



G. Health and Sustainable Human Development

Good health is, by definition, an integral part of sustainable human development. Good health as a right and as a responsibility is covered by the concept of health security and health accountability. Health security demands equity and health accountability implies the obligation on the part of state and health professionals as well as a wider societal responsibility to take account of the impact of development and other policies on health. To fully achieve the dimension of health in social and economic development, it is essential to invest in health as economic growth is based on a productive work force. It is also essential to realize more equitable access to the benefits of development, as inequities have severe health consequences and cause an unacceptable threat to human well-being and security.

1. The overall health situation

The general health situation in Lebanon reflects the status of a population in demographic and epidemiological transition, as indicated by the improving overall health indicators over the past decades: life expectancy has risen, and natality, fertility and infant and under-five mortality rates have declined. This has been the result of economic growth, and resulting improvements in standards of living and housing conditions, easier access to medical facilities and effective disease control programmes.

Even though public health facilities were virtually destroyed, the war had relatively limited effects on the overall health situation of the population. This might be due to the importance of the education factor and to the strong tradition of self-reliance and private initiative, including non-governmental organizations which were very active during the war. Additional factors were the provision of external emergency and relief assistance, and involvement of international organizations, including UN organizations in delivery of disease control and health programmes.

The Housing and Population Database Survey, and the Lebanon Maternal and Child Health Survey conducted at the national level in 1995-1996 provided reliable estimates on the current demographic and health situation in the country (the last population census dates back to 1932). The total population in 1996 is estimated at 3.1 million. 8.5 percent of the population is below five years as opposed to 12-13 percent common in the region; 30 percent is under the age of fifteen; and the age group 65 and above accounts for 6.9 percent of the total population. The annual growth rate of the population is estimated at 1.6 percent, and the fertility rate in 1996 is estimated at 2.5 live births per woman.

Over the past decade, infant mortality declined by 30 percent and under-five mortality by 20 percent. The overall mortality figures of children reveal a significant risk of dying in the first 28 days after birth: high neonatal mortality of 20.3 per thousand in 1996; post neonatal mortality (after the first four weeks of life) of 7.6 per thousand live births. This situation raises concerns about: accessibility to quality maternal and pre-natal care; growing importance of hereditary and genetic disorders especially that marriages among relatives are very common; and, persisting risks of infections due to sub-standard sanitary and hygienic conditions in certain areas. Other factors of concern, especially in rural areas, are the quality of services provided, the level of medical technology, and to diagnose ailments early in the pregnancy. With respect to the situation of children, see also section I below.

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The maternal mortality rate, at 104 per 100,000, is significantly higher than in countries at a similar stage of development and comparable services. The fact that about 88 percent of deliveries occur in health facilities, raises doubts about the quality of care provided, and indicates the inadequacy of preventive practices. Aspects of maternal health are also reviewed in section H. on women below.

The relatively favorable indicators of maternal and child health at the national levels conceal important regional and social disparities. Regional differences correlate well with the differences observed among regions with respect to accessibility and availability of adapted health services and preventive programmes; as well as basic services such as water supply, adequate sewerage and waste disposal systems.

The level of educational attainment of mothers is a major determinant of the risk of death for newborns. Children born to illiterate mothers or to those who can just read and write are exposed to the risk of dying at the age of one year or less 3.5 times more than children born to mothers having completed secondary school or above (see table III-19). Moreover, women of lesser education tend to bear a larger number of children: on average, 6.9 children for illiterate mothers compared to an average 2.7 for those who attended university. These striking differences emphasize the protective role of educating mothers and providing health education.

Table III-19: Infant and neonatal mortality by educational attainment of mother
(Per thousand live births)

Educational attainment	Mothers (Percent)	Infant mortality rate	Neonatal mortality rate
Illiterate	18.4	54.5	38.2
Can read and write	13.5	51.1	33.3
Primary	29.1	29.6	23.4
Intermediate	18.8	30.5	23.6
Secondary and above	19.6	14.8	12.8
Country	100	27.9	20.3

Source: Lebanon Maternal and Child Health Survey (PAPCHILD), League of Arab States - Republic of Lebanon, 1996.

Largely preventable respiratory infections remain the leading cause of death in children below one year and the most reported childhood sickness. The leading causes of death among adults, also largely preventable, are attributed to cardiovascular diseases (29.2 percent) and cancer (9.8 percent). The rising incidence of chronic diseases affects the older categories in the population and those that lead unhealthy lifestyles, such as smokers. The proportion of the adult population suffering from diabetes is 10-13 percent and hypertension is estimated at 20 percent. Around 4,000 new cases of cancer are registered each year. These diseases account for the bulk of public expenditures on health, mainly cancer chemotherapy, kidney dialysis and cardiac surgery.

