, whether service is provided by a private or public provider. For the uninsured and destitute, a special government fund will cover their insurance cost. Citizens will be thoroughly informed about the availability of the basic package of benefits. They should also know that additional services can be obtained by paying for additional PHI coverage.

3.2.6 – The **basic package of benefits** available to all citizens is selected based on cost-effectiveness and reduction of the disease burden. It should be affordable and sustainable and subject to continuous revision. It will be offered in private and public HC institutions.

3.2.7 – **Public provision** of HC should be strengthened and new facilities opened only in the regions in need where private provision is insufficient. All public hospitals should be competitive, efficient and provide services for all citizens.

3.2.8 – **Private provision** of HC will be maintained and strengthened, within formal strict regulation to protect the patient's rights.

3.2.9 – The **National Health Fund** will be the main source of finance of the HCS. Enrollment is mandatory to all citizens. For the vulnerable groups and the destitute, a special government fund will purchase insurance from the NHF. The NHF will provide incentives and disincentives to the providers to improve their efficiency.

3.2.10 – **Private insurance companies** can offer additional complimentary and supplementary HI schemes, outside the basic package of benefits. It is mandatory to strengthen this sector while protecting the rights of the patients.

3.2.11 – **New legislation** for the whole sector will be passed by the GOL; it will make a clear distinction between users, providers and financers of HC and will define the roles, duties, rights and obligations of each party and each public and private institution.

3.2.12 – The **quality** of services and facilities will be controlled and monitored through a structured and organized system of quality assurance, accreditation and licensing. The rights of citizens to know about the safety and standards of HC providers will be assured.

3.2.13 – The Pharmaceutical sector should have a new modern regulatory framework to ensure the transparent registration, availability, safety, accessibility and reasonable cost of quality drugs.

3.2.14 – Planning for the future of the HC sector and health issues is mandatory. It requires on an up-to-date information system with a database on all aspects of HC infrastructure and activities.

3.2.15 – **Human resources** planning and comprehensive capacity-building for health will be undertaken. The numbers and mixes of HC providers will be continuously evaluated and imbalances corrected. Standards of health personnel education and accreditation will be developed.

3.2.16 – **Ethics:** ethical behavior in health policy, research and service provision will be stressed. Respect for human life, patient confidentiality and choice, and avoidance of harm to patients, should be the guiding principles of all HC personnel especially with the rapidly advancing field of bio-genetics.

3.3 – THE PROPOSED NEW STRUCTURE OF THE HEALTH CARE SYSTEM IN LEBANON

3.3.1 – The Ministry of Public Health as Regulatory Body and Policy Maker in Health Care

The MOPH will take the stewardship role and will be the regulatory body and policy maker overseeing the whole HC sector. It will maintain its leading role in advocating and coordinating all public health policies and actions. However, it will stop being involved in either financing or providing HC. New units to address these functions should be created.

3.3.1.1 – Quality Management Unit

A general definition of quality is "the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs" (13). In lay terms, quality is doing the right things right.

The MOPH is designated by the GOL as the ministry responsible about the Quality of care.
It will institute a small but identifiable unit of quality management which will include the expertise needed for quality assurance and quality improvement methods and processes. Its mandate will be to ensure the quality of health services provided by all HC providers. It will:

a. Raise awareness of the importance of quality in HC, both among health professionals and the public.
b. Disseminate information about quality and standards of care of HC providers.
c. Work with public and private HC facilities (hospitals, PHC centers, laboratories…) on promoting quality assurance programs.
d. Staff the Committee for Quality Assurance of the Higher Council for Health, providing it with the necessary data and getting from it the recommendations for policy actions on quality.
e. Serve as the link between the MOPH and the National Health Care Accreditation and Quality Agency in relation to all matters of accreditation and quality indicators of all HC facilities.

3.3.1.2 – Health Information and Planning Unit

Although there is a Health Planning Unit in the MOPH at present, this unit should be strengthened and staffed with experts that will be able carry on the functions required. Adequate

and timely information is a prerequisite for any planning, policy formulation or strategic reform initiatives. The mission of this unit is to collect, aggregate, process and analyze all necessary data for planning and decision making in the HC sector; it will also have the mission to disseminate such relevant health information to all stakeholders and to the public. The following are the main activities of this unit:

a. **"Carte Sanitaire**": continuously update the national inventory of HC services and facilities within the framework of the "Carte Sanitaire" project with the objectives of need-based licensing of HC facilities, equipment and services as well as improving equity, accessibility and quality of HC services. The necessary laws and decrees needed to implement the proposed regulatory mechanisms will be established and passed.
b. **Data collection of health indicators** in a periodic way as well as setting measurable, time bound targets. Examples are: socioeconomic indicators, demographic and epidemiologic data, indicators on regional and group disparities, indicators on quality of care and burden of disease, data on the delivery of HC services, information on institutional development and sector reforms… Close collaboration with the Central Administration of Statistics will ensure the quality of the data collected.
c **Establishment of national data systems** for outcomes and systems to monitor purchasers and providers. It will also supervise the data systems to ensure quality and openness.
d. **Clearinghouse** for all data and documents, national and international relevant to health policy and HC reforms.
e. **National Health Accounts** are a powerful tool of strategic monitoring and steering of the HC sector. They provide the essential information on the mixes of financing sources, financing intermediaries and end users (4). They also provide information on quantities of physical assets and cross country comparative trends. Such NHA should be institutionalized to provide yearly matrices and reports for policy makers to see the trends of expenditures and take the necessary corrective actions.
f. **Dissemination of health information** and reform initiatives with, conferences, seminars and the production of a yearly **Health Report.** The report which will include all the available health data and indicators, programs and activities, NHA figures, human resources data, policy directions, reform agenda etc…

3.3.1.3 – Unit for Human Resources for Health

There are three inputs in any HC system: human resources, physical capital and consumables. Among the three, human resources are the most important as the performance of the HC system depends to a large extent on the knowledge, skills and motivation of the HC providers. It is also the most expensive as HC labor costs are the biggest item in recurrent expenditure.

Policies of human resources development are a prerequisite for efficient, equitable and sustainable HC system. This is more so evident in Lebanon, in view of the many weaknesses and imbalances in the HC workforce. Formulating strategic choices necessitates the institution of a special unit in the MOPH, the UHRH, which will coordinate all the activities related to human resources and provide the policy makers with the necessary data and options for action.

The UHRH will have the following functions:

a. Create an observatory of HRH which will collect and maintain an up-to-date database on the available HRH and their distribution and classification. It will also do the necessary research and analysis for future projected needs. Training of staff for this observatory is crucial.
b. Assist and cooperate with the various syndicates and orders of health professionals (LOP, LON, LOPh, LOD, Syndicates of paramedical providers…) for the purpose of certification and recertification and continued medical education.
c. Do research on the incentives for providers' choices of occupation and specialty in health, and practice location, in order to correct imbalances in specialties and geographical distribution
d. Create of forum with the national schools and faculties of graduate health professionals (faculties of medicine, schools of nursing…) in order to control the entry side of new HC professionals by limiting the number of entrants where oversupply exists, and devising incentives to needed occupations or specialties (ex. nursing, family physicians…). This forum will also define more appropriate licensing criteria for foreign-trained providers, will develop mechanisms for program accreditation and will stimulate inter-university collaboration.
e. Support training of needed personnel in the field of HC management at all levels.

3.3.1.4 – Emergency Care Unit

The MOPH will establish the Emergency Care Unit to fulfill the following tasks:

a. Receiving all emergency calls; providing immediate medical advice; dispatching proper medical intervention to the scene for treatment; and transportation to the appropriate medical facility
b. Public education on matters of road injury prevention, accident hazards and first-aid maneuvers
c. Setting up a nation-wide database on trauma
d. Coordinating and executing a National Disaster Plan
e. Creating a National Blood Bank
f. Coordinating and executing transportation for organ transplantation

3.3.2 – Universal Health Coverage - The National Health Fund

All citizens should have access to HC, irrespective of their age, income, social status or contribution to the financing of the system. Mandatory universal HI coverage will be implemented in an incremental manner, by expanding coverage to new groups of the population. All citizens will have access to a basic package of benefits.

