Report

Rebuilding of the Lebanese health care system: health sector reforms

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إعادة بناء نظام الرعاية الصحية في لبنان: إصلاح القطاع الصحي

نبيل قرنفل

الخلاصة: كان للحرب الأهلية التي امتدت من عام 1975 إلى عام 1992 في لبنان أثر سلبي شديد على نظام رعاية الصحة العمومية. وتتناول هذه الورقة بالوصف نظام الرعاية الصحية في لبنان ونظام تمويله اعتباراً من عام 2001. كما تبيَّن الجهود التي بُذلت ولاتزال تُبذل لتأهيل هذا القطاع وإصلاحه منذ نهاية الحرب الأهلية.

ABSTRACT The civil war in Lebanon from 1975 to 1992 had a significant negative impact on the public health care system. This paper describes the health care system in Lebanon and its financing as of 2001. The efforts that have been made and are being made to rehabilitate and reform this sector since the end of the war are outlined.

Reconstruction du système libanais de soins de santé : réformes du secteur de la santé
RÉSUMÉ La guerre civile au Liban de 1975 à 1992 a eu un impact négatif considérable sur le système public de soins de santé. Le présent article décrit le système de soins de santé au Liban et son financement en 2001. Les efforts qui ont été déployés depuis la fin de la guerre et qui se poursuivent aujourd'hui pour le redressement et la réforme de ce secteur y sont présentés.

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Received: 09/01/03; accepted: 06/07/04

Introduction

Lebanon is a middle-income country with a population estimated at 4 million, over 80% of whom live in urban areas.The population consists of Lebanese citizens (93%) and foreign and migrant workers from neighbouring countries, as well as Palestinian refugees.

Before the civil war, which began in 1975 and lasted until 1992, the Lebanese economy was robust, enterprise flourished, and Lebanon was considered the banking centre of the Middle East. The civil war led to the relocation of many service sectors out of the country. Much of the industrial and agricultural infrastructure was destroyed and the economy went into decline. Increased spending on security forces and the reduction in government revenues from taxes and other duties led to a steep increase in public debt.

The civil war had a major negative impact on the public health care system. The state facilities were in their majority destroyed, looted or deserted. The staff found difficulty in reaching work. To provide care to the traumatized population, the Government relied on the private sector. Whereas before the war, in 1970, only 10% of the Ministry budget was spent on the care of patients in private facilities, that proportion reached 80% in the late 1990s. Of all the sectors in the economy, none has flourished as much as the private health sector during the past 2 decades.

This paper describes the health care system of Lebanon, and the efforts that have been made to rehabilitate the sector after the 17-year civil war.

Health facilities and human resources

Table 1 gives the health care resources for the year 1999 per 10 000 population.

Hospitals

Lebanon has 26 beds per 1000 population making this one of the highest ratios in the Middle East. Only 12% of the hospitals and 10% of the beds are in the public sector. According to the Syndicate of Private Hospitals, there were 139 private hospitals in 1999 with 8297 medium-stay active beds. The growth of private hospitals was phenomenal during the war (a 60% growth). This expansion was fuelled mainly through the financing of medical care by the public funding agencies, principally the Ministry of Public Health (MOPH).

The average number of beds per hospital is 59: only 3% have more than 200 beds and these are all in the private sector. The high percentage of hospitals with fewer than 70 beds and the fact that they tend to be multispecialty facilities mean that it is difficult to achieve economies of scale. Added to this is a low occupancy rate: 59% in 1998, according to MOPH sources.

More than 70% of the hospitals of the private sector are owned by private individuals or groups of doctors. The rest are owned and operated by nongovernmental organizations (NGOs), usually religious, charitable or community groups.

Table 1 **Human and physical health resources, Lebanon, 1999**

Resource	No. per 10 000 population
Physicians	22.4
Dentists	10.1
Pharmacists	7.8
Nursing & midwifery personnel	10
Hospital beds	26
Primary health care units & centres	2.3

Source: Ammar, Walid. Health system and reform in Lebanon, 2003. Ministry of Health.