Despite improvements in living standards and accessibility to curative care, some infectious diseases still cause concern. Zoonotic and water-borne diseases are still a cause of concern, in particular in the peripheral areas which are traditionally under-served. Resurgence of diseases, such as tuberculosis, and emerging conditions like HIV/AIDS and other viral and drug-resistant bacterial infections, can

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become an increasing health challenge.

The health situation of specific population groups has hardly been explored. Some groups, the elderly especially, exert a major influence in this respect. These are responsible for the highest share in expenditures on health. Nevertheless, care for the elderly is still an underdeveloped area. Existing services are concerned with high-cost curative care, to the exclusion of better adapted and cost-effective options aimed at reducing dependency, such as home-based care. This group stands therefore to be a major target of national efforts for improving life expectancy and equity in health services.

Women are another group which is particularly affected by disparities and social discrimination. They suffer from health problems that relate to their reproductive and social role, and also from lack of adapted care services and health programmes that address their needs. About 60 percent of women use contraceptive methods; more than half of them rely on less protective natural methods, while only 17 percent use the intra uterine device (IUD) and 10 percent contraceptive pills. More and more women are exposed to the risks of sexually transmitted diseases including AIDS. Women are more vulnerable than men to abuse of licit drugs such as tranquilizers and are more affected by chronic and degenerative diseases.

Table III-20: Handicapped persons by type and cause, 1996
(Number, percent)

Type Cause	Total handicapped	Mentally retarded	Paralyzed	Retarded Limb	Deafness	Blindness	Others
Since birth	9,614	4,040	942	916	1,377	429	1,911
	32.2	55.4	15.5	23.8	46.9	19.5	25.4
	(100)	(42.0)	(9.8)	(9.5)	(14.3)	(4.5)	(19.9)
Accident	4,450	711	999	759	148	395	1,438
	14.9	9.8	16.9	19.7	5.0	17.9	19.2
	(100)	(16.0)	(22.4)	(17.0)	(34.0)	(8.9)	(32.3)
Illness	10,453	1,713	3,498	1,257	1,062	1,117	1,806
	35.0	23.5	57.5	32.6	36.2	50.7	20.0
	(100)	(16.4)	(33.5)	(12.0)	(10.2)	(10.7)	(17.3)
War	3,561	585	404	765	97	186	1,524
	11.9	8.6	6.6	19.9	3.3	8.5	20.3
	(100)	(16.4)	(11.3)	(21.5)	(2.7)	(5.2)	(42.8)
Others	1,788	237	235	155	253	75	833
	6.0	3.3	3.9	4.0	86.0	3.4	11.1
	(100)	(13.3)	(13.1)	(8.7)	(14.1)	(4.2)	(46.6)
	29,866	7,286	6,079	3,852	2,937	2,202	7,511

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Total	100	100.6	100.4	100	100	100	100
	(100)	(24.4)	(20.4)	(12.9)	(9.8)	(7.4)	(25.1)

Source: Ministry of Social Affairs - United Nations Population Fund, Population and Housing Database Survey, 1996.

Another important population group which is in great need of special attention is the handicapped population. Their number in Lebanon was estimated by the Housing and Population Database Survey at 29,867 in 1996. The main handicaps include mental retardation (24.4 percent), paralysis (20.4 percent), retarded limb (12.9 percent), deafness (9.8 percent) and blindness (7.4 percent). Illness (35 percent) is the main cause of disability; and hereditary, congenital and genetic disorders account for another 32.2 percent. Accidents have become the cause of an increasing number of handicaps. (14.9 percent); while the war accounted for 11.9 percent of the total number of handicapped.

2. The health care system

The concept of health for all, to which Lebanon has subscribed, places equal access to quality health care at the center of health development. This goal can best be achieved through sustained services that provide better care, use resources more efficiently and facilitate regular access to basic care. For this purpose, there is no need to have high-cost advanced technology - intensive hospital care all over the country. Instead, basic health needs can be successfully met through adapted simple and affordable technologies, at first and secondary levels of care. Primary health care has thus become a global blueprint for health care delivery. A tier system should be created, with links established between the various levels of health services; the first level units attending to the majority of cases and feeding district hospitals, which in turn can refer patients to more specialized centers if need be. It is also important that health structures provide health promotion and disease prevention and ensure rehabilitation services as integral parts of the services, rather than just concentrating on curative medicine.