3.3.2.1 – Basic Package of Benefits

Because resources are limited, some form of rationing has to be put and implemented, but prices should not be the chief way to determine who gets what services. Of the different forms of rationing, the best way is explicit priority setting with rationing more severe for some services than others. The priorities are chosen according to set criteria and are enforced. This approach leads to a "basic package of benefits" that is offered to all individuals by all insurers, private or public. In determining the basic package, social, political, economic and cost-effective

considerations play a role. Stakeholder and public support for the defined package is essential. The package is subject to continuous revision and updating with the changing technology, economy and public demand. It should be the prerogative and duty of the GOL to define and legislate by Law or Decree upon the recommendation of the Higher Council for Health.

The basic package will define the benefits for ambulatory and inpatient services. It cannot encompass all HC services, but should include the basic ones. The ambulatory benefits should include at a minimum access to a GP and specialists, all acute care and diagnostic tests and procedures, immunization, health education, screening programs. It also should include basic drugs, and dental basic care. The type, degree, and exemptions of co-payments will be specified. The GP will act as gate-keeper, and his referral is required for coverage of specialist visits and secondary and tertiary in-hospital care. Hospital care should cover all basic acute care conditions and the coverage of new advanced technologies will depend on the assessment of the Technology Assessment Committee of the NHF for their benefit and cost-effectiveness. A public debate is needed to reach a consensus on which services are not covered ex. ambulatory expensive new investigative drugs, high tech new surgical procedures, organ transplantation for the elderly etc…

The details of what the package includes will have a major impact on the cost to the insurers (public or private) and as a result on the overall OOP payments. Decreasing the coverage of the package will decrease the costs to the insurers but will increase the OOP payments resulting in less pooling and more THE. The wide range of benefits and the resultant wide range of costs are exemplified by the wide difference obtained in estimating the cost of ambulatory care per individual which varied from 61 USD to 254 USD (14, 15).

3.3.2.2 – Sources of Health Care Financing

HC financing policy is the main instrument for implementing a HC policy as it "determines who will have access to basic HC, what services are offered and their quality. Private as well as public financing are important in the overall HC financing policy. By public financing is meant expenditure from the government budget, mandatory SHI and external borrowings and grants to the government and public agencies (16). There are four major methods of HC financing:

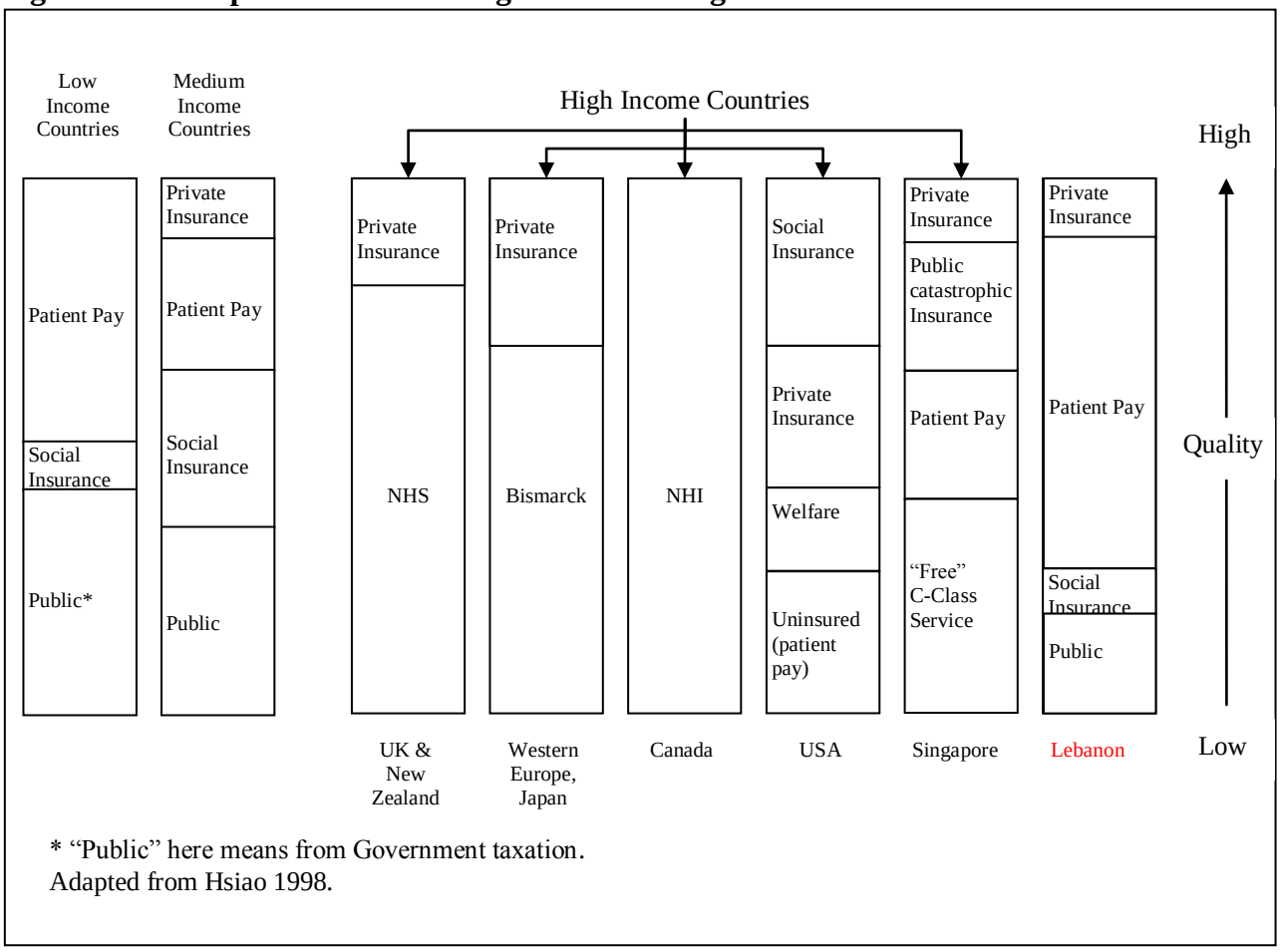
a. **Government revenues** from general taxation, earmarked taxation and by the use of inflation.
b. **Insurance** where the citizen pays a premium to receive specified HC benefits. It can be either social insurance that is mandatory by legislation or private insurance that is voluntary.
c. **User fees** where the patient pays a fee when the service is rendered as a full charge or co-payment or co-insurance.
d. **Community financing** when the community member pays a contribution in advance of a package of benefits.

Putting aside user fees which constitute OOP payments, all other methods of financing are prepaid within the framework of one of four organizational forms: ministries of health or finance, social security organizations, private health insurance funds, community pooling organizations. Each of these finance organizations are exposed to a different degree to internal and external incentives (Annex Table 16). These incentives should be coherent, aligned, and appropriately used when a change in HC financing occurs (ex. when PHI is introduced).

3.3.2.3 – Why a Social Health Insurance Scheme for Lebanon

Tax revenues in Lebanon amount to about 24% of GDP, in the range of low-income countries where the median is 18%, compared to high-income countries with a median of 48 %. The GOL has difficulty collecting taxes from a large sector of the population due to administrative reasons, and is presently unable to increase the tax rates due to the economic situation in the country and for political reasons. Although formal employment is low in Lebanon compared to OECD countries, a system with employment-based contributions (employees and self employed) is more applicable in Lebanon, than a national tax-based system. The USA experience has clearly shown that universal coverage cannot be achieved with free market alone, and social insurance remains the best way of HC financing , as whole life contributions for health and pensions is the only way to prevent the working society being paralyzed by the legitimate costs of old age. General taxation will still be needed and used to subsidize the poor by paying for their health insurance benefits package. The sources of HC financing in Lebanon are at present, 17.98 % taxation, 80.06 % private, 1.96% donors (Annex Table 8); SHI institutions contribute only 12.53 % of THE (this includes private as well as government tax contributions to all social security funds) (Annex Table 9). The taxation and social security shares of financing are even less than in low income countries while Lebanon is a middle-income country; the private financing should decrease to the benefit of social insurance and government (taxation) financing (Figure 15).

Figure 15 – Comparison of Financing Sources among Nations at Different Income Levels



No opting out of the mandatory insurance system will be allowed. Tax-based subsidies for the poor and other defined groups will be available as well as complementary and supplementary PHI schemes.
The fundamental characteristics of a SHI system will be applied (17), namely:

a. All insured individuals will make regular income-related contributions, non-risk related.
b. A NHF that is a "quasi-independent" public body will administer the contributions and will act as purchaser and payer of HC.
c. Solidarity among the citizens is exemplified by cross-subsidies on the funding side: "healthy to sick, rich to poor, young to old and individuals to families".
d. Pluralism with a mix of actors: public, private, for-profit, non-profit.
e. Participation where all the actors share in the governance.
f. Choice with the insured having the ability to choose the provider.

