Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

الجمهورية اللبنانية
مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

Executive Summary

Socio-economic background

1. Background

Lebanon is a middle income country with a population estimated at 4 million over 80% of whom live in urban areas (Central Administration of Census, 1997). Before the civil war, the Lebanese economy was robust, enterprise flourished, and it was the banking center of the Middle East. The civil war, which began in 1975, led to the relocation of many service sectors out of the country, much of the industrial and agricultural infrastructure was destroyed, the economy went into decline (E.I.U. Country Profile, 1992-93).

Increased spending on defense and the reduction in government revenues from taxes and other duties led to a steep increase in public debt, which rose from 14 billion Lebanese pound in 1982 to 7.9 trillion Lebanese pound in 1994 and 28.9 trillion Lebanese pound in 1998 (Table 1). Thus in 1998 the net public debt stood at 7.2 billion Lebanese pounds per capita, net public debt amounted to 119% of GDP and debt servicing accounted for a little over 13% of the GDP

Table 1: Public Finance Indicators, Public Finance, 1994-first semester 1998

	1994	1995	1996	1997	1998
Public Revenues (LL Billions)	2241	3033	3533	3753	4430
Public Expenditures (LL Billions)	5204	5856	7225	9162	7816
Public Deficit (LL Billions)	2963	2823	3692	5409	3386
Net Domestic Public Debt (LL Billions)	6712	9287	13358	18381	19544
External Public Debt (US$ Millions)	859	1305	1998	2435	4177
Net Public Debt (LL Billion)	7983	11369	16545	22094	28825
Debt Service (LL Billion)	1488	1875	2653	3378	3214

Source: Lebanon Development Cooperation Report, UNDP 1999

Table 2 provides estimates of the gross domestic product and the real rate of growth between 1994 and 1998. Since 1994 real growth rate has decreased each year and in 1999 the country went into recession. The fall in performance was the result of a number of factors including a drop in consumption and investment, uncertainty caused by the repeated Israeli attacks, and the weak

performance in most of the economic sectors (UNDP, 1999).

Table 2: Gross Domestic Product (Millions of Dollars)

Year	GDP (US$)	Real Growth Rate (%)
1994	9110	8.0
1995	11122	6.5
1996	12996	4.0
1997	14957	3.5
1998	16200	3.0
1999*	17200	2.0

*Planned, five years fiscal reform plan
Source: Lebanon Development Cooperation Report 1999 / UNDP
Ministry of Finance

The poor performance of the economy, high net public debt, and recently introduced higher pay scales for public sector employees are all bound to put increasing pressure on the government budget. This in turn might affect public outlays to social sectors such as health and education. A systematic assessment of national expenditures (both public and private) on health using a National Health Accounts framework becomes of even greater importance in the current context.

2. Health and Demographic Status

The last population census was carried out in 1932. Recently two major surveys were conducted-- the PAPCHILD survey of 1996 covering 6,000 households and the UNFPA Population and Housing survey of 75,000 households. The latest estimates place the population at four million (Central Administration of Statistics, 1997). Of these, 93% are Lebanese citizens. Twenty-eight percent of the population is under the age of 15 and 10% over age 60. Population has been growing at 1.6 percent per year and Total Fertility Rate is 2.7.

Tables 3 shows that with regard to key health and demographic indicators, Lebanon fares better than most other Middle Eastern countries.

Table 3: Outcome indicators in selected Middle Eastern countries (1997)

Category	Egypt	Syria	Jordan	Lebanon	Lebanon(1998)
Birth Rate, crude (per 1,000 people)	25	29	31	22	23.5
Death Rate, crude (per 1,000 people)	7	5	4	6	6.5
Life expectancy at birth, total	66	69	71	70	70

(years)					
Mortality rate, infant (per 1,000 live births)	51	31	29	28	28
Mortality rate, under-5 (per 1,000 live births)	66	38	35	32	32

However, there are still significant variations across the geographical regions of the country. A study conducted by UNICEF showed that even though infant and under-five mortality was low for the country as a whole, differences existed among regions. The Bekaa and Northern regions account for most of the under-five mortality. Similarly, in undeserved regions vaccination coverage ranges between 39.6%-56.6% for measles and 70.9%-85.5% for DPT/OPV3.

Table 4 provides some selected demographic and health indicators. It shows steady increases in life expectancy and a steady decline in morality rates. The demographic transition has been accompanied by an epidemiological transition. While important health problems are still related to infectious diseases, chronic and degenerative diseases are becoming more prevalent. The causes for this are the aging of the population, changing dietary habits, and changes in lifestyle concomitant with urbanization. A recent study found that 55% percent of males and 67% of females were obese. Also, 13% of the adult population has diabetes and 26% suffer from hypertension. In addition there are 4,000 – 5,000 new cases of cancer each year. Concerning AIDS, there were 3.1 cases per 100,000 people in 1997.

Table 4: Selected Outcome Indicators for Lebanon

Series	1980	1990	1993	1994	1995	1996	1997
Life expectancy at birth, **female** (years)	67	70	-	-	-	-	72
Life expectancy at birth, **male** (years)	63	66	-	-	-	-	68
Life expectancy at birth, total (years)	35	68	-	-	-	-	70
Mortality rate, adult, **female** (per 1,000 female adults)	181	150	-	-	-	-	134
Mortality rate, adult, **male** (per 1,000 male adults)	241	210	-	-	-	-	177
Mortality rate, infant (per 1,000 live births)	48	36	-	-	-	-	28
Mortality rate, under-5(per 1,000 live births)	-	40	-	-	-	-	32
Mortality ratio, maternal(per 100,000 live births)	-	300	-	-	-	-	104

3. The Labor Market in Lebanon

In 1997, 1.2 million Lebanese were employed and of these 79% were males and 21% were females. The overall reported unemployment rate is fairly low at 8.9% for males and 7.2% for females. The highest unemployment rate is in the age group twenty to twenty-four. Only 14% are employed in the public sector. The private sector accounts for 80.5% of total employment with the percentage being higher among males than females. Of those employed 65% were in salaried jobs, 25% worked independently, 7% owned their own enterprise, 2% worked as family aids and less than 1% as interns. An interesting statistic is that there were no female owned enterprises in 1997. This is probably due to regulatory requirements. The presence of a significant salaried class should theoretically make this category of people easier to target for collection of taxes and other levies. Finally, analyzing by area of employment shows that for the overall population the highest concentration was in business followed by industry, construction, public administration, and education. The employment profile for males showed the greatest concentration in business followed by industry, construction, agriculture and fishery, and public administration. For females the greatest concentration was in education, followed by business, house helpers, and industry.

4. Health Sector

4.1 The Lebanese Health Care System

Lebanon has a highly fragmented health care system. The war considerably weakened the institutional and financial capacity of the government and public sector and its role in the provision of health care services steadily declined. In the early 1970s public hospitals like Baabda, Quarantina, Zahle and Saida had more than 150 beds each. After the war these hospitals were left with a capacity of 20 beds each and poor quality of services (Ammar et.al. 1999). Non-governmental agencies and the private sector that saw a rapid increase in both their numbers and capacity filled the vacuum.

The health care services have become increasingly oriented towards curative care with a rapid growth in the number of hospitals and centers for high technology services. Today ninety percent of hospital beds are in the private sector. Table 5 shows the availability and distribution of high technology services and equipment. The emphasis of the private sector in investing in high cost sophisticated services is evident. One study found a strong correlation between the opening of open-heart surgery centers, number of operations performed, and expenditures: as the number of centers capable of doing open-heart surgeries grew from 3 to 8, the number of surgeries performed increased from 600 to 1800, and expenditures rose from 8 billion pounds to 25 billion pounds. Private sector investments have been concentrated in urban areas and poorer regions of the country remain under-served.

Table 5: Growth in Number of High Technology Centers 1997-1998

	Number of Centers (1997)	Number of Centers (1998)
Open Heart Surgery	12	16
Cardiac Lab	19	24
Linear Accelarator	6	6
Bone Marrow Transplant	2	2
Lithotripsy	27	27
Dialysis Centers	39	45
Kidney Transplant	3	3
Specialized Center for Burned	2	2
In vitro Fertilization	12	12
CT Scan	54	60
MRI	12	16
Total	**188**	**213**

Source: NHA Matrix

The Primary Health Care system has remained weak. The private sector, especially NGOs, dominates this sector with public involvement being minimal. Private providers include private practitioners, dentists, pharmacists, and medical labs. NGOs own over 80% of the 110 Primary Health Care Centers and 734 dispensaries spread across the country. NGOs have contributed successfully to joint preventive programs carried out by the MOPH and UN Agencies. As example, over 200 centers owned and operated by NGOs are affiliated to the reproductive health program and undertake family planning activities, provide antenatal care. NGOS also support the health system by conducting surveys and training programs and provide logistical support by purchasing and distributing essential drugs through a vast network of PHC centers (UNDP, 1997). Ambulatory services tend to respond to consumer demand. Follow-up and continuum of

care remain weak, quality of care varies significantly across providers, and community involvement is limited.

4.2 Health Care Financing

In 1998, the total expenditure on health care in Lebanon amount to 2,388,761 million LL (USD 1,592,508 million) and the per capita expenditures to 597,190 LL (USD 398). The total expenditure on health is 9.83 percent of the GDP and is higher than other countries in the regional National Health Accounts initiative. This level of expenditure is more in line with OECD countries. The proportion of government budget allocated to health sector is a little over 6.5 percent. Public sources account for 22.5 percent, private sources for 75 percent of health care financing and international donors for the remaining 2.5 percent. In terms of expenditures, public sector providers accounted for less than 2 percent, private sector providers for more than 91 percent, and others accounted for the remaining 7 percent.

Lebanon has several different government, not-for-profit, and private for-profit financing schemes. These include:

(a) Two employment based social insurance schemes
(b) Four different schemes to cover the security forces
(c) The Ministry of Health financing that covers any citizen who is not covered under any other scheme. MOH payments are not dependent on the income of the beneficiary
(d) A growing private insurance market that is largely employment based
(e) Mutual funds
(f) Out-of-pocket expenditures

(a) The Social Insurance Schemes: The two employment based social insurance schemes are: the National Social Security Fund (NSSF) and the Civil Servants Cooperative (CSC). The NSSF covers employees (and their family members) working in the formal private sector as well as contracted employees and wage earners in the public sector. The Civil Servants Cooperative (CSC) covers government employees and their family members. Table 6a shows that 26% of the population was covered under NSSF and 8.8% under CSC. It is important to note that the information on the number of beneficiaries is not always available and in some instances the agencies base their estimates on the number of primary enrollees. Coverage under the NSSF

scheme ceases once the employee retires. Thus, at the time when health needs are the greatest and the ability to pay limited there is no insurance coverage.

NSSF premiums towards health care benefits amount to 15% of salary, 12% being the employer share and 3% that of the employee (Decree Numbers 2195 and 3686). If an employer offers his employees private insurance to cover either the gap in NSSF coverage or full coverage then he still has to pay a fee to the NSSF. For full coverage this is 170,000 LL per employee per year. In this case the NSSF is responsible for paying only for open-heart surgery, dialysis, and kidney transplant (NSSF). The CSC does not require any contribution from employees and covers all ambulatory and hospitalization services.

(b) There is one scheme each to cover the four arms of the security apparatus (army, internal security force, general security, and state security). These are funded by general tax revenues and cover all ambulatory and hospitalization services. There are no copayments or deductibles. Between them they covered 11.1% of the population.

(c) Private insurance has witnessed a rapid expansion in Lebanon. Insurance policies either provide complete coverage or fill in the gaps in social insurance coverage. It is estimated that roughly 8% of the population has complete coverage and 4.6% of the population has coverage that complements (fills gaps) other insurance. The private insurance market is inadequately regulated. Consequently, insurers indulge in "cream skimming", selecting only good risks and either denying coverage or setting very high premiums for individuals with pre-existing conditions.

(d) The Ministry of Health funds the hospitalization costs for any citizen who is not covered under an insurance plan (social or private). This coverage is independent of the income and asset status of the individual. In addition the Ministry of Health also covers the cost of some narrow specialties such as chemotherapy, open heart surgery, dialysis and renal transplant, and drugs for chronic diseases. Until 1992 the Ministry covered a 100% of the costs. Subsequently a 15% copayment has been introduced. However, in many instances the benefit offered by the Ministry of Health is superior to the coverage under either the social insurance schemes or private insurance and individuals prefer using the Ministry of Health to pay for care.

(e) Tax laws that provide tax-breaks to non-profit groups have lead to a proliferation of mutual funds that offer health insurance coverage to their enrollees. Recent estimates would indicate that

about 65,000 individuals were covered for health benefits by mutuelles. However, the number of enrollees ranges from as low as sixty-six to twelve thousand. Mutuelles collected 17,380,230,000 LL (USD 11,586,820) in premiums and paid out 13,871,047,500 LL (USD 9,247,365) in benefits. This amounts to a loss ratio of eighty percent. Some of the mutual funds have been established exclusively to provide gap-insurance coverage thereby negating the impact of demand side interventions aimed at controlling over consumption of high cost health services. Private insurance companies feel the differential tax treatment distorts the playing field and the growth of mutual funds hampers the competitiveness of the insurance market.

(f) In spite of the numerous social and private insurance schemes direct household out-of-pocket expenditures account for over half of all health expenditures. These are spent directly on the purchase of health services from private practitioners and pharmacists. The burden of out-of-pocket expenditures is inequitably distributed with the poorest households spending a higher proportion of their incomes on health care as compared with higher income households. Lower income households also tend to use less health care and in that sense have a higher unmet need for health services.

Table 6a: Percentage of Population Covered by Various Financing Agencies

Financing Agency	Percent of Population Covered
NSSF	26.1%
CSC	8.8
Army	8.8
IS	1.9
GS+SS	0.4
Private Insurance	8.00 (complete coverage) 4.60 (gap insurance)
Mutual Funds	1.6
MOH	42.70

Source: NSSF, CSC, Army, IS, GS, and SS figures obtained from agency or DOS. Private Insurance figures obtained from article by Ammar et.al.