The strength of the health care system rests on the quality and quantity of resources available such as hospital capacity, advanced technology and medical expertise. These resources have made possible the observed overall high level of accessibility to health care services. However, the health sector in Lebanon appears to have an inverted structure whereby resources are essentially concentrated in tertiary care rather than in secondary and primary health care levels. Primary health care is still fragmented with no linkages with the higher levels.

Also, the impact of such resources on improving the health situation remains questionable in the absence of clear policies for the development of needed human resources, including those needed in support of sophisticated technology, and the absence of adapted regulatory mechanisms for control of costs and ensuring the quality of care.

a. Human resources. Little in terms of reliable information exists as to the number, area of specialization, training background and employment opportunities for medical doctors. There is, however, evidently a surplus of physicians. The total number of medical doctors is currently estimated to be between 7,900 and 9,500 physicians, including those practicing but not legally registered. The physician - population ratio is presently estimated to be between one doctor for every 330

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persons and 392 persons. This is higher than in most parts of the world, including the figure of 1 to 446 reported for the United States of America in 1993. The number of physicians has been rising at an exponential rate for the past three decades (see table III-21).

Table III-21: Evolution of medical manpower over the past three decades (Number)

Year	Number
1962-63	1,691
1969	1,539
1981	2,404
1984	2,718
1992	4,837
1996	7,900-9,500

Source: Data gathered by WHO from: Order of Physicians and Ministry of Public Health.

Since 1992, more than 500 new physicians have been registered yearly. Between 1969 and 1992, the total number of medical doctors in the country at least tripled, whereas for the same period only a 60 percent increase was noted in the United States. Despite current efforts to regulate the number of physicians at the point of entry into medical training, the upward trend in the supply of physicians is not expected to decline before at least two decades.

The majority of doctors are graduates of medical schools abroad with widely different training backgrounds and of variable quality. Only 37.8 percent of doctors received their basic medical education in Lebanon. The rest have been trained in 66 different countries, mainly Arab and Eastern European countries. Foreign-trained medical graduates are not offered any structured orientation courses upon their return. As a result, many of these doctors are not equipped to meet the country's health needs. Also, the language in which they have studied medicine extends over a rather wide spectrum creating barriers in technical communication and resulting in the use of a very large pharmacopia.

The medical work force operates in an environment which is largely unregulated and dominated by the private sector. National protocols for disease management and treatment, and continuing medical education and quality assessment schemes, are lacking. Highly specialized medical categories such as surgery are in surplus; whereas there is scarcity of well-trained primary care and family medicine practitioners. Some regional imbalances also exist with physicians concentrated mainly in urban areas. Peripheral areas suffer also from shortages in basic medical specializations such as gynecology and obstetrics. This oversupply of highly heterogeneous and poorly adapted medical personnel can invariably affect the quality of care and the availability of most needed categories of doctors to support primary health care structures and ensure delivery of preventive care programmes.

While there is a surplus of medical personnel, except for primary care practitioners, family doctors and other public health related specializations, there is a critical lack of other categories of health workers, particularly nurses and midwives. This problem has received close attention by the Ministry of Public Health. A study to define the profile and shortcomings of the training and practice of nursing and other

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paramedical staff was undertaken in 1994, in collaboration with the different nursing training and professional groups. The nurse/population ratio was found to be 1 to 1,600-2,600. More than half of the practicing nurses have not received a professional training as indicated by the table below.

Table III-22: The distribution of practicing nurses by level of training, 1994
(Number)

Professional nurses: BSN / License	754
TS Diploma (Superior Technician)	437
Practical nurses: BT diploma (Technical Baccalaureate)	757
Aid Nurses / BP diploma	688
Midwives	303

Source: Ministry of Public Health / WHO, National survey on nursing and paramedical manpower, 1995.

The imbalance in health manpower resources becomes even more glaring when relating the number of existing physicians to that of nurses. The ratio is as high as two to three doctors for every nurse. This ratio is the inverse of that observed in most of the rest of the world. The situation is critical in hospitals, but even more so in health care centers, dispensaries and other primary health structures. The observed shortage in professional nurses arises from a number of factors. At present, there are 26 different nursing schools offering 44 training programmes. Among the different nursing categories, nurses aids and professional nurses are the least represented. Also, the training of nurses is focused on curative hospital nursing with very limited training on PHC and community work.

Table III-23: Number of nurses by type of training, 1989-1993
(Number)

Level of training	1989	1990	1991	1992	1993
BP level/nurses aid	7	18	14	14	7
BT (Technical Baccalaureate)	181	181	156	114	157
TS (Superior Technician)	40	40	44	36	18
Bachelor Degree of Science (University)	92	115	119	153	113

Source: Ministry of Public Health / WHO, National survey on nursing and other paramedical manpower, 1995.