In addition to the above, there are some 19 private hospitals with 3478 long-stay beds catering to the old and disabled. These hospitals receive an annual contribution from the MOPH depending on the number of beds and the type of sickness of the patients.

Health care services have become increasingly oriented towards curative care with a rapid growth in the number of hospitals and centres with high technology services. However, the utilization of this high technology equipment has remained much below the optimum. The fastest expansion has been in areas covered by the MOPH (e.g. open heart surgery, MRI) while there has been virtually no expansion in the areas not covered by the Ministry (e.g. radiotherapy).

After the end of the civil war, the Government began to rehabilitate the existing public hospitals and build new ones. From 15 public hospitals with 810 beds, the number will increase to 28 hospitals with close to 2680 beds; another 1000 beds are currently being commissioned in the private sector.

Health centres and ambulatory services

While hospital services are growing, the primary health care system has remained weak. The private sector and NGOs dominate this sector with public involvement being minimal. NGOs own over 80% of the 110 primary health care centres and 734 dispensaries spread across the country.

The MOPH and the Ministry of Social Affairs provide health services at health centres and dispensaries. These consist of curative and preventive health care services, vaccinations, primary health care, advice on reproductive health and services aimed at the disabled population. Both Ministries also support a number of centres belonging to not-for-profit organizations and NGOs that include health services among their activities.

After the war the MOPH began to refurbish its network of health centres and build additional ones. However, the use of public health centres has been low and private clinics are the main outlet for ambulatory care for 79% of patients. Only 20% of households have a family physician to take care of their health concerns on a regular basis.

The reimbursement of the cost of ambulatory services is, in effect, with the various public agencies, except for the MOPH that offers care at no or minimal cost within its own network. However, since the patient has to pay first, to be reimbursed later, there is evidence that many prefer not to go through the process of reimbursement as it is considered tedious and time-consuming.

Physicians

There is a plethora of physicians in Lebanon which has been exacerbated in the past few years. In the last 3 decades, the yearly increase of physicians has been in the range of 500–700.

Until the late 1970s, most of the physicians practising in Lebanon were graduates of the 2 medical schools that existed then in Lebanon, namely the American University of Beirut and the Saint Joseph University. In 1999, however, the graduates of Lebanese universities made up only 39% of the total pool and of the new yearly inflow; the remaining graduated from universities outside of Lebanon.

There are 2 orders of physicians in Lebanon: the Order of Lebanon based in Beirut for all the country except the Mohfazat in North Lebanon (8500 registered physicians), and the Order of Physicians of the North (1200 registered physicians). In addition, there are those who are not registered with either order but are practising illegally.

At the same time, there are those who are registered but are not practising, mostly because they have emigrated and are working outside the country. The estimated ratio of physician to population is therefore around 1 physician per 412 persons.

Around 70% of physicians registered in the Beirut Order of Physicians are specialists. Legislation enacted in the 1970s required medical graduates to opt for practice for 2 years in the rural areas or opt for specialty training. Although the law intended to encourage practice outside the cities, the effect has been to encourage specialty training.

Dentists

Dentists face almost the same situation as the physicians in Lebanon. There are currently 3471 dentists registered in the Order of Dentists of Lebanon and another 400 registered in the Order of Dentists of North Lebanon. Dental care does not have as extensive a coverage by funding agencies as medical care. Dental graduates from universities in Lebanon made up 41% of the pool of dentists in 1994 while "foreign" dental graduates made up the rest.

Nurses and paramedical personnel

In contrast to doctors and dentists, the ratio of nurses to population is very low (1 to 1150 population). This is one of the highest ratios in the world. In 1997, there was a total of 3453 nursing personnel. The ratio of hospital beds to nurses is a high of 4.5 beds per nurse. As a result of this shortage, the use of nursing aids and on-the-job trained nurses' aids in place of nurses has become common in most hospitals.

Schools of nursing have been in existence in Lebanon since the turn of the 20th century at the American University of Beirut and the Saint Joseph University. Nursing institutes exist all over the country to prepare technical nurses. Other nursing programmes are hospital-based. Legislation in 2002 established the Order of Nurses.