One main advantage of the SHI plan is that it will maintain its own solvency independent of the government budget. It will also have more accountability and transparency.

The SHI plan can be either government operated through a single national agency, or can be a mandated purchase of insurance from private or public insurance plans, often called "sickness funds" – the typical Bismarckian model. Although the Bismarckian model leads to competition and more efficiency, it however requires a complicated and costly administration and capacity building, not easily attainable in Lebanon today. The "single pipe financing" has proven to control HC cost inflation ex.; UK, Sweden, Canada. For all these reasons, a social insurance plan administered by a National Health Fund remains the most appropriate for the foreseeable future.

3.3.2.4 – The National Health Fund

3.3.2.4.1 – Functions

The NHF will be instituted by legislation as a "quasi-independent" public body with wide autonomy like the "Banque du Liban". It will gradually be responsible about collecting and pooling revenues and purchasing HC services for all citizens, for a clearly defined basic package of benefits. This financing policy has to be integrated with the delivery organizations and the mechanisms of payment. Hsiao has assessed the alternative methods of financing, payment and delivery organizations in different nations and has found the Canadian NHI to be the best.

The plan for Lebanon would be a national social health insurance, administered by the NHF with indirect provision of services and with separations of payments to physicians and hospitals. Additional voluntary private insurance will be available and encouraged to cover for user fees or for services not covered by the basic package of benefits. Such a plan will provide the highest level of pre-payment, risk pooling and subsidy for the poor. All citizens have to adhere to the scheme and only the very poor (determined by strict eligibility criteria) will have their premiums paid for them by the GOL.

The NHF will have the mandate to develop norms for ambulatory and inpatient care and will establish the system of enrolment, user charges, exemptions etc… Its Technology Assessment Committee will study the cost-effective new technologies in collaboration with NHTAA and

make its recommendations to the Higher Council for Health for inclusion in the basic package of benefits.

Strategic purchasing will be a major function of the NHF as financing HC will be separate from provision whether in private or public facilities. The NHF will design effective contractual, budgeting and provider payment mechanisms with the aim of equity, efficiency, quality and cost containment ex: global budget, capitation, case-mix classification (DRG) etc…. The key to incentive compatible contracts is distribution of risk between patients, providers and third party payers. These risk sharing payment mechanisms will shift some of the risk to the providers and will contribute to the solvency or the plan. The principle of "money follows the patient" will be practiced, with choice given to the patient in choosing the HC provider (1). It is expected that this plan will increase substantially the pre-payment public share of THE, which is a determinant of how fair the system is.

With respect to pharmaceuticals, the NHF will replace the Bureau of Drugs and will aim at importing generic drugs at the lowest price and mandate their use by the providers for patient covered solely by the NHF.

3.3.2.4.2 – Organization

The NHF shall have a Board of Trustees that represents all the stakeholders: MOPH, MOF, MET, MOSA, MOD, MIMRA, Syndicate of PHI companies, LOP, LOD, LOPh, LON, SPH, representatives of the Labor Union and Employers and a number of professionals appointed by the council of ministers. This Board will set the general guidelines and strategic planning which will be implemented by an accountable and autonomous Executive Management. There will be a Chief Executive Officer with five deputies, each heading one of the five Departments:

1 – Department of Standards, Norms and Quality
2 – Department of Finance, Purchasing and Disbursement
3 – Department of Technology Assessment, Statistics and Actuarial Studies
4 – Department of Pharmaceuticals and Medical Supplies
5 – Department of Information and Public Relation

The departments will be staffed by professionals in the field on the basis of private contracting.

3.3.3 – Special Public Institution: The Public Health Facilities Authority

3.3.3.1 – Organizational Forms of Public Hospitals

New organizational forms of public hospitals are put in place to improve efficiency, productivity, quality and client responsiveness. From public to private delivery of HC, is a spectrum of organizational forms: budgetary units, autonomous units, corporatized units, privatized units. As we move from the core public sector towards the peripheral private sector, incentives for efficiency are higher and service delivery becomes better. Each of the different forms has different degrees of internal incentives that are critical in influencing organizational behavior. The more we can move to an incentive environment, the more efficient the HC delivery will be. Annex Table 17 illustrates the various degrees of the internal incentives in the different provider organizations forms.

3.3.3.2 – Autonomy of Public Hospitals in Lebanon

Until 1996, public hospitals in Lebanon were operated a budgetary units of the MOPH with central planning and central decision making. Because of the dismal results of this centralized model, the GOL decided to give autonomy to the public hospitals and the law 544/96 on "Public Hospital Autonomy" was passed in 1996; it allowed the creation of "public institutions" to manage public hospitals. This law was based on the institutional model of 1972, Decree no 4.517/72 on "General Regulation of Public Institutions". Amendment law 602/97 and four implementing decrees followed law 544/96. This law and the following amendment and decrees did not give any significant autonomy (financial or managerial) to the public hospitals, which remained under tight control of the MOH and MOF (18).

The applicable options to improve the "autonomy" of public hospitals include (18):

a- amending the present law on autonomy
b- transforming public hospitals into State owned enterprises by creating a Société Anonyme Libanaise (SAL) for each hospital. The SAL will be founded and owned by the State and the hospital property will be transferred to it. The SAL will be managed under private law and this will provide hospitals with a private corporate structure and corporate governance
c- privatizing the public hospitals by selling them to private entities
d- drafting a new law specially designed for the management of public hospitals thus creating the Public Health Facilities Authority.

3.3.3.3 – The Public Health Facilities Authority

The PHFA can be created as a special public institution with wide autonomy subject to the constitutive Law that creates it and to the implementing decrees. It will not be subject to Decree no 4.517/72 on "General Regulation of Public Institutions", i.e. similar to the CDR, IDAL etc.... It will have wide autonomy like the BL. The new law would establish the PHFA as a Special Public Institution. It will be a legal entity, public in nature, owned by the State and operating under private law. The PHFA offers a comprehensive institutional solution to the issue of management of public hospitals and PHC centers and completely severs the public provision of HC from the MOPH. It will have great flexibility and will provide for the possibility of collaboration with the private sector.

3.3.3.3.1 – Functions

The PHFA will have its own patrimony and will have financial, contractual and managerial autonomy. Ownership of all the public hospitals and PHC centers will be transferred to it. It will run all these public heath care facilities in a competitive market environment. Each facility will have its own mandate and its organizational structure which will be determined by the PHFA Board of Directors. The Board will decide whether certain facilities will be autonomous, part of an integrated regional network, or managed by the private sector. Ways of collaborating with the private sector as in joint ventures will also be at the directive of the Board.

3.3.3.3.2 – Organization

The PHFA will have a Board of Directors representing the owners: the State and other contributing agencies (ex. NHF, municipalities…). The Executive Branch will have a Director General, Heads of Departments and professional staff. There will be four departments:

1 – Department of Hospitals
2 – Department of PHC centers
3 – Department of Planning and Statistics
4 – Department of Finance

De Geyndt studied in detail the essential features and advantages of having all public hospitals managed by the PHFA (Table 4.2) (61).