Table 6b: Benefits under Various Public Financing Schemes

Type of Services	MOH	NSSF	CSC	Armed For
Hospitalization	85%	90%	90%	100%
Physician	No	Up to 20000 LL	75% up to 12000LL	Up to 20000
Specialist	No	Up to 30000 LL	75% up to 12000LL	Up to 30000
Ambulatory	No	Yes	90%	100%
Drugs	No	Yes	Yes	Yes
Emergency Clinics	No	as physician and specialist	as physician and specialist	as physician specialist
Emergency Hospitals	Hospital	as Hospitalization	as Hospitalization	as Hospitalizat
Dental Coverage	No	No	75% of tariff	100%
Ophthalmology	No	No	75% up to 35000LL	100/80/60
Immunization	Yes at HC	No	No	No
Treatment Abroad	No	No	90% pre admission	$10000 pr admissio
Open Heart	8,000,000LL	90%	As MOH	100%
Kidney Transplant	19,000,000LL	90%	As MOH	100%
Dialysis	135000LL/session	100%	100%	100%

Source: NHA

5. Profile of Health Sub-Systems in Lebanon

Following is a brief overview of the Lebanese health sector in terms of health services coverage, sources of financing, prevailing provider-payer relationships, and the size of operation of each of the health care sub-systems.

Profile of Health Sub-Systems in Lebanon

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider - Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Describes types of services and benefits available.	Describes coverage and eligibility criteria, special programs for specific population groups	Describes main sources of financing	Describes relationship between financing and service delivery functions	No. of people covered or eligible by health system nation wide	As indicated by staff, beds, or number of facilities
Government Services/MOH					
a) Provides comprehensive public health services; primary, preventive and curative care b) Performs the following financing functions: ☐ Hospitalization for anyone not covered under an insurance plan ☐ Subject to limits and restrictions pays for chemotherapy, open heart surgery, dialysis, renal transplant, and drugs for chronic conditions	☐ Everyone not covered under an insurance plan ☐ Highly subsidized primary and curative care for the entire population.	☐ Ministry of Finance (general tax revenues) ☐ Co-payments for services ☐ Donor assistance ☐ World Bank loan	Ministry of Health purchases services from private providers The Ministry also runs hospitals where staff are paid on salary	43 percent of the population	☐ 9 working Public Hospitals (482 beds) ☐ 23 Primary Health Care Centers ☐ 176 Dispensaries
National Social Security Fund					
a) Curative care services,	☐ Those working in the formal private sector,	☐ Government budget	Has own facility but largely purchases services	30 percent	☐ One Ministry of Health hospital is

pharmaceuticals. open heart surgery, kidney transplant, and renal dialysis b) Does not cover dental care, ophthalmology, immunization, and treatment abroad	contracted employees. wage earners in the private sector Dependents of Beneficiaries	Pay roll taxes Co-payments	from private providers		run under the director of NSSF
Civil Servants Cooperative					
a) Curative care including hospitalization, physician specialist, and ambulatory care, pharmaceuticals b) Subject to limits and restrictions covers dental care, ophthalmology, and treatment abroad c) Same benefit at MOH for open heart surgery, and kidney transplant. Full coverage for renal dialysis	Covers government employees and their dependents	Ministry of Finance Copayments	Purchases services from the private sector	8.8% of population	

Armed Forces (Army, ISF, GS, SS)					
a) Curative care including hospitalization, physician specialist, and ambulatory care, pharmaceuticals b) Covers all dental care, and ophthalmic care with copayments c) Subjec to limit covers preadmission costs associated with treatment abroad d) Covers all expenses associated with open heart surgery, kidney transplant, and renal dialysis	Those employed in the army and security services and their dependents	[ ] Ministry of Finance [ ] Transfers from Ministry of Defense budget	The Army has its own facilities where employees are paid a salary. It also purchases services from the NSSF and in special cases the private sector	11% of population	Contracts: [ ] 1 Hospital
Private Health					
a) Owns and operates private clinics and hospitals for primary and curative care. b) Owns and operates pharmacies	[ ] Beneficiaries of any private health plan self-insured. [ ] Company employees and their dependents. [ ] All citizens with willingness to pay.	[ ] Direct out-of-pocket payments. [ ] Payments from insurance plans. [ ] Payments from employees and employers. [ ] Payments from MOH, CSC, and other government agencies	Private hospitals & clinics, by contract. Fee-for-service, or through a third-party payer (government, insurance company or employer)	All citizens with a willingness to pay are eligible. Persons referred by MOH and other government agencies	[ ] 147 hospitals with 10387 beds. This is 90% of the beds and 88% of hospitals [ ] 1405 pharmacies and 3146 registered pharmacists [ ] 110 Primary health care centers and 734 dispensaries

6. National Health Accounts Activity

Lebanon is one of eight countries[1] participating in the Regional National Health Account (RNHA) initiative, supported by USAID, World Bank, and World Health Organization (WHO). The exercise of generating Lebanon National Health Accounts is a collaborative effort between representatives of MOH, Army, Cooperative of Civil Servants, Internal Security Forces, NSSF, and WHO The effort commenced in 1999 with the creation of a National Health Accounts Team composed of Hisham Fakha (WHO) as NHA Coordinator, Osmat Azzam and Rita Khoury (Health Sector Rehabilitation Project), Col. Charbel Mattar (Internal Security Forces), Col. Maher Halabi (Army), Dr. Doried Aoudat (Cooperative of Civil Servants) and Khaled Srour (NSSF) . Dr. Walid Ammar, Director General of the Ministry of Health and Drs. Abdel-Hai Mechbal and Latiri WHO country representatives, supervised the work of the team. The NHA team members attended both the regional NHA training workshops. Secondary data sources were identified and analyzed; data gaps identified; and survey and data collection instruments were developed. A systematic effort was undertaken to collect information from both public and private sectors. The analysis of public expenditures on health is complete. A National Household Health Care Utilization and Expenditure Survey was also completed with a view to get better information on out-of-pocket expenditures and insurance coverage. The results from the household survey will be available by the end of July and will be used to refine the NHA estimates. Data from some surveys of the private sector providers and institutions will also be completed shortly. The NHA team also adapted the classification system to the Lebanese situation (See Annex 1). This classification system was widely circulated and approved by the Ministry of Health and WHO.

Main Findings

The main findings inferred from the two NHA matrices, Tables 7 and 8, are summarized below:

Summary Statistics (FY1998)

Total Population:	4,000,000
Total Health Expenditure:	2,388,761,855,000 LL (1,592,508,000 USD)
Per Capita Expenditure:	597,190 LL (398 USD)
Total GDP	24,300,000,000,000 LL (16,200,000,000 USD)
Health Expenditure as Percent GDP:	9.83 %

[1] Other countries are Djibouti, Egypt, Iran, Lebanon, Morocco, Tunisia, and Yemen

Percent GOL budget allocated to health:	6.6 %
Sources of Funds:	
Public:	22.5 %
Private:	75.0 %
Donors:	2.5%
Distribution of Health Care Expenditures	
Public Hospitals	1.8%
Private Hospitals	25.6%
Private Non-Institutional Providers	44.5%
Pharmaceuticals	21.3%
Others	6.7%

6.1 Analysis of Sources and Uses of Funds

As indicated in Tables7 and 8, the total expenditure on health care in Lebanon amount to 2,388,761 million (USD 1,592,508 million) and the per capita expenditures to 597,190 LL (USD 398). The total expenditure on health is 9.83 percent of the GDP and is higher than other countries in the regional National Health Accounts initiative. This level of expenditure is more in line with OECD countries. The proportion of government budget allocated to health sector is a little over 6.5 percent. Public sources account for 22.5 percent and private sources for 75 percent of health care financing. International donors account for the remaining 2.5 percent. In terms of expenditures, public sector providers accounted for less than 2 percent, private sector providers for more than 91 percent, and others accounted for the remaining 7 percent.

LL 000	TREASURY	PRIVATE SECTOR		DONORS ON HEALTH	TOTAL
		EMPLOYERS	HOUSEHOLDS		
Government of Lebanon					-
					-
Territorial Government					-
					-
Ministry of Health	261,279,802			49,639,500	310,919,302
Army (From Ministry of Finance)	58,840,910				58,840,910
Army (Ministry of Defense Drugs Budget)	10,000,000				10,000,000
Army (Ministry of Defence Admin Budget)	17,780,000				17,780,000
Internal Security Forces	39,708,969				39,708,969
General Security	6,000,000				6,000,000
Security of the State	2,400,000				2,400,000
Ministry of Social Affairs				1,213,500	1,213,500
Ministry of Displaced	230,000				230,000
Custom Duties	1,300,000				1,300,000
					-
Social Health Insurance Institutions					-
					-
Civil Servants Co-operative	45,128,944				45,128,944
National Social Security Funds	79,334,000	173,434,000	43,358,000		296,126,000
Mutual Funds	16,470,000		17,380,230		33,850,230
					-
					-
Private/for-profit enterprises					-
					-
Private Health Insurance schemes		238,508,000	120,113,000		358,621,000
Private Households' out of pocket			1,198,903,000		1,198,903,000
Employer benefit schemes					-
Non Government Organizations				6,774,000	6,774,000
Donors				966,000	966,000
					-
TOTAL	538,472,625	411,942,000	1,379,754,230	58,593,000	**2,388,761,855**

Table 8: Financing Intermediaries to End Users, 000s LL, 1998. (Continued)

LL 000	PRIVATE / for-PROFIT				TOTAL
	EMPLOYER BENEFIT SCHEMES	PRIVATE INSURANCE SCHEMES	HOUSEHOLD	DONORS	
Hospitals					-
					-
Government owned Hospitals					-
Recurrent Expenditures					3,595,000
Capital Investment					770,000
Construction					6,000,000
Salary and Wages					7,321,000
Sub-Total Government Hospitals	-	-	-		17,686,000
NSSF owned Hospitals					3,118,962
Private Hospitals					-
Non-Surgical Care					95,973,780
Surgical Care					185,957,852
Sub-Total Private		70,780,461	146,400,000	-	611,323,449
Total Hospital Expenditures	-	70,780,461	146,400,000		632,128,412
Nursing & Residential care facilities					-
					-
Nursing care facilities					23,880,125
Residential mental Health					-
Community cares for elderly					-
					-
Non-Institutional health care providers					-
					-
Private Physicians clinics		141,560,921	785,688,185		984,333,892
NGO Clinics					32,857,102
Dentists					3,677,773
Paramedical practitioners					-
Outpatient cares centers					3,357,291
Medical & Diagnostic Laboratories					39,339,368
Home Care Services					-
Other Ambulatory					1,067,906
					-
Retail sale & Other providers of goods					-
Pharmaceuticals (Budget)					42,677,569
Pharmaceuticals (Ambulatory)		146,279,618	266,814,815		466,007,921
Sale of Optical & Hearing aids					-
Sale of Medical appliances					2,314,944
Other sale					-
					-
					-
General Health Administration & Ins.					-
Government Administration of Health					21,591,127
Government Salaries of Health Personnel					52,056,939
Private Administration of Health					-
					-
Educational Institutions					120,000
					-
Capital Investment					94,953
MOH Facilities					21,187,535
Army Facilities					1,085,000
AUB				966,000	966,000
Others					-
Difference between NSSF revenues and expenses					58,718,000
Customs Duties					-
TOTAL	-	558,621,000	1,198,903,000	966,000	2,387,461,856

6.2 Expenditures by Public Financing Agents

As shown below in Table 9, expenditures on hospital care by public financing agents are very high. Overall, 62 percent of public health expenditures is spent on hospital based care, 10% on ambulatory care, 13% on pharmaceuticals and other goods accounts for 13%, 11% on administration, and 3% on capital investment. All of the GS and SS expenditures for hospital based services. In the case of the Ministry of Health 71% of its budget is used to pay for hospital based care. Expenditures on primary health care services are a sub-set of that on non-institutional health care providers and accounts for less than 5% of public expenditures. The Ministry of Health has not been able to disburse all amounts allotted to primary health care and in some cases these resources have been diverted to curative care services.

Table 9: Distribution of Public Expenditures (Percent)

Category	MOH	ARMY	ISF	GS	SS	CSC	NSSF	Total
Hospitals	71%	59%	74%	100%	100%	54%	52%	62%
Non-Institutional health care providers	10%	4%	3%	0%	0%	42%	6%	10%
Retail sale & Other providers of goods	8%	16%	17%	0%	0%	0%	23%	13%
Administrative Costs	5%	19%	6%	0%	0%	4%	19%	11%
Capital Investment	7%	1%	0%	0%	0%	0%	0%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: NHA spreadsheets

6.3 Hospital Sector

As noted in Table 10, there are a total of 167 hospitals with 11,533 beds in Lebanon. Twelve percent of the hospitals and ten percent of the beds are in the public sector. The predominance of the private sector reflects the results of a financing arrangement where the public sector purchases services from the private sector, lack of coordination on provider payment and rates amongst public sector payers, and the significant investments made by the private sector in the hospital sector. The private hospital association is a powerful lobby and controlling hospital expenditures has been a policy concern for some years.

Table 10: Distribution of Hospitals and Beds by Sector

Governorates	Public Hospitals		Private Hospitals		Total	
	Number Hospitals	Number Beds	Number Hospitals	Number Beds	Number Hospitals	Number Beds
Beirut	1	14	23	2187	24	2201
Mount Lebanon	4	253	54	3728	58	2981
North Lebanon	4	272	23	1652	27	1929
South	6	311	18	1348	24	1659
Nabatieh	1	76	4	161	5	237
Bekaa	4	220	24	1311	28	1531
Total	20	1146	147	10387	167	11533

Source: MOH Statistics

Table 11 shows that Lebanon has 2.88 beds per 1000 population making this one of the highest ratios in the Middle East. However, the beds are not uniformly distributed. As example, Mount Lebanon has 6.55 beds per 1000 population and Nabatieh has only 0.86 beds per 1000 population.