Pharmaceutical sector

In 1998, pharmaceutical expenditure accounted for over 25% of the total health expenditure. Only 2% of the pharmaceuticals sold in Lebanon are generic products; 98% are proprietary products. Similarly, imported drugs account for 94% of consumption with locally manufactured drugs making up only 6%. Thus, the per capita expenditure on pharmaceuticals is high (US$ 120). Expenditure on pharmaceuticals has been increasing at 7% per annum, a figure that is higher than the rate of inflation. Household out-of-pocket expenditure accounts for 94% of the spending on pharmaceuticals.

The increase in expenditure on pharmaceuticals has been accompanied by a rapid increase in the number of pharmacies in Lebanon. Between 1995 and 1998 the number rose by 59% and the number of registered pharmacists grew by 34%.

Reforming the health care system

When the civil war ended in 1992, the health sector in Lebanon faced several problems: the weakened MOPH, rapid cost escalation in health expenditure, particularly MOPH expenditures, unrestricted growth of the private sector and a weakened primary health care system.

In response to these problems, the Government adopted a health sector strategy in 1993. Important elements of this strategy included strengthening the role of the MOPH and containing the rapid growth in health expenditure. While the long-term objective of the health sector strategy is to improve the allocation and use of resources in the public

and private sectors, the short- to medium-term objectives have focused on improving the managerial and administrative functions of the MOPH, to include the introduction of a comprehensive package of curative and preventive services at all primary health care facilities, the strengthening of hospital management and service delivery capability and the implementation of alternative health financing options.

The Government of Lebanon negotiated a loan with the World Bank to undertake the restructuring of the health system. In consultation with the World Health Organization, a series of carefully designed surveys and studies was carried out, in collaboration with academic institutions and governmental agencies. The process of reforms involved most of the stakeholders in the public as well as the private sector.

Health care utilization

As part of the reforms, a National Household Health Expenditures and Utilization Survey (NHHEUS) was undertaken. Officially released in December 2001, the survey represents the first time a specific health survey has been conducted in Lebanon. A nationally representative sample of roughly 6500 households (and 33 000 individuals) was used.

It showed that on average the Lebanese had 3.6 outpatient visits per year, with males having 3.1 visits per year and females 4.1 visits. While regional disparities exist in use rates, these do not appear to be significant. An interesting finding is that, unlike many other counties, lower income individuals have higher use rates than those in higher income groups. This indicates that there do not appear to be inequities in access to health services if these are measured by use rates. Those over 60 years and those under 5 years had the highest use rates. Those with insurance had higher use rates than the uninsured.

The overall hospitalization rate was 12% per year (1.5% of the population had more than 1 hospitalization per year). The average length of stay was 4 days, and the overall occupancy rate of hospitals was 55%. For those over 60 years, the rate of hospitalization was 28%, with 4.5% having more than 1 episode per year. Hospitalization was more frequent amongst lower income groups. Hospitalization rates varied between the insured and the non-insured, 10% versus 8% for 1 admission per year.

With regard to the use of day surgery, while the elderly had higher use rates than other age groups, there was no difference by insurance status as was seen in the case of outpatient care and hospitalization.

Contrary to the trend with regard to other services, the elderly access far less dental care than those in the age group 15–59 years. Similarly, those in the lower income groups use less dental care than those in the higher income groups. This is likely because most insurance policies do not cover dental care.

Financing health care: the National Health Accounts Study

The compilation of National Health Accounts (NHA) estimates for Lebanon is comparable both conceptually and methodologically to the compilation of NHA in other advanced economies. A special effort was made to ensure maximum compatibility between the Lebanon NHA framework and the Organization for Economic Cooperation and Development proposals for standardization of health accounts. The NHA was undertaken by the World Health Organization in close collaboration with official representatives of all public and private funds under the overall supervision of

the MOPH. The health expenditure reported from this account is shown in Table 2

Expenditure on hospital care by public financing agents is very high. Overall, 66.4% of the recurrent public health expenditure is spent on hospital-based care, 14.0% on ambulatory care, 7.8% on pharmaceuticals, 5.0% on other goods accounts and 6.8% on administration. In the case of the MOPH, 71% of its budget is used to pay for hospital-based care. Expenditure on primary health care accounts for less than 5% of public expenditure.