Table 8 – Features and Legal Requirements of the PHFA (19)

FEATURES	LEGAL REQUIREMENTS	APPLICATION
Nature	Art 40 of Decree 4.517/72 and new laws after 1972 recognized special Public Institutions governed by their own charters and not by the general law of Public Institutions (BL, NSSF, CDR, IDAL…).	Special Public Institution created by Law as a public entity operating under private commercial laws.
Objectives	Each special public institution has particular objectives.	To operate public HC facilities with financial, contractual and administrative autonomy.
Founders	Law founds special Public Institutions.	By virtue of a special law.
Capital	No specific legal requirements.	State endowment as initial capital, plus the valuation of each hospital placed in PHFA.
Charter	Special Public Institutions have their own Charter in the same Law that creates them.	The Law creating PHFA as a special public institution is also its Charter.
Board of Directors	No specific requirements. Existing special public institutions vary.	Composed of eleven (11) members representing the State and other interests.
Management structure	No specific requirements. Existing special public institutions vary.	Board of Directors: policy and supervision Director-General: executive management.
State control and supervision	No specific requirements. Existing special public institutions vary.	MOPH, Court des Comptes. Regular accounting and auditing as required for private enterprises.
Transparency	No specific requirements. Existing special public institutions vary.	• Accounting and auditing: according to standards applicable to private enterprises. • Reporting: regular reporting to MOF, MOH and others. • Public information: regular financial and operational disclosures in mass media.
Taxation	No specific requirements.	Taxed as any publicly-owned enterprise

3.3.4 – National Drug Authority

3.3.4.1 – New Drug Law

The 1994 Drug Law will be reviewed and in its place two laws will be passed, one for the practice of pharmacy (regulating pharmacists and pharmacies), and the other for drugs. The new drug law will establish the NDA and spell out legislation related to drugs registration, evaluation, quality assurance, safety, accessibility at reasonable cost etc…. It will define clearly what constitutes a drug, will cover veterinary drugs, will regulate clinical trials involving humans, will put the pricing policy of drugs, will allow generic substitution of patent-expired drugs by the pharmacists etc….

3.3.4.2 – National Drug Authority

3.3.4.2.1 – Functions

The NDA will be an autonomous and self supporting public institution, financed by the drug registration and licensing fees. It will be responsible for implementing all the regulations on drugs. Among its main functions, it will:

a. Introduce an automated system of **drug registration,** a process that will become efficient and transparent; collect and computerize data on registered drugs in Lebanon.
b. Formulate and promote a **National Drug Policy** in collaboration with all stakeholders, ensuring that only safe and good quality drugs are available on the Lebanese market.
c. Establish the **National Drug Information Centre** and a national pharmaco-vigilance program involving physicians, hospitals and pharmacists. This centre will implement a plan to improve public knowledge about drugs.
d. Promote the **Rational Use of Drugs** in collaboration with the LOP and the LOPh and implement the "Ethical criteria for medicinal drug promotion" of the WHO. Continuously update the National List of Essential Drugs and National Drug Formulary, and establish and update the National List of Reimbursable Drugs in collaboration with the NHF.
e. Establish and run a **National Drug Quality Control Laboratory**, with appropriate physical and human resources to perform all pharmacopoeia tests and assays especially on generic and locally produced drugs. This will replace the present Central Public Health Laboratory of the MOPH. Modern quality assurance system with adequate inspection services will be established.
f. Establish a **National Adverse Drug Reaction Centre** which will get fast information on the safety of drugs from the WHO International Drug Monitoring Center.
g. Promote the **local drug industry** by ensuring their high international standards according to the latest Good Manufacturing Practice and by proposing legislation for various incentives for their utilization.
h. Establish the **reimbursable drug price** in collaboration with the NHF, and using the methodology of reference pricing adopted by WE countries like Holland, Germany…
i. Legislate incentives for pharmacists to use **generic drug substitution.**
j. Propose **new pricing mechanisms** for prescription and OTC drugs, and determining reimbursement rates, patient user charges and categories exempted from them etc…

k. Adopt one **National Therapeutic Classification** along with the Anatomical Therapeutic Chemical codes to standardize coding of drugs and to facilitate international comparisons.

3.3.4.2.2 – Organization

The NDA will be headed by a Chief Executive Officer and will have five departments:

1 – Department of Drug Registration, Drug Supply and Local Production
2 – Department of Drug Quality and Safety that will run the Quality Control Laboratory
3 – Department of Drug Pricing
4 – Department of Statistics and Coding
5 – Department of Drug Information

All management positions will be staffed by professionals based on private contracting.

3.3.5 – National Health Care Accreditation and Quality Agency

The need to have the HC facilities properly accredited and quality of care assured has been recognized for a long time and its institutionalizing was first attempted in 1995 with a decree to create a National Quality Assurance Committee. In 1999, the MOPH embarked on a project of accreditation of hospitals in Lebanon and a private contractor (OPCV) developed the guidelines, manuals and hospital surveys. This activity should be institutionalized into the NHCAQA. This agency will have the mission of accrediting all HC facilities and evaluating the quality of care of all HC providers. The NHCAQA will be a public institution; its independence from government interference will guaranteed by the composition and internal regulation of its various units. It will be financed partly by GOL budget, and partly by the NHF and the HC providers that it accredits.

3.3.5.1 – Functions

3.3.5.1 1– Accreditation of Health Care Facilities

All HC facilities will be subject to accreditation after proper criteria and accreditation manuals are elaborated. The purpose of the accreditation process is to ensure the safety and quality of care provided and to promote the development of continuous quality of care by all HC providers. The accreditation procedure will involve hospitals, PHC centers, chronic care centers, rehabilitation centers, medical laboratories etc… It will include all components of the facility's function: hotel and support services, staffing, clinical practice, quality and availability of information systems used to collect quality assurance data, patient satisfaction etc…

3.3.5.1.2 –Performance Indicators

The NHCAQA will develop performance indicators for all types of HC services; it will collect these indicators in a systematic and structured way and give feedback to the concerned providers and other agencies ex. MOPH, NHF…. Example of these indicators include: death from all causes, early detection of cancer, case-mix adjusted length of stay, rate of medication errors, rate of un-indicated surgery, rate of re-operation, conceptions below the age of 16 years etc…

The development of performance measures is a difficult matter and most of the measures are population-based. Three kinds of measures can be done: process measures, biological outcomes and health outcomes; health outcomes are what people care about.

3.3.5.1.3 – Clinical Pathways and Protocols

The NHCAQA will develop clinical pathways and protocols in cooperation with the LOP, LON and SPH. They will be developed for inpatient as well as certain categories of outpatient care. Quality of care indicators and outcome indicators will be established for each clinical pathway. The adoption of the clinical pathways will lead to a reduction in the cost of care as it specifies an optimal package and sequence of care activities. It will also lead to improved quality of care and improve negotiation between purchasers and providers.

3.3.5.1.4 – Treatment Errors

The NHCAQA has the mandate to find and implement ways of reducing accidents, incidents and infections related to HC. It will create a penalty-free reporting system for errors that result in patient injury, including medication errors. The person who reports the error is promised anonymity and will not be punished. This will help understand and correct the causes of the errors which may be systemic in nature and not due to the individual HC provider.

3.3.5.2 – Organization

The NHCAQA will have a Board of Directors, a Scientific Council, and an Executive Management. The Board of Directors will represent the MOPH, NHF, NDA, LOP, LOD, LOPh, LON, SPH, Syndicate of PHI companies, NHTAA and Universities. The Minister of Public Health will also name to the Board of Directors professionals in the field of accreditation and quality assurance. The Board will set the general policies to be implemented by the executive branch, approves the budget and accounts, and sets the yearly program to be executed.

The Scientific Council will be formed of professional specialists in accreditation and quality assurance and quality improvement. It will be advisory to the Board and provides expert opinion and recommendations to the Director General in relation to scientific and technical aspects of accreditation and quality of care. It will also assess the accreditation reports and establish the recommendations to be followed by the HC facility.

The executive branch will be composed of a Director General and Directors and staff of the four departments:

1 – Department of Accreditation
2 – Department of Quality of care
3 – Department of Statistics and Performance Indicators
4 – Department of Clinical Protocols

All the executive management will be staffed by professionals in the field on private contract basis.