The multiplicity of nurses training programmes contrasts with the absence of a national body in charge of setting a national nursing policy for improving the image of the profession, creating professional opportunities, standardizing training programmes and adapting them to the local needs for nursing services. Enrollment in nursing schools is low, while the rate of drop-outs from the nursing profession is high. A poor social image of the profession, variability in training levels, low pay, and unfavorable working conditions have all contributed to the scarcity in nursing staff. In addition to the limited number of professional nurse graduates, a high proportion of them is emigrating in search of better paid jobs in the Gulf States, North America and Europe. This situation is likely to continue for many years, given

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the rapid expansion of health services in private hospitals, and the prospects of implementing the ambitious government plan to expand public hospitals.

The problem of nursing resources ranks high on the agenda of the Ministry of Public Health. The Higher Council for Health has discussed the issues and recommendations brought forward by the above mentioned study. However, action still needs to be taken in terms of profession advocacy and development, including adaptation of training.

Other health care workers and technical paramedical staff categories such as health inspectors, laboratory and X-ray technicians are also in short supply. This is a cause of concern, especially with the development and implementation of national strategies for primary health care and reactivation of national specific- disease control programmes. The launching of the school for training health inspectors as a joint venture of the Ministry of Public Health and the Ministry of Vocational Training is an attempt to overcome the shortage in this field. On the other hand, an important gap is noted between the rapid rate of acquiring advanced medical technology in the country, and the preparation of skilled technicians for its operation. Training programmes for medical equipment engineers and maintenance technicians are very scarce.

b. Hospital sector. The hospital sector has witnessed very rapid expansion during the past two decades. This has occurred concurrently with the development of sophisticated medical technologies in the world. It has been observed globally that the introduction of advanced technologies usually influences the hospitalization capacity. This is true for most of the countries including the United States where a reduction of 10.4 percent in bed capacity over the period 1983-1994 has been attributed to the introduction of new technologies. In contrast, in Lebanon there has been a concomitant use of both heavy technology and bed capacity. This has undoubtedly fueled the escalating costs of health care in the country.

At present, the country counts a ratio of 2.8 to 4 beds per thousand inhabitants considering, respectively, only short stay and total number of beds. This is more than in the rest of the region. 94 percent of the hospital beds are operated by the private sector. There are 139 private hospitals that count around 7,798 beds for acute short stay cases, 14 public hospitals with 917 beds and 28 private hospitals for longer-term admissions with 3,606 beds. The issue is evidently not that of expanding hospital bed capacity, but rather one of availability of adapted basic hospital services in certain under-developed areas. Bed capacity has expanded considerably in the regions outside Beirut during the period 1972 - 1996 (see table III-24), thus playing an important role in improving access to health services. Still, however, the largest concentration of hospital beds, more than 58 percent of the total, remains in the area of Beirut and Mount Lebanon.

Table III-24: The evolution of hospital bed capacity, by region, 1972, 1996
(Number)

	Public hospitals		Private hospitals		Total	
	1972	1996	1972	1996	1972	1996
Beirut	190	117	2,338	2,351	2,528	2,468
Mount Lebanon	268	135	1,000	2,480	1,268	2,615
North Lebanon	250	190	766	1,003	1,016	1,193
South Lebanon	312	378	212	1,191	524	1,569

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Bekaa	350	175	105	773	455	948
Country	1,370	995*	4,421	7,798	5,791	8,793

Source: 1972: Ministry of Public Health and Ministry of Planning, Six-Year Plan, by Dr. Abdo Abu Zeid; 1996: Syndicate of hospitals..

* Other sources estimate the number of effective operational public beds to be 500.

Most of the expansion in hospital capacity over the last fifteen years took the form of small private facilities of 50 beds or less for acute care. These hospitals account for 63 percent of all hospitals and 32 percent of total beds; they have followed the same pattern of acquisition of high-cost advanced medical technologies as in the larger facilities. This raises questions as to their ability to generate sufficient returns on their financial investment except through unjustified over-prescription of interventions involving this equipment, and reduction of investment in personnel and training. This has a direct bearing on the quality of care provided in these facilities.

Another striking feature of the national health care system is the proliferation of advanced medical technologies with little technical or economic justification. In the absence of any regulating mechanism, and encouraged by the government policy to subsidize sophisticated medical interventions, the private sector has been encouraged to invest in such technologies. These are now spread in all regions, (see table III-25), in contrast to the persistent lack of some basic medical disciplines and hospital services, in such areas as medical emergency care and prenatal services.