There are 3 governmental health insurance providers in Lebanon, in addition to the payments made by the MOPH to private hospitals for the hospitalization of the uninsured applicants. There are also various other sources of health care financing.

Table 2 **Health care expenditure, Lebanon, August 2001**[a]

Expenditure	Value
Total health care expenditure	US$ 2 billion
Per capita expenditure	US$ 500
Total gross domestic product	US$ 16.2 billion
Health expenditure as % gross domestic product	12.3%
% Government of Lebanon budget allocated to health	6.6%
Sources of funds	
Public	18.0%
Private	82.0%
Households	69.7%
Employers	10.3%
Donors	2.0%
Distribution of health care expenditure	
Public hospitals	1.7%
Private hospitals	22.8%
Private non-institutional providers	41.0%
Pharmaceuticals	25.4%
Others	9.1%

[a] *Information compiled from the National Health Accounts Study, released in August 2001 and based on 1998 data.*

National Social Security Fund (NSSF)

The NSSF was established in 1964 and is similar to the French model of social security. As essentially a service for workers, the NSSF comes under the Ministry of Labour. The MOPH has little input into its operations or decisions.

The NSSF is the most important source of public health insurance in Lebanon. It covers, in principle, Lebanese citizens who are: workers and employees in the private, non-agricultural sector; permanent employees in agriculture, employees of public institutions and independent offices who are not subject to civil service; teachers in public schools; taxi drivers; newspaper sellers; and university students. Health coverage includes sickness and maternity allowances amounting to 90% of hospitalization costs and 80% of medical consultations and medication excluding dental care. Thus to a large extent, the Fund is financed from private sources yet it is a public institution. In April 2000, a project law was approved by the Cabinet instituting the provision of health care to the entire population above the age of 64 years, under the auspices of the NSSF. The law has not been implemented as yet and may be revised. In 2003, coverage was extended to physicians and their dependents.

The household survey of 1997, undertaken by the Ministry of Social Affairs (MOSA), revealed that only 15.2% of the sample interviewed were covered by the NSSF. The NHHEUS reported a coverage of 26.1%, while the NSSF maintains that it provides coverage for 33% of the Lebanese population.

Security forces coverage

Insurance for the security forces is organized through several funds. The Military are covered by the Ministry of Defence. The Internal Security Forces have their own plan, under the Ministry of Interior. The staff of Public Security, Customs employees and those of State Security are covered through 2 different funds, under the Office of the Prime Minister. All uniformed staff members are covered with their dependents and their parents. Together, these funds constitute the second most important source of public health insurance. Coverage here is the most generous: 100% of hospitalization and medical expenses for the member, 75% for spouse and children and 50% for dependent parents.

Cooperative of the Civil Servants

The Cooperative of the Civil Servants (CCS) is the third most important source of public health insurance which was instituted in 1964. The CCS insures all employees of the public sector who are subject to the laws of the Civil Service. Health insurance covers 90% of hospitalization costs and 75% of consultations, medication and dental treatment for the employee (up to a ceiling, beyond which the CCS covers all). The CCS is operated by the Office of the Prime Minister and is financed from a 1% deduction off the payroll of the individual; the balance is covered by the Government.

Ministry of Public Health – insurer of last resort

The MOPH funds the hospitalization costs for any citizen who is not covered under a public insurance plan. This coverage is independent of the income and assets of the individual. In addition, the MOPH covers the cost of some interventions such as chemotherapy, open heart surgery, dialysis and renal transplant, and drugs for chronic diseases. This coverage engulfs some 40%–45% of the Ministry's budget for contracted services. As such, the Ministry has the largest share of the total cost of public expenditure, including insurance, on health services in the country. The MOPH covers 85% of hospital care: the incumbent is expected to pay 15% of the hospital bill. However, even this co-payment is frequently waived altogether, on account of need. Recently, the Ministry has taken steps to introduce "flat rate" payments in its contracts with private hospitals.