3.3.6. – National Health Technology Assessment Agency

HTA denotes any process of analyzing and reporting properties of a medical technology used in HC, such as safety, efficacy, feasibility, indications for use, cost-effectiveness, social, economic or ethical consequences etc… Any medical intervention is included under technology including new devices, screening programs, pharmaceuticals, medical treatment, surgical procedures etc… The goal of HTA is to provide decision-makers (doctors, administrators, politicians) with timely and valid evidence-based information about emerging technologies. It employs literature reviews, randomized controlled trials, outcomes analyses, meta-analyses, critical reviews, consensus development conferences etc… International collaboration and global information sharing as with the Cochrane Collaboration and the International Network of Agencies for Health Technology Assessment (INATHA) is very helpful but it does not replace setting up national agencies. There are many value judgments that should be addressed at the national or even regional level ex. equity issues, patient preference, cost-utility, ethical considerations etc…

3.3.6.1 – Functions

The NHTAA will perform two broad categories of activities:

a. **HC Technology Assessment Program**: this will provide policy makers, private and public payers and providers with the necessary evidence-based information to make sound decisions. In particular, it will provide valuable information to the NHF on the competing new technologies: which ones it should fund and which ones are still not proven to be of increased benefit compared to the old technology. An evidence based clinical practice program is also included that will provide information on international clinical practice guidelines and evaluate ways to translate these guidelines into clinical practice.
b. **Information Dissemination Program** that will disseminate research findings which are of high priority, to all stakeholders, HC providers and policy makers. This program will use various means of information dissemination including briefs, conferences, TV broadcasts, email, lectures…

3.3.6.2 – Organization

The NHTAA can be either within a specialized public agency, or a private agency that has close collaboration with the government agencies. In the Lebanese context and because of the difficulty to have the needed expertise and multi-disciplinary specialists in the public sector, it would be preferable to have the agency as a private non-profit institution. This will also ensure that it will not be captured by politicians and special interest groups. The NHTAA executive committee will have representatives of private and public institutions ex. Universities, NHF, MOPH, professional orders, relevant international organizations… The agency will be staffed by experts in the areas of organizational management, policy analysis, health economics, technology assessment, epidemiology, statistics, biomedical engineering… Its finances will come from donors, the government, universities, international agencies, private and public agencies for whom specific technology assessment or research are carried etc…

3.3.7 – Higher Council for Health

Decree 8377, 1961 legislates the MOPH functions and activities. Section 99 stipulates the creation of a permanent advisory board to the Minister of Public Health called the Higher Council for Health. Sections 100 to 104 delineate the Council's composition and activities. The Council gives consultative opinions and its decisions are only advisory to the Minister of Public Health. It has been dormant and ineffective. It is proposed that this Council be reinstituted, its bylaws changed to include a major role in health care quality. It will be chaired by the Minister of Public Health and will include all the major stakeholders as well as patient advocates. It will bring together and coordinate a variety of quality efforts. It will have a Committee on Quality Assurance that is staffed by the QMU of the MOPH. Another main activity of the Council will be to propose to propose to the minister of Public Health the basic package of benefits and serial revisions based on data from the NHF and the NHTAA for the effective and cost-effective interventions and innovations in HC.

3.3.8 – Private Health Insurance Companies Regulation

The increased HE and expectations of the population for more and better HC services have put a lot pressure on the National as well as Social HC systems with the governments unable to meet these demands and costs from taxation, and the social contributions of employers and employees becoming too high to sustain. This is why many countries are turning to the private sector to alleviate some of these pressures, shifting some responsibilities from the SHI to the PHI. The PHI will make the citizen take in charge his/her own health by choosing among a variety of programs. The insurers frequently monitor the behavior of both the provider and the patient and in the long run, extensive insurance coverage will affect what HC technologies are developed. The insurers are supposed to provide a competitive market, providing choice to the citizen, and they are accountable to the consumer and to the supervisory authorities. If left unregulated, the PHI market will lead to escalation of costs because of the inflationary premiums, inefficiency because of variation of physician practice and lack of practice guidelines and outcome measurements, inequity because of cream-skimming and exclusion of the poor and sick. The USA experience has shown that self-regulation has failed and extensive public regulation of the market (both providers and insurers) is mandatory to provide efficient, equitable and sustainable HC.

The public regulation of the PHI should include:

a – imposing a compulsory community rating of premiums (instead of risk-related rating) and retention of the insured across all risk categories
b – enforcing the provision by the PHI of a defined minimum basic package of benefits that is transparent to the consumer
c – preventing cost-shifting to the public sector by preventing market segmentation
d – imposing on the insurers uniform accounting rules to ensure transparency
e – promoting the creation of cooperatives to offer insurance for the self-employed.

A Health Insurance Standards Board will be instituted to oversee the activities of the PHI companies, ensure their compliance with regulations and advise on effective competitive practices, and set enrolment standards.

3.4 – IMPLEMENTATION

Policy formulation and implementation is a dynamic process and effecting change is a learning experience in which feedback from earlier initiatives is used for future recommendations. "Policies are frequently refashioned as they are implemented through negotiation and adaptation" (20). The final outcome is usually quite different from the intended and declared one, with a gap between intentions and results. Change involves a cycle of : 1- situation analysis, setting priorities, goals and targets, and policy formulation ; 2- developing strategic plans and implementation; 3- monitoring with relevant indicators; 4- evaluation of the implemented policy for feedback..

3.4.1 – The **factors that affect implementation** are grouped into four categories that are inter-related: context, process, actors and content (Walt 1998).

3.4.1.1 – The **contex**t encompasses historical, political economic and institutional factors.

3.4.1.2 – The **actors** are varied and include: politicians and bureaucrats within government; managers and HC professionals who are the street level bureaucrats; the public and patients whose interests are usually suppressed; stakeholders who are structural interests and interest groups who seek to preserve their benefits.

3.4.1.3 – The **process** of change depends on: the nature of the political system; the relationship between policy-makers and those responsible for implementation; the approach to reform.

3.4.1.4 – The **content** of the policies: the policy could be a broad statement of intent or specific, is itemized or system wide and should be coherent. Capacity to implement change, monitoring and feedback mechanisms, adequate information systems and availability of finances are all important issues.

3.4.2 – Managing Change

The proposed restructuring will be a major change that will affect a lot of people and will "make them feel that they lost control over important aspects of their lives and their environment"; it will cause disruption and all disruptions cause resistance (21). The process of change involves moving from the present status quo which is a comfortable equilibrium, to a transition state to reach a new desired equilibrium (22). It is the transition state which is the cause of resistance because it is uncertain, unpredictable, chaotic, and frightens people. Resistance is therefore inevitable and should be anticipated, understood and managed. In order to counteract the vicious circle of misunderstanding, confusion, alienation and hostility to the proposed change, effective communication of the intentions of the reforms, active listening and creation of an atmosphere of trust with all stakeholders as well as readiness to change course during implementation are a necessity.

For Lebanon, in view of its political system that is a mixture of coalition and consensus government, I believe that, in order to implement the proposed comprehensive reform, the pace of change should be rather slow, and effected through incremental changes that are additive within the overall framework.

3.4.3 – What Comes First?

The implementation of the proposed restructuring will take few years. It will be gradual and starting with the priorities: "first things first".

3.4.2.1 – **Advocacy**: the MOPH will be the advocate of the needed change and will promote it inside the government, with all the stakeholders and with the public through a campaign of information, communication and debate.

3.4.2.2 – **Legislation**: the MOPH will prepare the proposed changes in legislation for adoption by the GOL and approval by Parliament. It would be a comprehensive restructuring of the legal framework of the HC sector. All the present laws involving the ministries and agencies that have to do with HC will be reviewed (Laws for MOPH, NSSF, CSC, PHI, Drugs, Public Hospitals etc…). A new comprehensive Law will then be elaborated to institutionalize all the proposed new authorities and necessary amendments will be made to the present Laws.

3.4.2.2.1 – The New Law

A new law will be passed in parliament that will recognize that the MOPH is the ministry responsible about all aspects of health and HC in the country. It will also legislate the universal SHI coverage for all Lebanese citizens and legal residents. It will institute the following special public institutions that will each have its own charter to be detailed in subsequent decrees: the NHF, the PHFA, the NDA, the NHCAQA, and the Health Insurance Standards Board. The functions of each of these new institutions will be specified as mentioned in the previous paragraphs. The New Law will also transfer the ownership of the public hospitals and PHC centers from the respective ministries (ex. MOPH, MOSA) to the NHF.

3.4.2.2.2 – Amendments of Previous Laws

The Laws that address various aspects of HC in Lebanon will have to be revised to be commensurate with the new Law.

1 – Amendment of Decree no 8377 of December 30, 1961 which organizes the MOPH to exclude from it the functions that will not be performed by the MOPH and to include the new Units and functions as well as amending the functions of the Higher Council for Health.
2 – Amendment of Decree Law no 159 that creates Health Centers and Health Regions.
3 – Amendment of the Law of Pharmacies no 367 of August 8, 1994 and replacing it with one law for the practice of pharmacy and another law for drugs.
4 – Amendment of the NSSF Law no 13955 of September 26, 1963 and all following amendments and decrees to exclude from its functions all HC related functions.
5 – Amendment of the Insurance Organization Law no 98/2 of May 4, 1968 and Law no 94 of June 18, 1999 to include the regulatory mechanisms of PHI companies.
6 – Amendment of the Mutual Societies Law no 35 of May 9, 1977 to be commensurate with the new laws.