Table 11: Beds per Thousand Population

Governorate	Resident Population	Beds/1000 Population
Beirut	1,303,169	1.69
Mount Lebanon	607,767	6.55

South	472,105	3.51
Nabatieh	275,372	0.86
Bekaa	539,448	2.84
Lebanon	4,005,065	2.88

Source: NHA Matrices

Table 12 shows that 67% of the hospitals in Lebanon have seventy beds or less, 30% have between seventy-one and two hundred beds, and only 3% have more than two hundred beds. All of the hospitals with over two hundred beds are in the private sector. The high percentage of hospitals with fewer than seventy beds and the fact that they tend to be multi-specialty facilities means that it is difficult to achieve economies of scale leading to inefficiencies. Quality of care and financial viability in these facilities also remains a concern.

Table 12: Distribution of Hospitals by Number of Beds

Number of Beds	Number of Public Hospitals	Number of Private Hospitals	Total Hospitals
Up to 70 beds	14	98	112
71 to 200 beds	6	45	51
Over 200 beds	0	4	4

Source: NHA matrices

6.4 Analysis of a Sample of Hospital Bills Paid by Public Providers

For the first time, as part of the National Health Accounts activity, a sample of hospital bills paid by government agencies was analyzed to better understand their breakdown. Table 13 shows that 73% of the amount Ministry of Health's reimbursements for hospital care was on surgical care and the remaining 23% were for non-surgical care. The CSC spent 59% of its hospital reimbursements for surgical care, the ISF 53%, the Army 51%, and the NSSF 60%. This distribution probably reflects the fact that the Ministry of Health is the insurer of last resort and hence tends to pay more for inpatient admissions. With regard to the other agencies hospitalization costs are part of the benefits available to their beneficiaries.

Table 13: Distribution of Hospital Expenditures (Percent)

Ministry of Health	27%	73%
ISF	47%	53%
Army	49%	51%
NSSF	40%	60%
CSC	41%	59%

Source: NHA Spreadsheets

Table 14 shows the distribution of costs associated with hospitalization by category of service. An interesting finding is that diagnostic tests accounted for 19.4% of the costs and drugs and medical supplies for 25.1% of costs. Surgery costs were 15.0% of total costs. Operation Theater accounted for 11.0% of costs, and room and board was 15.9% of costs. Doctor fees were only 8.0% of the costs. These findings would appear to support the perception that hospitals tend to perform large number of investigations and prescribe a number of drugs for each episode of hospitalization as a means of optimizing their revenues. The findings from the analysis of the sample of hospital bills will be very relevant to the discussion on hospital reimbursements and reforming health care financing.

Table 14: Distribution of Hospital Reimbursements by Type of Service

Category	Surgery	Doctor Fees	Anesthesia	Room and Board
Ministry of Health	16.7%	8.6%	4.8%	15.6%
ISF	10.2%	14.4%	2.5%	13.6%

Army				
NSSF	13.1%	11.1%	4.8%	17.0%
CSC	16.1%	11.4%	4.9%	12.8%
Weighted Avg.	15.0%	8.0%	4.2%	15.9%

Table 14: Distribution of Hospital Reimbursements by Type of Service

Category	Operation Room	Lab Tests	Radiology	MRI
Ministry of Health	12.6%	12.2%	7.1%	0.5%
ISF	9.6%	12.3%	4.7%	0.8%
Army	8.4%	13.2%	7.3%	0.8%
NSSF	18.2%	10.5%	6.9%	0.9%
CSC	10.3%	9.2%	4.6%	0.2%
Weighted Avg.	11.0%	11.0%	6.0%	0.6%

Table 14: Distribution of Hospital Reimbursements by Type of Service

Category	CT Scan	Drugs	MS	Other
Ministry of Health	2.4%	15.7%	2.8%	1.1%
ISF	1.8%	19.1%	9.0%	2.1%

Army				
NSSF	0%	12.0%	4.7%	0.7%
CSC	1.0%	19.3%	3.7%	6.4%
Weighted Avg.	1.8%	19.1%	6.0%	2.1%

6.5 The Ministry of Health

In Lebanon the Ministry of Health is the insurer of last resort. The Ministry of Health funds the hospitalization costs for any citizen who is not covered under an insurance plan (social or private). This coverage is independent of the income and asset status of the individual. In addition the Ministry of Health also covers the cost of some narrow specialties such as chemotherapy, open heart surgery, dialysis and renal transplant, and drugs for chronic diseases. Even as the responsibility of the Ministry of Health has grown its share of the Government of Lebanon's budget has declined from over 5% in the early 1990s to around 3% in 1998 (Table 14).

Table 14: Ministry of Health Budget as Percentage of Government Budget

Year	Percent
1992	4.56%
1993	5.17%
1994	5.27%
1995	4.09%
1996	3.03%
1997	2.48%
1998	3.19%

Source: MOH Budget

Table 15 shows the percentage of the Ministry of Health's budget that goes to pay for special programs. It has ranged from a low of 72% in 1995 to a high of 84% in 1993. Quite clearly, many of these programs such as open heart surgery, kidney dialysis, kidney transplantation, and treatment of burns affects very few persons and yet consumes about 20% of the Ministry of Health's budget. One possible explanation for the reduction in the share of hospital expenditures between

surgeries declined in 1998. This is attributed to the change in reimbursement method for these procedures that now pays on a capitated basis.

Table 15: Distribution of MOH Expenditures on Special Programs, 1993-1998

	1993	1994	1995	1996	1997	1998
Special Programs						
Hospitalization	61%	61%	68%	70%	71%	66%
Same Day Surgery	0%	0%	0%	0%	0%	3%
Nursing Care Facilities	13%	11%	9%	10%	10%	11%
Open Heart	13%	15%	12%	10%	10%	8%
Kidney Dialysis	10%	9%	8%	8%	7%	8%
Chemotherapy	1%	1%	0%	0%	1%	0%
Physiotherapy	0%	0%	0%	0%	0%	0%
Prosthesis	0%	0%	0%	0%	0%	0%
Kidney Transplantation	1%	1%	0%	1%	0%	0%
Burns	0%	1%	1%	1%	0%	1%
Lab Rad & CTS –MRI	2%	1%	2%	2%	2%	1%
Total Special Programs	100%	100%	100%	100%	100%	100%
Share of MOH Expenses	84%	76%	72%	77%	78%	75%

Source: MOH Budget

Table 16 shows that the Ministry of Health that ran surpluses in between 1993 and 1995 has been incurring deficits in each of the subsequent years. The surplus in the early 1990s was partly a reflection of the fact that the Ministry of Health did not have the capacity to fully utilize its budget. From 1996 onwards the deficit incurred by the Ministry of Health was due to its increasing commitments to special programs, a growing awareness among the people that the Ministry paid for hospitalization costs, and its inability to curb hospital costs. The deficit was worst in 1997 when it was equal to nearly 60% of the budget. The Ministry of Health has responded to these deficits by delaying reimbursing hospitals for their services and making deductions in the reimbursements. On the one hand hospitals complain that they are not getting reimbursed for services and on the other the Ministry feels that hospitals tend to over prescribe services.

Table 16: Ministry of Health Budget and Expenditures 1993-1998

Year	Budget	Expenditures	Surplus/Deficit
1993	160,604,944,000	101,684,373,000	58,920,571,000
1994	194,907,794,000	140,069,449,000	54,838,345,000
1995	196,897,619,000	182,424,981,000	14,472,638,000
1996	168,814,490,000	211,080,714,000	(42,266,224,000)
1997	156,570,000,000	251,479,412,000	(94,909,412,000)
1998	252,943,587,000	278,444,088,000	(25,500,501,000)

6.6 Private Insurance Market

The private insurance market is growing rapidly in Lebanon. According to the Ministry of Economy sources approximately 70 private insurance companies provide health insurance. They provide both complementary and comprehensive health insurance policies. The former is to complement and fill gaps in the benefits provided by NSSF, CSC, and health insurance arrangements for the Army and Police. The latter refer to stand alone health insurance policies that can cover a range of benefits including inpatient and outpatient care, and coverage for pharmaceutical expenses. It is estimated that 8% of the population has comprehensive coverage and 4.6% gap insurance. One report places the percent of population covered by private insurance at 16.6%.

Private insurance companies consider their data (on the number of the insured, premiums collected, expenditures, loss ratio) highly confidential. The data presented here are estimates based on information provided by the Association of Private Insurance Companies. As part of the NHA study efforts are underway to collect more accurate information on the private insurane sector through two ways. First is an attempt to collect data through cooperation with the Medical Committee of ACAL (Association of Lebanese Insurers), and the second is through MedNet.

establishing networks of providers that are paid according to negotiated fee schedules.

According to the ACAL aggregate figures released for 1998 Health Insurance continued to dominate the sector, representing some 48% of total premiums written. The top 20 firms control about 70% of the market. In May of 1999, Parliament passed an insurance reform law that is expected to pave the way for the consolidation of the sector.

Table 17: Insurance Premiums 1997-1998

Type of Coverage	Total Premium 1998 ($ million)	Total Premium 1997 ($ million)	Increase %
Hospitalization	215	198	8.58
Life	75	80	6.26
Motor	25	64	11.15
General Accidents	41	27	51.24
Fire	34	19	85.86
Workmen's Compensation	16	18	13.88
Marine	12	15	17.14
TOTAL	450	421	7.05

Source: NHA Matrices

Compared to other countries in the region, Lebanon has a fairly well developed private insurance sector. Private insurance is licensed by the Ministry of Economy. Insurance companies are required by law to set aside 40% of premiums as reserves.

Of the 70 health insurance companies in Lebanon, 17 are associated with MedNet which in turn reinsures its book of business with MunichRe. Ten of the companies are foreign owned and preliminary reports indicate that another ten are non-operational. The two global reinusrance companies with offices in Lebanon are MunichRe and SwissRe.

Premiums in 1998 were estimated at 358,621,000,000 LL. The average profit per company was around 30,000,000 LL. Expenditures on private insurance as a percentage of GDP in Lebanon is higher than other countries in the region such as Kuwait and Egypt. The insurance market is highly fragmented with 9% of companies reporting premium income between USD 5-50 million, 49% have premiums between USD 1-4 million, and others had premiums of less than USD 1 million. The major private insurance companies in Lebanon are Bankers, Libano-Suisse, and SNA.

Nearly 85% of the policies are purchased by employers as an employee benefit or to fill gaps in NSSF coverage. The growing Private Mutuelle sector is in competition with the private insruance market. Private Insurance companies have a legitimate concern that preferential tax

treatment provide mutuelles with an undue advantage. Insurance policies in Lebanon typically cover in-patient care. Outpatient services are covered for an additional premiums with co-payments of around 20%.

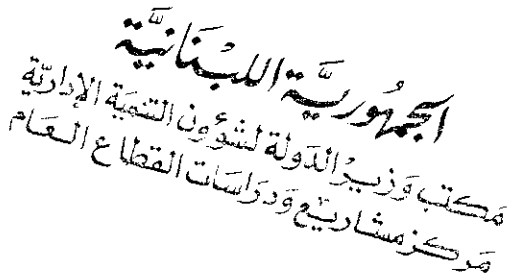
There is anecdotal evidence that private insurance companies transfer the burden of high cost cases to the Ministry of Health as the latter does not have the ability to verify whether application have insurance or not.

Table 18 shows an estimate of the breakdown of expenditures by private insurance companies by type of service. Phycians fees account for 30% of expenses, pharmaceuticals for 31%, hospitalization costs for 15%, and administrative expenses for 24%. Many insurance companies still consider health to be a loss leader.

Table 18: Distribution of Private Insurance Expenditures

Item	Percentage
Physician Fees	30%
Pharmaceuticals	31%
Hospitalization Costs	15%
Administrative Expenses	24%
Total	100%

Source: NHA matrices



6.7 The Pharmaceutical Sector

The pharmaceutical sector in Lebanon constitutes a big part of the health services bill. In 1998, over pharmaceutical expenditures accounted for over 21% of total health expenditures. As a percentage of health expenditures, Lebanon's expenditures on pharmaceuticals is less than those of other countries that are part of the regional initiative but higher than the OECD average. Ninety-eight percent of the pharmaceuticals sold in Lebanon are trade names with generics accounting for

expenditures on pharmaceuticals (USD 86) but almost all of the drugs are trade name products that are imported into the country. Expenditures on pharmaceuticals have been increasing at 7% per annum a figure that is higher than the rate of inflation. Household out-of-pocket expenditures account for the majority of spending on pharmaceuticals.

A 1996 study showed that 5521 pharmaceutical items manufactured by 489 companies were sold through 106 importers in Lebanon. Another report in 1997 (Dr Suakrich in Al-Khaleej newspaper) stated that Lebanon imported 5968 pharmaceutical products from 25 countries. Of these only 2087 were drugs on WHO's list.

The growth in expenditures on pharmaceuticals has been accompanied by a rapid increase in the number of pharmacies in Lebanon. Table 20 shows that between 1995 and 1998 the number of pharmacies in Lebanon rose by 59% and the number of registered pharmacists grew by 34%. In North Lebanon the number of pharmacies nearly doubled, in Bekaa the increase was 73%, in Mount Lebanon 55%, and even in Beirut there was an increase of 28%.

Table 20: Growth in the Number of Pharmacies by Governorate, 1994-1998

Governorate	1995	1996	1997	1998	1999	Increase 1995-1999	Percent Increase
Beirut	146	158	179	184	187	41	28%
Mount Lebanon	405	464	573	595	627	222	55%
North Lebanon	135	156	174	241	260	125	93%
South Lebanon	82	93	106	118	137	55	67%
Nabatieh	36	42	46	52	57	21	58%
Bekaa	79	95	105	125	137	58	73%
Total	883	1008	1183	1315	1405	522	59%
Number of Registered Pharmacists	2341	2577	2772	2979	3146	805	34%

Source: NHA matrices

Table 21 shows that 69% of the registered pharmacists in Lebanon are self-employed with only 31% working for other institutions. The rapid growth in the pharmaceutical sector, the near complete reliance on brand name drugs, and imports to meet demand make rationalizing expenditures on pharmaceuticals a key area for policy intervention.