Private insurance

Private health insurance is well established in Lebanon. According to the Ministry of Economy, approximately 70 private insurance companies provide both complementary and comprehensive health insurance policies. The former are to complement and fill gaps in the benefits provided by NSSF, CCS, 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. Nearly 85% of the policies are purchased by employers as an employee benefit or to fill gaps in NSSF coverage. The private insurance market is not well 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.

Mutual funds

There is a growing number of mutual funds covering health expenses in the context of syndicates, associations and other groups. This sector comes under the Ministry of Housing and Cooperatives. The law governing mutual funds allows any group of 50 persons (or above) to form a mutual fund.

The linkage could be professional, religious or community-based. Tax laws that provide tax breaks to not-for-profit groups have led to a proliferation of mutual funds that offer health insurance coverage to those enrolled in the fund. Mutual funds do not pay taxes on the premium, unlike the private insurance companies.

Local and foreign not-for-profit organizations

There is a relatively small proportion of the total health bill that is covered by local and foreign not-for-profit organizations and NGOs operating generally at the local level in poorer urban districts and underprivileged rural areas. Medical care offered through NGOs increased during the war but this has waned somewhat since 1990. However, the involvement of the community in the provision of medical care did offer some innovative models for the financing, governance and management of health services.

Donor assistance

In 1998, donor assistance amounted to 1.96% of the total health care financing. 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. The MOPH and other government agencies are the primary beneficiaries of donor assistance.

Large companies

Major firms such as banks and large manufacturers often offer employees health insurance. The majority of this health expenditure represents reimbursements for services in private clinics. Survey results show that 78% of companies have private insurance for their employees, which is complementary to the NSSF in 75% of the cases: 20% of these companies provide extra health services that may not be covered by NSSF or the private health insurance.

Out-of-pocket payments

Last, but certainly not least, the most important item in the total health bill is the out-of-pocket payments, which is the health expenditure borne directly by individuals, covering supplementary payments by those who are covered by insurance or the MOPH as well as full payment by those who are not covered by any insurance or are not beneficiaries of MOPH assistance. Household expenditure accounts for 69.7% of total health expenditure. Of this, 97% is spent in the private sector, 2% in the NGO sector, and just 1% in the public sector. On average, households spend a little over 14% of their household expenditure on health services. However, the burden of out-of-pocket expenditure, measured as a proportion of household expenditure, is not equitably distributed. Nearly a fifth of expenditure in households in the lowest income category goes to health. The proportion spent on health decreases with income and households in the highest income group spend only 8% on health care.

Extent of coverage and expenditure

According to the NHHEUS, 46.8% of the population reported having some form of insurance (either social or private). If the non-Lebanese population is excluded (estimated at 7.6%), the government is thus responsible for the remaining 45.6% of the population.

Data show that 12.3% of the GDP of the country was spent on the health bill in 1998 (Table 2). It is noteworthy that the Treasury effectively spent only US$ 333 millions out of a total of close to US$ 2 billions (17%) in 1998. The lion's share has been funneled through the MOPH (US$ 207 millions or 62%).

Per capita expenditure amounted to 522 Lebanese pounds per year. Of these 15% was spent on insurance, 10% on hospitalization, 2% on one-day surgery, 22% for dental care, 36% for outpatient care (excluding drugs), and 15% on drugs.

The health care system of Lebanon is experiencing a strong tilt towards curative care, fuelled by an oversupply of physicians, hospital beds, abundance of expensive high-tech equipment, poor regulation and third-party payment, as well as through the incentives inherent in third-party coverage and provider payments. The rise in health expenditures can also be attributed to the high expectations of the population. These expectations are closer to those in developed economies. Therefore, unless the health care delivery system undergoes re-structuring, the overall cost of medical care cannot but go on rising.