Table III-25: Selected advanced technologies in private sector facilities by region, as of May 1996 (Number)

	Beirut	Mount Lebanon	North Lebanon	South Lebanon	Bekaa	Total
Cardiac catheterisation	7	3	2	1	2	15
Open heart surgery	5	1	1	2	1	10
Lithotripsy	6	6	4	2	3	21
Kidney transplant	2	0	0	0	0	2
Kidney dialysis	12	8	5	5	2	32
In-vitro fertilization	3	3	0	1	0	7
Scanner	14	13	9	5	5	46
Magnetic resonance imaging	4	1	0	0	1	6

Source: Syndicate of hospitals and Ministry of Public Health.

Advanced medical equipment is perhaps more available in Lebanon than in many industrialized countries, but is not utilized to its full capacity. Kidney dialysis facilities could handle double the present patient load, whereas the present rate of 400 dialysis per one million inhabitants is already above the median of 360 noted in some industrialized countries. Computerized tomography (CT) scans in the smaller hospitals perform only between three and eight examinations per day. Apart from their implications on the quality of care in terms of over-prescribing and

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under-utilization, these practices influence directly the spiraling costs of health care. Also, the small number of sophisticated medical technology procedures handled by each of the health facilities do not allow for an adequate accumulation of expertise in the field. Besides, it is commonly observed that acquisition of sophisticated equipment is not always coupled with training or opportunities for the development of human resources in the field.

At present, around 1,841 beds in private hospitals are subsidized by the Ministry of Public Health in favor of patients not covered by any other form of medical insurance. In practice, the actual coverage by the Ministry has always exceeded this figure. A recent survey indicates that the Ministry of Health finances in this way about 29 percent of the private hospitals budget. However, the prospects of these arrangements with private hospitals are not clear, considering the Ministry's ambitious plan to expand public hospitals to reach a capacity of 2,769 beds by the year 2001. Expanding the capacity of public hospitals is planned through putting into operation some 27 peripheral public hospitals at the district level, and two large university hospitals in Beirut and its suburbs. This strategy of reinforcing the public sector capacity to provide medical care aims at reestablishing balance with the private sector in the provision of hospital care and may represent an opportunity to create the links and referral levels needed within the primary health care network. Nevertheless, this endeavor faces enormous challenges in terms of staffing, mainly for the nursing and other paramedical personnel, financial resources for recurrent costs and management capacities.

Another important weakness of the health care system is observed in pre-hospital care such as in emergency care. The existing services are rudimentary and concerned with transportation and transfer of patients. The services are diffused and their management is uncoordinated. They are completely dependent on voluntary staff which are often inadequately trained and equipped. The number of ambulances is not sufficient. Some data suggest that around 20 percent only of emergencies are transported by first aid teams; 80 percent reach emergency rooms by their own means, often inadequately transported by family members or others.

The development of an emergency system is a difficult task in the national context and requires resolving complex problems in relation to evacuation operations, the network of receiving hospitals and, most of all, issues of cost coverage and insurance of emergency care. Setting up an appropriate emergency system has been a major preoccupation of the Ministry of Public Health. Recently, a draft master plan, which aims at institutionalizing such a system, was developed with the financial support by Kuwait, but is still awaiting final adoption and implementation.

c. Ambulatory care. The private sector is the main source of ambulatory medical care in the country. This phenomenon is facilitated by the large supply of physicians. NGOs are very active in the provision of health care through a large network of some 700 health centers and dispensaries, distributed all over the country. These offer services for about ten to fifteen percent of the population, and are often the only accessible option for the less affluent. They are as well important vehicles for preventive health programmes as successfully demonstrated in collaborative operations involving the Ministry of Public Health with UNICEF, WHO and other United Nations organizations. NGOs play a critical role in the success of programmes of vaccination, AIDS control, iodine deficiency, diarrheal disease control and to a lesser extent in health education and school health. The set up of these health centers is varied. Some have lots of staff, various specializations and extensive equipment; others are poorly equipped in terms of facilities and staff. However, all provide basically curative care except for some preventive activities. The majority of these centers function as dispensaries that depend on the availability of drug

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donations. Physicians work there on a part-time basis and are in the majority specialists. No full time medical staff is available, and the presence of qualified (registered or licensed) nurses is the exception.