Employment of Pharmacists	
	Number
Schools/Universities	28
Hospital Pharmacies	120
Pharmacies	117
Private Laboratories	5
Hosptial Laboratories	24
Pharmaceutical Stores	196
Pharmaceutical Plants	36
Scientific Offices	127
Public Sector	33
Others	18
Employed Groups	**704**
Owners of Pharmaceutical Plants	2
Owners of Private Laboratories	41
Owners of Pharmacies	1405
Owners of Pharmaceutical Stores	100
Owners' Group	**1548**
Total	2252

Source: Order of Pharmacisits 2000
Dr. Kronfol

6.8 Donor Assistance

In 1998, donor assistance amounted to 2.5% of total health care financing. While this is a small percentage of total health expenditures the trends in donor assistance need attention. Table 22 shows that donor assistance that doubled between 1995 and 1996 actually declined by nearly 30% between 1996 and 1997 and rose by less than 5% between 1997 and 1998. The sharpest decline in donor assistance has been to immunization and control of diseases and there has been a significant increase in support for family planning activities. Outlays for capital investment account for the majority of donor assistance. These rose by 174% between 1995 and 1996, declined by 23% between 1996 and 1997, and rose by 13% between 1997 and 1998. The Ministry of Health and other government agencies are the primary beneficiary of donor assistance. The American University in Beirut and Non-Governmental Providers received less than 5% of donor disbursements. With donor assistance it was difficult to reconcile the amount disbursed with the amount actually spent.

Table 22: Summary of External Assistance Disbursements to Health Sector (000s LL)

Area	1995	1996	1997	1998
Sector Policy and Planning	1,116,000	1,636,500	1,828,500	828,000
Primary Health Care	11,775,000	11,112,000	6,688,500	4,701,000
Immunization and control of diseases	820,500	5,191,500	589,500	111,000
Family Planning	985,500	1,057,500	619,500	1,137,000
Hospitals and Health Centers	19,632,000	53,755,500	41,491,500	46,867,500
Total	34,330,995	72,754,996	51,219,497	53,646,498
Percentage Change in External Assistance				
Area	1995	1996	1997	1998
Sector Policy and Planning		46.6%	11.7%	-54.7%
Primary Health Care		-5.6%	-39.8%	-29.7%
Immunization and control of diseases		532.7%	-88.6%	-81.2%
Family Planning		7.3%	-41.4%	83.5%
Hospitals and Clinics		173.8%	-22.8%	13.0%
Total		111.9%	-29.6%	4.7%

Source: UNDP Annual Report and Information from CDR

The World Bank has been supporting health sector reform as well as capital investment activities in Lebanon. Table 23 shows that the World Bank's loan portfolio was USD 38 million. Of this disbursements in 1998 amounted to USD 2.34 million and cumulative disbursements until the end of March 31, 1999 was USD 3.91 million.

Table 23: World Bank Loan Portfolio for Health Sector

Total Amount ('000s US$)	38,000
Cumulative Disbursement as of March 31, 1999	3,910
Disbursement in 1998	2,340

Cumulative Disbursement as of March 31, 1999	5,865,000
Disbursement in 1998	3,540,000

Source: UNDP Annual Report

6.9 Households

Household out-of-pocket expenditures account for over half of total health expenditures in Lebanon. As part of the NHA activity a national household health care utilization and expenditure survey has been completed. The results from this survey are expected by the end of July. The analysis of household expenditures will be completed then and the matrices updated.

7. Cross Country Comparative Analysis

As we can observe in Table 24a, Lebanon lies in the higher end of the spectrum of Middle East and North African (MENA) countries in terms of GDP and GDP per capita. However, in terms of expenditure on health care, Lebanon surpasses all of the countries in the regional study. It spends nearly 10 percent of its GDP on health care, nearly thrice the regional average and higher than the OECD average. Public expenditure as a percentage of total health spending is one of the lowest in Lebanon amongst countries in the region.

Table 24a: International Comparison of Health Expenditures as a Percentage of GDP

Country or Region	GDP Per Capita	Health Expenditure	Health Expenditures As Percentage of GDP (early 1990s)		
	(US$)	(per capita US$)	Total	Public Sources	Private Sources
Yemen	449	19	5.0	1.5	3.5
Egypt	1,016	38	3.7	1.6	2.1

Jordan	1,475	136	9.1	5.2	3.8
Iran	1,776	101	5.7	2.4	3.3
Tunisia	2,001	105	5.9	3.0	2.9
Lebanon	***2,776***	***398***	***9.8***	***2.2***	***7.6***
Middle East & N. Africa	5,608	116	4.8	2.6	2.2
E. Asia & Pacific	970	28	3.5	1.5	2.0
OECD	24,930	1,827	8.3	6.5	1.8

Note: OECD Estimate in for 1994
Source: World Development Indicators, http://www.worldbank.org
Schiber G, Maida A,Health Affairs Vol. 18 # 3
Egypt National Health Accounts 1998
Lebanon: Preliminary NHA 1998 findings
Yemen: Preliminary NHA 1997 findings
MENA Average includes the Gulf States (1994)

As shown in Table 24b, high levels of education and improvement in the nutritional status of the population continue to contribute to reducing the mortality rates. Lebanon has the second lowest under-five mortality rate and the lowest total fertility rate in the region. It also has one of the lowest maternal mortality rates in the region.

Table 24b: International Comparison of Fertility and Mortality Rates

		Mortality Rate	
Country	**Total Fertility Rate**	**Under Five Years**	**Maternal**
Yemen	7.6	113.0	1,471
Egypt	3.4	64.5	170
Morocco	3.1	68.0	372
Jordan	4.9	31.5	132

Tunisia	2.6	37.0	139
Lebanon	*2.7*	*35.0*	104

Source: Sector Strategy: Health, Nutrition, and Population. World Bank 1997

8. Main Policy Issues

Specific policy issues that stem out of the NHA findings are listed below:

- **Sustainability:** According to the Lebanon NHA estimates, Lebanon spends nearly 10 percent of its GDP on health care services. The poor performance of the economy, high net public debt, and recently introduced higher pay scales for public sector employees are all bound to put increasing pressure on the government budget. While important health problems are still related to infectious diseases, chronic and degenerative diseases are becoming more prevalent. The causes for this are the aging of the population, changing dietary habits, and changes in lifestyle concomitant with urbanization -- 55% percent of males and 67% of females were obese, 13% of the adult population has diabetes and 26% suffer from hypertension. Unless there are significant gains in the country's economic performance, the current pattern of health care expenditures (as a percent of GDP) will cause significant strain on scarce health resources. In the long-term, this will likely adversely affect the current level and quality of services provided.

- **Cost Containment:** The Lebanese health care system is an example where the financing and provision functions are separated but without effective supply side constraints to contain costs. The public financing agencies purchase health services from the private sector. Private sector providers are reimbursed using a combination of capitation and a fee-per-service basis, which may provide them with an incentive to provide unnecessary services. The most expensive health services (cancer, dialysis, kidney transplant, open heart surgery, chronic diseases, and burns) are provided either free or at minimal copayment by government agencies. The Ministry also pays for hospitalization costs for all uninsured and given data gaps it is possible that private insurance shifts the burden of high cost services to it. All of these factors contribute to cost escalation. *Provider Payment reforms are key to cost containment*. In this regard the Ministry of Health started implementing a flat rate system for same day surgical procedures in May 1998. An analysis conducted on the potential impact of extending this to other surgical procedures indicated that this might lead to lower costs.

At a minimum consideration should be given to setting up an institution that can coordinate payments, monitor utilization, and oversee providers across the different public financing agencies.

Table 25: Financing Agents and their Supervisory Ministry

Financing Agency	Supervising Ministry
NSSF	Ministry of Labor
CSC	Presidency of the Council of Ministers
Army	Ministry of National Defense
ISF	Ministry of Interior
GS+SS	Ministry of Interior
Private Insurance	Ministry of Economy and Commerce
Mutual Funds	Ministry of Housing and Cooperatives
MOH	Ministry of Health

Source: Ammar et.al., 1999

Centralized budgeting and managerial controls extend little authority and discretion to managers of public facilities. Hence, managers are provided with few incentives to engage in cost containment efforts. The Ministry of Health has initiated efforts to make its hospitals autonomous. This effort needs to be strengthened and expanded.

- **Rationalizing Capacity in the Hospital Sector**: The Lebanon NHA findings draw attention to the fact that 62% of public expenditures are spent on hospital care. Indiscriminate capital investment in the private hospital sector and little regulation has resulted in a surge in the number of private hospitals. With 2.88 beds per 1000 population Lebanon has the highest ratio of bed to population among the countries participating in the regional NHA initiative. However, 67%

financial viability of many of these facilities remains a concern.

- **Reallocating expenditures from Curative to Primary Health Care:** Under the present breakdown of expenditures, less than 10 percent of resources are allocated to primary health care. Not only are few resources spent on primary and preventive health care services it appears the NGO and public systems do not have the capacity to fully utilize these resources. Investments in preventive measures (including changes in lifestyle) are likely to result in substantially limiting curative expenditures in the future. In the wake of the rapid expansion of the curative sector, the primary health care sector has languished. There is a need to both strengthen the capacity of the system to deliver primary health care services as well as increase funding for these services.

- **Controlling Capital Investment in Medical Technology:** The Lebanon NHA study reiterates previous findings that government reimbursements for high cost services has resulted in a rapid growth of high technology centers. This in turn has contributed to cost escalation. As example, as the number of centers capable of doing open-heart surgeries grew from 3 to 8, the number of surgeries performed increased from 600 to 1800, and expenditures rose from 8 billion pounds to 25 billion. The Ministry of Health spends about 75% of its budget on special programs. For efforts at cost containment to be effective policies need to be developed that will control investments in medical technology.

- **Rationalizing Expenditures on Pharmaceuticals:** Pharmaceuticals accounted for over 21% of total health expenditures. Ninety-eight percent of the pharmaceuticals sold in Lebanon are trade names with generics accounting for only 2%. Imported drugs account for 94% of consumption with locally manufactured drugs making up only 6%. Thus, Lebanon has not only high per capita expenditures on pharmaceuticals (USD 86) but almost all of the drugs are trade name products that are imported into the country. Expenditures on pharmaceuticals have been increasing at 7% per annum a figure that is higher than the rate of inflation. Between 1995 and 1998 the number of pharmacies grew by 59% and the number of registered pharmacists grew by 34%. This level of expenditures is likely due to the lack of a significant policy for using generic drugs, as substitutes for other equivalently higher prices prescription drugs. Hence, to effectively contain overall health care expenditures, the Government of Lebanon should initiate policies for improving the efficiency by which pharmaceuticals are imported, distributed and sold in the country.

- **Expanding health insurance coverage to the uninsured and limiting multiple coverage:** The household survey will provide a clearer idea about the percentage of the population that does not have a formal kind of insurance as well as the extent to multiple insurance coverage. As insurance in Lebanon (both public and private) is mostly linked to employment it is possible that the uninsured will have lower incomes as well as be less likely to be employed in

escalation.

- **Equity:** Household out-of-pocket expenditures account for over half the health expenditures in Lebanon. Previous studies show that households overwhelmingly use private providers for outpatient services. It is possible that the burden of out-of-pocket costs is inequitably distributed with lower income households spending a higher proportion of household income on health care as compared with households with higher incomes.

9. Process and Lessons Learned

A number of major obstacles were experienced in compiling the National Health Accounts are listed below:

1) *Availability of Data*: Public sector agencies were very cooperative in sharing information with the NHA team. However, collecting information on the distribution of expenditures by function, and linking expenditures to utilization was problematic. Information on private sector expenditures was unavailable and the team had to resort to primary data collection.

2) *Quality, Validity, and Reliability of Data*: Even when data was available its quality, validity, and reliability remained a matter of concern. Discrepancies existed between expenditure data provided by the Ministry of Finance and government agencies. Reconciling these was not always easy and required numerous iterations. Reliable data on the number of beneficiaries and dependents by type of social insurance scheme is difficult.

3) *Lack of Standard Definitions*: Different agencies classify expenditures differently, and do not have the same definitions for functions and services. This resulted in significant difficulties in compiling the NHA report

The ideal option would be to institute an "NHA unit" within the proposed "Programs and Projects Unit"(PPU) at the Ministry of Health. This PPU unit has been proposed to the Cabinet few month ago and it is under institutionalization.

In general, the proposed PPU unit at the MOH should be able to act on the following issues:

1. Assist the Minister of Health and the Health Care Steering committee in the definition of policy issues.
2. Prepare Terms of Reference for the different technical assistance contract.
3. Subcontract Research or assign tasks to the competent national or international bodies.
4. Evaluate the finding and other works of the different contractors.
5. Make appropriate recommendations to the policy makers in the MOH and other Financing agents.

The Scope of the NHA unit, which is part of the PPU, shall provide the following regarding:

1. Health policy and strategy:

- Publish reports on the health situation based on information gathered by the NHA team or special surveys
- Assist the policymakers at the level of Public Financing agents in the development of a National Health Strategy.
- Develop health Investment Plans.

2. Financing and Budgeting:

- Developing and/or revising health financing policy and strategy.
- Developing yearly guidelines for resource allocation for provision of services.
- Performing costing studies of contracting health services and comparative analysis among different stakeholders.

- Developing yearly National Health Care expenditures.
- Developing yearly NHA matrices and reports.

3. International Cooperation:

- Coordinating cooperative partners and international organizations active in the health sector.
- Agree on amendments of our Classification and determine feasibility of OECD and the classification distributed at the Tunisia workshop.