Actuarial studies of financing reforms

Extensive analyses of reform options have been executed by the Inter-Ministerial Council for Health Reform. Prior to the initiation of this modelling activity, detailed outlines of 3 proposals were reviewed. As part of a contract with the World Health Organization, the Actuarial Research Corporation provided technical assistance in dynamic modelling of proposed health insurance programme options. The purpose of the assignment was to gain a better understanding of the impact of the proposed health financing options on the Lebanese economy, the health system in general and those parts of the health system to be included in the health insurance programme.

Social Health Insurance Programme

The most comprehensive reform approach is the Social Health Insurance Programme. In its basic form, it would represent mandatory insurance for all citizens, with a minimum level of coverage specified, and with supplementation allowed for all enrolees except those relying on publicly financed coverage. The current funds would continue to provide services reflecting their members' preferences, subject to the requirement that every enrollee must have coverage at least as rich as the minimum package. This minimum, referred to as SHIP0, would be a comprehensive set of services with limited cost-sharing, but potentially restrictive provider networks. Costs associated with providing SHIP0 services would be pooled across all funds. For persons not covered by any other fund, MOPH would arrange for provision of SHIP0 services but such enrolees would be required to register with one primary care centre and to have all their services coordinated by that centre. Provider payment negotiations and other functions would be administered by an autonomous health care authority. The authority would be responsible for utilization review, audits, quality assurance, effectiveness studies and similar activities.

Interface and Resource Body

An incremental reform option intended to bring unified administrative processes and improved data for fund management (especially with respect to provider negotiations) is the Interface and Resource Body option. Using a third-party administrator, the option would phase in contracts between all funds and the third-party administrator, to provide claims processing, enrolment, premium collection, and management information. The funds would continue to provide benefits according to their own preferences. Uninsured persons who currently rely on MOPH for hospital and clinic services (but who pay for other ambulatory care out-of-pocket) would receive improved outpatient care through upgrades to the nation's public clinics. The

third-party administrator would provide for improved data collection, which would put the fund's negotiating power with providers on a stronger basis than they have traditionally had. The ultimate responsibility for the negotiations, however, would remain with the funds.

NSSF expansion

The third option is also an incremental reform, but represents minimal system change by using the original legislative expectation that the NSSF would expand through time to cover the entire population. The basic option would expand NSSF coverage to include all persons not covered by a public or private insurance programme. Current public insurance programmes would remain, although any that wished to be absorbed by the NSSF would be permitted to do so. Current comprehensive private insurance (in place of direct NSSF coverage) would remain. The expanded coverage would have similar cost-sharing to current coverage, but premium collections from newly covered populations would be assumed to be set at modest levels.

Findings

Based on discussions with representatives of the MOPH, Ministry of Finance, NSSF, MOSA, Military Medical Services, other ministries, and a range of private and public providers and insurers, it became clear that there are 4 main findings based on the modelling work.

- Any insurance reform is likely to lead to more health services utilization.
- Comprehensive reform, with mandatory insurance coverage (SHIP0), would likely add costs but provide substantial improvements in service and financial protection.
- Incremental reform using NSSF expansion to new groups would likely increase costs somewhat less, while offering less in improved services and risk reduction.
- Incremental reform using unified administration would likely increase costs less, while offering still less improvement in services and risk reduction.

Costing of various benefit packages

The Inter-Ministerial Council for Health Reforms commissioned the preparation of studies to cost the various benefit packages that could be included within any financing reform. The packages included the costing of inpatient and ambulatory care, dental provision, pharmaceuticals, medical diagnostics and therapeutic modalities. The costing included an assessment of the burn rate, the probability of occurrence and the overall cost of insurance, including administration.

Burden of disease study

Despite extensive information available on specific clinical health conditions, knowledge about the health conditions of Lebanon has been fragmentary. Most of the surveillance systems have been incomplete, inaccurate and heavily biased towards mortality. The Burden of Disease and Injuries analysis provides a methodology for and assessment of aggregate disease burden that combines into the disability-adjusted life year or DALY measure combining burden from premature mortality with that from living with disability. Data were obtained from the major hospitals, insurance companies and research centres.