All ambulatory care, including that provided at the level of NGOs centers, is structured to respond to emergency and acute demands but lacks in comprehensiveness and continuity. Basic primary care packages are not defined. Less than 2 percent of contacts with private practitioners are revisits. Many of the health centers offer specialist consultations but leave prenatal care to hospitals. There are more health centers or private clinics with electrocardiogram (ECG) services than with family planning activities.

In 1993 the Ministry of Public Health elaborated a national strategy for primary health care based on the development of a comprehensive network of health centers, fairly distributed throughout the country. The function of these centers is to provide a balanced and good quality care, including both curative and preventive care. The implementation of the programme has already started with 30 centers supported by a World Bank-financed project, and is to be expanded in phases. The Ministry must still overcome a number of barriers towards the full development of the system, such as the establishment of referral links between the first and secondary levels.

Policies and action at the national level to influence the private medical practice to provide a more comprehensive quality care are not yet developed. However, it is thought that setting alternative models in managed care such as health maintenance organizations, currently under consideration, will reinforce the efforts towards providing comprehensive ambulatory care, as well as provide an opportunity for health promotional activities.

Disease prevention is an integral part of any effort to improve the health situation of the population. Some national health promotion and disease prevention programmes have been successfully introduced with the help of UN organizations. Still, the priority given to kidney dialysis contrasts with the absence of hypertension and diabetes national prevention programmes; diabetes being the underlying cause in over one-fifth of kidney failures; and the priority given to open heart surgery contrasts with the lack of a national primary prevention initiative for the control of smoking.

d. The pharmaceutical system The tendency to favor curative practices over preventive ones has generated a strong demand for drugs which account for a large share of health expenditures in the country. The total drug bill is about \$300 million annually. It is believed that some serious problems exist in the supply chain of drugs starting with importation to registration, storage and marketing.

The market counts around 7,000 registered pharmaceutical preparations, in addition to a large number of non-registered ones. Some drugs are also provided through foreign aid and are distributed through dispensaries. The local industry supplies at best fifteen percent of the drug market; the rest being imported from more than 380 different factories in 21 countries. Licensing is the first step and a prerequisite for the improvement of the quality of drugs. It is required by law for all drugs in the country and takes place when the product is first introduced into the market. Some effort has been already made to improve the registration system, but it is certainly not possible to achieve good control with the very large number of imported drugs. There is a compelling need to reduce the number of drugs, enhance the licensing body's capacity and procedures for selection. Re-licensing on a periodical basis will also help.

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The network of drug distribution outlets is very large and diversified. Apart from the dispensaries, around 1,200 independent and hospital-based pharmacies exist, of which 200 are thought to be illegal. The profit made on sales of drugs is believed to be very high. In private pharmacies, drugs are freely sold to patients, some even without prescription. An inspection system is in place but functions with limited effectiveness due to lack of clear procedures and trained staff.

The lack of guidelines on treatment and poor control on distribution outlets are fueling irrational prescription patterns. There is a tendency among health providers to over-prescribe medications, mainly more expensive ones, even when lower cost alternatives exist. Antibiotics constitute 24 percent of the market followed by tranquilizers and other psychoactive drugs (21.8 percent). This consumption pattern points not only to the importance of the drug bill but also to the risk of developing antimicrobial resistance and tolerance to other medications. A list of essential drugs was prepared in 1987 and officially endorsed in 1993. It is, however, not applied even by the public entities or health insurers. Important promotional and educational efforts are needed to promote a more rational attitude among health providers and the public at large towards prescription and drug consumption.

The Ministry of Public Health has recognized the importance of establishing a national laboratory for drug quality control. With the assistance of WHO, a project proposal was formulated and is currently under consideration.

Recently, the National Office for Drugs was re-established. The Office is currently under organization and is to be responsible for the procurement of drugs at a reduced cost to the public and private entities, bypassing representatives and importing agents. When operational, it is expected that the Office will improve access to high quality drugs by making them more affordable, while also setting control thresholds on prices of drugs in general.

e. Expenditures on health. Accurate and reliable information on health expenditures is lacking. Estimates, however, have been made based on different provider and consumer sources. The estimates used in this section are based on results of limited local studies made by a WHO mission in June 1996, in support of the sector rehabilitation project with the World Bank. Different hypothesis on health expenditures were elaborated taking into consideration low and medium expenditures estimates and premiums by source of funding (Table III-26).

Scarcity of data notwithstanding, there is good reason to believe that expenditures on health are among the highest in the world. They are estimated to be in the range of 8.4 to 12.1 percent of GDP in 1995, or US\$ 929 million under the low estimate hypothesis and US\$ 1,340 million under the intermediate estimate hypothesis.