7 – Amendment of the Law no 9826 of June 22, 1962 and Decree no 15206 of January 21, 1964 concerning private hospitals and contracting with them to be commensurate with the new regulations of hospital accreditation and contracting with the NHF.
8 – Amendments of all laws and ministerial decrees that confer the right to any ministry or government agency to finance or provide HC to be commensurate with the new laws.
9 - Amendments of all laws and decrees regarding the health councils, drug production, importation, registration supply, quality and dispensing, functions of ministries, municipalities, NGOs, or contracts with any government agency, which contradict the new laws.

3.4.2.3 – **Training**: the MOPH will recruit and train the necessary manpower and build the human capabilities needed for its new role.

3.4.2.4 – **Information**: the MOPH will institute and improve its systems for information collection and dissemination.

3.4.2.5 – **New agencies**: the various new agencies will be instituted as the needed legislations are passed, and they will start taking over their mandates from the present organizations, as applicable.

CONCLUSION

This document proposed guidelines for a restructuring of the health care system to become more equitable, efficient and sustainable. This first step of making the diagnosis and recommend the treatment is only one step in a long journey.

The next step is to assess the financial and economic impact of this restructuring. Such an assessment would give the government of Lebanon an objective measure of the fiscal and financial costs and benefits which will clarify the needed changes in the government budget allocations to health care, and will pave the way to start implementation.

ANNEX TABLES

Annex Table 1 – Financial Indicators

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Nominal GDP	7669	9292	11296	13156	14984	16258	16399	16399	16660	17292	18042
Change real GDP %	7.0	8.0	6.5	4.0	4.0	3.0	1.0	-0.5	2.0	2.0	3.0
Change nominal GDP%	38.0	21.2	21.6	16.5	13.9	8.5	0.9	0.0	1.6	3.8	4.4
Budget Deficit	679	1799	1831	2379	3540	2245	2380	3960	2806	2859	2612
Deficit/GDP %	8.9	19.4	16.2	18.1	23.6	13.8	14.5	24.1	16.8	16.5	14.5
Net Public Debt	4632	8209	10681	13008	15390	18561	22406	25200	28312	30727	33381
Public Debt/GDP%	60.4	88.3	94.6	98.9	102.7	114.2	136.6	153.7	169.9	177.7	185.0
Inflation%	29.0	8.2	10.3	8.9	7.8	4.5	0.2	-0.4	-0.4	1.8	1.3
Rate USD/LL	1711	1647	1596	1552	1528	1508	1507	1507	1507	1507	1507
Govt reven & grants/GDP%	9.0	8.0	9.0	10.0	12.0	12.0	19.4	19.6	18.7	22.4	24.3

Source IMF, MOF – Numbers in billion USD

Annex Table 2 – Comparison of HH Income between 1997 and 1999 (5)

MONTHLY INCOME (1000LL)	1997 (%)	1999 (%)
<300	4.9	5.8
300-500	15.0	13.0
500-800	23.3	21.0
800-1200	22.1	21.1
1200-1600	13.5	13.4
1600-2400	10.9	12.1
2400-3200	5.5	5.9
3200-5000	2.6	4.3
>5000	1.8	3.1
Undetermined	0.3	0.3

Annex Table 3 – Tutelage, Entitlement and Benefits Under Various Funds (4,8,9)

FUND	TUTELAGE	ENTITLEMENT	COVERAGE
NSSF	MOSA	Employees, self employed, others	Hospitalizations 90% Medications, consults, diagnostics 80%
CSC	PCM	Staff public sector& dependents	Hospitalizations 90% Medications, consults, diagnostics 75% Dental 75%
M F	MA	Voluntary	Variable
ARMY[1]	MOD	Uniformed staff & dependents	Hospitalizations, medications 100% Consults, diagnostics, dental 100%
ISF, GSF, SSF	MIMRA	Same	Same
PHI	MET	Voluntary	Variable
MOPH	MOPH	Uncovered Lebanese	Hospitalizations 85% Expensive drugs 100%

[1]The co-payments mentioned are for the subscriber. For dependents, see Ammar (8).

Annex Table 4 – Distribution of Individuals by Type of Insurance (4,5)

	NHA 1998	NHHEUS 1999
NSSF	**26.1%**	**17.8%**
NSSF ONLY	21.5%	14.6%
INS CO NSSF	4.5%	3.2%
CSC	**4.4%**	**4.5%**
MUTUAL FUNDS	**1.6%**	
ALL ARMED FORCES	**11.1%**	**8.1%**
ARMY	8.8%	
ISF	1.9%	
GSF, SSF	0.4%	
PRIVATE H INSURANCE ALONE	**8.0%**	**8.3%**
OTHER INSURANCES[1]		**8.2%**
TOTAL COVERED	**51.2%**	**45.9%**
MISSING		**1.8%**
UNCOVERED	**48.8%**	**52.3%**
NON-LEBANESE[2]	**7.6%**	**8.1%**
POTENTIAL MOPH BENEFICIARIES	**41.2%**	**44.2%**

[1] includes municipalities, group insurance, insurance at work, Hizbollah, UNRWA & occupied territories.
[2] estimate of non-Lebanese, mainly Palestinians in Lebanon, NHA and NHHEUS.
Percentages do not add up exactly because of rounding to next decimal and because some individuals have more than one insurance in NHHEUS.
Adapted from NHA and NHHEUS (4,5).

Annex Table 5 – Sources of Finances to Financing Intermediaries (4)

MILLIONS LL	MOPH	ARMY	ISF	GSF	SSF	MOSA	MDI	CDF	CSC	NSSF	MF	EBS	PHI	HHOOP	AUB	NGO	TOTAL	%TOT
TREASURY	261280	86621	39709	6000	2400		230	1300	45129	79334	16470						**538473**	**17.98**
PRIVATE	0	0	0	0	0	0	0	0	0	216792	17380	44203	333878	1784800	0	0	**2397053**	**80.06**
EMPLOYERS										173434		44203	91416				309053	10.32
HOUSEHOLDS										43358	17380		242462	1784800			2088000	69.74
DONORS	49639					1214									966	6774	**58593**	**1.96**
TOTAL	310919	86621	39709	6000	2400	1214	230	1300	45129	296126	33850	44203	333878	1784800	966	6774	**2994119**	
%TOTAL	10.38	2.89	1.33	0.20	0.08	0.04	0.01	0.04	1.51	9.89	1.13	1.48	11.15	59.61	0.03	0.23	100.00	100.0

Annex Table 6 – Financing Intermediaries to Providers (4)

MILLIONS LL	MOPH	ARMY	ISF	GS	SS	MOSA	MDI	CDF	CSC	NSSF	MF	EBS	PHI	HOOP	AUB	NGO	TOTAL	%TOT
Hospitals	202698	50769	24371	3500	1450	0	115	0	24337	107708	0	0	50082	246400		0	**711430**	**23.76**
Public	20204								39	562				8800			29605	0.99
Private	182494	50769	24371	3500	1450		115		24298	107146			50082	237600			681825	22.77
Nursing care facilities	23880	0	0	0	0	0	0	0	0	0	0	0	0	0		0	**23880**	**0.80**
Non-institutional HC providers	27795	3874	7854	2500	950	1214	115	0	18763	42159	25388	40074	100163	978400		6774	**1256023**	**41.95**
Pr Physician clinics			6994	2500	950		115			29601	16925	40074	100163	283504			480826	16.06
NGO clinics	24870					1214								24384		6774	57242	1.91
Dentists		517	811						2350					456000			459678	15.35
Paramedical practitioners																	0	0.00
Outpatient care centers		3357												6192			9549	0.32
Medical & diagnostic labs	1857		49						16413	12558	8463			180800			220140	7.35
Home care services																	0	0.00
Other ambulatory	1068													27520			28588	0.95
Retail sales & other goods	22118	14198	5586	0	0	0	0	0	0	47541	8462	0	103502	560000		0	**761407**	**25.43**
Pharmaceuticals (budget)	21151	10000	3064								8462						42677	1.43
Pharmaceuticals(ambulatory)		3200	2172							47541			103502	560000			716415	23.93
Sale of optical& hearing aids																	0	0.00
Sale of Medical appliances	967	998	350														2315	0.08
Other sale																	0	0.00
General Health Administration	13241	16575	1898	0	0	0	0	0	1934	40000	0	4129	80131	0		0	**157908**	**5.27**
GOL administration of health	4961	3300	70						260	13000							21591	0.72
GOL salaries of health professionals	8280	13275	1828						1674	27000							52057	1.74
Private administration of health												4129	80131				84260	2.81
Educational institutions	0	120	0	0	0	0		0	0	0	0	0	0	0		0	**120**	**0.00**
Total capital investment	21187	1085	0	0	0	0	0	0	95	0	0	0	0	0	966	0	**23333**	**0.78**
Capital investment									95								95	0.00
MOH facilities	21187																21187	0.71
Army facilities		1085															1085	0.04
AUB															966		966	0.03
Others	0	0	0	0	0	0	0	1300	0	58718	0	0	0	0		0	**60018**	**2.00**
Difference NSSF revenues & expenses										58718							58718	1.96
Customs duties Fund								1300									1300	0.04
TOTAL	310919	86621	39709	6000	2400	1214	230	1300	45129	296126	33850	44203	333878	1784800	966	6774	**2994119**	
% OF TOTAL	10.38	2.89	1.33	0.20	0.08	0.04	0.01	0.04	1.51	9.89	1.13	1.48	11.15	59.61	0.03	0.23	100.00	100.0