Analysis of hospital expenditure

For the first time, as part of the NHA activity, a sample of hospital bills paid by government agencies was analysed to better understand their breakdown. Table 4 shows that 73% of the amount MOPH's reimbursements for hospital care was on

surgical care. The CCS spent 59% of its hospital reimbursements for surgical care, the Internal Security Forces 53%, the Army 51% and the NSSF 60%.

The distribution of costs associated with hospitalization by category of service is shown. 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, operating theatre 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 a large number of investigations and prescribe a number of drugs for each episode of hospitalization as a means of optimizing their revenues.

Accreditation of hospitals

Within the reform process that started in 1995, a system for hospital accreditation has just been completed. It is expected that the accreditation system will promote and perhaps lead to the legislation of minimal criteria for hospitals and hospital services. This should assist the MOPH in differentiating between hospitals and services, i.e. lead to the development of the hospital sector on more scientific and objective basis.

Autonomy of public hospitals

An attempt was made in 1978 to make public hospitals autonomous. The laws were revised in July 1996 and are currently being applied in some of the newly built public hospitals in Nabatieh, Dahr El Bachek and Tannourine. The driving force behind autonomy lies in promoting the efficiency of the public hospital. It is anticipated that the MOPH will contract with the public hospitals in much the same manner as it does with private hospitals. In this manner, public hospitals could retrieve their operating costs through contracts with the MOPH, the

Table 4 **Percentage distribution of hospital reimbursement by type of service**

Hospital service	Ministry of public health	Internal Security Forces	Army	National Social Security Fund	Cooperative of the Civil Servants	Weighted average
Surgery	16.7	10.2	11.7	13.1	16.1	15.0
Doctors fees	8.6	14.4	9.4	11.1	11.4	8.0
Anaesthesia	4.8	2.5	3.1	4.8	4.9	4.2
Room and board	15.6	13.6	18.4	17	12.8	15.9
Operating room	12.6	9.6	8.4	18.2	10.3	11.0
Laboratory tests	12.2	12.3	13.2	10.5	9.2	11.0
Radiology exams	7.1	4.7	7.3	6.9	4.6	6.0
MRI	0.5	0.8	0.8	0.9	0.2	0.6
CT scan	2.4	1.8	1.9	0	1.0	1.8
Medicines	15.7	19.1	14.6	12	19.3	19.1
Miscellaneous	2.8	9.0	6.2	4.7	3.7	6.0
Others	1.1	2.1	5.1	0.7	6.4	2.1

Source: National Health Accounts Spreadsheets.

public agencies and private insurance companies, much as the private hospitals do at this time. It appears that public hospitals are also favouring inpatient care that is reimbursed by the MOPH, thus acting much like the private hospital. Patients, physicians and hospitals seem to opt for hospitalization since it is covered by the MOPH.

Human resources

Policies controlling both the quantity and quality of physicians are needed. There have been calls, particularly from the Order of Physicians, to stop the licensing of new schools of medicine and impose quotas on entrants into the existing schools. But direct government intervention in determining the supply of doctors is said to conflict with the liberal state of the economy and the prerogatives of the private education sector. In May 2000, licences were granted to 2 additional medical schools in the country. This brings the total number of medical schools licensed in the country to 6.

It may be worthwhile to invite medical schools in Lebanon to diversify into graduate medical education, or postdoctoral education. This may reduce the number of physicians seeking training abroad, particularly if such programmes become joint programmes with academic medical centres in North America or Europe. Postgraduate education will also assist in the development of fellowship programmes, research and faculty members. Financial incentives may be introduced to encourage the development of postgraduate education in needed specialties for Lebanon and the region such as gerontology, emergency medicine, forensic medicine, administration and quality care.

The heterogeneity of nursing education and practice has undermined efforts to "professionalize" nursing. The reform activities at the MOPH include a major component for the development of the nursing profession, financed by Italian, Swedish and Spanish protocols of cooperation with Lebanon.