Table III-26: Estimates of aggregate expenditures on health for 1995, by source of funding (millions of US\$)

Sources of funding	Low estimate hypothesis		Intermediate estimate hypothesis	
	US\$ million	Percent	US\$ million	Percent
National Social Security Fund	101.5	10.9	101.5	7.6
Civil Servants Cooperative	54.6	5.9	54.6	4.1
Army/Interior				

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Army/internal Security	48.0	5.2	48.0	3.6
Ministry of Public Health	160.0	17.2	160.0	11.9
Private insurance	236.2	25.4	324.0	24.2
NGOs and donations	48.8	5.3	48.8	3.6
Out of pocket	280.1	30.1	603.2	45.0
Total	929.2	100	1,340.1	100

Source: WHO, Mission on financing health care in Lebanon, June 1996.

The lack of reliable sources of data hampers the Ministry of Public Health and all those involved in the task of trying to improve the performance of the health sector in the country. A series of studies on financing health expenditures is planned to gather base-line information to assist in planning and addressing key sector issues and reforms.

The involvement of the public sector in the direct provision of health care has been traditionally very limited in comparison to the dynamic role played by private health providers. The long years of civil disturbances reinforced this situation. The Ministry of Public Health was compelled during those years to respond to the immediate needs of citizens by the direct purchase of hospital care from the private sector. This has continued and further expanded to 100 percent coverage of costly interventions such as cancer chemotherapy, renal dialysis and open heart surgery. At present, these outlays absorb more than three quarters of the Ministry's budget, including salaries, leaving little resources (less than 8 percent of the health budget) for the development of primary care and disease prevention. The government contribution occurs without policy guidelines to allow control. The public bill has been considerably inflated by the uncontrolled acquisition and prescription by the private sector of expensive and advanced medical technology.

The escalating cost of medical care is due mainly to the utilization of advanced technology and costly interventions, with limited benefits in the absence of a strategy for early detection in the field of chronic diseases. It is worth underlining that to control this escalation there is need to develop an adapted preventive policy with primary prevention focusing on factors like life style (tobacco, alcohol, consumption, exercise), diet, and improvement of environmental conditions; secondary prevention focusing mainly on early detection; and improvement of management at the primary-care level to reduce complications and the use of high-technology based services.

A limited survey, conducted in 1995 and based mainly on urban samples, provides valuable indicators on the nature of household health expenditures. Table III-27 below shows the importance of expenditures on health items that are seldom covered by another party, especially dentistry and drugs. This accentuates the need for a closer examination of prescription and consumption of drugs, and the need to develop a preventive strategy to contain dental care cost.

With regard to access to health services, data produced by different studies are contradictory; nevertheless, the survey on household expenditures on health provides enough evidence to indicate that the overall accessibility to health services is comparable at the different levels of income. Lower income categories seem to utilize more health services than higher income categories, probably due to their

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poorer health status. It is noted, however, that disparities in accessibility become more apparent when considering the regional distribution. As shown and argued above (see section B Social Safety Nets), the more pressing issue about health services in Lebanon relates to health coverage. The issue of quality of health services is also high on the agenda of health development in the country and one of the major and most difficult challenges ahead; this is particularly apparent when considering the pattern of utilization of prenatal care.

Table III-27: Percentage distribution of expenditures on health by type of service, 1995

Category	Percent
Hospitalization	15.2
Prosthesis	0.6
Ambulatory	13.3
Laboratory	6.0
Radiology	4.4
Physiotherapy and other	1.2
Drugs	27.0
Dentistry	32.0
All categories	100

Source: Ministry of Public Health/WHO, National Household Survey of Health Care Expenditures, 1995.

The figures in Table III-28 below confirm that general non-emergency hospital services are readily accessible to the majority of the population. However, limited income groups resort more to hospitalization and out-of-hospital treatment and consume more medical drugs than high-income groups. The survey data also show apparent disparities when considering emergency admissions, nursing activities, dentistry, and basic services such as prenatal care. In contrast, the highest income group resorts much more to physiotherapy and other nursing activities than the lowest income group.