Annex Table 7 – Summary of Finances (4)

MILLIONS LL

FINANCING INTERMEDIARIES

	TOTAL	%TOT	MOPH	ARMY	ISF	GS	SS	MOS	MDI	CDF	CSC	NSSF	MF	EBS	PHI	HOOP	AUB
SOURCES OF FINANCE																	
TREASURY	**538473**	**17.98**	261280	86621	39709	6000	2400		230	1300	45129	79334	16470				
PRIVATE	**2397053**	**80.06**	0	0	0	0	0	0	0	0	0	216792	17380	44203	333878	1784800	0
EMPLOYERS	309053	10.32										173434		44203	91416		
HOUSEHOLDS	2088000	69.74										43358	17380		242462	1784800	
DONORS	**58593**	**1.96**	49639					1214									966
TOTAL	**2994119**		310919	86621	39709	6000	2400	1214	230	1300	45129	296126	33850	44203	333878	1784800	966
%TOTAL	100.00	100.0	10.38	2.89	1.33	0.20	0.08	0.04	0.01	0.04	1.51	9.89	1.13	1.48	11.15	59.61	0.03

	TOTAL	%TOT	MOPH	ARMY	ISF	GS	SS	MOS	MDI	CDF	CSC	NSSF	MF	EBS	PHI	HOOP	AUB
PROVIDERS																	
Hospitals	**711430**	**23.76**	202698	50769	24371	3500	1450	0	115	0	24337	107708	0	0	50082	246400	
Nursing care facilities	**23880**	**0.80**	23880	0	0	0	0	0	0	0	0	0	0	0	0	0	
Non-institutional HC providers	**1256023**	**41.95**	27795	3874	7854	2500	950	1214	115	0	18763	42159	25388	40074	100163	978400	
Retail sales & other goods	**761407**	**25.43**	22118	14198	5586	0	0	0	0	0	0	47541	8462	0	103502	560000	
General Health Administration	**157908**	**5.27**	13241	16575	1898	0	0	0	0	0	1934	40000	0	4129	80131	0	
Educational institutions	**120**	**0.00**	0	120	0	0	0	0		0	0	0	0	0	0	0	
Total capital investment	**23333**	**0.78**	21187	1085	0	0	0	0	0	0	95	0	0	0	0	0	966
Others	**60018**	**2.00**	0	0	0	0	0	0	0	1300	0	58718	0	0	0	0	
TOTAL	**2994119**		310919	86621	39709	6000	2400	1214	230	1300	45129	296126	33850	44203	333878	1784800	966
% OF TOTAL	100.00	100.0	10.38	2.89	1.33	0.20	0.08	0.04	0.01	0.04	1.51	9.89	1.13	1.48	11.15	59.61	0.03

CENTRAL GOL **14.97** **SSHII** **12.53**

= **PUBLIC** **27.50** **72.50** **PRIVATE**

Annex Table 8 – Financing Sources to Funding Agencies (43)

Financing Sources	Mill LL	%	Funding Agencies	Mill LL	%
PRIVATE	**2397053**	**80.06**			
HOUSEHOLDS	2088000	69.74			
			Out Of Pocket	1784800	59.61
			HH Contributions to SHI	60738	2.03
			HH Contributions to PHI	242462	8.10
EMPLOYERS	309053	10.32			
			Employer Benefit Schemes	44203	1.48
			Employer Contributions to SHI	173434	5.79
			Employer Contributions to PHI	91416	3.05
TAXATION	**538473**	**17.98**			
			To Government Funding Agencies	397540	13.27
			To SHI institutions	140933	4.71
DONORS	**58593**	**1.96**		1.96%	
			To Government	50853	1.70
			To NGOs and AUB	7740	0.26
TOTAL	2994119	100		2994119	100

Annex Table 9 – Private and Public Funding Agencies (4)

	Million LL	%
TOTAL PRIVATE FUNDS	**2170621**	**72.50**
HOUSEHOLDS OOP	1784800	59.61
PRIVATE INSURANCE SCHEMES	333878	11.15
EMPLOYER BENEFIT SCHEMES	44203	1.48
NGOs	6774	0.23
AUB	966	0.03
TOTAL PUBLIC FUNDS	**823498**	**27.5**
Social Health Insurances	**375105**	**12.53**
NSSF	296126	9.89
CSC	45129	1.51
MUTUAL FUNDS	33850	1.13
Government Funds	**448393**	**14.97**
MOH	310919	10.38
ARMY	86621	2.89
ISF	39709	1.33
GS	6000	0.20
SS	2400	0.08
MOSA	1214	0.04
MDI	230	0.01
CUSTOM DUTIES FUND	1300	0.04
TOTAL	2994119	100.00

Note: NSSF amounts include excess revenue over expenses of 58718 million LL.

Annex Table 10 – Distribution of HE to Providers

MILLIONS LL	**THE**	**%**	**PUBLIC**	**%**	**PRIVATE**	%	**HH**	%
SOCIAL HI	0	0.00	0	0.00	0.00	0.00	60738	2.91
PRIVATE HI	0	0.00	0	0.00	0.00	0.00	242462	11.61
HOSPITALS	711430	23.76	414948	50.39	296482	13.66	246400	11.80
DRUGS	759092	25.35	95590	11.61	663502	30.57	560000	26.82
PR DR CLINICS	480826	16.06	57085	6.93	423741	19.52	283504	13.58
DENTISTS	459678	15.35	3678	0.45	456000	21.01	456000	21.84
LABORATORIES	220140	7.35	39340	4.78	180800	8.33	180800	8.66
OTHER AMBULATORY	95379	3.19	30509	3.71	64870	2.99	58096	2.78
ADMINISTRATION	157908	5.27	73648	8.94	84260	3.88	0	0.00
CAPITAL INVESTMENT	23333	0.78	22367	2.72	966	0.04	0	0.00
OTHERS	26315	0.88	26315	3.19	0	0.00	0	0.00
EXCESS REVENUES	60018	2.00	60018	7.29	0	0.00	0	0.00
TOTAL	2994119	100.0	823498	100.0	2170621	100.0	2088000	100.0

Others include Nursing Care Facilities, Sale of Medical Appliances and Educational Institutions Expenses
Excess Revenues are: NSSF (58718) and CDF (1300).

Annex Table 11 – Payments for HC Services in Million LL

	1998	1999	2000	2001	2002	2003	Services
NSSF	107708		117000	179000	195000	210000	HOSPITAL
NSSF	89700		111000	146000	182000	184000	A+D
NSSF	197408	227000	228000	325000	377000	394000	H+A+D
CSC	43100	49000	53000	59700	69000	72000	H+AMB
MOPH	187000	186258	205335	226000	225000	230000	HOSPITAL
DRUGS*			586000	698000	778000	888000	IMPORTED
DRUGS*				30840	33340	37960	LOCAL

Sources: NHA, MOPH, Order of Pharmacists.
H: Hospital; A: Ambulatory; D: Drugs.
*Public sales price of drugs imported or produced locally.