Annex 1

Conceptual framework and

Functional Classification System

For

National Health Accounts

LEBANON

September 1999

Note on preparation

Conceptual framework

The compilation of National Health Accounts (NHA) estimates for Lebanon accords both conceptually and methodologically to the compilation of National Health Accounts (NHA) in other advanced economies. There is currently no internationally accepted and agreed framework for NHA. A special effort has been made to ensure maximum compatibility between the Lebanon NHA framework and recent OECD proposals for standardisation of health accounts *(Principles of Health Accounting for International Data Collections, OECD 1997)*. These OECD proposals are yet to be fully implemented by most OECD member countries, and so Lebanon NHA can be regarded as being based on a technical standard in advance of most OECD countries, and one that will be adopted gradually during 1998-2000. The most comparable health accounts in terms of comprehensiveness, international comparability and detail to those of Lebanon will those of the United States, Germany, Canada and Australia.

The conceptual framework for Lebanon's NHA comprises the definition of what constitutes health expenditure, the institutional entities involved, and the specification of the types of desegregation possible. The structure includes the classifications and nomenclature used to identify and desegregate expenditures, either by purpose, type or ultimate beneficiary, and the temporal reference period.

The conceptual framework and structure for Lebanon's NHA was developed according to the following criteria:

- It should be policy relevant and easily interpretable by health sector policy makers
- It should be compatible with international practice
- It should be reproducible
- Categories used in classifications should be mutually exclusive

	HA.1.3 Residential nursing care/long term care
	HA.1.4 Home care
	HA.1.5 Emergency rescue
HA.2	Medical Goods
	HA.2.1 Pharmaceuticals
	HA.2.2 Medical Supplies
	HA.2.3 Therapeutic appliances and medical equipment
HA.3	Collective health services
	HA.3.1 Health promotion and disease prevention
	HA.3.1.1 Reproductive Health
	HA.3.1.1.1 Family planning
	HA.3.1.1.2 Maternal Health
	HA.3.1.1.3 Neonatal Care
	HA.3.1.1.4 Others
	HA.3.1.2 Disease prevention
	HA.3.1.2.1 Prevention of communicable diseases
	HA.3.1.2.2 Prevention of non-communicable diseases
	HA.3.1.3 Health promotion
	HA.3.1.4 School health services
	HA.3.1.5 Geriatric Care
	HA.3.1.9 Other Health Promotion
	HA.3.2 Other collective health services (Occupational Health care)
HA.4	Health programme administration and health insurance
	HA.4.1 Health Programme Administration
	HA.4.2 Administration of Health Insurance
Health related functions	
HA.5	Education and training of health personnel
HA.6	Investment into medical facilities
HA.7	Research and development in health
HA.8	Environmental health
HA.9	Other Health related functions

- It should be feasible to estimate given secondary data regularly available, or with limited primary data collection.

A systematic review of international practice with respect to definitions and the functional classification of expenditures were carried out. Based on this review, the system of classification of expenditures and the corresponding definitions used in the estimates was developed through a process of consultation and consensus involving a group of government representatives appointed by the Health Sector Reform group. Group members of NHA represented all government agencies and bodies involved in the financing and provision of health care.

A. Health expenditure definition

Health expenditures are defined as all expenditures or outlays for prevention, promotion, rehabilitation, and care; population activities, and emergency programs for the specific and predominant objective of improving health. Health includes both the health of individuals as well as that of groups of individuals or populations. Expenditures are defined on the basis of their primary purpose, regardless of the primary function or activity of the entity providing or paying for the associated health services. Expenditures for the purpose of training or educating health sector personnel, which imparts health sector specific knowledge and skills, as well as health-related research are defined as being for the purpose of health improvement when applying this definition.

There is no internationally accepted definition of what constitutes health expenditures, but this definition is comparable to that conventionally used in other national health accounts and national health expenditure studies.

B. Total National Health Expenditures (TNHE)

These are defined as all health expenditures for the benefit of individuals resident in Lebanon. Expenditures for the benefit of Lebanese citizens living abroad are excluded, although expenditures in other territories or countries for the benefit of residents of Lebanon are included, as well as expenditures for the benefit of foreign citizens resident in Lebanon. For the purposes of the NHA, the scope of the resident population is defined as excluding all Strangers.

This definition is comparable to that used by HCFA in estimating US National Health Expenditures. The conceptual framework for Lebanon's NHA as specified in the paper, *Functional Classification System for National Health Accounts of Lebanon* provides a comprehensive definition of what constitutes health expenditure, the institutional entities involved and the specification of the types of desegregation involved.

C. Classification

In Lebanon's NHA, expenditures are measured and organised on the basis of the entities making the expenditures, and those entities passing or using the expenditures. The classification of entities within Lebanon's health care system is thus critical for estimating and structuring Lebanon's NHA. Three sets of entities are defined: (i) financing sources, (ii) financial intermediaries and (iii) providers. Entities are defined as economic agents who are capable of owning assets, incurring liabilities, and engaging in economic activities or transactions with other entities. They can consist of individuals, groups of individuals, institutions, enterprises, government agencies or private non-profit bodies/institutions.

D. Financing sources

Financing sources are defined as entities, which ultimately bear the expenses of financing the health care system. In operation this definition, a similar convention to that used in the UN SNA (System of National Accounts) is followed. In general, non-government organisations are treated as ultimate financing sources, not the households or other entities that pay contributions to them. Similarly, the Government is considered an ultimate financing source, not the entities, which pay taxes to it or provide it with revenues. One difference to SNA practice is observed; where firms or employers provide or pay for health services as part of the regular compensation of employees, these expenditures are treated as being by the employer, and not expenditures out of the income of households, which is SNA practice.

Financing sources are grouped into four mutually exclusive institutional sectors:

1) Government
2) Private bodies or Employers
3) Donors on Health
4) Households

This broad grouping of sectors corresponds both to general national income accounting practice, as well as NHA practice in most countries.

Private bodies are the category explicitly identified in national income accounting. In the case of Lebanon's NHA, this category of funding sources refers almost exclusively to private employers who spend money to provide medical benefits to their employees. It does not refer to all employers, as the government's expenditures on providing medical benefits to civil servants are counted as expenditures by the Government of Lebanon. The term "private employers" can thus be used interchangeably with that of "for-profit enterprises" for the purpose of NHA.

Donors' expenditures on health would in theory include donations by private firms to charities for health purposes.

All other out of pocket expenditures will be categorised in Households. These expenditures are not covered explicitly by the estimation procedures owing to lack of data.

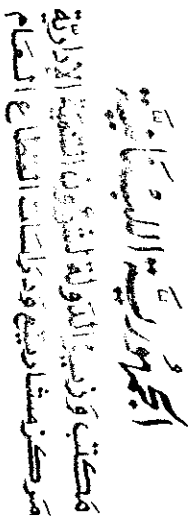
E. Financial Intermediaries

Financial intermediaries are defined as entities that pass funds from financing sources to other financial intermediaries or providers in order to pay for the provision of health services.

Table 1: The following financial intermediaries are identified in the Lebanon NHA:

HF.1	General Government Financing of Medical Care:
	HF1.1 Territorial Government

		HF1.1.1 Central Government
		HF1.1.1.1 Ministry of Health
		HF1.1.1.2 Army
		HF1.1.1.3 Internal Security Forces
		HF1.1.1.4 Ministry of Social Affairs
		HF1.1.1.1 Ministry of Education
		HF1.1.2 Regional Government or Mohafazat
		HF1.1.2.1 Health Department
		HF1.1.2.2 Other relevant Department
		HF1.1.3 Local Government or Municipality
		HF1.1.3.1 Health Department
		HF1.1.3.2 Other relevant Department
	HF1.2	Social Health Insurance Institutions
		HF1.2.1 Civil Servants Co-operative
		HF1.2.2 National Social Security Funds
		HF1.2.3 Mutual Funds
HF.2	Private Sector Financing of Medical Care:	
	HF2.1	Private Health Insurance
	HF2.2	Private Households' out of pocket
	HF2.3	Other Private Financing Intermediaries
		HF2.3.1 Private Firms
		HF2.3.2 Non Government Organisations
		HF2.3.3 Other Private Financing Intermediaries



F. Providers

Providers are defined as institutional entities that produce and provide health care goods and services, which benefit individuals or population groups.

Table 2: The following Providers of Health Care are identified in the Lebanon NHA:

HI.1	Hospitals	
	HI1.1	General Hospitals
		HI1.1.1 General Private Hospitals
		HI1.1.2 General Public Hospitals
	HI1.2	Mental Health and substance abuse Hospitals
	HI1.3	Speciality Hospitals (other than mental health)
HI.2	Nursing and residential care facilities	

	HI.2.1 Nursing care facilities
	HI.2.2 Residential mental retardation and mental health
	HI.2.3 Community cares facilities for the elderly
	HI.2.4 Other residential care facilities
HI.3	Non-Institutional health care providers
	HI.3.1 Offices of Physicians
	HI.3.2 Offices of Dentists
	HI.3.3 Offices of Paramedical practitioners
	HI.3.4 Outpatient cares centres (Policlinics)
	HI.3.5 Medical and Diagnostic laboratories
	HI.3.6 Home Care Services
	HI.3.9 All Other Ambulatory Health Care
HI.4	Retail sale and Other providers of medical goods
	HI.4.1 Dispensing Chemists
	HI.4.2 Retail Sale of Optical glasses & other vision products
	HI.4.3 Retail Sale of Hearing aids
	HI.4.4 Retail Sale of Medical appliances (other than optical & hearing)
	HI.4.9 All Other miscellaneous sale and other suppliers of Pharmaceuticals & goods
HI.5	Other Institutions providing public health care programmes
HI.6	General Health Administration and Insurance
	HI.6.1 Government Administration of Health
	HI.6.2 Private Administration of Health
HI.7	Educational Institutions (providing Education and R&D on Health)
HI.9	All Other Industries
	HI.9.1 Military Health Services Institutions
	HI.9.2 Prison Health Services Institutions
	HI.9.3 School Health Services Institutions
	HI.9.9 All Other health Services Institutions

G. Functions

This classification system was developed following close consultation with relevant Stakeholders and Public Financing agencies. For reasons of international comparability it is based closely on the Draft International Classification for Health Expenditure (ICHE) proposed by OECD in 1997 (OECD 1997). Consistent with the OECD approach, all health expenditures are categorised into two types of function:

1. Core functions of medical care
2. Health-related functions

Each of these are further desegregated to give a total of nine major functions of health care expenditure, as shown:

1. Personal health services
2. Medical goods
3. Collective health services
4. Health program administration and health insurance
5. Education and training of health personnel
6. Investment into medical facilities
7. Research and development in health
8. Environmental health
9. Other health related functions

Each of these are further subdivided into smaller and more specific groups of functions, all of which are assigned a specific code, based closely to ICHE code. Full details are given in *Functional Classification System for National Health Accounts of Lebanon*, which accompanies this report. Table 3 presents the full listing of functions used.

This document provides a set of classifications for use in Lebanon NHA, developed through a process of review of international practice and deliberation by task groups appointed by the Lebanese Ministry of Health and all other Public Financing Agents. Included is a review of current definitions and classifications used in NHA work by the Organisation of Economic Co-operation and Development (OECD). OECD countries were selected on the basis of feedback received from the NHA Team in Lebanon. On the basis of these approaches, a draft working paper was produced with recommendations as to options for the framework to be used in Lebanon NHA and distributed among members of the NHA team. The paper was revised to incorporate comments made by the NHA team.

Preparation of this document involved a systematic review of the current definitions used by the OECD countries.

OECD 1998 is the most recent version of the set of definitions used by OECD in preparing its annual estimates of health spending in the OECD. It has been developed over several years in an ongoing attempt to standardise the available data reported by member countries, and therefore reflects substantially the structure of the health expenditure reporting systems in individual countries, in particular those of USA.

OECD Proposal (October,1997 version) is a new set of classifications and frameworks prepared by the OECD secretariat for measuring health expenditures in a manner consistent with other UN statistical reporting systems and the existing OECD database. It differs from OECD 1998 in that it proposes a different breakdown or classification of health expenditures, and in that it provides much more detailed sets of definitions for the various types of expenditures. Its functional classification of health expenditures, the ICHE (International Classification of Health Expenditures) is presented in four levels of desegregation, each level of which is labelled according to a system of 1-4 digit codes. OECD plans to test this new approach during the next two years, and based on resulting modifications and feedback from non-OECD countries and experts to propose a revised version of the Proposal to Eurostat and other UN agencies as a global standard for health expenditure estimation. We have included the OECD Proposal in our review, as it is likely that it will lead eventually to a new international system of health expenditure estimation. However, the OECD Proposal is yet to be ratified by the OECD itself, and currently contains several major defects, which we believe, will force major modifications. For this reason, we have focused on those elements in the OECD Proposal, which are most useful and likely to stand the test of time.

A. Functional classification of health expenditures

OECD Proposal's functional classification makes a basic distinction between core functions of health care and other health related functions. This same distinction is used in Lebanon NHA, as it separates those expenditures for which there is universal agreement about their classification as health, from those for which there is considerable national variation and dispute. OECD Proposal then desegregates core functions into four types at the first level (or one digit level of the ICHE):

1. Personal medical services
2. Distribution of medical goods

3 Collective health services
4 Health programme administration and health insurance

The draft functional classification used in Lebanon NHA uses this same classification. At the next level of desegregation, Lebanon NHA deviates from that presented by the OECD Proposal (2 digit level in ICHE), and instead follow the general practice used in national NHA work by USA and that used in OECD 1998. The OECD Proposal presents a substantially different functional classification at its two-digit level, which does not differentiate between inpatient and outpatient expenditures, and instead focuses on the clinical purpose of patient treatment expenditures. In our judgement, this new classification is unlikely to survive subsequent revisions, as most policy makers are actually interested firstly in knowing the inpatient/outpatient breakdown, and since most countries do not have the data to allow estimation of the categories proposed in OECD Proposal.

Table 3 gives the functional classification for health expenditures used in Lebanon's NHA. It includes the codes proposed for Lebanon based on the International Classification for Health Expenditures (ICHE) codes. ICHE is a standard developed by the proposed OECD manual. The remaining part of the document concentrates on presenting the definitions used by national agencies when reporting national statistics on health expenditures, or in their national health accounts, as well as those in use or proposed currently by OECD.