Table III-28: Household utilization of health services ratio

Category of income (L.L. thousand per month)	Hospitali-zation	Prosthesis	Ambula-tory care	Labora-tory care	Radiology	Physio-therapy and other nursing act
< 185	1.06	1.12	1.00	1.02	1.09	0.55
185-431	1.07	0.80	1.04	1.03	1.09	1.20
432-925	0.91	1.28	0.95	0.92	0.91	0.98
926-3086	0.96	0.62	0.98	0.99	0.77	0.72
>3086	0.88	0	0.93	0.74	0.45	2.30

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NO answer	0.64	0.54	0.91	1.08	0.78	0.39
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Source: Ministry of Public Health / WHO, [National Household Survey of Health Care Expenditures](#), 1995.

f. Health insurance Health insurance has been reviewed in section B (Social Safety Nets) above. It is recalled that for all categories out-of-pocket expenditures of the household are the major source, except for hospitalization where out-of-pocket expenditures (34 percent of total) still represent an important share. This situation strongly impacts on medium and low-income households and can not but affect the well-being of their members.

3. Summary and conclusions

The health sector contributes to the development of national wealth, through the provision of health care services and creation of employment opportunities. On the other hand, improvements in income and living conditions have a positive impact on the state of health, as shown in the case of Lebanon by the reduction in mortality, increases in life expectancy and changes in epidemiological and demographic profiles. Economic growth also allows for the development of the health infrastructure and technological innovation.

Unsatisfactory health conditions add to the cost of development through unhealthy lifestyles, and losses due to morbidity, mortality and disability; and through the burden of disease and high cost of treatment and hospitalization. This is true for Lebanon, where a clear and comprehensive preventive strategy is absent; and where the need for such strategy assumes greater relevance with an epidemiological profile dominated by non-communicable diseases, including cardiovascular, cancer and degenerative diseases. Meanwhile, there is a growing concern that some infectious diseases might be emerging (HIV/AIDS), or re-surfing as a result of deteriorating environmental conditions, such as vector borne diseases, and others related to economic pressures and substandard sanitary and living conditions.

The health-care system displays a number of weaknesses that affect adversely the overall process of sustainable human development. The public financial resources allocated to health go mostly to cover increasing spending on reimbursement of hospital care provided predominantly by the private sector. These have a tendency to over-prescribe expensive medical technology and high cost drugs in a largely unregulated environment. As a result, total health expenditures, both in absolute terms and as a percentage of GDP, have risen sharply (the former doubling in less than three years) to levels comparable to those prevailing in the industrialized countries, and higher than in most of the rest of the world. The bulk of health expenditures are paid by households out-of-pocket; thus affecting disproportionately the less affluent and the poorer segments of the population. Little resources are available to primary health care including preventive care.

National health policy is based on health being the right of every citizen. Health policy also emphasizes increasingly that prevention should take precedence over cure within the context of primary health and through providing a degree of autonomy to regional and sub-regional units. The policy also stresses pooling of publicly financed resources to achieve maximum coordination, effectiveness and efficiency, while at the same time promoting partnership with the private sector, professional associations and community representatives.

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The main problem in the health sector, specifically at the household level, is access to quality care due to lack of health insurance coverage, low income levels and rigid patterns of household expenditures, which are devoted to essential items that can not be reduced or replaced. Available information indicates that spending by the poor is directed first to food needs, then to housing, education and transport, in that order. Health care is postponed until the need for treatment becomes acute and can not be delayed further. This, in the end, will raise treatment costs.

In brief, this pattern of setting household priorities renders the preoccupation with securing the material aspects of life independent from that of good health. The family directs its energies first to staying alive (hence the priority given to food and housing); then to ensuring future work (priority for education); and, then, to health care, which will receive higher priority when the situation threatens life or the ability to work and study.

There is an inescapable risk inherent in the family attitude and behavior towards health. The low level of family income does not allow it any margin to reallocate its limited resources among the main claims it faces. Hence, this aspect of health behavior does not lend itself to change by increasing health awareness and guidance, but by removing the underlying causes. In addition to the urgent need to raise income levels, enabling families to improve their health conditions involves interrelated steps and measures which include:

- Provision of a healthy environment to reduce exposure to disease.
- Provision of preventive and primary health care through the network of civil and public health centers.
- Adoption of immediate measures to reduce as far as possible the cost of medical care, especially by regulating the pharmaceutical market; removing the difference in the pricing of medical services between insurance institutions and private hospitals; and simplifying administrative procedures to avoid delays in reimbursement.
- Launching health awareness and guidance campaigns to influence family health attitudes and behavior as they relate to cleanliness and precautionary measures, and to dealing with and using medicines.
- Policies and incentives to encourage graduating doctors to set up practice, or serve in government hospitals in the regions to improve access to medical services.
- Provision of health insurance to all citizens.

**DON'T STOP HERE .. THERE IS MORE TO READ IN CHAPTER THREE
GO TO SECTION H:
WOMEN AND SUSTAINABLE HUMAN DEVELOPMENT**