Annex Table 12 – Distribution of HH, %HE, Insurance Cover and Debt by Income Categories (43)

Income Category (1000 LL)	**% HH**	**%HE/Total Expenditure**	**% Non-insured**	**% HH in Debt**
<300	4.9	19.6	74.1	42.0
300-500	15	17.8	69.7	53.5
500-800	23.3	16.0	64.8	53.2
800-1200	22.1	14.8	49.3	44.8
1200-1600	13.5	14.1	45.3	38.4
1600-2400	10.9	14.2	42.0	30.4
2400-3200	5.5	11.4	27.8	41.4
3200-5000	2.6	10.9	27.8	24.7
>5000	1.8	8.1	16.4	10.9
Missing	0.3	18.2	23.0	20.6
Total	100	14.1	52.3	43.5

Annex Table 13 – Reason for Not Seeking HC for Individuals Who Need it (43)

Mohafaza	% HH income/month <1 600 000 LL	Financial reasons	Long distance from home	Other reasons
Beirut	71.0	44.1		55.9
Beirut Suburb	71.8	41.6		58.4
Mount Lebanon	73.5	28.5	0.7	70.8
North Lebanon	83.9	38.9	0.3	60.8
South Lebanon	86.4	31.5	0.4	68.1
Nabatyeh	92.6	27.2	0.5	72.3
Bekaa	84.8	25.6	1.1	73.3
Lebanon	78.8	34.7	0.4	64.9

Annex Table 14 – Distribution of Individuals Not Seeking HC When Needed (5)

Income Category (1000LL)	Any Treatment	Hospitalization
<300	28.7	42.4
300-500	27.1	43.4
500-800	27.5	42.5
800-1200	23.6	39.4
1200-1600	22.7	42.4
1600-2400	19.7	38.2
2400-3200	16.2	30.3
3200-5000	14.7	22.7
>5000	12.2	6.3
Missing	32.9	26.7
Total	24.2	40.0

Annex Table 15 – Health System Attainment and Performance in Several Countries (1)

	Attainment of Goals						Performance		HE/Cap
Country	**Health**		**Responsiveness**		**Fairness in financial contribution**	**Overall goal attainment**	**On health level**	**Overall HS performan.**	**HE/Cap intern. USD**
LEBANON	**95**	**88**	**55**	**79-81**	**101-102**	**93**	**97**	**91**	**46**
JAPAN	**1**	3	6	3-38	30-32	**1**	9	10	13
CHILE	32	**1**	45	103	168	33	23	33	44
USA	24	32	**1**	3-38	54-55	15	72	37	**1**
UAE	50	62	30	**1**	20-22	44	16	27	35
COLUMBIA	74	44	82	93-94	**1**	41	51	22	49
OMAN	72	59	83	49	56-57	59	**1**	8	62
FRANCE	3	12	16-17	3-38	26-29	6	4	**1**	4
EGYPT	115	141	102	59	125-127	110	43	63	115
JORDAN	101	83	84-86	53-57	49-50	84	100	83	98
S-ARABIA	58	70	67	50-52	37	61	10	26	63
MOROCCO	110	111	151-153	67-68	125-127	94	17	29	99
QATAR	66	55	26-27	3-38	70	47	53	44	27
KUWAIT	68	54	29	3-38	30-32	46	68	45	41
SYRIA	114	107	69-72	79-81	142-143	112	91	108	119
IRAK	126	130	103-104	114	56-57	124	75	103	117
TUNISIA	90	114	94	60-61	108-111	77	46	52	79
ALGERIA	84	110	90-91	50-52	74-75	99	45	81	114
LIBYA	107	102	57-58	76	12-15	97	94	87	84
BAHRAIN	61	72	43-44	3-38	61	58	30	42	48

Annex Table 16 – Exposure of Different Finance Organizational Forms to Incentives (1)

Organizational forms / External incentives	Ministries of health or finance	Social security organizations	Community pooling organizations	Private health insurance funds
Governance	Public, low level of decision rights	Public or quasi-public with variable levels of decision rights	Private, high level of decision rights	Private, high level of decision rights
Financing for public policy objectives	High	Variable; government and market	None, except when receiving conditional public subsidies	None, except when receiving conditional public subsidies
Control mechanisms	Hierarchical control	Variable degrees of hierarchical control, regulations and financial incentives	Regulations and possibly financial incentives	Regulations and possibly financial incentives
Internal incentives				
Decision rights (autonomy)	Limited	Variable but usually high	High	High
Accountability	Government, voters	Board/often government	Owners/ consumers	Owners/ consumers
Market exposure	None	Variable, high when multiple organizations compete	High	High
Financial responsibility	None or very limited	Low	High	High
Unfunded mandates	High	Low	None or very limited	None or very limited

Annex Table 17 – Internal Incentives of Different Provider Organizational Forms (1)

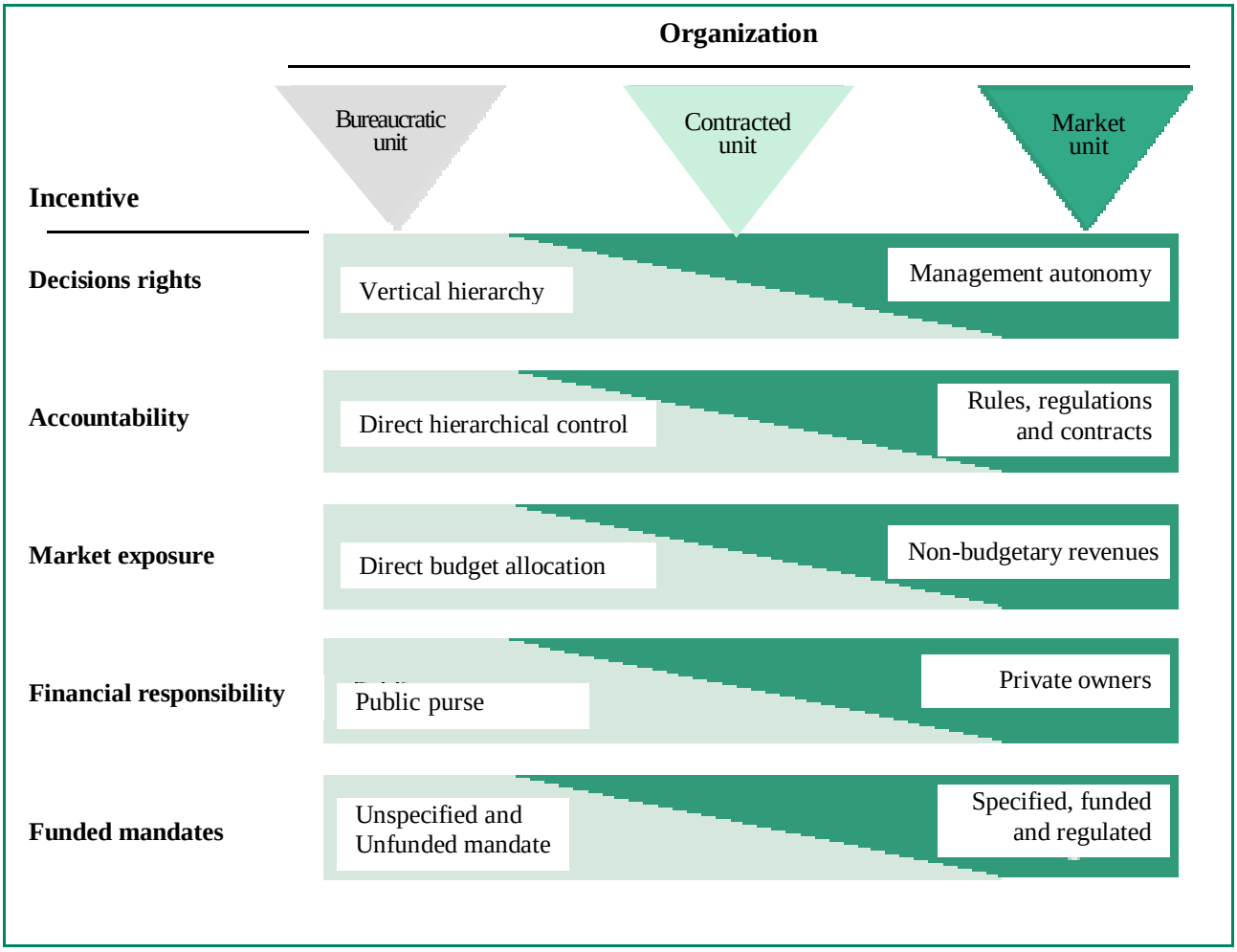


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TABLE OF CONTENTS