The format of this document is as follows. The definitions used in Lebanon's NHA for each item in the classification system are presented first. This is followed by a discussion of the relevant OECD and national definitions for those items. In many cases the only OECD definitions are those from OECD 1998. The definitions given for individual countries are the ones used in reporting national health expenditures through the OECD secretariat, where they deviate from the OECD 1998 definitions.

This document is a draft, and should be treated as a work in progress.

Table 3: Functional classification of health expenditures in Lebanon

FUNCTIONS
Core functions of health care
HA.1 Personal Health Services
HA.1.1 Hospital Services (Inpatient)
HA.1.1.1 In hospital surgical care
HA.1.1.2 In hospital Medical Care
HA.1.2 Ambulatory Services
HA.1.2.1 Consultation fees (out)
HA.1.2.2 Diagnostic Services
HA.1.2.3 Laboratories Services
HA.1.2.4 Dental Services
HA.1.2.5 Physical Rehabilitation Services
HA.1.2.6 Same Day Surgery
HA.1.2.7 Other treatments
HA.1.2.8 Drugs for Immunisation and Dispensary

B. CORE FUNCTIONS OF MEDICAL CARE

Personal health services

[ ] DEFINITION FOR LEBANON NHA

Personal health services are defined as those, which can be directly allocated to individuals, as distinct from services provided to society at large.

Hospital services

[ ] DEFINITION FOR LEBANON NHA

1) Hospital services consist of all expenditures by hospitals, for in-patient services. This covers all services provided by hospitals to patients, including room and board charges, accident and emergency services, ancillary charges such as operating room fees, the services of resident physicians, in-patient pharmacy charges,, and any other services billed by private hospitals, or any such services paid for public sector hospitals

2) Same Day inpatients (generally patients discharged within the same calendar date) are included as part of hospital inpatient services. Physical and rehabilitation day hospital services are however excluded, and counted as Ambulatory care services (Physical rehabilitation).

Total expenditure on Inpatient Surgical Care

Total expenditure on Inpatient Medical Care

[ ] DEFINITIONS FOR LEBANON NHA

1) Expenditure on In Hospital Surgical and Medical Care services are defined as current expenditures by institutions or by hospital departments accommodating patients whose average length of stay is 30 days or less.

Total expenditure on Ambulatory care services

Consultation Fees (out)

DEFINITIONS FOR LEBANON NHA

1) Expenditures for services and medical products delivered by or under the supervision of medical practitioners registered under the Order of Physicians, working in both public and private sectors in facilities devoted solely to provision of outpatient services.

2) This includes salaries, pharmaceutical and other related expenses for services delivered in Public Health Care Centres under the supervision of the Ministry of Health or the NGO's, which are located separately from a hospital, as well as expenditures at private medical practitioner clinics.

3) Hospital outreach services under the supervision of medical practitioners such as the community psycho-geriatric team and community geriatric team are also included.

Diagnostic Services

DEFINITIONS FOR LEBANON NHA

Expenditures on diagnostic radiology services/procedures provided by private physicians' offices, commercial facilities and private hospitals to outpatients.

Laboratory services

DEFINITIONS FOR LEBANON NHA

Expenditures on laboratory tests and services provided by commercial clinical laboratories and public laboratories, but excluding hospital laboratories serving out-patients being treated by the same hospitals.

Dental services

DEFINITIONS FOR LEBANON NHA

1) Expenditures on dental services consisting of expenditures on professional health services provided by or under the supervision of dentists.

2) Expenditures on dental prostheses, which are recorded separately under distribution of medical goods, are excluded.

Physical rehabilitation Services

DEFINITIONS FOR LEBANON NHA

1) Expenditures on physical rehabilitation services consist of expenditures on all Physical/mental/psychiatric services provided outside of hospitals, but exclude hospital outreach services supervised by medical practitioners.

2) Drug rehabilitation and treatment of drug addicts are included

3) Other programmes run by NGO's (mainly religious agencies involved in medical and social work) which are more social rather than medical oriented in their counselling is not included.

4) In future, when data permit, this category will be reviewed and possibly further subdivided to distinguish between Physical rehabilitation care for the elderly and other for those who need such care for clinical reasons, or into any other categorisation that makes sense.

Same Day Surgery

DEFINITIONS FOR LEBANON NHA

1) Same Day Surgery operated in an Outpatient Care centres. SDS operated in a Hospital are not included.

Drugs for Immunisation and Dispensary

DEFINITIONS FOR LEBANON NHA

1) Drug rehabilitation and treatment of drug addicts are not included

2) Drugs for Immunisation distributed and run by the Public Health Care Centres and NGO's

Residential nursing care/long term care

DEFINITIONS FOR LEBANON NHA

1) This includes expenditures on establishments receiving elderly patients or patient requiring long term chronic cares, plus expenditures on rehabilitation, post-clinical care, and specialised chronic facilities, in which medical and paramedical services constitute a substantial part of total outlays.

2) Infirmary expenditures for public and private homes and nursing homes are to be included.

Home Care

DEFINITIONS FOR LEBANON NHA

1) Care provided in the home of a patient by a special unit of a conventional hospital or a community service, which substitutes for in-patient cares or retards the institutionalisation of a patient. The Ministry of Health does not yet implement this service and it is a project for the near future.

Emergency rescue

☐ DEFINITIONS FOR LEBANON NHA

1) Expenditures for transportation in an especially equipped surface vehicle or by a designated air ambulance to and from facilities for the purposes of receiving medical and surgical care.
2) Emergency rescue includes emergency transport services of public fire rescue departments or other public transport services that operate on a regular basis for civilian emergency services (not only for catastrophe medicine).

Medical Goods

☐ DEFINITIONS FOR LEBANON NHA

1) Expenditures on medicaments, prostheses, medical appliances and equipment and other health related products provided to individuals, either with or without a prescription, usually from dispensing chemists, pharmacists or medical equipment suppliers intended for consumption or use by a single individual or household outside a health facility or institution.

2) Hiring of therapeutic equipment is included. Hiring and repair of therapeutic appliances and equipment is reported under the corresponding categories of goods. Also included is the service of dispensing medical goods, fitting of prosthesis and services like eye tests, in case these services are performed by specially trained retailed traders and not by medical professions.

3) Excluded are the following items: protective goggles, belts and supports for sport; veterinary products; sunglasses not fitted with corrective lenses; medicinal soaps.

Pharmaceuticals

☐ DEFINITIONS FOR LEBANON NHA

1) Total expenditures on pharmaceuticals are defined as all expenditures for medicinal preparations, branded and generic medicines, drugs, patent medicines, serums and vaccines, vitamins and minerals and oral contraceptives.

Medical Supplies

☐ DEFINITIONS FOR LEBANON NHA

1) Total expenditures on Medical Supplies are defined as all Medical Supplies cost more than $20. Less than $20 medical supplies are included in the Operating Room Charges (In hospital care)

2) An exact classification corresponding to specific product groups listed in the Ministry of Health.

3) Expenditures on other medical product defined as including blood pressure instruments, clinical thermometer, adhesive and non-adhesive bandages, hypodermic syringes, first-aid kits, condoms, incontinence material, hot-water bottles and ice bags, medical hosiery items such as elastic stockings and knee pads, but excluding automatic staircase lifts.

Therapeutic appliances and medical equipment

☐ DEFINITIONS FOR LEBANON NHA

1) Expenditures on dental prostheses are defined as including dentures, but not the fitting performed by dentists.

2) Expenditure on glasses and other vision aids are defined as including corrective eye-glasses and contact lenses with corresponding cleansing fluid, and fitting by opticians.

3) Expenditures on orthopaedic appliances and other prostheses are defined as including orthopaedic appliances and other prosthetics, orthopaedic shoes, artificial limbs and other prosthetic devices, orthopaedic braces and supports, surgical belts, trusses and supports, neck braces.

4) Expenditures on medico-technical device are defined as including wheelchairs, powered and un-powered and invalid carriages.

Collective health services

Health promotion and disease prevention

Reproductive Health

Family Planning services

Maternal Health Care

Neonatal Care

Other reproductive Health

Disease prevention

Health promotion

School health services

Geriatric Care

Other Health Promotion

1) Collective health services are defined as including services designed to enhance the health status of the population as distinct from the curative services, which repair health dysfunction. Collective health services are separated into Reproductive Health, Disease prevention, Health Promotion, School Health Services Geriatric Care and other collective service
2) Expenditures on health promotion and disease prevention include promotive and preventive services, whether prevention is provided as social programme (public or private, including occupational health) or is requested on the patient's own initiative. The range of these activities includes essentially the items listed after this.
3) Expenditures on maternal and neonatal care and expenditures on family planning and counselling cover medical service, such as genetic counselling and prevention of specific congenital abnormalities, prenatal and postnatal medical attention, well-baby health care, pre-school and school child health.
4) Expenditures for prevention of disease are desegregated into those for prevention of communicable diseases and those for prevention of non-communicable diseases.
5) **Expenditures for prevention of communicable diseases:** cover compulsory reporting/notification of certain communicable diseases and epidemiological enquiry of communicable disease; efforts to trace possible contacts and origin of disease; prevention of tuberculosis and tuberculosis control (including systematic screening of high risk groups); immunisation/vaccination programmes (compulsory and voluntary); vaccination under maternity and child health care. Excluded is vaccination for occupational health; vaccination for travel and tourism on the patient own initiative.

6) **Expenditures for prevention of non-communicable diseases:** include centres for disease surveillance and control; programmes for the avoidance of risks incurred and the improvement of the health status of the community in general, general health education and health information of the public, health education campaigns; campaigns in favour of healthier life-styles, safe sex etc.; information exchanges: *e.g.* alcoholism, drug addiction; environmental surveillance and public information on environmental conditions. Excludes activities of self-help groups, and health education campaigns of self-help groups;
7) Expenditures for health promotion include expenditures on interventions against smoking, alcohol and drug abuse include activities of community workers, but excludes activities of self-help groups.
8) School health services are defined as services provided specifically to school-going children or specifically within a school setting to schoolchildren.
9) Expenditures on Geriatric Care program

Other collective health services

Occupational health care

LI DEFINITIONS FOR LEBANON NHA

Expenditures on occupational health care are defined as covering expenditures incurred by employers on or off-business premises for the surveillance of employee health and therapeutic care.

Health programme administration and health insurance

☐ DEFINITIONS FOR LEBANON NHA

1) Expenditures on health programme administration and health insurance consist of expenditures on health programme administration (HA.4.1) and administration of health insurance (HA.4.2).
2) Expenditures on health programme administration (HA.4.1) consist of expenditures for the strategic management, planning, regulation, and collection of funds and handling of the health delivery system.
3) The expenditure by private health insurance companies is the difference between revenue from premiums and claims' benefit, which may include a "technical reserves and profits" element. This expenditure is included in administration of health insurance (HA.4.2).

Health Related Functions

Expenditure on health education and training

☐ DEFINITIONS FOR LEBANON NHA

1) Expenditures for education and training of health personnel by both public and private agencies and institutions. Salaries of nurse trainees are not included for time spent in providing care to patients, even if that is concomitant with a training element. However, salaries for trainees or other health personnel who are undergoing training in a classroom setting outside a clinical setting are included.

2) Expenditures by medical and nursing schools are included, as well as expenditures for professional further education by professional bodies, such as Schools of Medicine.

Investment in medical facilities

☐ DEFINITIONS FOR LEBANON NHA

1) Expenditures on investment into medical facilities (HA.6) include all Health capital expenditure on plant and medical equipment and information systems funded by the government and the Private sector.

Health Research & Development

☐ DEFINITIONS FOR LEBANON NHA

We adopt the definitions and approach presented in OECD Proposal for measuring expenditures on health research and development

Expenditure on environmental health

☐ DEFINITIONS FOR LEBANON NHA

1) Exclude inclusion of this item until a better international standard definition is developed.

2) This entry measures investments and operating outlays on air cleaning and water treatment programmes largely determined on grounds of better health.

3) We include in this category health expenditure spent by Ministry of Environment.

الجمهورية اللبنانية
مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

PRELIMINARY DRAFT II

FINANCING HEALTH CARE

The current situation- in brief

1. *Population coverage*

The funding agencies must have an accurate account of the population it covers, except for the Ministry of health patients, who are identified only at the time of service. This may result in double coverage, abuse and perhaps fraud.

2. *Services provided*

The services provided currently are different for the respective population groups. In addition, they encourage non continuous, non-comprehensive care. The care is also fragmented with different providers, at different locations. The coverage encourages inpatient and emergency care (that are covered) rather than outpatient services.

3. *Administration*

The administration is also fragmented and hence inefficient with a high cost for administration. Contracts, information, negotiation, manpower, copayment, reporting, eligibility are all different. It is estimated that 45% of the premium in private insurance funds is spent on administration, taxes and commissions.

4. *Reimbursement to providers*

The fee-for-service method encourages over-utilization, over-doctoring and profit maximization through an increase in medical acts, whether in hospitals or with physicians. Patients demand more services and shift from non-covered to covered services. Funding agencies spent a great deal of time and efforts to check, inspect and review the bills. This creates delay, encourages discounts (perhaps unfair) and a higher cost of money.

5. *Overall picture I - Public Payers- 1998 data*

The NSSF data reveals that it pays far less for hospital discharge and per patient-day than all other public payers. The Ministry of Interior (Public security) pays the most per hospital admission as well as per patient-day.

If indeed the population served by the MOH for hospitalizations is similar to the general population, then the MOH serves the hospitalization needs of some 1.04 million persons.