Main policy issues for Lebanon's health care system

Sustainability

Lebanon spends over 12% of its GDP on health care services. Unless there are significant gains in the country's economic performance, the current pattern of health care expenditures (as a per cent of GDP) will put 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 controls to contain costs. Provider payment reforms are key to cost containment. In this regard the MOPH 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.

The principal financing intermediaries have a separate supervising Ministry. This makes inter-agency coordination difficult. 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.

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 MOPH 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. Quality of care and financial viability of many of these facilities remains a concern.

Reallocating expenditure from curative to primary health care

Less than 10% of resources are currently allocated to primary health care. 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 have resulted in a rapid growth of high technology centres. This in turn has contributed to cost escalation. For efforts at cost containment to be effective, policies need to be developed that will control investments in medical technology. Draft legislation was introduced in 2004 to implement the "carte sanitaire" that would assist in health mapping and planning.

Rationalizing expenditure on pharmaceuticals

Lebanon has not only a high per capita expenditure on pharmaceuticals (US$ 120) but almost all of the drugs are imported proprietary products. To effectively contain overall health care expenditures, the Government should initiate policies for improving the efficiency by which pharmaceuticals are imported, distributed and sold in the country and improve its management and overseeing of this sector.

Expanding health insurance coverage, limiting multiple coverage

In Lebanon health insurance is tied with employment and those in low income households are less likely to be employed in the formal sector. Further, the presence of multiple insurance coverage also allows for inefficiencies and cost escalation. The Government needs to improve its management of the private insurance market and reduce multiple insurance coverage.

Equity

Household out-of-pocket expenditure accounts for 69% of the health expenditure in Lebanon. The burden of out-of-pocket expenditure appears to be inequitably distributed, with lower income households spending a much greater proportion of their income on health than higher income households. Even though the MOPH as the insurer of last resort pays for hospitalization costs for all (including those with low incomes) there is no formal financing mechanism for primary and preventive health services. The government should consider designing a targeted programme to provide good quality basic health services for those with low incomes.

Health reforms

Health sector reform has been described as a sustained purposeful attempt to improve the performance of the health sector. It is motivated by the need to address fundamental deficiencies in health care systems. It is an inherently political process, and it is often implemented on a sector-wide level. Countries undertake health reforms when there is evidence of poor performance, when public expenditure neglects the poor, when resources are scarce and demands are increasing forcing governments to reconsider the situation, when consumers are un-

happy about poor treatment and when there are concerns about sustainability. This has been the case in Lebanon.

Health reform measures include:

- new approaches to finance health care (charging fees, social and private insurance schemes, sectoral funding)
- new payment mechanisms (performance-based contracting, capitation)
- a reorganization of functions (new roles for ministries, separation of finance and provision, enhanced stewardship)
- decentralization and devolution (budgets, control shift from central to local government)
- changes in legal and regulatory environment.

As regards the situation in Lebanon the following reforms have been addressed.

- Organizational reforms such as decentralization and autonomy for provider institutions include the autonomy of the Lebanese public hospitals.
- Reforms in the financing of health care include proposed universal health insurance and the establishment of a healthcare financing authority.
- Provider payment mechanisms include the introduction of flat fees for the payment of private hospitals, the prepayment and capitation modalities.
- Regulatory environment and legal framework include the accreditation of hospitals in Lebanon.

Lebanon has initiated the reform process through a sizeable grant from the World Bank. There has been no lack of technical competence but perhaps the political will to change at this time needs strengthening. Any serious reforms would increase the contribution of the Treasury in the financing of medical services. This may not be an attractive proposition at a time when the public finances of the State are precarious and when the servicing of the country's debt is a very serious concern to all.

Lessons learned

The lessons learned from the Lebanese health sector are important for the Region where health sector reform efforts are increasingly focusing on public/private mix in the financing and provision of health services. The most important lessons are the need for the MOPH to be the central player in a pluralistic system, particularly in defining the areas of public and private sector operation based on a needs assessment, and having the capacity to monitor and regulate the private sector. In the absence of a policy framework and of a regulation capacity, there is a danger that health systems based on public and private participation will not produce the desired health outcomes, nor provide health services that are equitable, efficient and of good quality.

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