	Ministry	NSSF	Coop	Army	Police	Security	Totals
Outpatient Services (Billions LL)	0.3	89.7	19.8	8.4	13	2.9	134.1
Acute inpatient (Billions LL)	150						150.0
Total inpatient (Billions LL)	205.1	107.7	24.7	50.1	24	2.7	414.3
Total cost (Billions LL)	205.4	197.4	44.5	58.5	37	5.6	548.4
Admissions (Thousands)	135	110.4	18.3	44.3	23	1.7	333
Patient-Days (Thousands)	574	439.3	75.0	171.7	90	5.0	1355
Cost/admission (Thousands LL)	1519	976	1347	1132	1043	1624	
Cost/patient-day (Thousands LL)	261	245	329	292	267	539	

6. *Overall picture II- All Payers- 1998 data- (Millions US $) .*

	Total Costs	%	Hospitals Costs	%	Outpts Costs	%
MOH	136.9	13.8	136.7	28.8	0.2	
NSSF	131.6	13.3	71.8	15.1	59.8	11.6
COOP	29.7	3.0	16.5	3.5	13.2	2.6
ARMY	39.0	3.9	33.4	7.0	5.6	1.1
INTERIOR	29.9	2.5	18.7	4.0	11.2	2.2
ALL PUBLIC	367.1	37.1	277.1	58.4	90.0	17.5
PRIVATE INS	137.3	13.9	100.1	21.1	37.2	7.2
HOUSEHOLDS	484.9	49.0	97.6	20.6	387.3	75.3
ALL PAYERS	**989.3**	**100**	**474.9**	**48.0**	**514.4**	**52.0**

1,600.0 (Dr. Hamdan)

Mr Matossian indicated that Private insurance pay some 300 millions $ per year; 30% is for physician fees; Private insurance pay 91 million $ for pharmaceuticals (31% of the total)- An Nahar, December 11 1999.

The MOH covers essentially the hospitalization of the Lebanese who request such coverage. This has skewed the overall costs to point that 48% of the overall costs cover hospitalizations and 52% outpatient services.

However, the proportion changes if the MOH part is omitted, as follows:

	Hospitals	Outpatients
NSSF	54.6	45.4
COOP	55.5	44.5
ARMY	85.6	14.4
INTERIOR	62.5	37.5
PRIVATE	72.9	27.1
HOUSEHOLDS	20.1	79.9

Households and individuals spend some 80% of their health expenditures on outpatient care, presumably because these can be afforded. Hence even if the insurance may cover (NSSF, private), these may not be actually filled for reimbursement, because of either copayment or administrative difficulties.

One should note as well that the Military, the Ministry of Interior and the Private insurance companies spend their health expenditures primarily on hospital care.

7. *Overall picture III - Hospital data- 1998-*

	MOH	NSSF	OTHER PUBLIC	ALL PRIVATE	HOUSE HOLDS	TOTALS
Enrolled (Thousands)		320	140	,200		
Dep/enrolled		2.8	4.2	2.3		
Beneficiaries (Thousands)		896	588	460		
% population		23.6	15.5	12.1	48.8	100.0
Discharges (Thousands)	135	110.4	88.4	64.4	96.0	494.2
Patient-Days (Thousands)	574	439.3	345.3	225.0	355.0	1938.6
ALOS	4.3	4.0	3.9	3.5	3.7	3.9
% pop hospit		12.3	15.0	14.0	12.4	13.0
Cost/discharge	1013	650.4	1114.7	1554.8	1016.9	1070.0
Cost/pt-day	238.2	163.4	285.5	445.0	275.0	272.8
Potential pt-days						3,285,000
Occupancy rate						59 %

Although the number of enrolled in either public or private scheme is 660,000 persons. the number of beneficiaries is 1,944.000 persons. If one were to add the 1,040,000 persons that are benefiting from hospitalization on account of the Ministry of Health, then the total number of persons receiving at least some coverage becomes 2,984.000 persons, close to 3 millions.

The total number of hospital discharges is stated as 494,200. If the Lebanese population is estimated at 3.5 millions, then the hospitalization rate is 14.1%. This is a very high utilization rate, since international standards place the rate at some 10%. This seems to point that the higher hospitalization rate is likely to be due to the fact that hospital expenditures are covered, unlike outpatient services. It should be noted as well that physicians and hospitals prefer to have inpatients rather than outpatients, to fill in the empty beds as well as to maximize the number of patients seen per time unit.

It is also interesting to note that the rate of hospitalization in the NSSF and the private insurers is close to 12% rather than 14%.

The cost of an episode of hospitalization ranges from 650 S in the NSSF population versus up to 1555 S in the private insurance sector. The other public payers pay on the average 1,000 S per hospital discharge.

It should further be noted that the average length of stay is around 3.5 days in the private sector as compared to 4.0 with the public payers.

The amount spent on ambulatory services has been stated as 514 million S, for all Lebanese. With a population of 3.5 millions. the share per capita is 147 S per year. This includes diagnostic, as well as pharmaceuticals.

The cost of pharmaceuticals alone has been estimated at 450 million S (120S per person per year: a very high figure compared to the standards in the region). Many believe that some of the pharmaceuticals transit through the Lebanese market to other countries, particularly Syria. This may explain partly this elevated cost.

The amount spent on hospitalization alone amounts to 475 million S. This translates to 136.116 S per person (if the population is estimated at 3.5 millions). The total amount relates to 14%. Every decrease of 1% in the rate of hospitalization would save 34 million S. Indeed, if the rate of hospitalization were to become 10% (the standard internationally, the savings would be 136 million S ! or 28.6%. This should emphasize the importance of steering care from the hospital to the ambulatory settings.

There is a need to analyze carefully the findings of the national household survey as well as the statistics of the public and private health care providers
The information from the National Health Accounts is also crucial, when finalized
Note: Coverage differs amongst these funds

Universal insurance coverage

The ideal option would be to institute a national health insurance, whereby all Lebanese could have access to health services. This would be a major accomplishment for the Government and the State, would relieve the economic difficulties being faced by the people, would be an appropriate benefit after the long years of civil strife – and would use the financial leverage to steer the restructuring of the health care system.

It should be noted that instituting a universal health insurance would have the following advantages that would translate into additional funds for the universal insurance:

Substantial savings in administrative costs
Marked decrease in abuse
Streamlining the professional and administrative systems

To establish this universal coverage, we need to define the following:

1. *Suggested basic principles*

A universal coverage for all Lebanese citizens, by right of citizenship. Foreign workers, non-Lebanese residents, will be covered subsequently soon after.
Coverage shall include all aspects of medical care including cost-effective tertiary care and catastrophic illnesses. This will need to be spelled out in details.
The insurance is compulsory for all Lebanese citizens. Complementary co-insurance will be permitted (mainly through the private sector insurance system)
Co-payment system will be instituted at the point of service (to be defined later)
Ceiling for overall funding should be at the present cost of medical care (around 10% of GDP)
Quality of care shall be an over-riding concern and shall be monitored through specific indicators. There shall not be a two-tier system for quality of care
Macro and micro efficiency of the system shall be implemented again through quantifiable indicators
Administrative, professional and accounting systems shall be unified and standardized
Emphasis shall be placed on simplifying and streamlining procedures and on decreasing the administrative costs
The payment to providers shall be encouraged away from the fee-for-service system
Strengthen the role of the primary physician and steer the entry into the system to ambulatory settings

There shall be considerable freedom of choice for the client, not a total one.
A strong, long-lasting and sustainable relationship between the public and the private sectors shall be formulated
A close relationship shall be instituted with the professional orders and the scientific professional societies

2. Proposed name: *The Social Health Insurance Program (SHIP)*

3. *Target population*

It is proposed that all Lebanese, residing in the country, and paying the premium, be covered by virtue of their citizenship.

One should avoid the implication that universal coverage is for the medically indigent and the poor

4. *Description of the proposed insurance*

One could classify the Lebanese population as follows:

4a. The salaried in the public sector- the civil servants- their coverage shall be administered through the Cooperative of civil servants
4b. The salaried in the Private sector: their participation shall be through the National Social Security Fund
4c. The servicemen and their dependents – their coverage shall be administered through the Military Medical system
4d. The servicemen in the Internal security forces and related organizations, and their dependents- their coverage shall be administered through their respective system.
4e. The professionals- Their coverage shall be encouraged through their professional associations. Example: Physicians, Pharmacists, Engineers, Lawyers, etc.
4f. The other groups of self-employed: shall be covered through the SHIP or through their mutuelles.
4g. The unemployed, the medically indigent, the institutionalized, the handicapped- Their coverage shall be governed by SHIP.

5. *Funding*

The population in 4a, 4b, 4c, 4d shall pay the premium through the existing organizations. i.e. the NSSF, the Cooperative shall pay the unified premium to SHIP. SHIP shall not interfere with the employer-employee relationship.
The population in 4e, 4f shall pay the premium out-of-pocket
The population in 4g: There ought to be clear eligibility criteria. In principle, this is the population that ought to be covered by the Ministry of Health, as is the case at present. It is proposed that this population pay a fraction of the unified premium only. The balance will be paid on its behalf by SHIP.

All population groups can purchase additional co-insurance, except for the population in 4g. The population groups currently covered by the public payers can also have additional services covered, as per the payer's regulations and systems.

It is proposed that all medical services be covered by the universal insurance, especially catastrophic illnesses since the care of these illnesses is too expensive for the individual and his/her household to cover. SHIP shall review on a continuous basis the efficacy and effectiveness of procedures, in a most professional manner, through the Technology Assessment Council TAC. These services shall be covered.

Ideally, it would be best if the individual has the freedom of choice to choose amongst medical practitioners and providers. This could let the market regulate itself, since the public would choose (assisted by public information) the providers with better service and quality of care.

However and in order to preserve equity between those who pay and those who are supported by the State, there shall exist some limitation in the choice of providers and in the hotel services. There shall not be a difference though in the quality of care. For instance, population g shall be encouraged to use the public sector facilities.

As noted above, all parties should contribute to the universal insurance, namely the State, the employer, the employee. Additional revenues to the insurance fund shall be described later.

6. *Administration of SHIP*

Ideally, the Government should establish an authority to be named " **The National Health Care Financing Authority**", under the tutelage of the Ministry of Health.

This authority will have on its Board of Directors, representatives from the principal stakeholders, namely:
The Ministries of Health, Finance, Economy and Social Affairs
The National Social Security Fund
The Cooperative of Civil Servants
The Military Medical Services
The Medical Services of the Internal Security Forces
The Orders of Physicians, Nurses, Pharmacists, Dentists
The Syndicate of the Owners of Private Hospitals
The Labor Syndicate

However, the Management will be entirely private management to attract the necessary expertise. Legal counsel should be sought for the optimal legal structure of the authority. Models include the Central Bank perhaps.

In much the same way as the Central bank (relative to the banks, the Authority will supervise the insurance companies, whether private or public, provide for its licensure, follows up on their financial situation, etc. It is advisable that the insurance companies be solely registered for medical care purposes rather than have the medical care as part of their large portfolios (General insurance, life insurance, fire insurance, etc.) if this is possible.

The various public financial providers would continue their functions to enroll beneficiaries, collect premiums, according to the regulations inherent to each Fund. However the professional systems and the payment to providers would be established and mandated by the Authority. The public payers could be visualized as individual insurance companies.

This Authority would have the following functions:

Collection of contributions from all payers for the basic national insurance scheme
Define the eligibility requirements.
Pooling of financial resources to cover the basic comprehensive national insurance
Establish the requirements and systems to be followed by all insurance companies, private or pubic, and supervises its performance
Establish a national system for provider payment
Establish the list of benefit packages
Establish the requirements and conditions for contract with the different providers
Prepare the standards for provider groups to include a unified system for patient referral, billing, auditing, quality assurance, fee schedule
Establish national norms for accreditation and classification of health facilities
Establish national subsidiaries to promote quality of care and cost containment
Provide financial incentives to regulate the health care market
Establish a National Center for Health systems research and development

This Authority and/or its subsidiaries could contract with the private sector (private insurance companies) third party administrators and companies with specific and needed expertise to act on its behalf in the performance of the above functions.

Revenues from this Authority (not its subsidiaries) would serve to pay for the actual operations of the health insurance and provide for the capital of the joint public-private subsidiaries.

This Authority will be audited as per the laws in vigor and by international accounting firms.

The Authority could recommend to the Government excise taxes on tobacco, liquor, nightclubs, etc. to increase its revenues, and to promote healthier lifestyles. Other sources of income may include a small premium on car insurance.

7.The premium

The NSSF charges currently 12% of the salary to the employer, 3 % to the employee. or 15% per client and his dependents, up to a ceiling of 3-fold the minimum wage (currently 900,000 LL or S 600). Therefore the maximal charge of the NSSF per client and his dependents (3.1 persons) amounts to 135,000 LL (90 S) per month, 1,080 S per year. (348 S per person per year or 30 S per month).

The NSSF has offered private institutions to cover the medical care of its clients at the rate of 165,000 LL per person per year or S 110 (equivalent to the contribution of the minimal wage earner x 1.2).

The NSSF covers its beneficiaries at the cost of 200.000 LL per person per year (S 135). The NSSF covers close to 900,000 persons.

The Ministry of Health pays currently 137 million S to cover hospitalization. If one uses the data from NSSF, hospital care accounts for 54% of the health care bill. If the MOH were to cover the cost of ambulatory services to its "population", the health care bill of the MOH would amount to 254 S per person per year. This "population" is estimated as noted above to be close to 1 million persons.

Therefore the cost per person per year for a full coverage should range between 135 and 254 $ and covers about 2 million persons or 57% of the estimated Lebanese population; *It is suggested that this be the premium (200 $/person/year) for the national insurance.*

If the population in Lebanon is estimated to be 3.5 million persons, then the universal coverage ought to be financed at the tune of 700 million S.

The client in the NSSF covers usually 3.1 dependents; The NSSF is said to cover 24% of the total population, and that 60% of the insured earn just the minimum wage. Utilization is 0.35 patient-day per person/year, 2 visits/person/year; Administrative costs are estimated at 15%.

If the distribution of households' income is as follows (as per information from the National Household survey):

	Percent	Cumulative Percent
Less than 300,000 LL/mo/household	5%	5%
Between 300-500,000 LL	15%	20%
Between 500-800,000 LL	20 %	40%
Between 800-1,200,000 LL	20%	60%
Between 1,2-1,600,000 LL	12%	72%

Between 1,6-2,400,000 LL	15%	87%
Between 2,4-3,200,000 LL	4%	91%
Between 3,2-5,000,000 LL	5%	96%
Above 5 millions LL	4%	100 %

The household has on the average 4.8 persons

Note: The income per household hides the fact that the cost-of-living in rural areas does not match that of cities and towns, since housing, amenities are free and do not figure in the total income of the household).

If the NSSF has 3.1 dependents per enrollee, therefore the population of the NSSF fits minimally into the 300-500,000 LL bracket (465,000 LL month- This is 3.1 dependents versus 4.8 dependents in the households !!). The NSSF claims that the average income of its enrollees (as per payment of dues) is 570,000 LL per month. The 110 S per person reimbursed by the NSSF would then equate with a household income of 558,000 LL.

Therefore the universal insurance coverage at 200 S per person per year would cover 20% of the first population tranche, or 700,000 persons ! **Their coverage would cost 140 million S at the 200 S/person premium !**

This population bracket would receive the universal medical package, to be defined as follows: preferential treatment in Government hospitals and in MOH-contracted hospitals (according to specific criteria of care), preferred physician providers, etc..). The model is the National Health Service of the United Kingdom !

The next population brackets (80%) may contribute 15% of its income (employer and employee shares) as is the case currently with the NSSF. The shares of the employer and the employee may be changed, so can the ceiling.

Household income per month	Midpoint	15%	Per year Mill LL	Per year S
Between 500-800,000 LL	650,000	97,500	1.2	780
Between 800-1,200,000 LL	1,000,000	150,000	1.8	1200
Between 1,2-1,600,000 LL	1,400,000	210,000	2.5	1680
Between 1,6-2,400,000 LL	2,000,000	300,000	3.6	2400
Between 2,4-3,200,000 LL	2,800,000	420,000	5.0	3360
Between 3,2-5,000,000 LL	4,100,000	615,000	7.4	4920
Above 5 millions LL	5,000,000	750,000	9.0	6000

Since the household has 4.8 members on the average, this translates to:

Household Premium S Per year	Individual Premium S Per Year	% of Pop	Number Persons	Amount Premium Millions S
780	163	20	700,000	114

1200	250	20	700.000	175
1680	350	12	420.000	147
2400	500	15	525.000	263
3360	700	4	140.000	98
4920	1025	5	175.000	179
6000	1250	4	140.000	175
Totals		80	2,880,000	1,151

The maximum premium will be about $ 100 per person per month, for households earning more than 3,500 $ per month, i.e. 2.8 %. If this is found to be too expensive, the Authority may wish to place a ceiling on "taxable" income per person (or household) per month, for medical care, or decrease the contribution to only 10% or 12 % rather than 15% as is current, and/or change the contribution of the employer-employee.

For example, if the maximum premium per individual is 600 $ per year, this would affect 13% of the population or or 455,000 persons. Their contribution would yield 228 million $ rather than 452 million $. The ceiling would thus be for households earning more than 2,400,000 LL per month (1600 $).

If the National Fund needs 700 Million $ to cover the entire Lebanese population (at 200 $ per person per year), the average premium for the 80% of the population needs to be 243 $ per person per year in order to provide the funds necessary to cover the total population, as per solidarity between the social classes. If the Administrative costs is 20% (140 million $), the balance will be around 300 Million $ per year to provide for reserves, developmental initiatives and financial incentives to regulate the Health Care Industry.

In all cases, the State shall provide from the general budget (taxation) for the medical coverage of the population in case of man-made or natural catastrophes, such as Israeli attacks, earthquakes, etc.

Payment to Providers

The most important factor in the establishment of the Authority should be its ability and power to regulate the health care industry, principally the payment mechanisms to providers. For unless this is modified, there is doubt that a universal health insurance could be sustainable or even possible. The Authority shall use financial incentives and regulation mechanisms to steer the health sector to normalcy and sustainability, albeit in a gradual manner.

Payment to hospitals

Hospitals, private and public, will need to be accredited by the Authority to receive payment for its patients and clients.

The Authority shall therefore prepare professional, administrative and financial systems that regulate this accreditation, namely:

What would be required to establish a hospital? i.e.minimum number of beds, space, location, facilities. This will require the amendment of the legislation to obtain a hospital construction and operating licenses for new hospitals. A number of years (say five years) will be indicated for adjustment and compliance of the existing facilities. The 1962 legislation concerning hospital licenses will need to be revisited.

The purpose of this legislation will be to move small hospitals (less than 80- 100 beds, for example) to become alternative health facilities such as larger health centers, sites for physician providers groups, geriatric centers, rehabilitation units. etc.). This would improve the quality of care because the quality is indeed related to the volume of patients received in a hospital; this would also decrease the cost of operations since the overhead and the supportive services would be available for a far larger number of patients (the denominator). This will also decrease the administrative costs of the insurance since it would deal with a far smaller number of institutions.

In order to assist the process, financial incentives would be provided to the smaller institutions to transform and become an integral part of the health facility system. Such incentives could be interest-free loans, tax deductions, assured contracts for a certain number of years, etc.

Small hospitals (less than 80-100 beds) that are needed in under-served areas may be given a longer grace period to comply. Others may continue to exist yet the Authority shall not contract with them. There shall be no coertion; the financial incentives and discussions with the Authority should be the modus operandi for this transformation. In this context, the "carte sanitaire" becomes important.

To illustrate: The 3.5 million Lebanese are expected to generate 350,000 hospital admissions per year, and about 1.4 million hospital days. If the Authority were to deal with hospitals that have as a minimum 100 beds, it would deal with only 40 hospitals rather than 140 currently !!

The management and operations of the public hospitals will need to be further reviewed. A consultancy has recently reviewed the Laws on the Autonomy of hospitals. It has suggested further detailed study and a framework for autonomy that is different from the current legislation. This matter must be finalized.

Hospitals will be reimbursed using the Diagnosis-Related Groups (DRG) system. This implies two important things:

A flat payment per admission
A strong framework for quality control and medical audit
Less administrative cost
Faster and transparent payment to institutions

Hospitals on contract with the Authority will have to adopt the professional systems that would have been prepared by the Authority, for example:

The country-wide hospital information system
The quality assurance program

Financial incentives could be introduced to induce hospitals

To become teaching hospitals for nursing personnel,
To accept residents (physicians-in-training) in needed specialties, such as Family Medicine, Emergency Room physicians, Geriatric specialists, etc.

Additional financial incentives would be offered to the larger teaching institutions (above 150-200 beds) to become the "national centers for medical care"; This concept implies that the larger teaching hospitals would benefit from contracts (from the Authority) to accept its patients requiring complex procedures, such as:

Cardiac surgery
Neurosurgery
Delicate ophthalmological procedures
Cancer therapy (including Bone marrow transplantation and radiotherapy)
Organ transplantation
Complex Orthopedic surgeries
Burns and Reconstructive surgery, etc..

The Authority shall endeavour to promote these "National Centers" as:

Referral centers for the Region
Beneficiaries of bilateral and international cooperation
Centers for education and training (in cooperation with the Universities)
Centers for Research (through grants with the Lebanese Council for Scientific Research)
Others

The Authority shall provide financial incentives to designated larger hospitals to become centers for emergency care, within the national system of emergency care. Training, equipment grants would support these hospitals

Payment to physicians

The Authority will use its financial and regulatory leverage to redirect the care provided by physicians in the outpatient setting (ambulatory care).

Lebanon has a plethora of physicians. Their number is currently estimated at some 8,500 physicians, with an annual addition of some 700 physicians. Although there are discreet indication that the attractiveness of the medical profession may be fading, the country will still have to deal with an over-abundance of physicians, for the next 30-40 years ! Physicians in excess numbers are driven to "over-doctor", i.e. to request medical services that may not be needed, nor indeed adequate or called for. This is so because of the "fee-for-service" method of payment. This will need to be changed if costs are to be controlled.

The proposed method of reimbursement is the capitation method.

The Lebanese population would be invited to register with only one physician. The client may change this "registration" once every year. The physician will have to provide care to his patients at a fixed prepayment cost per year. There will be a ceiling on the number of patients allowed per physician.

The Authority will provide financial incentives for physicians to move into "Group practice", rather than solo practice. This grouping of physicians would encourage:

Better coverage to the population, 24 hours a day, all year round
Better service to the population
More amenities on site such as Labs, Radiology, medical services such as pharmacy, physiotherapy, etc
Increased possibilities for continuing education and consultations with peers within the practice
Comprehensive and longitudinal care to the clients
Easier application of Primary health care principles
Increased possibility for home care

This grouping of physicians into "Preferred Physician Provider Groups" would shift the practice from hospital care to ambulatory care. It would also:

Decrease the administrative costs for the Authority since it would deal with a far smaller number of providers
Facilitate the introduction of professional and regulatory mechanisms such as information systems
Promote the quality of care
Encourage the specialty of Family Practice
Promote the principles and practices of Primary Health Care
Introduces a quality check within peers in the Group practice
Others

To illustrate: The Lebanese population (3.5 million persons) are likely to generate some 8 million ambulatory visits per year. If the number of physicians is indeed 8000, the current physician is likely to care on the average to 2.5 patients per day, all through the year (950 visits per year). If the visit is costed at 20$, then his/her annual income is around 20,000

S/year or 1,500 $ per month. This underlies the immense under-utilization and under-employment of physicians, that can only worsen if unchecked !

Furthermore, such PPPG would open the ground for innovations in providing care. The role of the NGOs would be supported and promoted. Such PPPG would contract with the Authority for the ambulatory care of its patients. Physicians who opt to remain in solo practice could also be contracted with, but at a lower capitation fee.

What needs to be done ?

The following studies are needed to be conducted within the framework of Financing medical care ?

A comprehensive assessment of the qualitative, quantitative and cost of providing health care
Concept testing from providers, State as well as client's perspective. Political mapping
Proposed organization, legislation, services and operations for the proposed Authority
Product lines and services per class of services and premium
The development of model contractual agreements with hospitals and physician providers

Health sector assessment

In order to proceed with this undertaking, one must have sufficient information regarding the current situation, in terms of providers and facilities. A health sector assessment is in order. It is however believed that many of the elements of this assessment have already been studied, through the "carte sanitaire" as well as the many projects conducted by the World Bank Health sector rehabilitation Project (WBHSRP).

The following information is crucial:

An assessment of facilities available per district (qaza): service area, demographic, epidemiologic, economic and utilization profiles; health resources available; projections of demand;
A review of the legislation
Political mapping of the major stakeholders
An assessment of public opinion as to the health care sector and the proposed reforms
A review of the legislation concerning Area Health Authorities
A study of the burden of diseases

FINANCING HEALTH CARE

TERMS OF REFERENCE

1. *Cost analysis for the current health expenditures.*

   A careful review of the published costs of providing medical care by the public providers as well as by the private insurance companies and mutuelles:

   How much is being paid for outpatient care, hospital care, pharmaceuticals
   What services are being provided ? What services are excluded ?
   What are the eligibility requirements ?
   What information on actuarials has been accumulated over the experience of the various funders ?
   What are the additional medical costs incurred by the various public funders, such as the Military, the Internal security forces ?
   What are the administrative costs of their respective operations ? Could this cost be reduced through the standardization and streamlining of procedures and systems ? by how much ?

2. *The premium for medical care.*

   A careful review of the premium currently charges and the respective sources of funding by the various providers. This is the information that will be obtained from the National Health Accounts survey.
   What is the premium being levied at this time by all providers ? What are the components of the burn rate ?
   What premium would be acceptable politically and economically for the universal insurance, if introduced ?
   What are the risks of over-run costs if the universal insurance is introduced ? How could this be minimized ?

3. *Out-of-pocket and household expenditures on health and medical care*

   What are the current expenditures on health and medical care by the households (out-of-pocket) ? What are these spent on: co-payment, deductibles, declining reimbursement, services not provided ? This information may be available in the household survey recently completed.
   What are the actual distribution of household income in the Lebanese population ? How much is it reasonable and acceptable to increase the premium for certain income brackets ? How much can one adjust the ration of employer-employee contribution, the ceiling for contribution ?

What are the expectations of the Lebanese population as far as medical care is concerned ? What are their reservations ? their recommendations ? A population-based survey may be in order.

4. *The proposed National Health Care Financing Authority*

Definition of the objectives and responsibilities of this proposed Authority
Possible legal framework for the establishment of this proposed Authority
The specific regulations that could govern the Authority, its Board of Directors, its Organization, its Managerial structure ?
The role of the Authority as a Third Party Administrator ?
What measures would be proposed to collect the premium for the basic insurance ?
What is the process of disbursing funds for the medical care of the insured under the basic insurance ?
What can be done to provide the basic insurance to the non-Lebanese residing in Lebanon ? at what premium ? what services ?

5. *The basic medical package*

Definition of the services covered under the basic medical coverage. What are the exclusions, the limitation of freedom of choice, the incentives to use certain facilities and providers ?
What are the co-payment mechanisms, the deductibles, the eligibility requirements, the participation in the premium ? Should the smart card be used ?

6. *The payment to providers: Hospitals and Physicians*

What are the proposed and possible ways to pay hospitals and physicians ? What are the incentives to curtail over-doctoring ? What about the proposed DRG system ? the capitation and prepayment for physicians ? the contracting out to institutions to cover the medical of segments of the population ?
Should there be a gradual shift away from the current fee-for-service methods of payment ?
What can be done to decrease the cost of pr iding medical care ? A move to outpatient care ? joint public-private companies to dec ase hospital costs ? day surgeries ?
Definition of the Preferred Physician Providers Groups for Ambulatory Care
What special considerations could be made for the larger hospitals ? the teaching hospitals ? the university-owned institutions ?
Definition of the National Centers for Medical Care for the treatment of special complex conditions

7. *The Management of the public hospitals*

A finalization of the role and governance of the public hospital. Revisit the Laws on Autonomy of Public Hospitals.
The role of the public medical institutions in the universal medical insurance plan
The Autonomy of the public outpatient facilities: should it be considered ? could it be contracted out to NGO ? educational institutions ? to public-private concerns ?

الجمهورية اللبنانية
مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)